

13.04 Map Amendments**13.05 Text Amendments****13.06 Non-Conforming Uses****13.07 Variances****13.08 Conditional Use Permits (CUP)****13.09 Certificate of Zoning Compliance****13.10 Zoning Permits****13.11 Enforcement****13.12 Appeals**

13.01 General Application Requirements

A. Application Submittal Requirements

Applications required under this Ordinance must be submitted in a form, manner, and number as required by the Kenton County Planning Commission, Board of Adjustment (BOA), or Legislative Body.

B. Pre-Application Meeting

All applicants for development plan approvals, map amendments, variances, conditional uses, administrative appeals, and changes in nonconforming uses shall arrange a pre-application meeting with the Zoning Administrator before completing and filing the required application. Pre-application meetings are encouraged for text amendments. The Zoning Administrator will review the zoning classification of the site, review the regulatory ordinances and materials, and review the procedures. PDS will assist and advise the petitioners in preparing the application and supportive documents as necessary.

C. Application Filing Fees

Applications must be accompanied by a fee amount that has been established by the Kenton County Planning Commission, BOA, or Legislative Body.

D. Application Completeness

The Zoning Administrator shall determine if the application is administratively complete. If the Zoning Administrator determines that the application is not administratively complete, staff shall notify the applicant in writing. No additional review of the application shall occur until the application is determined to be administratively complete.

E. Public Hearing & Notices

Unless otherwise specified, published public hearing notices must be in accordance with KRS 100 and [KRS 424](#).

F. Burden of Proof

In all cases, the burden is on the applicant to show that an application complies with applicable review or approval criteria.

G. Summarized Review Authority

The following table summarizes the review and approval authority of the various review bodies and permit/entitlement type in the Ordinance.

Table 13.1								
TYPE OF PERMIT, PROCESS OR DECISION	CROSS REFERENCE	TRC*	ZONING ADMINISTRATOR	KCPC STAFF/PDS*	BOA*	KCPC*	CITY ADMINISTRATOR	CITY COUNCIL
Concept Development Plan Review	13.02	R		R		<R>	R	DM
Minor Concept Plan Amendments	13.02			R			DM	A
Major Concept Plan Amendments	13.02			R			R	DM ^[1]
Final Development Plan Review	13.02			R			R	DM
Minor Final Plan Amendments	13.02			R			DM	A
Major Final Plan Amendments	13.02			R			R	DM ^[1]
Map Amendment	13.04	R		R		<R>	R	DM
Text Amendment	13.05	R		R		<R>	R	DM
Administrative Appeals	13.12		R		<DM>			
Changes from one nonconforming use to another nonconforming use	13.06		R		<DM>			
Variance	13.07		R		<DM>			
Conditional Use	13.08		R		<DM>			
Certification of Zoning Compliance	13.09		DM		<A>			
Zoning Permits	13.10		DM		<A>			

R = Review Body
< > = Public Hearing Required

DM = Final Decision-Making Body
A = Authority to Hear and Decide Appeal of DM's Action

*TRC Technical Review Committee; KCPC Kenton County Planning Commission;
PDS Planning and Development Services of Kenton County; BOA Board of Adjustment

[1] By Council or Council's designee

13.02 Development Plan Review

A. Authority

A Development Plan review process, as set forth herein, is hereby established to ensure adherence to the standards of this Ordinance.

B. Purpose

The purpose of the process is to provide more predictability, a streamlined process, promote flexibility, innovation, and creativity in the design of the built environment, and assure the compatibility of development with the surrounding community.

C. Applicability

The Concept Development Plan review process shall be required for any map amendment to any multi-family, mixed use, commercial, or industrial zone and any Planned Unit Development. In addition to the Concept Development Plan review process, a Final Development Plan review process is required for any construction within a PUD Zone. For all other zoning districts not requiring Final Development Plan review, zoning permits must be acquired after approval of a Concept Development Plan.

1. Exceptions

Map amendments to any single-family residential zone shall not require Concept Development Plan approval in accordance with this Article. Map amendments submitted by the legislative body, or the Kenton County Planning Commission, are not required to submit a Concept Development Plan.

D. Development Plan Types

1. Concept Development Plan

- a. The purpose of the Concept Development Plan is: to indicate the future subdivision of the property into lots, blocks, or common areas; to ensure a coordinated development prior to developing a property, and; to ensure compliance with the standards of this Ordinance and the Kenton County Subdivision Regulations with regard to lots (e.g., size, access, general building envelopes), common areas (e.g., perimeter landscaping, shared signage), access and traffic impacts, and shared infrastructure (e.g., drives, streets, cross-access, utilities, drainage).
- b. The Concept Development Plan shall have a recommendation for approval, approval with conditions, or disapproval by the Planning Commission, and final approval, approval with conditions, or disapproval of the Concept Development Plan by the City Council.
- c. The Concept Development Plan may include some flexibility of the location of specific uses (e.g. mixed use or commercial) or flexibility in residential unit types, where that flexibility is clearly defined within the plan and meets the overall density and development standards of the zoning district.
- d. Once approved, the Concept Development Plan is binding, except for the flexibility noted in the paragraph above and minor modifications as noted in Section 13.02, E., 1., i., 1., Amendments to Approved Concept Development Plan, Minor Amendments.

2. Final Development Plan

The purpose of the Final Development Plan is to clearly define all construction matters and special conditions such as construction techniques, specific building locations and design (e.g., architecture), and specific site design (e.g., parking, grading, access and circulation) for an individual lot, block, or phase of development. The Final Development Plan shall be reviewed by PDS staff to assure that it is in conformity with the Concept Development Plan. Approval of the Final Development Plan shall be made by City Council or City Council's designee.

E. Approval Process:

1. Map Amendment/Concept Development Plan

a. Pre-Application Meeting/TRC Review Meeting

See Section 13.01 B. Pre-Application Meeting. All Map Amendments/Concept Development Plan applicants must meet with the Technical Review Committee for a pre-application project review. The TRC will provide comments and initial input. The TRC will also identify submittal requirements, including the need for a Traffic Impact Study at the Pre-application meeting. Applicants may seek input from the TRC as necessary as development details are refined.

Following review by the TRC, the petitioner may submit revised copies of the proposal that address the comments and concerns. The petitioner shall refer to the specific application packet to determine the format and number of copies to be delivered to PDS staff.

b. Amendments Prior to Public Hearing

Amendments to a Concept Development Plan to be considered at the public hearing must be received by PDS staff in accordance with the KCPC bylaws, to allow for the PDS staff written report to include comments and recommendations related to plans that may have been amended in response to comments provided by PDS staff or TRC, in addition to Subsection e. below.

c. Public Hearing and Notice

See Section 13.01 E. Public Hearing and Notice.

d. Amendments Proposed at Public Hearing

An Applicant may make amendments to a Concept Development Plan pending determination by the Kenton County Planning Commission at any time prior to a vote being called for by the Kenton County Planning Commission. If, in the sole discretion of the Kenton County Planning Commission, the proposed amendment is of such a nature that additional time is needed for review, then the Kenton County Planning Commission may continue its consideration in accordance with the Rules of Procedure of the Kenton County Planning Commission.

e. Planning Commission Action

The Kenton County Planning Commission will then hold the public hearing and review the application and required information and shall make a recommendation of approval, approval with conditions or disapproval on the map amendment/Concept Development Plan in accordance with this Ordinance, KRS, and the Rules of Procedure of the Planning Commission.

f. Amendments Agreed to at Public Hearing

If amendments are presented by the Applicant and agreed to by the Kenton County Planning Commission at the public hearing, then revised plans indicating all amendments approved by the Kenton County Planning Commission shall be filed with PDS staff after the public hearing but prior to legislative body action.

g. Legislative Body Action

The legislative body shall take final action on a Map Amendment/Concept Development Plan, including any amendments accepted by the Kenton County Planning Commission, in accordance with the timeframe and process outlined for Map Amendments, in Section 13.04, [Map Amendments](#).

h. Concept Development Plan Review Criteria

Concept Development Plans shall be reviewed by PDS staff and recommendations made by the Planning Commission upon written findings that the Plan complies with the following:

1. Consistency with the Comprehensive Plan.
2. Complies with the development requirements of this Ordinance and the Kenton County Subdivision Regulations.
3. Manages traffic in a manner that creates conditions favorable to health, safety, convenience, and the harmonious development of the community such that:
 - a. The design and location of proposed street and highway access points shall minimize safety hazards and congestion.
 - b. The capacity of adjacent streets and highways is sufficient to safely and efficiently accept traffic that will be generated by the new development.
 - c. The entrances, streets and internal traffic circulation facilities in the proposed development are compatible with existing and planned streets and adjacent development.
 - d. These impacts shall be evaluated through the completion of a Traffic Impact Study consistent with the Kenton County Subdivision Regulations, if requested by the TRC at the Pre-application meeting.
4. The applicable utilities have sufficient capacity to provide potable water, sanitary sewer facilities, electricity, telephone, natural gas, and cable service at a satisfactory level of service to meet the needs of the proposed development.

i. Amendments to Approved Concept Development Plan

Changes to an approved Concept Development Plan which has already received approval by the Legislative Body shall be subject to this Section. The City Administrator shall determine whether a change to an approved Concept Development Plan is a Major Amendment or Minor Amendment.

1. Minor Amendments

All changes that do not meet the thresholds established below for Major Amendments shall be considered Minor Amendments. Minor Amendments may be administratively approved as part of the Final Development Plan or Zoning Permit without a public hearing.

2. Major Amendments

A change shall be deemed a Major Amendment if the change results in any of the following:

- a. An increase in the buildable square footage or number of units above what is permitted in Section 13.02, D., 1., c., or 10%, whichever is greater. In no case shall the density exceed the maximum permitted in the zoning district.
- b. An increase in the area of off-street parking or footprint of building along the perimeter of a development by more than 10 percent of the original off-street parking area or building footprint approved on the Concept Development Plan.
- c. An increase in the off-street parking area or footprint of an interior building by more than 30 percent of the original off-street parking area or building footprint approved on the Concept Development Plan
- d. A change of use that results in a more intense use.
- e. A change that results in an inability to meet a required condition of approval or a requirement of this Ordinance (for instance off-street parking).
- f. Additional driveways, rights-of-way or access points onto the adjacent roadway system.
- g. A change that results in a building or off-street parking area being moved closer to an adjoining property line by more than five percent of the distance that was originally approved on the Concept Development Plan if the adjacent property is zoned residential, and ten percent distance that was originally approved on the Concept Development Plan if the adjacent property is zoned mixed-use or non-residential.
- h. Other changes considered to be major by the City Administrator that are of such nature as to violate the intent or character of the approved Concept Development Plan.

If a change to an approved Concept Development Plan is a Major Amendment, then the applicant shall be required to file a new application of an amendment to the Concept Development Plan, which shall follow the procedures set forth in Section 13.02, E., Approval Process. for the initial approval of the Concept Development Plan.

2. Final Development Plan Approval

Final Development Plans shall be reviewed by PDS staff. After review, PDS staff shall recommend favorable, favorable with conditions, or unfavorable on the Final Development Plan, including written findings that the Plan complies with the applicable articles and sections of the zoning ordinance and any conditions placed upon the approved Concept Development Plan, and all improvements identified or agreed upon resulting from the TIS are shown. The Legislative Body or its designee shall approve, approve with conditions, or disapprove the Final Development Plan. All approved Final Development Plans shall be binding upon the applicants, their successors and assigns, and the development shall be limited to all conditions and limitations established in such plans.

3. Phasing of Development Plan

After the Concept Development Plan is approved, the subject area may be developed in phases, provided all of the procedures required by local, state, and federal regulations have been complied with. Each phase may be submitted to the PDS staff at the time the applicant is ready to develop, and that phase will be reviewed against the approved Concept Development Plan. Required public amenities and infrastructure improvements shall be provided proportionally with each phase. Separate zoning permits must be obtained for each individual building after Final Development Plan approval.

F. Approval of Individual Buildings

If the Final Development Plan is for a specific building rather than a phased plan in the Subsection above, then the approval of the Final Development Plan shall also constitute an approved zoning permit. An approved Final Development Plan for an individual building does not replace any other local, state, or federal regulation approvals.

G. Final Development Plan Review Criteria

Final Development Plans shall be reviewed by PDS staff and make written findings that the Plan complies with the following:

1. Complies with the approved Concept Development Plan, including any conditions.
2. Complies with the development requirements of this Ordinance and the Kenton County Subdivision Regulations.
3. Complies with all the requirements of the traffic impact study and access management plan, if applicable.

H. Amendment to the Final Development Plan

Amendments to approved Final Development Plans may be approved by City Administrator using the same criteria in Section 13.02, E., 1. If changes to an approved Final Development Plan are considered minor, an application for Zoning Permit, (see Section 13.10 Zoning Permits), may be filed. If it is determined that a change to an approved Final Development Plan is a Major Amendment, then the applicant shall be required to file a new application of an amendment to the Concept Development Plan, which shall follow the procedures set forth in Section 13.02, E., Approval Process, for the initial approval of the Concept Development Plan.

I. Expiration

1. The legislative body may initiate a request for a public hearing by the planning commission, in accordance with the requirements of KRS Chapter 100, for the purpose of determining whether the Concept Development Plan should expire, if a Final Development Plan for the first phase of a development has not been filed within two years of obtaining Concept Development Plan approval.
2. The legislative body may initiate a request for a public hearing by the planning commission, in accordance with the requirements of KRS Chapter 100, for the purpose of determining whether the Concept Development Plan should expire, if substantial construction is not started within one year of obtaining Final Development Plan approval.
3. An extension may be permitted upon approval of the legislative body if sufficient proof can be demonstrated that the Final Development Plan or construction was delayed due to circumstances beyond the applicant's control, and that prevailing conditions have not changed appreciably to render the previous approvals obsolete.

13.03 Planned Unit Development Requirements

A. Purpose

The intent of the Planned Unit Development District is to:

1. Implement elements of the Kenton County Comprehensive Plan;
2. Provide flexibility in creating planned communities that typically incorporate a range of uses, including residential, commercial, office, flex industrial, or recreation;
3. Promote the clustering of dwellings on a development site while preserving shared open space;
4. Provide an environment within the layout of a site that contributes to a sense of community and a coherent development style;
5. Encourage the preservation and enhancement of natural amenities and cultural resources;
6. Protect the natural features of a site that relate to its topography, shape, and size, and to provide for a significant amount of open space; and
7. Provide for an efficient arrangement of land uses, buildings, circulation systems, and infrastructure.

B. Requirements for a PUD

1. The PUD District narrative and development plan shall indicate the land use, development standards, and other applicable specifications, which shall govern the PUD. If the PUD District narrative and development plan does not address specific land use, development standards or other specifications of this Ordinance, the standards of the previous zoning district shall apply and be specifically noted in the narrative.
2. The location of a PUD shall be designated on the Zoning Map and adopted pursuant to this Ordinance.
3. The Concept and Final Development Plans must comply with all required improvements, construction standards, design standards and all other engineering standards contained within this Ordinance and other pertinent regulations, except where specifically exempted through the provisions of this Ordinance.
4. It is the City's expectation that to rezone to a PUD, a site shall be developed at a higher quality of development standard than the zoning district from which it is being rezoned.
5. Land uses along the boundaries of the PUD shall be single family land uses when abutting single family land uses.

C. PUD Process

The PUD application shall be accompanied by all plans and documents. The PUD rezoning will follow the Development Plan Process as described in Section [13.02, Development Plan Review](#) for Concept and Final Development Plans.

D. Intensity and Dimensional Standards

Standards are established for each PUD based on the approved narrative and development plan. In reviewing and approving intensity and dimensional standards, the City Council will consider the overall impact of the development on adjacent properties and infrastructure, the intent of the Comprehensive Plan, and the quality of the development proposed and its impact on community character.

E. District Regulations

1. Permitted Uses

Uses permitted in a PUD may be any use that is found in [Article 4, Use Regulations & Standards](#), subject to the approval of the City Council. While use-specific conditions outlined in [Article 4](#) apply, other conditions required to mitigate incompatibilities and address site-specific conditions as imposed by the applicant or required by City Council shall apply and be binding.

2. Open Space/Recreation Area Required

- a. Open space shall be allocated, designed and maintained as an integral part of all PUDs. Open space shall, at a minimum, be at least 20 percent of the total acreage of the proposed PUD. and recreation area . The open space and recreation areas shall be physically situated so as to be readily accessible, available to, and usable by all residents.
- b. Required open spaces must be integrated into the proposed development and may not be physically separated by an exterior through-roadway.
- c. Firm, stable, and slip resistant surface paths shall be provided in the following locations:
 1. Paths connecting sidewalks to active recreation areas, such as playgrounds or frisbee golf;
 2. Within prominent open space areas that, because of their location and size within the development, will be a primary amenity for the residents of the PUD;
 3. Connections between cul-de-sacs to form continuous pedestrian routes through the development;
- d. Nature trails finished with other materials may be permissible where topography and other natural elements preclude the construction of firm, stable, and slip resistant surfaces, but they must be integrated into an entire path/trail network that includes firm, stable, and slip resistant paths as well.

F. Regulations to be addressed within the PUD District narrative and development plan:

1. The following items must be presented with the Concept Development Plan and narrative:
 - a. Uses
 - b. Density
 - c. Area
 - d. Height, Yard and Setbacks
 - e. Off-Street Parking and Loading Requirements
2. In addition to the items in subsection a above, the following must be presented with the Final Development Plan
 - a. Any development standards that may deviate from [Article 7 Development Standards](#)
 - b. Any deviations from the requirements in [Section 4.05, Use-Specific Standards](#).
 - c. Signage

G. Amendments

For amendments to approved plans, see [Section 13.02, E., 1., i., Amendments to Approved Concept Development Plan](#).

H. PUD Abandonment

1. Abandonment may be deemed to have occurred when the PUD Final Development Plan has not been filed for within one year of PUD Concept Development Plan approval or no substantial construction has been made pursuant to the approved PUD Final Development Plan for one year, or upon the expiration of one year from the date of approval of the PUD Final Development Plan. The City Council may grant a one year extension upon written request of the developer.
2. Under the abandonment of a development authorized under this Subsection, the Planning Commission or City Council, may initiate an amendment to the Zoning Map so that the land identified as the abandoned PUD shall be zoned into a category or categories that approximate the previous zoning district, the existing use, or any other such zoning category or categories which it deems appropriate. Until such rezoning is approved by the City Council, the PUD zoning and PUD District narrative and development plan are still valid.

13.04 Map Amendments

A. Findings Necessary for Map Amendment

Before any map amendment is granted, the Planning Commission or City Council must find that the amendment is in agreement with the adopted comprehensive plan, or in the absence of such a finding, that one or more of the following apply and such finding and report shall be recorded in the minutes and records of the Planning Commission or City Council.

1. That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate; and
2. That there have been major changes of an economic, physical, or social nature within the area involved which were not anticipated in the adopted comprehensive plan and which have substantially altered the basic character of such area.

B. Minimum Size of New Zones

No zoning map amendment application may be accepted if the proposed amendment would create a free-standing zone that does not meet the following minimum area standards:

Table 13.2	
PROPOSED ZONE	MINIMUM ZONE AREA
RESIDENTIAL DISTRICTS	
Residential Rural Estate (R-RE)	5 acres
Residential Large Lot Subdivision (R-LLS)	5 acres
Residential Conventional Subdivision (R-CVS)	1 acre
Residential Compact Subdivision (R-CPS)	20,000 sq. ft.
Residential Multi-Family (R-MF)	20,000 sq. ft.
COMMERCIAL DISTRICTS	
Neighborhood Commercial (NC)	10,000 sq. ft.
EMPLOYMENT DISTRICTS	
Riverfront Industry (RI)	1 acre
OTHER DISTRICTS	
Conservation (CO)	5 acres
Institutional (INST)	1 acre

Table 13.2

PROPOSED ZONE	MINIMUM ZONE AREA
Planned Unit Development (PUD)	5 acres
Riverfront Development (RD)	5 acres

C. Planning Commission Action

1. Map Amendment

Following the public hearing held by the Planning Commission on a proposed map amendment, the Commission shall, within 60 calendar days from the date of its receipt, make findings of fact and a recommendation of approval, approval with conditions, or disapproval of the proposed map amendment to the legislative body, including a statement setting forth the reasons and substantiation for such recommendation. The recommendation shall include a summary of the evidence and testimony presented by the proponents, opponents, and neutral parties of the proposed amendment. A tie vote shall be subject to further consideration by the Planning Commission for a period not to exceed 30 days, at the end of which, if the tie has not been broken, the application shall be forwarded to the City Council without a recommendation of approval, approval with conditions, or disapproval.

D. Legislative Body Action

1. Map Amendment/Concept Development Plan

The City Council shall take final action upon a proposed Map Amendment/Concept Development Plan within 90 days of the date upon which the Planning Commission takes its final action upon such proposal.

- It shall take a majority of the entire City Council to override the recommendation of the Planning Commission and it shall take a majority of the entire legislative body or fiscal court to adopt a zoning map amendment/concept development plan whenever the Planning Commission forwards the application to the City Council without a recommendation of approval or disapproval due to a tie vote.
- Unless a majority of the entire City Council votes to override the Planning Commission's recommendation, such recommendation shall become final and effective and if a recommendation of approval was made by the Planning Commission, the ordinance of the City Council adopting the Map Amendment/Concept Development Plan shall be deemed to have passed by operation of law.

E. Concurrent Processing of Variances and Conditional Use Permits

- In accordance with KRS 100, an applicant, at the time of filing an application for a zoning map amendment, may elect to:
 - Have any necessary variances or conditional use permits for the subject property be heard and finally decided by the Planning Commission at the public hearing on the proposed zoning map amendment, or
 - Have any necessary conditional use permits or variances for the subject property be heard and finally decided by the Board of Adjustment.
- A zoning map amendment application that includes proposed variances or conditional use permits must be accompanied by a Concept Development Plan.

3. In acting on variances and conditional use permits processed concurrently with zoning map amendments, the Planning Commission is granted all the powers and duties otherwise exercised by the Board of Adjustment, pursuant to KRS 100.231, 100.233, 100.237, 100.241, 100.243, 100.247, and 100.251.
4. Any judicial proceedings to appeal the Planning Commission's actions in granting or denying any variance or conditional use permit must be taken pursuant to KRS 100.347(2).

F. Expiration

1. The legislative body may initiate a request for a public hearing by the Planning Commission, in accordance with the requirements of KRS Chapter 100, for the purpose of determining whether the zoning map amendment should revert to its original designation, if substantial construction has not been initiated within a period of one year from the date of approval of the map amendment by the legislative body.
2. An extension may be permitted upon approval of the legislative body if sufficient proof can be demonstrated that the construction was delayed due to circumstances beyond the applicant's control, and that prevailing conditions have not changed appreciably to render the approved map amendment obsolete.

13.05 Text Amendments

A. Text Amendment

Following the public hearing held by the Planning Commission on a proposed text amendment, the Commission shall make a recommendation as to the text of the amendment and whether the amendment shall be approved, approved with conditions, or disapproved and shall state the reasons for its recommendation. The Planning Commission shall make its recommendation within 60 days of the date of its receipt of the proposed text amendment.

B. Legislative Body Action

It shall take an affirmative vote of a majority of the City Council to adopt a proposed text amendment.

13.06 Non-Conforming Uses

The Board of Adjustment shall have the power to hear and decide changes from one nonconforming use to another nonconforming use pursuant to KRS 100.253 and as follows:

A. Criteria

Prior to granting a change from one nonconforming use to another, the Board of Adjustment shall find that the new nonconforming use is in the same or more restrictive classification of use as the prior nonconforming use. In the determination of the same or more restrictive classification of use, the applicant shall establish, and the Board of Adjustment shall find:

1. That the new nonconforming use shall generate less vehicular traffic (automobile and truck) than the prior nonconforming use;
2. That the new nonconforming use is of a nature which will emit less noise and air pollution than the prior nonconforming use;
3. That the new nonconforming use will be more in character with the existing neighborhood than the prior nonconforming use, in that it is more in conformance with the adopted

comprehensive plan, and also, more in conformance with the uses permitted in the zone in which the use is located, than the prior nonconforming use.

B. Changes in Nonconforming Use

1. Any change of nonconforming use granted by the Board of Adjustment shall conform to the requirements of this Ordinance, including, but not limited to, parking requirements, sign regulations and yard requirements, and all other pertinent ordinances of the legislative body.
2. The Board of Adjustment shall not allow the enlargement or extension of a nonconforming use beyond the scope and area of its operation at which time its use became nonconforming.
3. The Board of Adjustment, in granting a change of nonconforming uses, may attach such conditions as it may deem necessary and proper; and the action, limitations, and conditions imposed, if any, shall be in writing, directed to the applicant, with a copy to be furnished to the Zoning Administrator.
4. The change of nonconforming use, as may be granted by the Board of Adjustment, applies to the property for which it is granted and not to the individual who applied and, therefore, cannot be transferred by the applicant to a different property.
5. In the case where the change of nonconforming use has not occurred within one year after the date of granting thereof, the change of nonconforming use permit shall be null and void and reapplication to the Board of Adjustment shall have to be made.

C. Applicability

A change from one nonconforming use to another nonconforming use applies to the property for which it is granted and not to the individual who applied for it. A change from one nonconforming use runs with the land and is transferable to any future owner of land, but it cannot be transferred by the applicant to a different site.

13.07 Variances

The Board of Adjustment shall have the power to hear and decide variances pursuant to KRS 100.241 as follows:

A. Variance Criteria

1. In granting a variance the Board of Adjustment must find that the variance will not:
 - a. Adversely affect the public health, safety, or welfare;
 - b. Alter the essential character of the general vicinity;
 - c. Cause a hazard or a nuisance to the public; and
 - d. Allow an unreasonable circumvention of the requirements of the zoning regulations.
2. In making these findings, the board shall consider whether:
 - a. The requested variance arises from special circumstances which do not generally apply to land in the general vicinity, or in the same zone;
 - b. The strict application of the provisions of the regulation would deprive the applicant of the reasonable use of the land or would create an unnecessary hardship on the applicant; and
 - c. The circumstances are the result of actions of the applicant taken subsequent to the adoption of the zoning regulation from which relief is sought.

B. Variance Due to Violations

The BOA shall deny any request for a variance arising from circumstances that are the result of willful violations of this Ordinance by the applicant subsequent to the adoption of this Ordinance from which relief is sought.

C. Conditions

The Board of Adjustment may prescribe appropriate conditions and safeguards in conformity with this Ordinance. Violation of such conditions, when made a part of the terms under which the variance is granted, shall be deemed a violation of this Ordinance.

D. Contradictions

The Board of Adjustment shall not grant a variance to permit a use of any land, building, or structure which is not permitted by this Ordinance in the zone in question, or to alter the density of dwelling unit requirements in the zone in question.

E. Applicability

A variance applies to the property for which it is granted and not to the individual who applied for it. A variance runs with the land and is transferable to any future owner of land, but it cannot be transferred by the applicant to a different site.

13.08 Conditional Use Permits (CUP)

The Board of Adjustment shall have the power to hear and decide applications for conditional use permits pursuant to KRS 100.237 as follows:

A. Conditional Use Criteria

1. The Board of Adjustment may authorize a conditional use to be located within any zone in which such conditional use is permitted, if the evidence presented by the applicant is such as to establish, beyond any reasonable doubt:
 - a. That the proposed use at the particular location is necessary or desirable to provide a service or facility which will contribute to the general wellbeing of the neighborhood or the community; and
 - b. That such use will not be detrimental to the health, safety, or general welfare of persons residing or working in the vicinity, or injurious to property or improvements in the vicinity.

B. Conditions

1. The board may attach necessary conditions such as time limitations, requirements that one or more things be done before the request can be initiated, or conditions of a continuing nature. Any conditions shall be recorded in the board's minutes and on the conditional use permit, along with a reference to the specific section in the zoning regulation listing the conditional use under consideration. Violation of such conditions, when made a part of the terms under which the conditional use is granted, shall be deemed a violation of this Ordinance.

C. Applicability

A conditional use applies to the property for which it is granted and not to the individual who applied for it. A conditional use runs with the land and is transferable to any future owner of land, but it cannot be transferred by the applicant to a different site.

13.09 Certificate of Zoning Compliance

A. General Requirements

A certificate of zoning compliance is required, post construction, for all commercial, office, industrial, mixed use, and multi-family developments. A certificate of zoning compliance will be issued upon completion of a permitted activity on a lot or parcel, in conformance with this ordinance.

B. Issuance of Zoning Compliance Certificate

Upon receipt of the application, the Zoning Administrator will review the materials provided to ensure all activities onsite have occurred in conformance with the original zoning permit and the requirements of this Ordinance. A site visit may be performed to confirm compliance with specific elements of the permit.

1. If, upon review, the Zoning Administrator confirms all activities been completed in conformance with this Ordinance, a certificate of zoning compliance will be issued to the applicant. The Zoning Administrator shall retain a duplicate copy for its records.
2. If, upon review, the Zoning Administrator determines compliance with this Ordinance has not been met, a certificate for the proposed activity shall not be approved.
3. An applicant may reapply for a certificate of zoning compliance at any time following disapproval. Submission of an updated application and associated materials as well as applicable fees will be required.
4. Failure to successfully obtain a certificate of zoning compliance shall result in a zoning violation.

C. Certificate Applicability

A certificate of zoning compliance is required to issue a certificate of occupancy.

13.10 Zoning Permits

A. General Requirements

Except where a Final Development Plan constitutes a zoning permit per Section 13.02 E., 2., Final Development Plan Approval, a zoning permit demonstrating intent to comply shall be required prior to any activity occurring on a lot or parcel, including but not limited to the following:

1. New structures
2. Additions/expansions of existing structures
3. Accessory structures
4. Clearing, grading, drainage and all other land disturbance
5. Signs, see Section 13.10, F., Permit Requirements and Procedures for Signs
6. Change of use (including change in legally non-conforming uses)
7. Site modifications including landscaping, parking, lighting, etc.
8. Fences, driveways, decks

9. Home occupations
10. Temporary uses
11. Any other human-caused change in a property, improved or unimproved real estate, requiring a government's approval.

B. Issuance of Zoning Permit

The Zoning Administrator shall review the submitted application materials for compliance with the requirements of this Ordinance. If the application sufficiently demonstrates intent to comply with the requirements of this Ordinance, the Zoning Administrator shall issue a zoning permit for the activity to proceed. If, upon review, the Zoning Administrator cannot establish intent to comply with this Ordinance, a zoning permit for the proposed activity shall not be approved.

C. Failure to Comply

Failure to obtain a zoning permit or failure to comply with an approved zoning permit constitutes a zoning violation.

D. Permit Compliance

The zoning permit issued must comply with the provision of this Ordinance unless a variance has been granted by the Board of Adjustments.

E. Permit Expiration

1. If a building permit has been issued and remains open and active, the zoning permit also remains open and active.
2. If a building permit expires, then the zoning permit shall also expire and a new zoning permit must be obtained prior to a new building permit being obtained.
3. In cases where a zoning permit has been issued and no building permit is required, applicants must complete the permitted activity within 180 days from the date of issuance of the zoning permit. If the permitted activity is not completed, the zoning permit shall expire, and a new zoning permit must be obtained. A one time extension of 180 days may be granted by the Zoning Administrator upon request by the applicant.

F. Permit Requirements and Procedures for Signs

If a permit is required for a sign, then the following requirements and procedures apply:

1. Application: No permit shall be granted until and after an application has been filed with the designated administrative official, showing the plans and specifications, including application fees, dimensions, materials, and details of construction of the proposed structure and meeting all provisions of this Article.
2. Application Form: The Zoning Administrator shall prepare and provide a form to be used as an application for a sign permit. The same form may constitute a permit, when duly approved. Multiple signs may be listed on a single permit only when they are all on the same lot or parcel, or are part of a single, comprehensive development.
3. Information on the application: The sign application form shall include the following information:
 - a. Name and contact information for the applicant, and if separate, the name, address and consent of the property owner;
 - b. Street address and Property Identification Number (PIDN) of the site;

- c. Accurate site plan to scale describing the design, dimensions, proposed placement, structural and electrical characteristics and appearance of the sign(s), including the location of existing buildings, signs and other structures on the same site as the proposed sign(s);
 - d. If the plans and drawings require an engineer's or architect's seal, signature or certificate, such shall show current Kentucky registration or licensure;
 - e. Any signs or other structures to be removed or relocated;
 - f. Dimensions and heights of all existing and proposed sign(s);
 - g. Information regarding electrification, trenching, demolition, plumbing, temporary street closure, or encroachment into the public right of way;
 - h. Any known uncorrected violations of zoning laws on the site;
 - i. Name, address and any licensing/bonding information for any sign contractors;
 - j. Technical drawings, specifications, structural safety calculations for the sign structure;
 - k. If the sign is subject to any of the safety codes (building, electrical, etc.), then all information required to determine compliance with such codes or to satisfy the requirements of such codes;
 - l. The length of each occupant's/tenant/s lineal wall frontage;
 - m. Workers' compensation and liability documents and occupational licenses for all contractor's.
4. Initial Review: Unless a given sign is exempt from the permit requirement, all sign permit applications shall be reviewed by the Zoning Administrator, and approved or denied on the basis of whether the proposed sign satisfies all requirements of this Article, and all other applicable laws, rules and regulations. If it does, then the permit shall be issued. If it does not, then the denial notice shall specify the point(s) of noncompliance. Decisions on sign permit applications shall be made in writing by the Zoning Administrator, and are subject to the appeal procedures provided herein. When applicable, permits under building and electrical codes then in effect are also required; sign permits may be approved subject to compliance with building and electrical code requirements.
5. Completeness: Initial review of an application will be for the purpose of determining if the application is complete. If the application is found incomplete, written notice of the finding of incompleteness will be given to the applicant within fifteen working days of submission, detailing the points of incompleteness. Notice is deemed effective when mailed or personally delivered. After notice of incompleteness, the applicant shall have thirty calendar days in which to resubmit the application, with all noted items of incompleteness cured. If the application is resubmitted within that time, no additional fee shall be required, and the application, if complete, shall then be processed in accordance with this Section. If no notice of incompleteness is timely provided, the application shall be deemed complete as of the last day on which the notice of incompleteness could have been given.
6. Time for Decision: The Zoning Administrator shall render a decision on each complete sign permit application within five working days of when the application was complete.
7. Noncompliance with a Permit: All signs shall conform to the requirements of the permit, and all other applicable laws. Any sign not erected or constructed as represented on the application upon which the permit was issued shall not be construed as a hardship case, but shall be construed as a misrepresentation of facts on the application and a violation of this Article. Any noncomplying sign which is not removed or corrected within the required time

shall be a deemed public nuisances and a violation of the zoning ordinance, and may be abated in the same manner as any public nuisance or zoning ordinance violation.

13.11 Enforcement

Enforcement of this Ordinance shall be in accordance with KRS 65.8801, 65.8805, 65.8808, 65.8811, 65.8815, 65.8821, 65.8825, 65.8828, 65.8829, 65.8831, 65.8835, 65.8836, 65.8838, 65.8839, 65.8840.

13.12 Appeals

A. Appeals from an Official Action, Order, Requirement, Interpretation, Grant, Refusal, or Decision of the Zoning Administrator

Per [KRS 100.257](#) and [KRS 100.261](#), appeals to the Board may be taken by any person or entity claiming that there is an error in, or that they are injuriously affected or aggrieved by, an official action, order, requirement, interpretation, grant, refusal, or decision of the Zoning Administrator.

1. An appeal shall be made within 30 calendar days after the applicant or its agent receives notice of the action of the Zoning Administrator, by filing a notice of appeal with the Board of Adjustment, that specifies the grounds of the appeal and gives notice of the appeal to any and all parties of record.
2. The applicable fee required by the Board of Adjustment shall accompany the notice of appeal at the time it is filed with the Zoning Administrator.
3. The Zoning Administrator shall transmit all records pertaining to the decision that is being appealed.
4. The Board of Adjustment shall hear the appeal within 30 days and give public notice in accordance with KRS Chapter 424 as well as written notice to the applicant and the Zoning Administrator at least one calendar week prior to the hearing.
5. The affected party may appear at the hearing in person or by attorney and all shall be given an opportunity to be heard.
6. The Board shall decide on the appeal within 60 calendar days from the date the appeal was filed with the Zoning Administrator and the Board.
7. In determining that an appeal may be granted, the Board must find that there was an error in, or that the applicant was injuriously affected or aggrieved by, an order, requirement, interpretation, grant, refusal, or decision of the Zoning Administrator.

B. Appeals from the Final Actions of the Planning Commission, Board of Adjustment, or Legislative Body

Per [KRS 100.347](#), final actions from the Planning Commission, Board of Adjustment, or Legislative Body may be appealed in the following manner:

1. Any person or entity claiming to be injured or aggrieved by any final action of the Planning Commission, Board of Adjustment or legislative body shall appeal from the action to the circuit court of the county in which the property, which is the subject of the action of The Planning Commission or Board of Adjustment, lies.
2. An appeal shall be made within 30 calendar days after the final action of the Planning Commission, Board of Adjustment or legislative body. All final actions which have not been appealed within 30 days shall not be subject to judicial review. The Board of Adjustment or Planning Commission shall be a party in any such appeal filed in the circuit court.

3. Once an appeal has been filed, the clerk of the circuit court shall issue a summons to all parties, including the Planning Commission, Board of Adjustment or legislative body in all cases, and shall cause it to be delivered for service as in any other law action.
4. The owner of the subject property and applicants who initiated the proceeding shall be made parties to the appeal. Other persons speaking at the public hearing are not required to be made parties to such appeal.
5. For purposes of this Ordinance, final action shall be deemed to have occurred on the calendar date when the vote is taken to approve or disapprove the matter pending before the body.

C. Appeals from the Final Actions of the PDS staff

1. Any determination of PDS staff made regarding minor/major changes to development plans and Final Development Plan actions may be appealed by any aggrieved party to the KCPC.
2. The aggrieved party shall submit an application, along with half the fee required for a map amendment/Concept Development Plan application within 30 days of the final action by PDS staff.
3. The KCPC shall decide on the appeal within 60 calendar days. If an application is received at least 15 days prior to a regular KCPC meeting, then the appeal shall be decided upon at that meeting. If an application is received less than 15 days from a regularly scheduled KCPC meeting, then the appeal shall be decided at the next subsequent regularly scheduled meeting.

D. Stay of Proceedings

An appeal stays all proceedings related to the action appealed from, unless the Zoning Administrator from whom the appeal is taken, certifies that a stay would cause imminent peril to life or property. In such case, proceedings shall not be stayed other than by a court of record on application, or on notice to the Zoning Administrator from whom the appeal is taken.

E. Appeals Related to the Sign Regulations

1. Decisions on sign permit applications, as well as directives, orders, notices and all other sign-related decisions of the Zoning Administrator may be appealed to the Board of Adjustment.
 - a. Initiation of Appeal: An appeal under this Article may be initiated by following the procedures set forth in KRS 100.257 or KRS 100.261, within the time allowed by that section.
 - b. Hearing on Appeal: Within 60 working days of timely receipt of a notice of appeal, the Board of Adjustment shall hear the appeal in an open, public, duly noticed hearing. The appellant and all other persons wishing to be heard shall be allowed to present evidence and argument. The Board will base its decision on the law and the evidence presented at the hearing. The Board will issue a written decision within 30 calendar days of the hearing, and the written decision shall state the decision and the facts and law supporting the decision.
 - c. Waiver of Time: Any of the timeliness requirements of this Section may be waived by the appellant.
 - d. Judicial Review: The decision of the Board of Adjustment is final. Further review may be had in Kenton County Circuit Court, pursuant to the Kentucky law of civil procedure.
 - e. Status Pending Appeal: While any sign related matter is on appeal, the status quo of the subject sign(s) shall be maintained, except when, by virtue of physical condition, the

sign poses an immediate threat to the public health, safety and welfare, in which case the threat may be abated in the same manner as any other immediate threat to the public health, safety and welfare.

ARTICLE 14 DEFINITIONS

Contents:

- 14.01 Rules for Words and Phrases**
- 14.02 Definitions**
- 14.03 Definitions for Flood Protection Development Standards**
- 14.04 Definitions for Sexually Oriented Businesses**

14.01 Rules for Words and Phrases

Certain words and terms used in this Zoning Ordinance shall be interpreted as follows unless the context of their use or specific wording in the text clearly indicates the intent to interpret them a different way.

- A. Words used in the present tense include past and future tenses.
- B. Words used in the singular include the plural, and plural words include the singular.
- C. The words “City Council” mean the City Council of Villa Hills, Kentucky.
- D. The words “Fiscal Court” mean the Fiscal Court of Kenton County, Kentucky.
- E. The words “City Administrator” mean the City Administrator of Villa Hills, Kentucky.
- F. The words “Boards of Adjustment” mean the City of Villa Hills Board of Adjustment.
- G. The words “Planning Commission” mean the Kenton County Planning Commission.
- H. The words “Zoning Administrator” mean the Zoning Administrator for the City of Villa Hills or their designee.
- I. The words “zoning map” shall mean the Official Zoning Map of Villa Hills, Kentucky.
- J. Any reference to a section or chapter shall mean a section or chapter of the City Zoning Ordinance, unless otherwise specified.
- K. The word “person” includes an individual, firm, association, organization, partnership, trust, company, corporation, governmental unit, and any combination thereof.
- L. The words “shall,” “will,” and “must” are mandatory; the word “may” is permissive, except when the context of the particular use is negative (e.g., “may not”).
- M. The words “used” or “occupied” include the words “intended, designed, or arranged to be used or occupied.”
- N. The words “lot” or “property” include the words “lot,” “plot,” “parcel,” “property,” or “tract.”
- O. The word “street” includes the words “road” and “highway.”
- P. The words “day” or “days” mean calendar days.
- Q. Words used in the masculine gender include the feminine gender and vice versa.
- R. References to NAICS codes shall mean those codes assigned to businesses in the 2017 North American Industrial Classification Manual published by the United States Office of Management and Budget. NAICS Codes serve as an aid for interpretation and determination of specific uses included in a general class of uses.

- S. The phrase “on the premises of,” as applied to accessory uses or structures shall be interpreted to mean “on the same lot or on a contiguous lot in the same ownership.”

14.02 Definitions

Except for Flood Protection Development Standards (Section 8.04) and Sexually Oriented Businesses (Article 9), the words, phrases and terms used within this ordinance shall be interpreted as stated in this Article. Except as specifically defined herein, all words and phrases used in this Zoning Ordinance shall have their customary meaning as defined in a standard, common dictionary. The definitions for Flood Protection Development Standards (Section 8.04) are in Section 14.03. The definitions for Sexually Oriented Businesses (Article 9) are in Section 14.04.

A

Abutting – Touching at a point or along a border; including when separated only by a public or private right-of-way.

Accessible – Approachable, enterable, and usable by a person with disabilities.

Accessory Dwelling Unit – A residential dwelling located on the same lot as a single-family dwelling unit, either within the same building or in a detached building.

Accessory Structure or Use, Customary – A structure or use that: (1) is subordinate in area, extent, and purpose to the principal use; (2) contributes to the comfort, convenience, or necessity of the principal use; or (3) is located on the same lot and in the same zoning district as the principal use.

Act of God – An event that directly and exclusively results from the occurrence of natural causes that could not have been prevented by the exercise of foresight or caution; an inevitable accident.

Agricultural Storage – An establishment primarily engaged in operating merchandise warehousing and storage facilities. These establishments generally handle goods in containers, such as boxes, barrels, and/or drums, using equipment, such as forklifts, pallets, and racks. They are not specialized in handling bulk products of any particular type, size, or quantity of goods or products; Services provided by these establishments can include blast freezing, tempering, and modified atmosphere storage services. (NAICS-493110 & 493120).

Agricultural Supplies Sales – An establishment primarily engaged in the merchant wholesale distribution of farm supplies, such as animal feeds, fertilizers, agricultural chemicals, pesticides, plant seeds, and plant bulbs (NAICS 424910).

Agriculture, Exempt – As defined by KRS 100.111.

Agriculture, Non-Exempt – An agriculture use not meeting the definition of “Agriculture, Exempt” contained within this Ordinance.

Agritourism – The cultivation or raising of crops or livestock for the purpose of attracting visitors to the farm for educational or entertainment-based activities. These establishments can include a number of activities, including but not limited to include a corn maze, produce sales, and fruit picking.

Airport – An establishment primarily engaged in (1) operating international, national, or civil airports, or public flying fields; or (2) supporting airport operations, such as rental of hangar space, and providing baggage handling and/or cargo handling services (NAICS-488119).

Alley – A public right-of-way which normally affords a secondary means of access to abutting property.



All-Weather Surface – A hard surface, dust-free material capable, during ordinary use, of withstanding without substantial deterioration, normal weather conditions. Gravel, rock, or screenings alone, without use of a petroleum or cement binder, does not meet the definition of an all-weather, dust-free material.

Animal Care – Any building or land used, designed or arranged for the care of animals without limited outdoor activity. Includes animal grooming, animal hospital, veterinary clinic, pet clinic, animal boarding, animal shelter, cattery, kennel and doggy day care.

Applicant – The individual or party applying for permits or other forms of approval required under the Zoning Ordinance for the City of Villa Hills.

Area, Minimum Site – The minimum area required for a parcel to be platted in its prospective zoning district.

Assembly, Commercial – Structures and land designed for 50 or more people to congregate for a commercial event or gathering. Activities are those with a commercial purpose and could include banquet facilities, arenas, theaters, and other event venues.

Assembly, Institutional and Civic – Structures and land designed for 50 or more people to congregate for civic, social, religious, or non-commercial recreational functions. This definition includes but is not limited to theaters, coliseums, and worship centers.

Athletic Fields – An outdoor space used for competitive field sports often on a grassy field with varying equipment (i.e. soccer, football, softball).

B

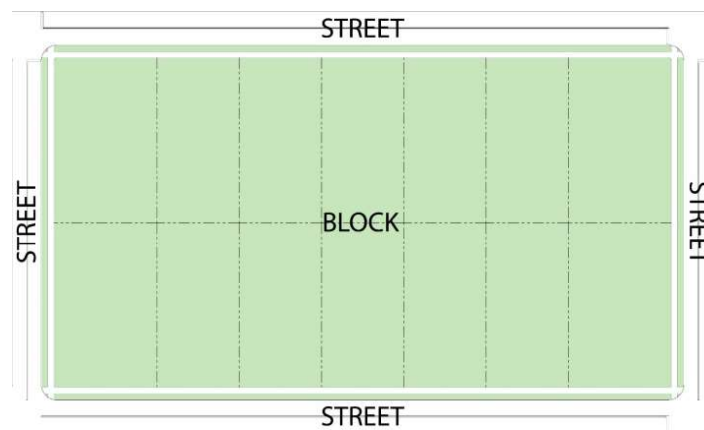
Bar Or Drinking Place – This industry comprises establishments known as bars, taverns, nightclubs, or drinking places primarily engaged in preparing and serving alcoholic beverages for immediate consumption. These establishments may also provide limited food services (NAICS – 722410).

Bed and Breakfast – The commercial rental of a bedroom within a private, owner-occupied, single-family detached dwelling unit which provides temporary accommodations and usually includes breakfast for overnight guests. These accommodations usually cater to tourists and travelling public and may also include reception space.

Berm – A man-made earthen mound providing a visual or physical buffer for decorative, screening, buffering, or stormwater management purposes.

Bioretention – A structural stormwater control system that captures and temporarily stores stormwater using soils and vegetation in landscaped areas to remove pollutants from stormwater runoff in accordance with Villa Hill’s stormwater specifications.

Block – An area of land bounded on all sides by streets, waterways, railroads, or there like divisions. An alley shall not be used to form a boundary of a block.

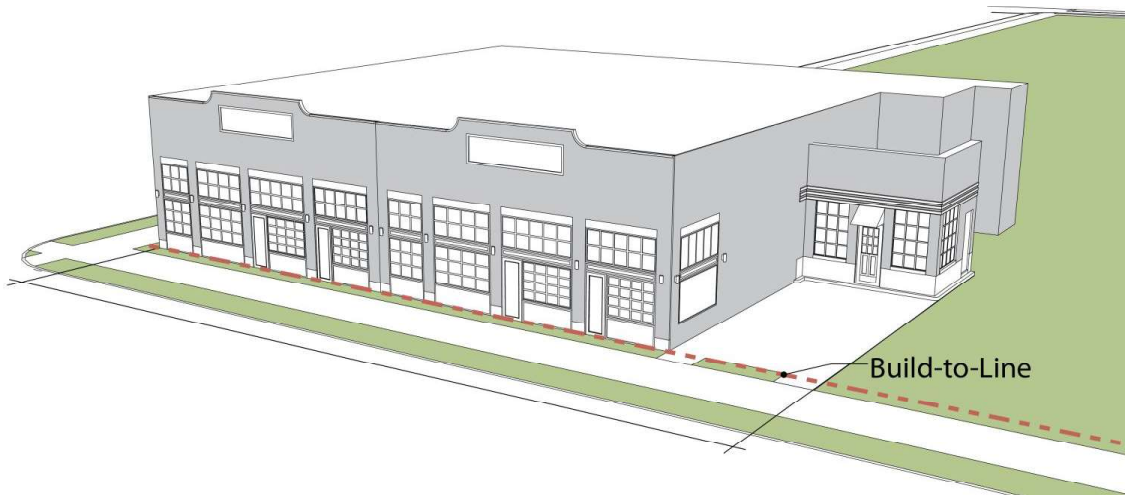


Boat Harbor, Marina – An establishment, which may be referred to as a marina, engaged in operating, docking and/or storage facilities for pleasure craft owners, with or without one or more related activities, such as retailing fuel and marine supplies; and repairing, maintaining, or renting pleasure boats (NAICS-713930).

Brewery, Distillery, or Winery – An establishment primarily engaged in one or more of the following: brewing beer, ale, lager, malt liquors, and nonalcoholic beer (NAICS-312120); growing grapes and manufacturing wines and brandies; manufacturing wines and brandies from grapes and other fruits grown elsewhere; blending wines and brandies (NAICS-312130); distilling potable liquors (except brandies); distilling and blending liquors; and blending and mixing liquors and other ingredients (NAICS-312140).

Buffer – An edge of a property designated for shielding or screening a view between two properties or the property and right-of-way.

Build-to-Line – The alignment which establishes the distance from the right-of-way to a line where the primary building shall be built. Front porches and handicap ramps are exempt from build-to-lines but must occur behind the property line.



Building – A structure that is fully enclosed. Buildings which abut one another or share a common wall but do not have an opening that connects the two will be considered separate buildings.

Building Footprint – The horizontal area, seen in plan view, measured from the exterior of any enclosed structure on a property.

Building Height – The vertical distance measured from the average building elevation to the top of the building if it has a flat, mansard, or roof with a slope of less than 1:1. Roofs with a slope greater than 1:1 shall have the top of the building be measured as the average height between eaves and ridges.



Building Material Sales – An establishment primarily engaged in the merchant wholesale distribution of lumber; plywood; reconstituted wood fiber products; wood fencing; doors and windows and their frames (all materials); wood roofing and siding; and/or other wood or metal millwork (NAICS-423310); stone, cement, lime, construction sand, and gravel; brick; asphalt and concrete mixtures; and/or concrete, stone, and structural clay products (NAICS-423320); non-wood roofing and non-wood siding and insulation materials (NAICS-423330).

Bulk Storage - The storage of large quantities of merchandise or materials that is not divided into separate parts or packaged in separate units.

Burden (of Proof) – The obligation to prove one’s view on a matter.

C

Caliper, Tree – The diameter of the tree trunk measured at six inches above finished grade.

Car Wash – An establishment primarily engaged in cleaning, washing, and/or waxing automotive vehicles, such as passenger cars, trucks, and vans, and trailers (NAICS-811192).

Carport – A roofed accessory structure which is open to the outside providing shelter for private motor vehicles.

Carpenter Shop, Electrical, Plumbing and Heating Shops, Furniture Upholstering and Similar Establishments – An establishment whose primary activity is performing specific activities involved in building construction or other activities that are similar for all types of construction, but that are not responsible for the entire project. The work performed may include new work, additions, alterations, maintenance, and repairs (NAICS-238).

Cemeteries and Crematories – Establishments primarily engaged in operating sites or structures reserved for the interment of human or animal remains and/or cremating the dead (NAICS-812220).

Change of Use – The substitution of one use of a property or building for another which can require a change in development standards.

Check Cashing and Title Loan Businesses – An establishment that, for compensation, engages in the business of cashing checks, warrants, drafts, money orders, or other commercial paper serving the same purpose, including tax preparation services where advances on refunds are provided. This definition shall not include a bank, savings & loan association, or credit union or other facility meeting the definition of financial and insurance services, and does not include establishments selling retail consumer goods, such as grocery stores, where the cashing of checks or money orders is incidental to the main purpose of the business. This definition includes establishments listed under NAICS-522390 – Other Activities Related to Credit Intermediation and NAICS-522298 - All Other Nondepository Credit Intermediation.

Civic Club – See Bar or Drinking Place.

Collection Boxes – A small detached structure used for the deposit or collection of packages or donated household goods such as clothing and shoes, small appliances, toys, etc. This definition does not include collection boxes used by the USPS or other parcel services for collecting and delivering mail and packages.

College or University – An establishment primarily engaged in furnishing academic, or academic and technical, courses and granting associate degrees, certificates, or diplomas below the baccalaureate level, and/or degrees at baccalaureate or graduate levels. The requirement for admission is at least a high school diploma or equivalent general academic training. Instruction may be provided in diverse settings, such as the establishment's or client's training facilities, educational institutions, the workplace, or the home, and through diverse means, such as correspondence, television, the Internet, or other electronic and distance-learning methods. The training provided by these establishments may include the use of simulators and simulation methods (NAICS-611310 NAICS-611210).

Commercial Message – A message that is primarily concerned with the marketplace of goods and services, or the economic interests of the speaker or the audience, or that proposes a commercial transaction.

Commercial Printing – An establishment primarily engaged in commercial printing (except screen printing or book printing) without publishing (except grey goods printing). The printing processes used in this industry include, but are not limited to, lithographic, gravure, flexographic, letterpress, engraving, and various digital printing technologies. This industry includes establishments engaged in commercial printing on purchased stock materials, such as stationery, invitations, labels, and similar items, on a job-order basis. Establishments primarily engaged in traditional printing activities combined with document photocopying services (i.e., quick printers) or primarily engaged in printing graphical materials using digital printing equipment are included in this industry (NAICS 323111); and printing or printing and binding books and pamphlets without publishing (NAICS 323117).

Community Center, Civic Center – An establishment primarily engaged in promoting civic, recreation, or social interests. Establishments in this industry may operate bars and restaurants for their members (NAICS-813410)

Compact Vehicle – Shall include “Minicompact”, “Subcompact”, and “Compact” as defined by the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy.

Comprehensive Plan – The current, adopted comprehensive plan for Kenton County, Kentucky.

Conditional Use – Per KRS 100.111.

Construction – Any action or process of erection, fabrication, installation, alteration, demolition, or removal of any structure, building, etc. Including paving, landscaping, and earth moving.

Construction Trailer or Sales Office – A trailer or similar structure used as a temporary office space in conjunction with a construction project or temporary/seasonal sales.

Contour or Contour Line – A line on a map of joining points which represent the elevation above sea level.

Convalescent Homes, Nursing Homes, and Assisted Living Facilities – Establishments that provide residential care combined with either nursing, supervisory, or other types of care as required by the residents (NAICS-623).

Conversions – A structure initially designed for single-family residential use which is now used for a non-residential purpose.

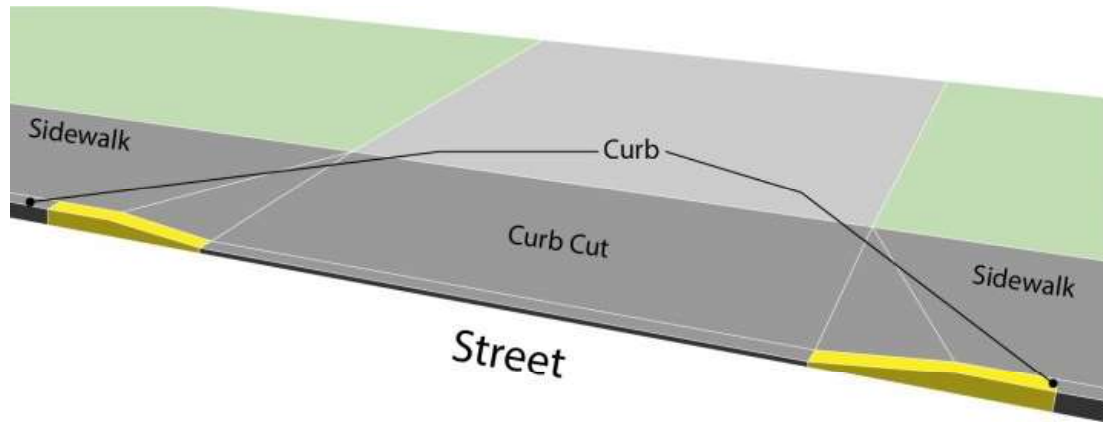
Cottage Court – A group of three or more detached single-family or two-family dwellings located on a single lot and sharing a common court or yard.



Covenant – An agreement that binds and restricts the use and management of land by the existing and future land owners. This private agreement is typically included in the property deed establishing rules and regulations on how a property can be developed. Also see Deed Restriction.

Cultural Decorations – Decorative elements of a temporary nature intended for the acknowledgment of a cultural holiday or season, exclusive of decorations, which do not contain business, product sales, or service advertising content. Cultural decorations shall not be considered “signs.”

Curb Cut – Any interruption or break in the line of a street curb in order to provide vehicular access to a street. In the case of streets without curbs, curb cuts shall represent construction of any vehicular access which connects to said street.



Cutoff – A means of defining the light distribution of a light fixture based on candela per 1,000 lamp lumens. Light fixtures are rated as full cutoff, semi-cutoff, or non-cutoff.

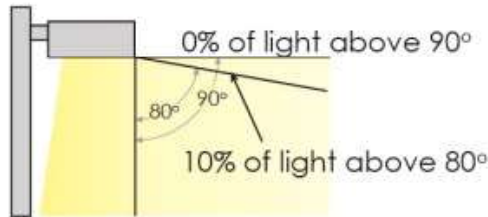
Full cutoff – A light fixture is shielded or directed in a way which does not project any light above the horizontal line (less than 90 degrees).

Cutoff – A light fixture is shielded or directed in a way which limits the light rays emitted beyond the horizontal line (90 degrees). Of the light emitted only 2.5 percent of it shall emit beyond horizontal line (90 degrees) and only 10 percent shall be emitted beyond 80 degrees from the horizontal line.

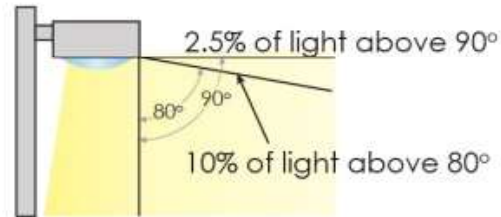
Semi-cutoff – A light fixture is shielded or directed in a way which limits the light rays emitted beyond the horizontal line (90 degrees). Of the light emitted only five percent of it shall emit beyond horizontal line (90 degrees) and only 20 percent shall be emitted beyond 80 degrees from the horizontal line.

Non-cutoff – This light fixture does not limit the light emitting from the fixture allowing considerable amounts of light beyond the 90-degree cut off.

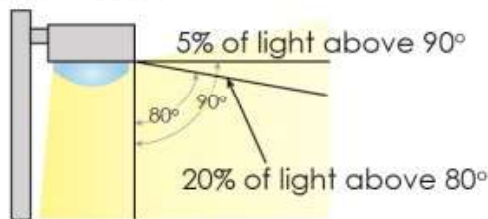
Full Cutoff



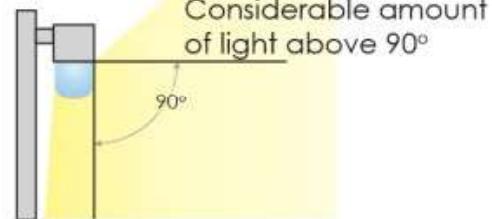
Cutoff



Semi-Cutoff



Non-Cutoff



Cut and Fill – The extraction of soil or other ground materials in one location to change the terrain of another nearby location. Also see Excavation.

D

Day Care Or Adult Or Child Care Center, Type I – A commercial care center regularly providing adult or child care services for more than 4 adults or children in a non-residential setting.

Day Care Or Adult Or Child Care Center, Type II – An establishment where care is regularly provided in a primary residence of the provider for 7 but not more than 12 adults or children including those related to the provider.

Deed Restriction – A legal restriction on the use of land listed on the deed to a property. These are privately managed restrictions often occurring when the property or properties are subdivided. Also see Covenant.

Demolition – Any act or process that destroys in part or in whole a building or structure.

Density – The number of dwelling units per net area designated for residential use. This includes lots for residential development and planned open space, but does not include land associated with streets and other rights-of-way.

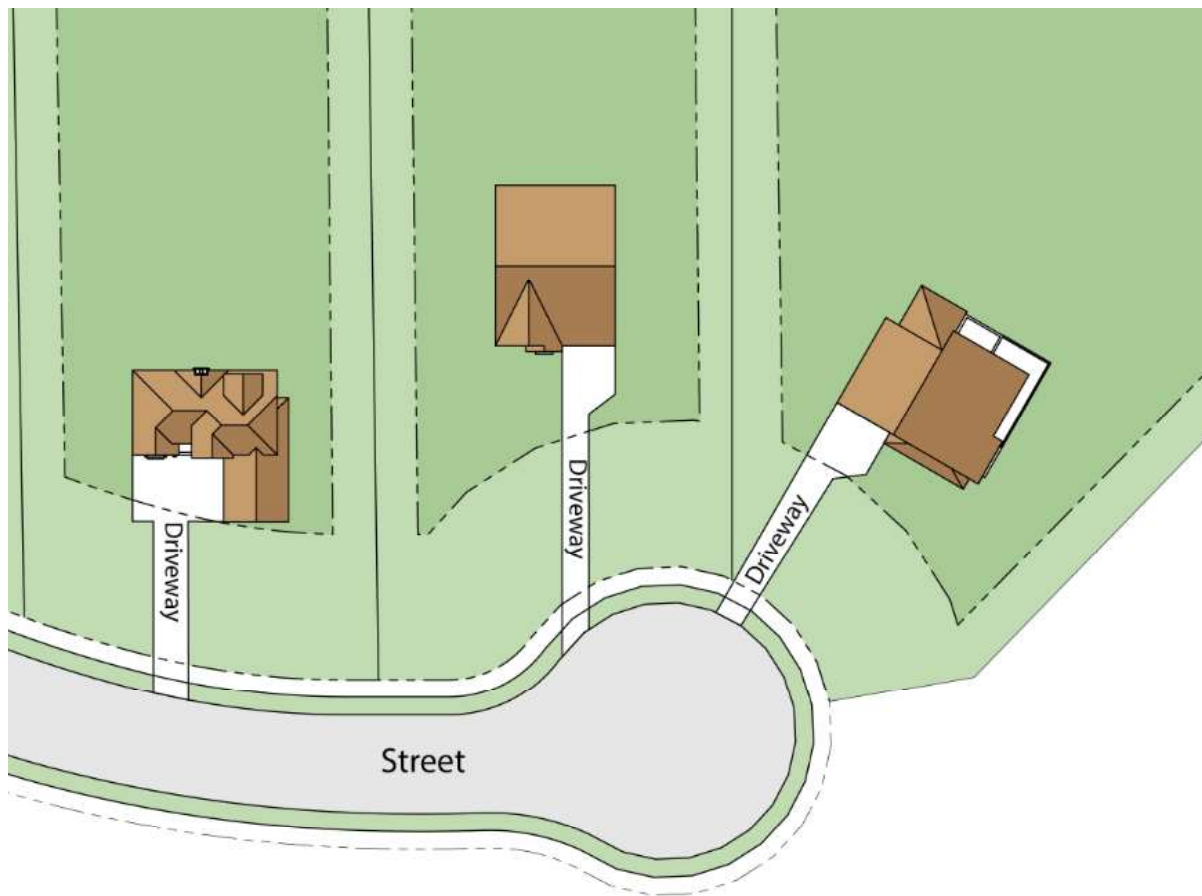
Detention – A temporary collection and storage of stormwater to be gradually discharged into a body of water or stormwater drainage system; or infiltrated into the soil.

District - see Zone.

Drive-Up or Drive-Through – The component of some motor vehicle-oriented businesses which provides retail or services to patrons while they remain in their vehicles rather than the patrons entering the business.



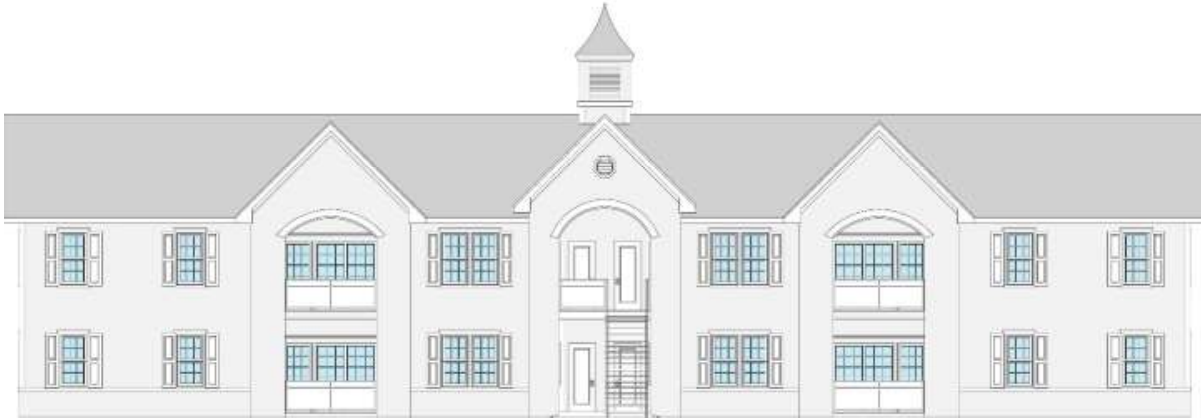
Driveway – A private roadway providing access for vehicles to access the property, parking, garage, dwelling, or other structures.



Dry Cleaner – An establishment primarily engaged in one or more of the following: (1) providing dry cleaning services (except coin-operated); (2) providing laundering services (except linen and uniform supply or coin-operated); (3) providing drop-off and pick-up sites for laundries and/or drycleaners; and (4) providing specialty cleaning services for specific types of garments and other textile items (except carpets and upholstery), such as fur, leather, or suede garments; wedding gowns; hats; draperies; and pillows. These establishments may provide all, a combination of, or none of the cleaning services on the premises (NAICS-812320).

Dwelling Unit – One or more rooms connected in a residential building or residential portion of a building, that are arranged, designed, used and intended for use by one or more persons living together as a unit and maintaining a common household. This can be an owner-occupied unit or a rental or lease.

Dwelling, Multi-Family – A building or group of buildings containing five or more dwelling units such as apartments and condominiums. This definition does not include attached dwellings, rooming or boarding houses, or bed and breakfast establishments.



Dwelling, Single-Family, Attached – A dwelling unit which houses a single tenant or family unit. These dwellings are however attached to an adjacent dwelling unit separated by a party wall or similar construction.



Dwelling, Single-Family, Detached – A dwelling standing by itself and containing only one dwelling unit, separate from other dwellings by open space, but shall not include mobile homes.



Dwelling, Three/Four-Family – A dwelling in which the building or structure is subdivided into three or four separate units to be rented or owned by separate tenants.



Dwelling, Two-Family – A dwelling in which the building is subdivided into two separate units to be rented or owned by separate tenants.



E

Easement – The granting, by the property owner, of use of land by a public, corporation, or person for a specific purpose. This purpose could include vehicular access, utility construction, drainage, etc.

Emergency Medical Facility/Urgent Care/Surgery Center – An establishment with physicians and other medical staff primarily engaged in: (1) providing surgical services (e.g., orthoscopic and cataract surgery) on an outpatient basis or (2) providing emergency care services (e.g., setting broken bones, treating lacerations, or tending to patients suffering injuries as a result of accidents, trauma, or medical conditions necessitating immediate medical care) on an outpatient basis. Outpatient surgical establishments have specialized facilities, such as operating and recovery rooms, and specialized equipment, such as anesthetic or X-ray equipment (NAICS-621493).

Equipment Sales – An establishment primarily engaged in the merchant wholesale distribution of photographic equipment and supplies; office, computer, and computer peripheral equipment; and medical, dental, hospital, ophthalmic, and other commercial and professional equipment and supplies (NAICS-4234); construction, mining, farm, garden, industrial, service establishment, and transportation machinery, equipment, and supplies (NAICS-4238).

Equipment Rental – An establishment primarily engaged in renting or leasing commercial-type and industrial-type machinery and equipment. Establishments included in this industry group are generally involved in providing capital or investment-type equipment that clients use in their business operations. These establishments typically cater to a business clientele and do not generally operate a retail-like or storefront facility (NAICS-4324).

Equipment Repair – An establishment primarily engaged in the repair and maintenance of commercial and industrial machinery and equipment. Establishments in this industry either sharpen/install commercial and industrial machinery blades and saws or provide welding (e.g., automotive, general) repair services; or repair agricultural and other heavy and industrial machinery and equipment (NAICS-811310).

Erosion – The removal or displacement of soil by the movement of water or wind.



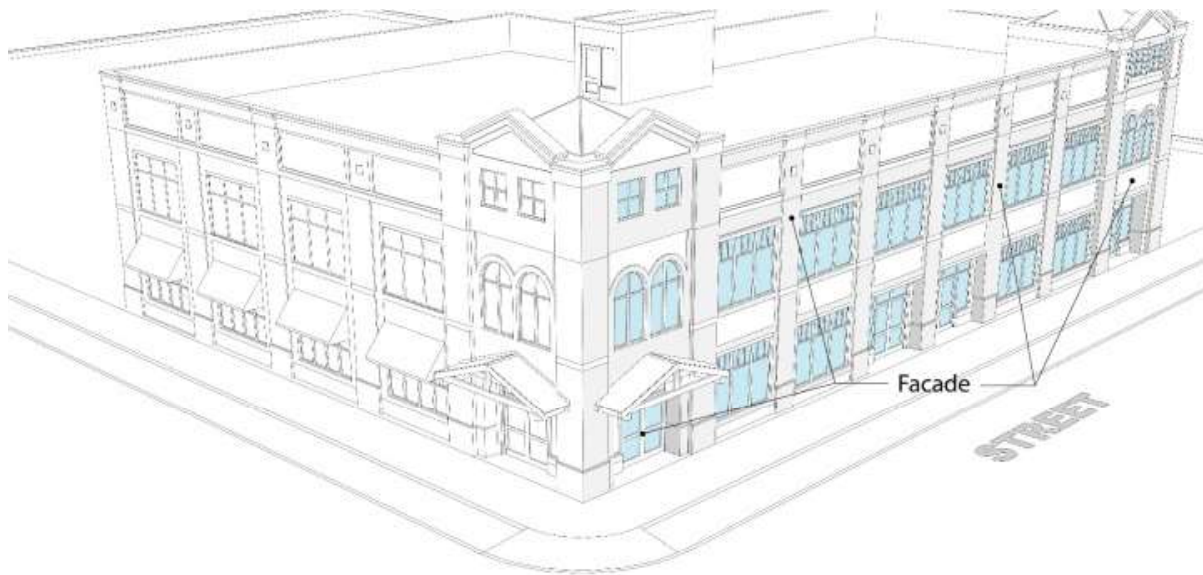
Excavation – Breaking ground, digging, mining, removal, or displacement of the natural surface of the earth regardless of its natural material. This does not include personal gardening, ground care, or agricultural activities.

Explosive Material - Any material, chemical, compound mixture, or device, the primary and common purpose of which is to function by explosion with substantially simultaneous release of gas and heat, the resulting pressure being capable of producing destructive effects.

F

Fabrication, Light – The manufacturing, predominately from previously prepared materials, of finished products or parts, including processing, fabrication, assembly, treatment, and packaging of such products, and incidental storage, sales, and distribution of such products, provided all manufacturing activities are contained entirely within a building and noise, odor, smoke, heat, glare, and vibration resulting from the manufacturing activity are confined entirely within the building.

Façade – An exterior wall of a building or structure that faces a public or private street.



Family – One or more persons occupying a premises and living together as a single housekeeping unit.

Family Child Care Home - A private home that provides full- or part-time care day or night for six (6) or fewer children who are not the children, siblings, stepchildren, grandchildren, nieces, nephews, or children in legal custody of the provider.

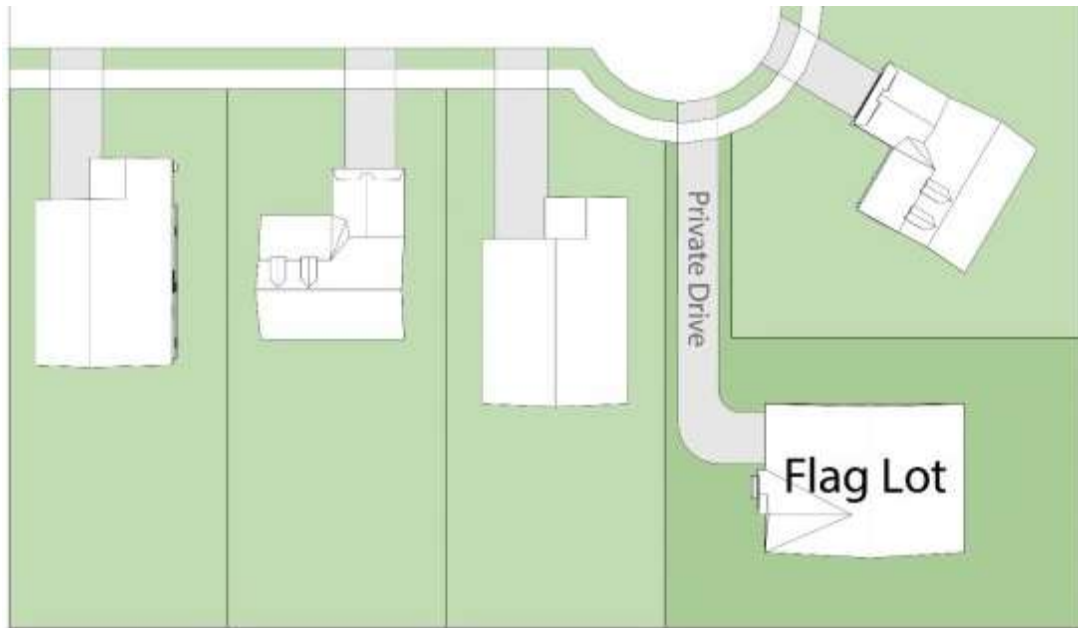
Farmer's Market – Temporary or occasional outdoor retail sales of farm produce from vehicles or temporary stands, located within a parking lot, or a public right-of-way (where authorized by encroachment permit).

Fence – An enclosure or barrier used as a visual and physical boundary to provide privacy or screen an area.

Financial Services – An establishment primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions (NAICS-52). This definition does not include establishments listed under NAICS-522390 – Other Activities Related to Credit Intermediation and NAICS-522298 - All Other Nondepository Credit Intermediation.

Finish Grade – The final elevation and contours, established by a proposed design, of a parcel after it has been cut and filled.

Flag Lot – A lot shaped and designed so that the main building site area is set back from the street on which it fronts and includes a narrow strip of land between abutting lots through which access is typically provided.



Flammable Material - Any solid, liquid, vapor, or gas that will ignite easily and burned rapidly.

Flood or Flooding - See Section 14.03 for definition related to the floodplain regulations.

Floor Area Ratio – The total floor area of all structures on a lot divided by the area of the lot. This ratio is used to manage the development potential of a lot. The basement and areas below grade are not included in this calculation.

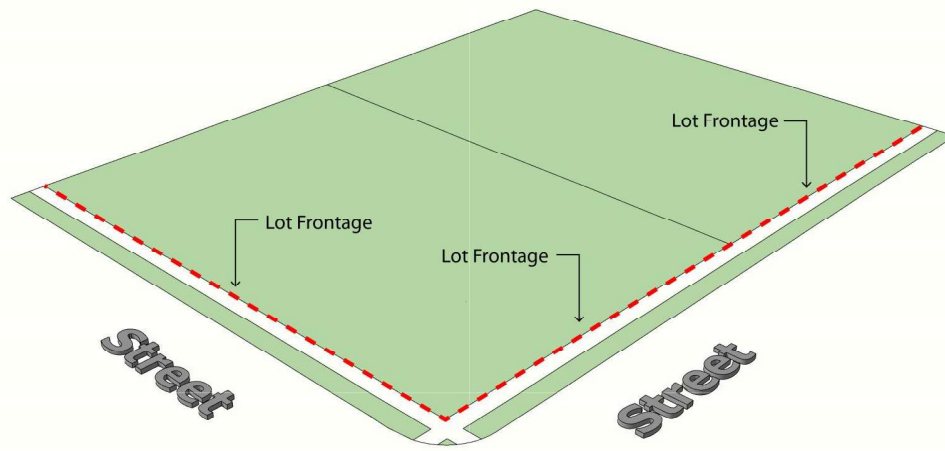
FLOOR AREA RATIO (FAR)

FAR = 1 Examples



Foot-candle - a unit of illumination equal to that given by a source of one candela at a distance of one foot (equivalent to one lumen per square foot or 10.764 lux).

Frontage, Lot – All the property abutting one side of the right-of-way of a street, measured along the right-of-way line of the street between the intersecting lot lines. In no case shall the line along an alley be considered as frontage. For purposes of this definition, frontage for a building wall shall be measured for the wall that is most nearly parallel to that street. In no case shall the same building wall be considered to have more than one frontage.



Funeral Home, Mortuary – An establishment primarily engaged in preparing the dead for burial or interment and conducting funerals (i.e., providing facilities for wakes, arranging transportation for the dead, selling caskets and related merchandise). Funeral homes combined with crematories are included in this industry (NAICS-812210).

G

Garage Sales – The sale of miscellaneous used items commonly associated with residential use. This sale can occur on any portion of a residential lot whether inside or out. Other terminology includes sidewalk sale, yard sale, basement sale, rummage sale, and estate sale.

Gas Station – An establishment which retails automotive fuels (e.g., gasoline, diesel fuel, gasohol, alternative fuels) and automotive oils or retail these products in combination with convenience store items. These establishments have specialized equipment for storing and dispensing automotive fuels (NAICS-447).

Geotechnical Engineer, Qualified - A Geotechnical Engineer who individually, or whose firm, has been accepted onto the City of Cincinnati's list of Qualified/Recognized Geotechnical Engineers.

Golf Course, Country Club – An establishment primarily engaged in operating golf courses, along with dining facilities and other recreational facilities that are known as country clubs. These establishments often provide food and beverage services, equipment rental services, and golf instruction services (NAICS-713910).

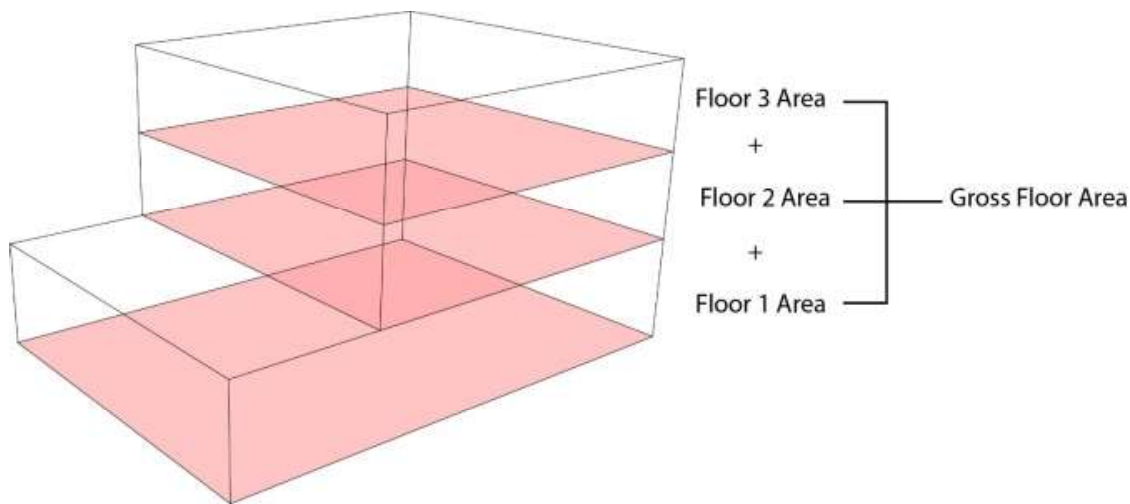
Grading – The engineered movement (excavation, filling or combination) of soil or ground materials to change the topography of a site.

Grayfield (Development) – A specific type of infill development that occurs on previously developed parcels that are underused, obsolete, or in a state of disrepair or decline.

Green Infrastructure – At the site scale, a collection of stormwater management systems that seek to reduce stormwater volume, treat stormwater runoff, increase groundwater recharge, and delay peak discharge rates. These systems may include one or more of the following: bioretention areas, stormwater planters, vegetated swales, permeable pavements, green roofs, and rainwater harvesting.



Gross Floor Area – Total area of all floors of a building, measured from the outside of the exterior walls of the building. The number of square feet in a finished attic shall be counted to the extent that the height of the attic story is equal to or greater than seven feet, and the number of square feet in a finished basement shall be included, but the number of square feet in a basement other than a finished basement shall not be included. Accessory portions of a building such as non-enclosed porches, garages, carports, and uncovered steps or fire escapes are not included.



Ground Cover – Low plants that grow to form a continuous cover over the ground, such as vinca, grass or like material.

H

Heliport - Any landing place for helicopters.

Home Occupation – An occupation for gain or support which is customarily conducted in the home, which is incidental to the use of the building or structure as a dwelling unit.

Hospital – An establishment providing medical, diagnostic, and treatment services that include physician, nursing, and other health services to inpatients and the specialized accommodation services required by inpatients. Hospitals may also provide outpatient services as a secondary activity. Establishments in the Hospitals subsector provide inpatient health services, many of which can only be provided using the specialized facilities and equipment that form a significant and integral part of the production process (NAICS-622)

Hotel, Motel – An establishment primarily engaged in providing short-term lodging in facilities known as hotels, motor hotels, resort hotels, and motels. The establishments in this industry may offer food and beverage services, recreational services, conference rooms, convention services, laundry services, parking, and other services (NAICS-721110).

I

Ice Cream Truck – Motor vehicle in which ice cream, popsicles, ice sherbets, or other frozen desserts or any other prepackaged snack food items of any kind are carried for the purpose of retail sale on public streets.

Illuminance – The measurable amount of light falling onto an illuminated area.

Illumination, Concealed – An artificial light source that is shielded from public view and from surrounding properties.

Illumination, Direct – An artificial light source that is designed and installed to illuminate all or a portion of a sign or structure.

Illumination, Exposed – An artificial light source that is not shielded from public view or from surrounding properties.

Illumination, External – Illumination cast on a sign or structure from an outside source.

Illumination, Indirect – Incidental illumination cast on a sign from an external source.

Illumination, Internal – A concealed light source that is recessed or contained within any element of a sign. This term includes signs commonly referred to as back-lit and knock-out signs.

Impervious Coverage/Surface – Hard surfaces or man-made areas which do not easily absorb or retain water.

Individual Services (ATM, Automated Retail Kiosk) – An outside automatic device that dispenses goods or services to the customer upon receipt of monetary compensation or performs limited banking functions. This use includes ATMs, self-service kiosks and reverse vending machines, but does not include indoor vending machines or ATMs.

Indoor Commercial Recreation – A building or portion of a building designed and equipped for the conduct of sports, exercise, leisure time activities, or other customary and usual recreational activities, operated for profit or not-for-profit and which can be open only to bona fide members and guests of the organization or open to the public for a fee.

Industrial – Activities that involve or are related to assembly, fabrication, finishing, manufacturing, packaging, or processing goods or raw materials.

Infill – Development of any lot that is surrounded on at least two sides by existing development and at least one side by a public street.

Inland Water Freight Transportation – This U.S. industry comprises establishments primarily engaged in providing inland water transportation of cargo on lakes, rivers, or intracoastal waterways (except on the Great Lakes System) (NAICS – 483211).

Institutional – Public or semi-public use which often engages in public service.

Intermittent – Occurring at irregular intervals; not continuous or steady.

J

Junk, Scrap or Salvage Yards – Business operations primarily engaged in storing, dismantling, recovering, and recycling of remnant materials, including metals, unlicensed and inoperable vehicles and equipment (NAICS - 562920, 423140)

K

Kennel – See Animal Care

KCPC - Kenton County Planning Commission

Kope Formation – This is a geological formation that is a bluish gray easily weathered shale with some limestone interbeds and thick colluvium, especially at base. Kope bedrock always requires special attention during and after construction as it is prone to erosion, slow and continuous downslope creep, and landslides.

L

Landscape Area – An unpaved area that contains grass, shrubs, flowers, ground cover, trees, or native plant materials of any kind and which may include decorative fixtures or accouterments such as rocks, pools, and planters. Landscaped areas may also include non-living natural ground cover such as mulch, rocks, and stones. This does not include artificial plants, trees or vegetation.

Landscaping – Any living organic plant material including trees, shrubs, flowers, ground cover, vegetation, vines, or grass.

Large Modular Materials – Pre-assembled building components shipped to a construction site to expedite the construction of a structure or building.

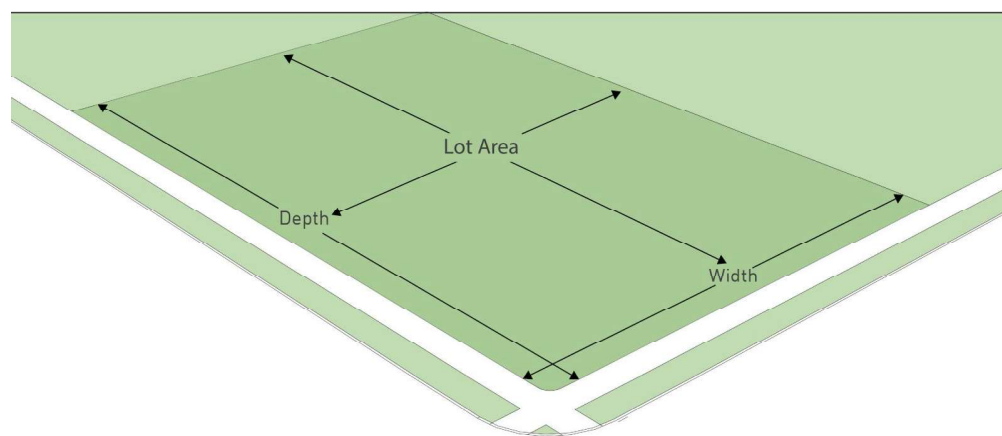
Library – An establishment primarily engaged in providing library or archive services. These establishments are engaged in maintaining collections of documents (e.g., books, journals, newspapers, and music) and facilitating the use of such documents (recorded information regardless of its physical form and characteristics) as required to meet the informational, research, educational, or recreational needs of their user. These establishments may also acquire, research, store, preserve, and generally make accessible to the public historical documents, photographs, maps, audio material, audiovisual material, and other archival material of historical interest. All or portions of these collections may be accessible electronically (NAICS-519120).

Liquor Store – An establishment primarily engaged in retailing packaged alcoholic beverages, such as ale, beer, wine, and liquor (NAICS-445310).

Live Staking – The practice of reintroducing plant life along a stream bed that has had its vegetation removed. This methodology cuts stems from trees during the dormant season and transplants them onto streambanks where they eventually grow into new trees that establish a root system that will hold soil in place.

Live/Work Dwelling – A single-family unit which is used as a dwelling and a non-residential use permitted in that district. This non-residential use should be primarily owned and operated by the residents who live there.

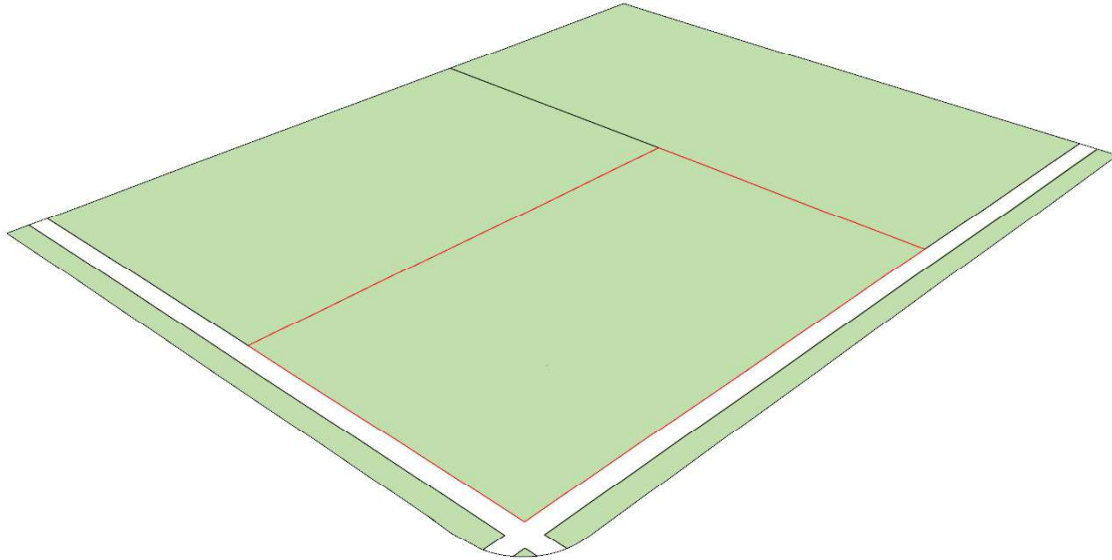
Lot Area – The total horizontal area contained within the lot lines.



$$\text{Lot Area} = \text{Width} \times \text{Height}$$

Lot Coverage – The measured intensity of a land use based on the proportion of the site which is covered by impervious surfaces.

Lot, Corner – A lot that is located at the intersection of two or more thoroughfares, or on a curved street on which the interior angle is less than 135 degrees.



Lot Line – A property line which bounds the lot.

Lot of Record – A lot, the boundaries of which are filed as legal records.

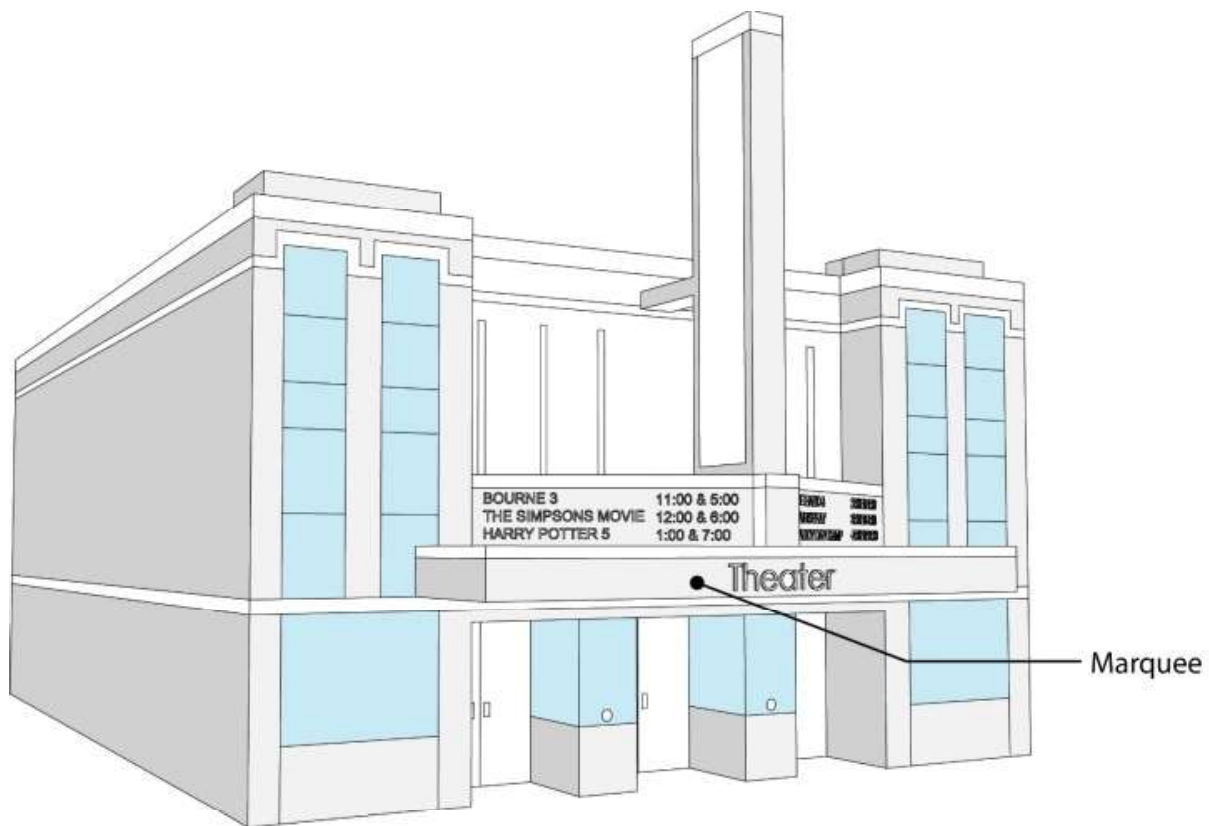
M

Manufacturing, Heavy – Establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing (NAICS-31-33).

Manufactured Home – As defined by [KRS 100.348 \(2\)\(c\)](#).

Manufactured Home, Qualified – As defined by [KRS 100.348 \(2\)\(d\)](#).

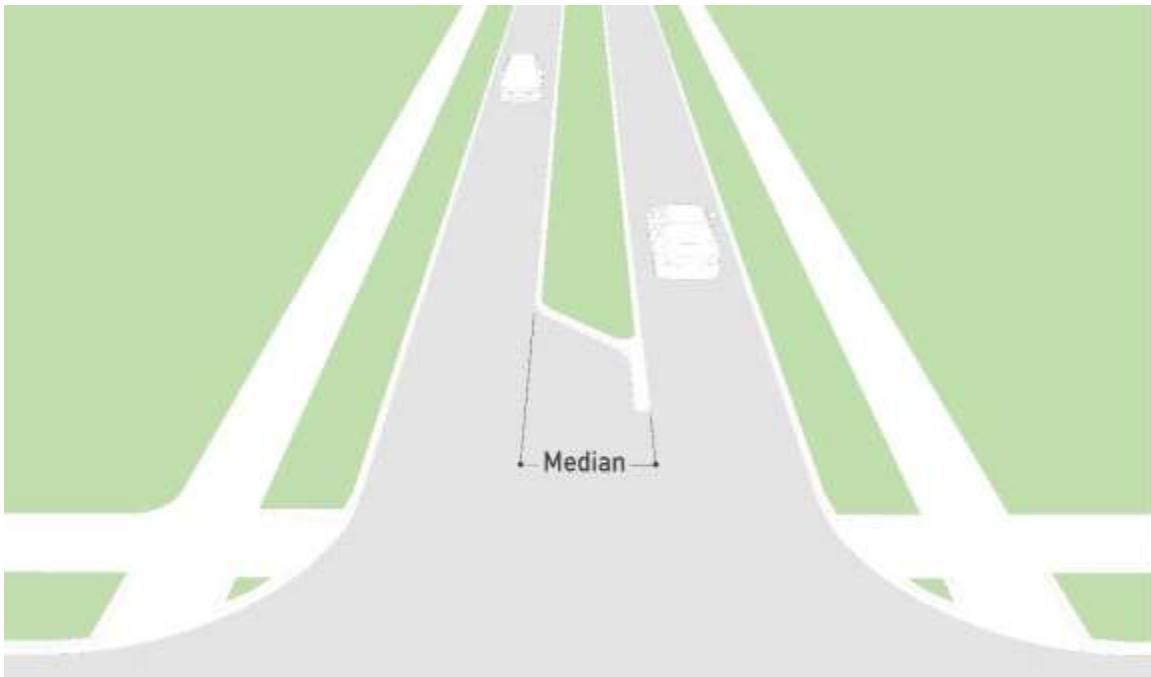
Marquee – A permanent roofed structure that projects beyond a building, sometimes into public property, to provide protection from the weather.



Masonry – The use of cut stone as a façade treatment and construction material.

Master Plan – A comprehensive long-range plan intended to guide the development and growth of a community or region. Such plans typically, include a land-use plan, transportation improvements, analysis, and recommendations.

Median – An area located in the general center of a street or highway used to separate the directional flow of traffic. It may contain vegetation, turn lanes, curb and gutters, pedestrian walkways, and similar features.



Medical Office – Industries considered as medical offices (Ambulatory Health Care Services) subsector provide health care services directly or indirectly to ambulatory patients and do not usually provide inpatient services. Health practitioners in this subsector provide outpatient services, with the facilities and equipment not usually being the most significant part of the production process (NAICS-621).

Meeting, Banquet, or Conference Facility – This industry comprises establishments primarily engaged in organizing, promoting, and/or managing events, such as business and trade shows, conventions, conferences, and meetings (whether or not they manage and provide the staff to operate the facilities in which these events take place) (NAICS-561920).

Mining, Quarrying and Crude Petroleum and Natural Gas Production - This use includes the mining, quarrying, and oil and gas extraction sector comprises establishments that extract naturally occurring mineral solids, such as coal and ores; liquid minerals, such as crude petroleum; and gases, such as natural gas. The term mining is used in the broad sense to include quarrying, well operations, beneficiating, and other preparation customarily performed at the mine site, or as a part of mining activity (NAICS-21).

Mini-Warehouse, Personal Storage – This industry comprises establishments primarily engaged in renting or leasing space for self-storage. These establishments provide secure space (i.e., rooms, compartments, lockers, containers, or outdoor space) where clients can store and retrieve their goods (NAICS-531130).

Mixed Use - A land use where three or more significant uses are permitted (such as retail/entertainment, office, residential, hotel, light industrial and/or civic/cultural/recreation) that, in well planned projects, are mutually supporting. These uses may be combined on a lot, within a structure, or within an overall development.

Mobile Home – As defined by [KRS 219.320 \(4\)](#).

Mobile Food Sales – This industry comprises establishments primarily engaged in preparing and serving meals and snacks for immediate consumption from motorized vehicles or nonmotorized carts. The establishment is the central location from which the caterer route is serviced, not each vehicle or cart. Included in this industry are establishments primarily engaged in providing food services from vehicles, such as hot dog carts and ice cream trucks (NAICS-722330).

Modular Home – An industrialized building system that is designed as a residence which is not a manufactured home or mobile home.

Motor Vehicle Sales and Rental – This industry group comprises establishments primarily engaged in retailing new and used automobiles and light trucks, such as sport utility vehicles, and passenger and cargo vans (NAICS-4411);

Motor Vehicle Service, Major – This industry group comprises establishments involved in providing repair and maintenance services for automotive vehicles, such as passenger cars, trucks, and vans, and all trailers. Establishments in this industry group employ mechanics with specialized technical skills to diagnose and repair the mechanical and electrical systems for automotive vehicles, repair automotive interiors, and paint or repair automotive exteriors. (NAICS-8111)

Motor Vehicle Service, Minor – This industry comprises establishments primarily engaged in providing automotive repair and maintenance services (except mechanical and electrical repair and maintenance; transmission repair; and body, paint, interior, and glass repair) for automotive vehicles, such as passenger cars, trucks, and vans, and all trailers. (NAICS-8119)

Mural - A hand-painted or hand-tiled work of visual art which displays primarily non-verbal graphic(s) or non-verbal image(s), and may display incidental word(s) subject to regulations, that is either affixed to or painted directly on the exterior wall of a structure. A mural is not considered a billboard or a sign.

Museum – This industry comprises establishments primarily engaged in the preservation and exhibition of objects of historical, cultural, and/or educational value (NAICS-712110).

N

N/A – Where used in these regulations, the particular requirement is “not applicable.”

Navigational Services to Shipping - This industry comprises establishments primarily engaged in providing navigational services to shipping. Marine salvage establishments are included in this industry (NAICS – 488330).

Nit – A measure of luminance. One nit is equal to one candela per square meter (1cd/m²). Ten thousand nits are equal to one stilb. A candela, on which the definition is based, is a unit of measurement of the intensity of light. Part of the SI system of measurement, one candela (cd) is the monochromatic radiation of 540THz with a radiant intensity of 1/683 watt per steradian in the same direction. Another way of putting it is that an ordinary wax candle generates approximately one candela.

Non-commercial Message - A message that pertains primarily to debate in the marketplace of ideas. Such messages typically cover subjects such as politics, religion, philosophy, social policy, as well as commentary on sports, arts and entertainments. There is no on-site/off-site distinction as to non-commercial messages.

Nonconformity – An activity or a building, structure or a portion thereof which lawfully existed before the adoption or amendment of this Ordinance, but which does not conform to all the current regulations contained in this Ordinance which pertain to the zone in which it is located.

Nonconforming Lot - A platted lot or parcel of land that does not conform to the provisions of this Ordinance for the zone district(s) in which it is located, but was lawful for sale or development at the time it was created.

Nonconforming Sign - A sign that does not conform to the provisions of this Ordinance, but was lawful at the time it was erected.

Nonconforming Site Feature - A feature of a developed lot, parcel, or site, such as landscaped area, parking, or lighting, that does not conform to the provisions of this Ordinance, but was lawful at the time the lot, parcel, or site was last developed or redeveloped.

Nonconforming Structure - A building or structure that does not conform to the provisions of the building and/or zoning regulations, but was lawfully constructed according to the building and zoning provisions existing at the time of such construction.

Nonconforming Use - A use of land that does not conform to the requirements of this Ordinance, but was lawfully established at the time the use commenced.

Nursery/Garden Supply – An establishment primarily engaged in growing crops of any kind under cover and/or growing nursery stock and flowers. “Under cover” is generally defined as greenhouses, cold frames, cloth houses, and lath houses. The crops grown are removed at various stages of maturity and have annual and perennial life cycles. The nursery stock includes short rotation woody crops that have growth cycles of 10 years or less (NAICS-1114).

Nuisance - Any thing, condition, or conduct that endangers health and safety, or unreasonably offends the senses, or obstructs the free use and comfortable enjoyment of property, or essentially interferes with the comfortable enjoyment of life.

O

Occupation – The partial or entire possession or lease of a property by a business or person(s).

Office – A room or group of rooms used for conducting the affairs of a business, profession, service industry, or government.

Off-Street Parking Lot, Non-Accessory - A tract of land which is used for the storage of motor vehicles, which is not accessory to any other use on the same or any other lot, and which contains parking spaces rented to the general public or reserved for individuals by the hour, day, week, or month.

On-farm Sales, Direct Selling Establishments – An establishment primarily engaged in retailing merchandise (except food for immediate consumption and fuel) via direct sale to the customer by means, such as in-house sales (i.e., party plan merchandising), truck or wagon sales, and portable stalls (i.e., street vendors) (NAICS-454390).

Open Space - Any publicly dedicated or privately-owned area of land or water that is permanently preserved and maintained. Such an area may be predominately in a natural condition or improved or modified for uses such as recreation, education, aesthetics, cultural or natural resource management or public health and safety.

Outdoor Commercial Recreation – An open area offering entertainment or sports, athletics or games of skill to the general public. This definition includes facilities such as golf courses, swimming pools, baseball/softball fields; live entertainment or performances; boat and canoe rentals; fishing lake operations; go cart raceways; scenic railroads; and drive-in theaters.

Outdoor Display and Sales, On-going – The outdoor display and sale conducted by the proprietor of products normally sold inside a retail establishment occurring continuously or at regular intervals.

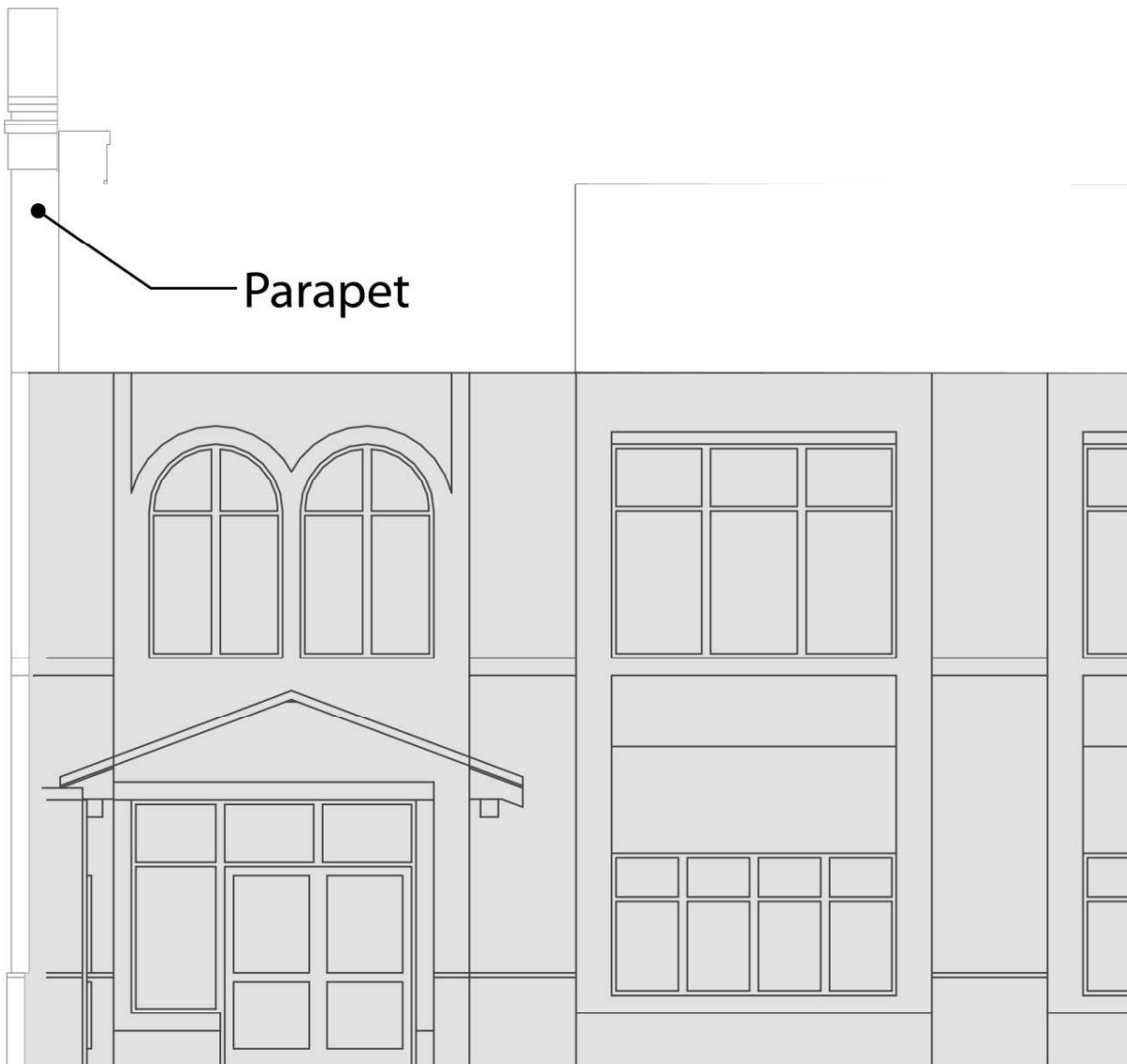
Outdoor Display and Sales, Temporary – The outdoor display and sale conducted by the proprietor of products normally sold inside a retail establishment occurring intermittently.

Outdoor Storage – Use of an area for the long-term deposit (more than 24 hours) of any usable goods, material, merchandise, or licensed vehicles.

Overlay Zone (or District) - A special district or zone which addresses special land use circumstances or environmental safeguards and is superimposed over the underlying existing zoning districts.

P

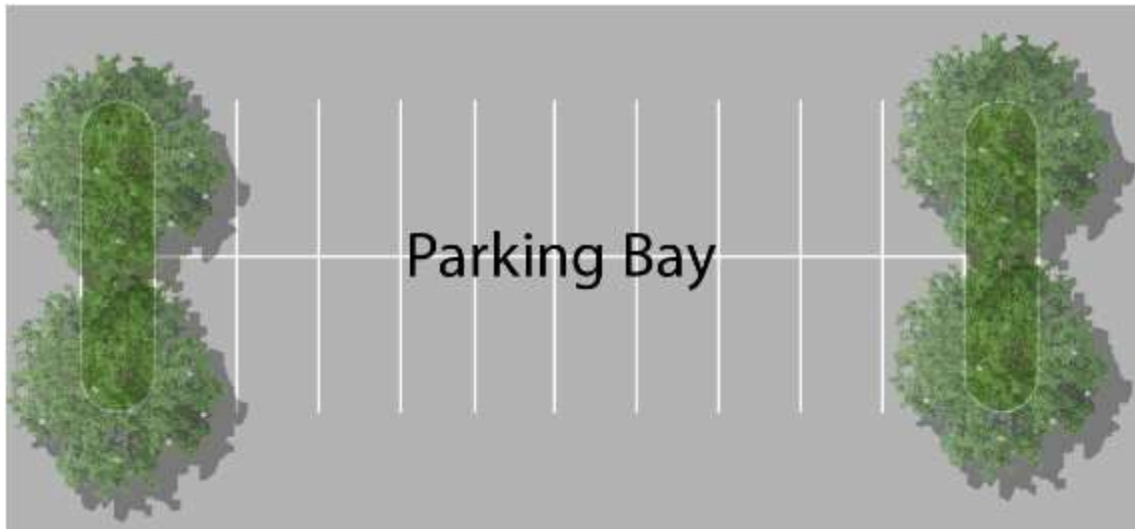
Parapet - An extension of the main exterior walls of a building above the roof level.



Park – Any public or private land available for recreational, educational, cultural, or aesthetic use.

Parking Area - Any public or private area, under or outside of a building or structure, designed and used for parking motor vehicles, including parking lots, garages, private driveways, and legally designated areas of public streets.

Parking Bay – Two rows of parking that are back to back.



Parking, Shared - Joint use of a parking area, or portion thereof, for more than one establishment.

Parking Row - a single drive aisle lined on one or both sides with parking spaces.



PDS - Planning and Development Services of Kenton County.

Permitted Use - A use that is specifically authorized by right, as identified in the Table of Permitted and Conditional Uses.

Person with a Disability – Per KRS 100.982.

Personal Services – This industry group comprises of establishments primarily engaged in providing personal care services such as hair care and aesthetic services, hair replacement and scalp treatment services, massage services, diet counseling services.

Planned Unit Development (PUD) - A zoning district consisting of a unified land development of one or more parcels which utilizes property specific development regulations to produce more creative, quality, and flexible design than would be developed under a traditional zoning district.

Plat – A document that delineates property lines and depicts other important features of a development on a property. This document is submitted to a governmental entity for the purposes of subdividing land.

Practicable – Doable, feasible

Practical - Useful

Principal Building - The primary structure located on a lot, and designed for a use or occupancy that is a permitted primary use in the zone applicable to the lot. Synonymous with Primary Building.

Principal Use - The primary use of any lot or parcel as determined by the Zoning Administrator based on the land or building area occupied by the use, the percentage of economic activity represented by the use, the importance of the use to the function of the property, or the impacts created by the use. Synonymous with Primary Use.

Q

[Reserved]

R

Railroad Facilities – An establishment primarily engaged in operating railroads (except street railroads, commuter rail, urban rapid transit, and scenic and sightseeing trains). Line-haul railroads and short-line railroads are included in this industry (NAICS-48211).

Recreational Vehicle - A vehicle, such as a motor home, travel trailer, truck/camper combination or camper trailer that is designed for recreational or emergency purposes and that may be moved on public highways without any special permit for long, wide or heavy loads.

Redevelopment – Development of a lot that was previously used for the same or a different purpose. These lots may contain some vestiges of prior use in the form of buildings, pavement, etc. that may need to be removed, moved, or substantially reconstructed or altered prior to reuse.

Rehabilitation Home - A building or group of buildings providing residence for persons recovering from the effects of drug or alcohol abuse, psychiatric disorders, or as a condition of their parole or probation. Such homes may provide counseling in educational, vocational, or other areas by a paid or volunteer staff and generally have 24-hour-a-day supervision. A rehabilitation home is not transitional housing. This definition does not apply to residential care facilities regulated by KRS 100.982 through KRS 100.984. This term does not include uses more specifically defined, such as hospitals and medical clinics.

Research and Development – An establishment engaged in conducting original investigation undertaken on a systematic basis to gain new knowledge (research) and/or the application of research findings or other scientific knowledge for the creation of new or significantly improved products or processes (experimental development). Techniques may include modeling and simulation. The industries within this industry group are defined on the basis of the domain of research; that is, on the scientific expertise of the establishment (NAICS-5417).

Residential Care Facility – A residence operated and maintained by a sponsoring private or governmental agency to provide services in a homelike setting for persons with disabilities, per KRS 100.982.

Restaurant – An establishment primarily engaged in providing food services. Some establishments in this industry may provide these food services in combination with selling alcoholic beverages (NAICS-722513).

Drive-In – A restaurant where consumption of food on the premises is encouraged (in car), and where food is provided by “car-hop” or self-service.

Drive-Through – A restaurant with a business function that is designed or intended to be used for sales or services to patrons who remain in their vehicle.

Carryout – A restaurant which does not have sit down eating arrangements and consumption of food on the premises is not provided.

Sit-Down – Those restaurants which provide seating arrangements.

Retail Store – An establishment primarily engaged in the selling of goods, wares, or merchandise directly to the ultimate consumer or persons without a resale license.

Retention – The permanent on-site storage and maintenance of stormwater.

Rezoning - Refers to a map amendment detailed in [Article 13](#).

Ridgelines – A line connecting high points of elevation along a ridge and separates drainage basins or small-scale drainage systems.

Right-of-Way – This refers to the area which roadways, sidewalks, trails, utilities are often located within. This land is often publicly owned and maintained by a city, county, or state.

Riparian Corridor - Land areas adjacent to a stream, wetlands, or other body of water that contain vegetation, habitats, and ecosystems associated with bodies of water or dependent on the flow of water in the adjacent stream, wetlands, or other water body. A riparian area will vary in width depending on the particular stream, wetlands, or other body of water.

Riprap – A layer of protective mounds of rubble or stone randomly placed to as a preventative measure against erosion.

Roadway - A right-of-way reserved for motor vehicles. The term shall include public and private streets and alleys; and private motor courts, loop lanes, drive lanes, but shall not include driveways as defined in this Ordinance.

Root Wad – An erosion prevention method along waterways which utilized upended tree root systems. These roots slow water passing by reducing erosion while also providing aquatic habitats.

S

School, Primary or Secondary – An institution providing full-time instruction and including accessory facilities traditionally associated with a program of study which meets the requirements of the laws of the state.

Screening - Visually shielding or obscuring one abutting or nearby structure or use from another by fencing, walls, berms, or densely planted vegetation.

Sedimentation Basin – An area designed to reduce the velocity of water, so it can no longer transport suspended materials. This allows gravity to force any suspended materials to be deposited in the basin.

Self-Storage – see Mini-Warehouse.

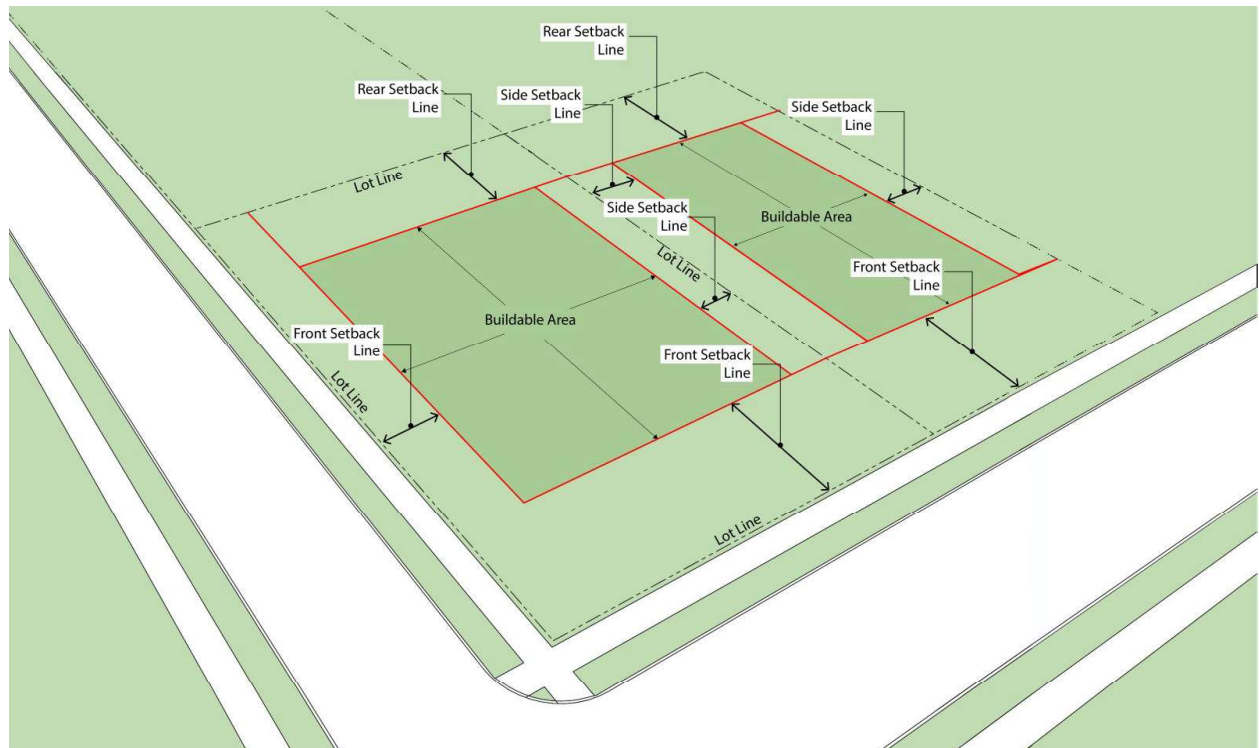
Setback - The distance by which any building or structure is separated from a street right-of-way or lot line.

Setback Line - A line that is positioned within a lot and away from a specified lot line by a distance equal to the specified minimum required setback within the district. Principal and accessory structures shall not be erected or placed on the exterior side of any setback line.

Setback Line, Front - A setback line positioned away from any street right-of-way by a distance equal to the minimum required front setback, parallel to the street right-of-way. In the case of flag lots, the front setback shall be measured not from the street frontage, but from the closest point to the right-of-way where the minimum lot width is met (See Section 5.06).

Setback Line, Rear - A setback line positioned away from the lot line more nearly opposite the principal building's front facade, by a distance equal to the minimum required rear setback. In the case that the rear setback line intersects a front setback line, which may be the case for some corner lots, for example, the rear setback line shall terminate at the intersection. In the case that more than one lot line is most nearly opposite the principal building's front facade, the regulations within Section 5.06, E., shall be used to determine from where the rear setback is measured.

Setback Line, Side - A setback line positioned away from all other lot lines that are not subject to a front setback line or rear setback line a distance equal to the minimum required side setback, and terminating at its intersection with any other setback line(s).



Sexually Oriented Business – See Section 14.04

Shooting Range or Archery – An establishment primarily engaged in providing qualifications, training or practice services related to firearms or archery (NAICS-713990).

Short Term Rental, Owner Occupied - A dwelling unit or room that is rented, leased, or assigned for a tenancy of less than thirty consecutive days in duration and where no meals are served or provided by the host to any guest. The owner/operator of the short-term rental resides on the premises. This term shall not include hotel or motel rooms, extended stay lodging facilities, bed and breakfast inns, or boarding and lodging rooms

Short-Term Rental, Non-Owner Occupied - A dwelling unit or room that is rented, leased, or assigned for a tenancy of less than thirty consecutive days in duration and where no meals are served or provided by the host to any guest. The owner/operator of the short-term rental does not reside on the premises. This term shall not include hotel or motel rooms, extended stay lodging facilities, bed and breakfast inns, or boarding and lodging rooms

Shrub – A self-supporting woody perennial ranging in height from six inches to 20 feet. Shrubs are characterized by multi-stemmed growth habits and may be deciduous or evergreen.

Siding – The outer covering or cladding of a house, made of wood, fiber cement, or a composite material, meant to shed water and protect the house from the effects of weather.

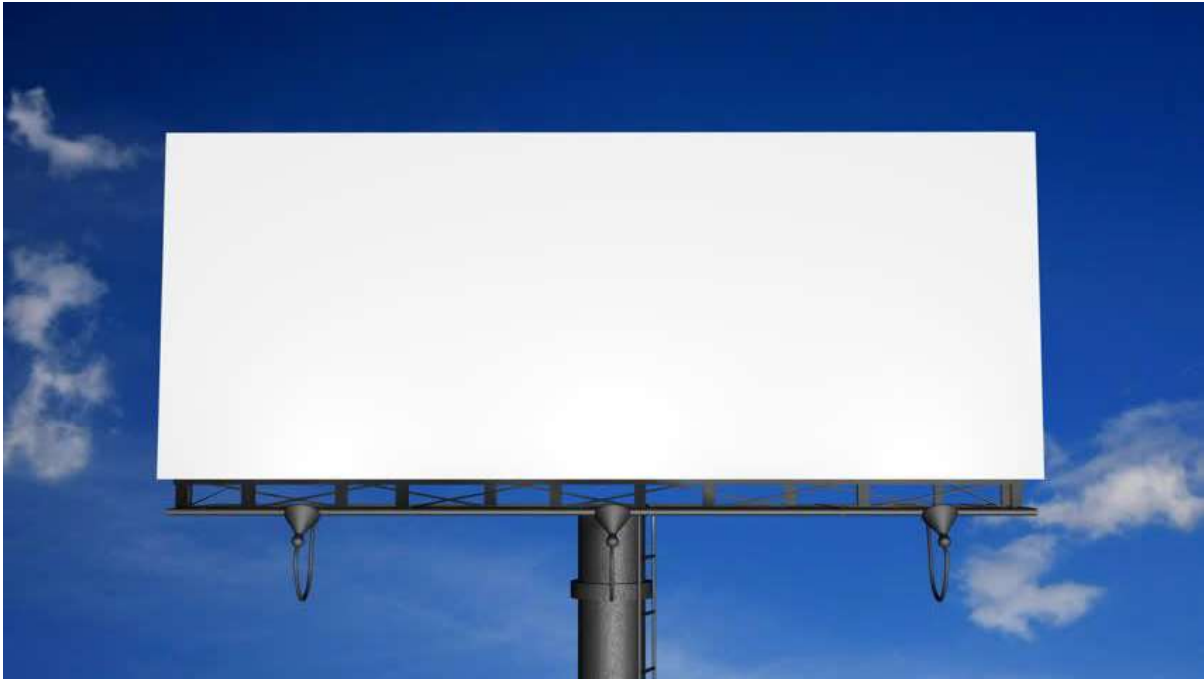
Sign – Any device, fixture, placard or structure, including its component parts, which by display of a visual image draws attention to an object, product, place, activity, opinion, idea, person, institution, organization or place of business, or which identifies or promotes the interests of any person, and which is visible from any public street, road, highway, right-of-way or parking area.

Sign, Animated – A sign which uses movement or change of lighting to simulate action or motion.

Sign, Attached – A sign that is physically attached to a building, curb, lamp post, telephone pole, telegraph pole.

Sign, Billboard – A sign, having an area greater than 25 square feet which meets any one or more of the following criteria:

- A permanent structure sign which is used for the display of off-site commercial messages;
- A permanent structure sign which constitutes a principal, separate or secondary use, as opposed to an accessory use, of the parcel on which it is located; or
- An outdoor sign used as advertising for hire, i.e., on which display space is made available to parties, other than the owner or operator of the sign or occupant of the parcel (not including those who rent space from the sign owner, when such space is on the same parcel as the sign), in exchange for a rent, fee or other consideration.



Sign, Building Marker – A plaque or sign board attached to, carved into, or painted on a building face identifying the building, commemorating an event, or providing information to pedestrians on the property.



Sign, Canopy/Awning – A sign painted on, woven in, or attached to a canopy or awning. Canopies and awnings are roof-like covers that project from the wall of a building providing cover over a door, window, or patio or, in the case of canopies, are freestanding for the purposes of shielding from the elements such as over a service station island or sidewalk. Canopies and awnings may be made of fabric, plastic, or metal. The terms canopy and awning signs do not include marquee signs.



Sign, Changeable Copy – A type of sign on which the copy changes either automatically through the use of electronic or electro-mechanical technology or manually through the hand placement of letters, numerals, or symbols.



Sign, Commercial Message – Words, symbols, logos, pictures or any combination thereof that identify which directs attention to a business, commodity, service or entertainment sold or offered for sale or a fee.

Sign, Detached – Any sign erected on a freestanding frame, foundation, mast or pole and not attached in any way to any building. Every face of a freestanding sign shall be considered as a separate sign for purposes of computing the sign area.

Sign, Directory – Any sign providing way-finding information by identifying occupants of specific buildings or units within a building and, where necessary, providing directions for finding such building or unit.



Sign, Drive-Thru – A permanent sign, whether attached or freestanding, that provides information on products or services or otherwise facilitates a business transaction at a drive-thru service location.



Sign, Face – Any surface of a sign or device upon which information or advertising is placed, displayed or illustrated. The term “sign face” does not include any portion of the support structure for the sign; provided that no message, symbol, graphic, logo, or any of the elements of a “sign” is placed on or designated as part of the support structure.

Sign, Flag – Signs emblazoned on any type of flag or blade intended to be displayed in a free-flowing manner. This category does not include exempted governmental and institutional flags.



Sign, Ground – A sign created or painted directly on the ground, including rocks, without a man-made support structure.



Sign, Iconic/Historic – A sign that has been designated by the City Council as a historic feature or landmark of a building or the community, or one that has become so important to the community that it is valued long after its role as a commercial marker has ceased.



Sign, Legible – A sign or message is “Legible” when it can be understood by a person with an eighth-grade education (or more). Where this Article requires a determination of “visibility” or “legibility,” the standard shall be based on the eyesight of an adult eligible to receive a Kentucky driver’s license (wearing any corrective lenses required by such license). Where the height of the person is material to the determination, the person shall be presumed to be more than five feet and less than six feet tall.

Sign, Marquee – A permanent canopy projecting over an entrance that is often illuminated and ornate and which incorporates a permanent large changeable message center.



Sign, Monument – Any permanent freestanding sign that is detached from a building or structure and sits on the ground on a solid-appearing base with no exposed structural supports.



Sign, Pole - A freestanding sign visibly supported by one or more poles that are placed on or anchored permanently in the ground or other surface independent from any building or other structure.



Sign, Portable – A freestanding and self-supporting moveable sign normally placed near a public street.

Sign, Principal – The main freestanding sign on a site. The term is used to distinguish such a sign from other freestanding signs that may be allowed on multi-tenant or large sites.

Sign, Projecting – A sign that is wholly or partly dependent upon a building for support and that projects at an angle away from the building so that the leading edge extends more than six inches beyond the building wall.



Sign, Roof - A building-mounted sign erected upon or completely over the roof of a building or extending above a parapet or cornice.



Sign, Sidewalk - A free-standing and self-supporting moveable sign designed to be displayed on a sidewalk or area outside of and adjacent to a place of business and oriented towards pedestrians and slow-moving traffic.

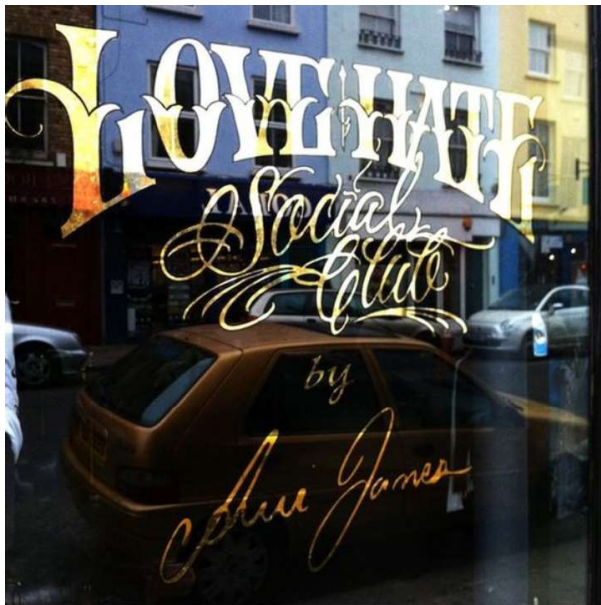


Sign, Temporary – A sign which is not permanently affixed. This definition is intended to include all devices such as banners, pennants, flags, searchlights, twirling or sandwich-type signs, sidewalk or curb signs and balloons or other air or gas-filled figures.

Sign, Wall – A building-mounted sign attached to, displayed, or painted on an exterior wall in a manner parallel with the wall surface, which does not project more than 16 inches from the wall surface.



Sign, Window – A sign painted on, attached to, or suspended directly behind or in front of a window or the glass portion of a door which is clearly legible to persons outside the building.



Sign, Vehicle – Any device meeting the definition of “motor vehicle” under KRS.186.010.

Site – One or more lots or parcels of land that, for purposes of a development application, are used as a single unit.

Site Improvements – Constructed utilities, roads, driveways, parking areas, landscaping, sidewalks, or structures on a site.

Site Plan – A term used to describe illustrations and drawings that must be submitted for zoning approval. See the application for specific submittal requirements.

Stacking Space – The space devoted to vehicle waiting areas associated with a drive through or drive up facility.



Stadium – A structure with tiers of seats rising around a playing surface, intended to be used primarily for the viewing of athletic events. Sports arena may also be used for entertainment and other public gathering purposes, such as conventions, circuses, or concerts.

Street – A public or private thoroughfare (e.g. roads, highways, drives, lanes, avenues, etc.) which provides access to adjacent properties.

Street Tree - A tree or group of trees planted along a street or within a median to enhance visual quality of a street and to provide canopy coverage over pavement.

Streetscape - The elements that constitute the physical makeup of a street and that, as a group, define its character including but not limited to the traveled way, bicycle and pedestrian facilities, building frontage, furnishings, landscaping, signs, and lighting.

Structure - Anything constructed or erected, the use of which requires fixed location on the ground or attachment to something having fixed location on the ground.

Studios (for Work or Teaching) – An establishment primarily engaged in offering instruction in the arts, including dance, art, drama, and music (NAICS-611610). This can include work space for artists or artisans, including individuals practicing one of the fine arts or performing arts, or an applied art or craft. This use may include incidental display and retail sales of items produced on the premises, instructional materials, and instructional space for small groups of students.

Subdivision – The division of a parcel of land into two or more lots or parcels for the purpose, whether immediate or future, of sale, lease, or building development, or if a new street is involved, any division of a parcel of land; providing that a division of land for agricultural purposes into lots or parcels of five acres or more and not involving a new street shall not be deemed a subdivision.

Substantial Construction - The completion of the in-ground permanent foundations, including slab on grade, for one or more buildings of the development plan.

T

Tattoo or Body Art Services – An establishment primarily engaged in providing personal care services related to body art services. This can include one or more of the following: (1) placing of designs, letters, figures, symbols, or other marks upon or under the skin of any person, using ink or other substances that result in the permanent coloration of the skin; (2) creation of an opening in the body of a person for the purpose of inserting jewelry or other decoration.

Temporary - An activity, use, or improvement characterized by short-term or seasonal nature with the intent to discontinue such use upon the expiration of such permitted time, and that does not involve the construction or alteration of any permanent structure.

Theater – An establishment primarily engaged in motion picture or live theatrical presentations: musicals; operas; plays; and comedy, improvisational, mime, and puppet shows and establishments, commonly known as dinner theaters, engaged in producing live theatrical productions and in providing food and beverages for consumption on the premises. Theater groups or companies may or may not operate their own theater or other facility for staging their shows.

Topography – The physical land formations, such as mountains, valleys, ridgelines, etc., which are represented through elevation and slope.

Tree - A self-supporting woody perennial reaching a mature height of at least 8 feet. Trees are further classified for the purposes of these standards as shade, flowering or non-flowering, evergreen, and street trees.

Tree, Evergreen - A tree species with foliage that persists and remains green year-round.

Tree, Ornamental Flowering or Nonflowering - A tree species that reaches a mature height of 8-25 feet, selected for its attractive flowers, foliage, or branching pattern.

Tree, Shade - A tree species, usually deciduous, that normally grows with one main trunk and has a canopy that screens the sun in the summer.

Tree Revetments – This form of streambank erosion control makes use of an entire tree placed parallel to the stream's flow slowing the water reducing erosion and allowing sand and silt to settle.

Truck Terminals – A facility for the receipt, transfer, short-term storage, and dispatching of goods transported by truck. Included in the use type would be express and other mail and package distribution facilities, including such facilities operated by the U.S. Post Office.

U

Unlisted Use - A use that is not specifically included in the table of Permitted and Conditional Uses. Please refer to Section 4.02 for determination of use category.

Upper Floor Housing – Housing located within a multi-use building where the lower level(s) of the building are occupied by non-residential uses.

Use - The purpose or activity for which land or buildings are designed, arranged, or intended or for which land or buildings are occupied or maintained.

Utilities and Related Facilities, Public or Quasi-Public – Industries in the utilities subsector provide electric power, natural gas, steam supply, water supply, and sewage removal through a permanent infrastructure of lines, mains, and pipes. Establishments are grouped together based on the utility service provided and the particular system or facilities required to perform the service (NAICS-221).

V

Variance – Per KRS 100.111.

Vehicle - Any device capable of moving itself or being moved from place to place upon wheels or tracks, as well as devices capable of being moved on or through water or air, such as boats or airplanes, but such term shall not include any device designed to be moved by muscular power.

Viewshed – The area within view from a point of observation.

W

Warehouse and Logistics – An establishment primarily engaged in arranging transportation of freight between shippers and carriers. These establishments are usually known as freight forwarders, marine shipping agents, or customs brokers and offer a combination of services spanning transportation modes (NAICS-488510); operating merchandise warehousing and storage facilities. These establishments generally handle goods in containers, such as boxes, barrels, and/or drums, using equipment, such as forklifts, pallets, and racks. They are not specialized in handling bulk products of any particular type, size, or quantity of goods or products (NAICS-493110).

Wetlands - Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Winery - Any place or premises in which wine is manufactured from any fruit, or brandies are distilled as a by-product of wine or other fruit, or cordials are compounded, except a place or premises that manufactures wine for sacramental purposes exclusively. Complimentary samples, a restaurant, and retail sales, are permitted as allowed under KRS 243.155.

X

[Reserved]

Y

Yard – An open space on the same lot with a principal building, open, unoccupied, and unobstructed by buildings from the ground to the sky except as otherwise provided in this Ordinance.

Front Yard area consists of:

- A. All area(s) street-ward of the front yard setback line(s); and
- B. All area(s) in front of the front face of the principal structure; and
- C. All area(s) in front of lines projected laterally from the lateral-most front corners of the principal structure.

Side Yard area consists of:

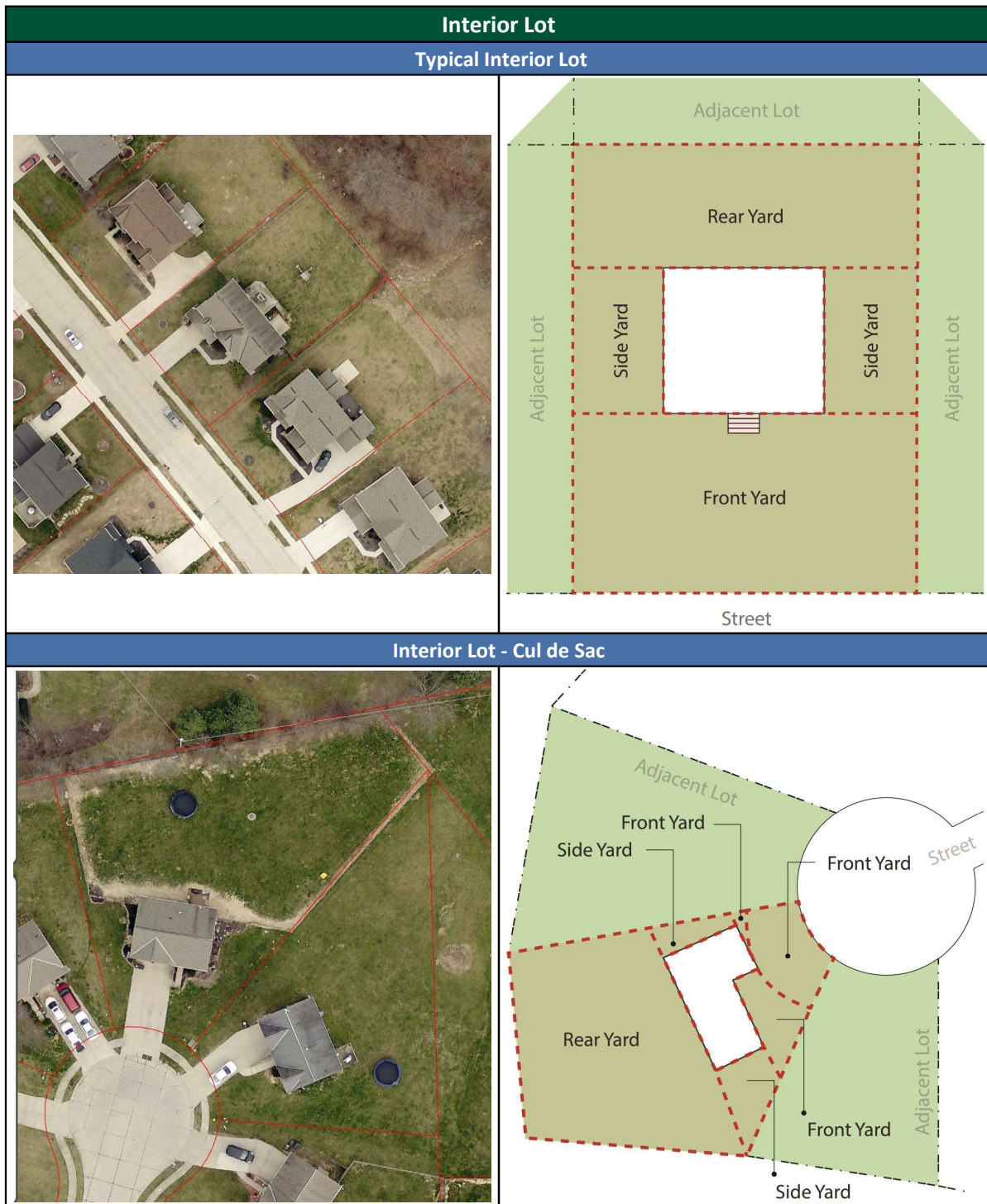
- D. All area(s) lateral to the principal structure, bounded by
 - 1. Lines projected laterally from the lateral-most front corners of the principal structure and from the lateral-most rear corners of the principal structure, and
 - 2. Lot line(s) or front yard setback line(s), whichever is closer to the structure.

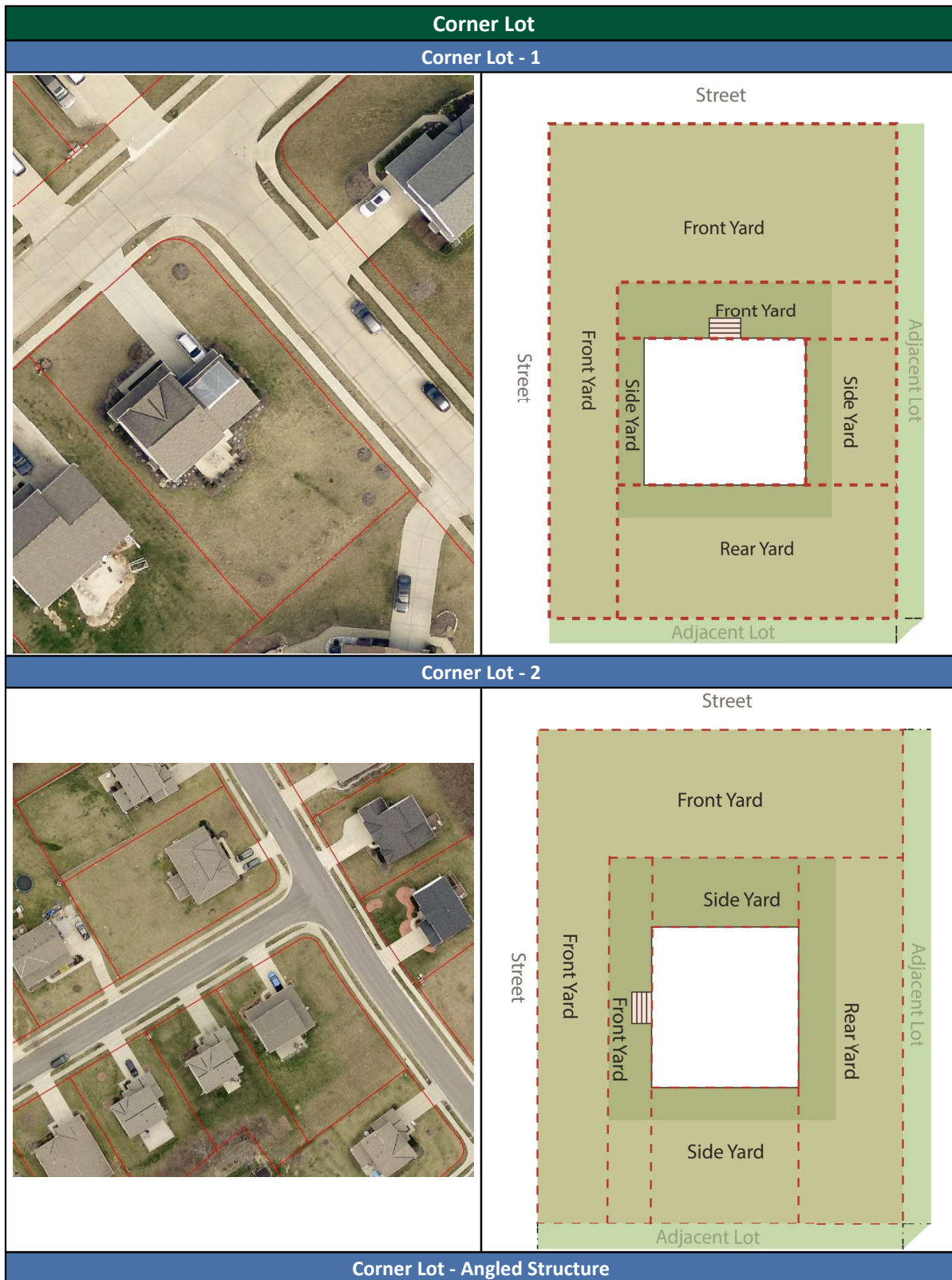
Rear Yard area consists of:

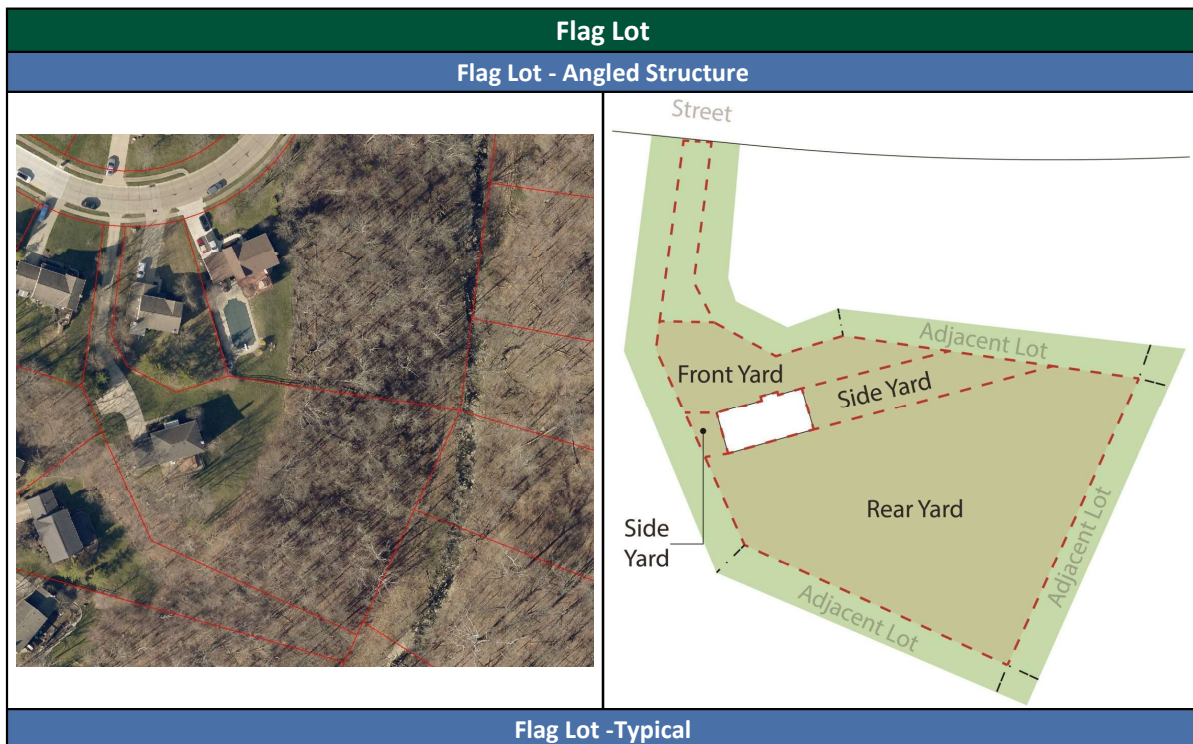
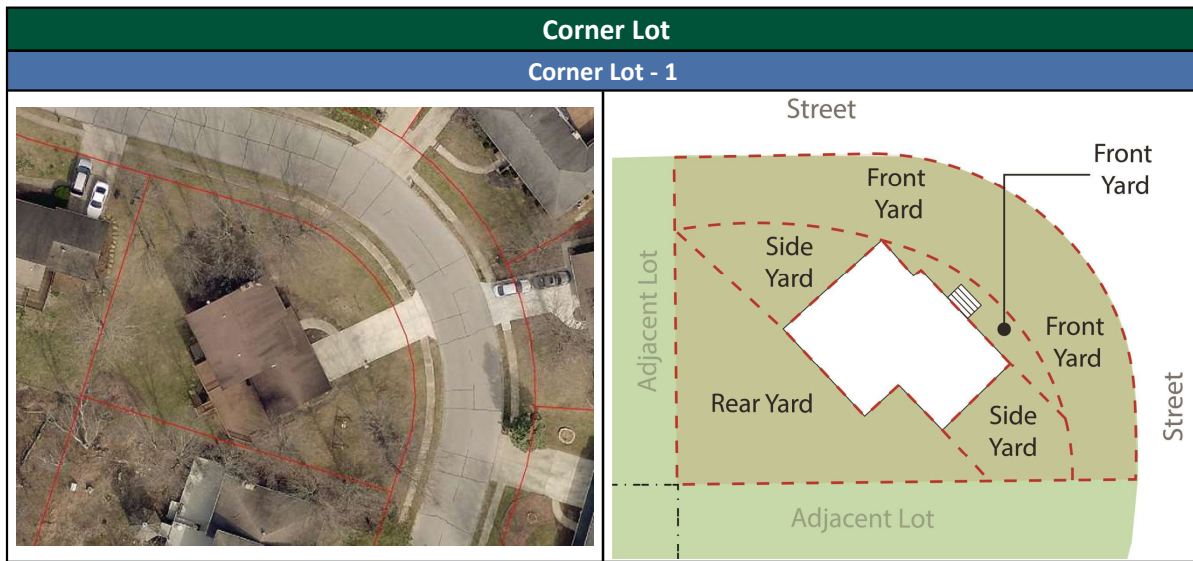
- E. All area(s) behind the principal structure, except any area street-ward of a front yard setback line, and
- F. All area(s) behind lines projected laterally from the lateral-most rear corners of the principal structure.

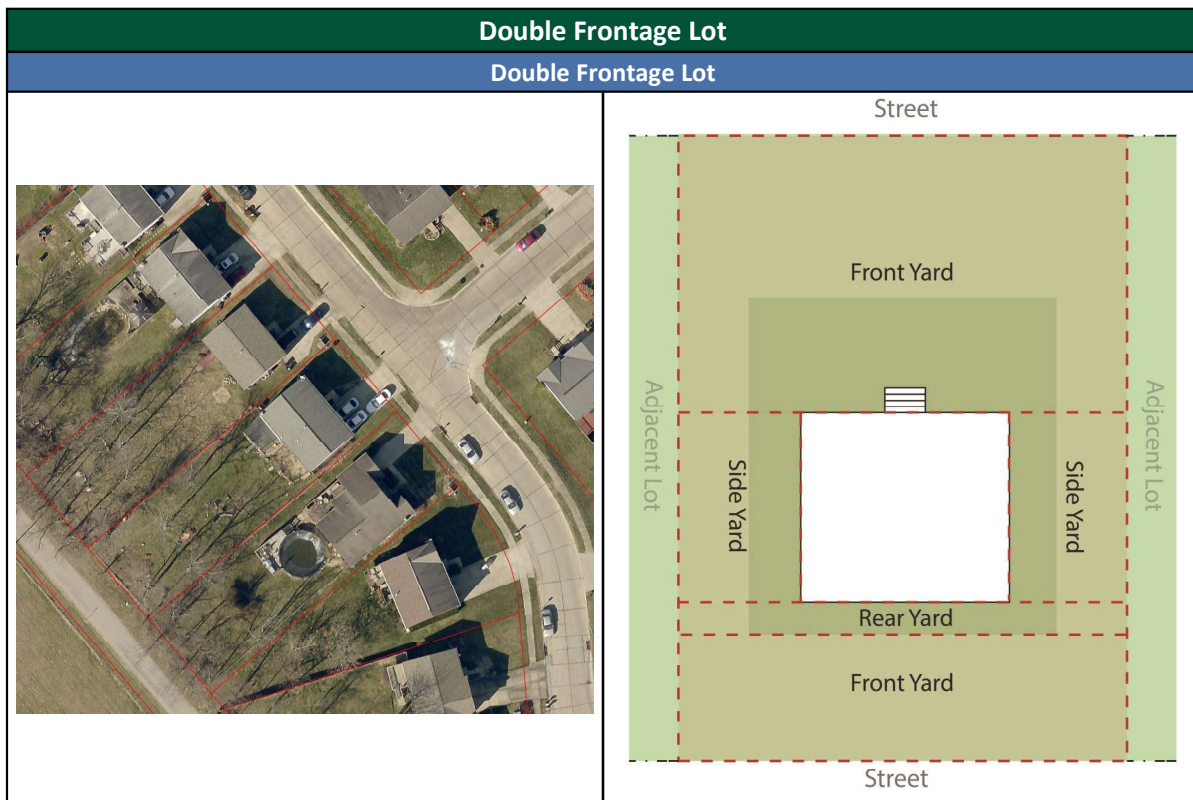
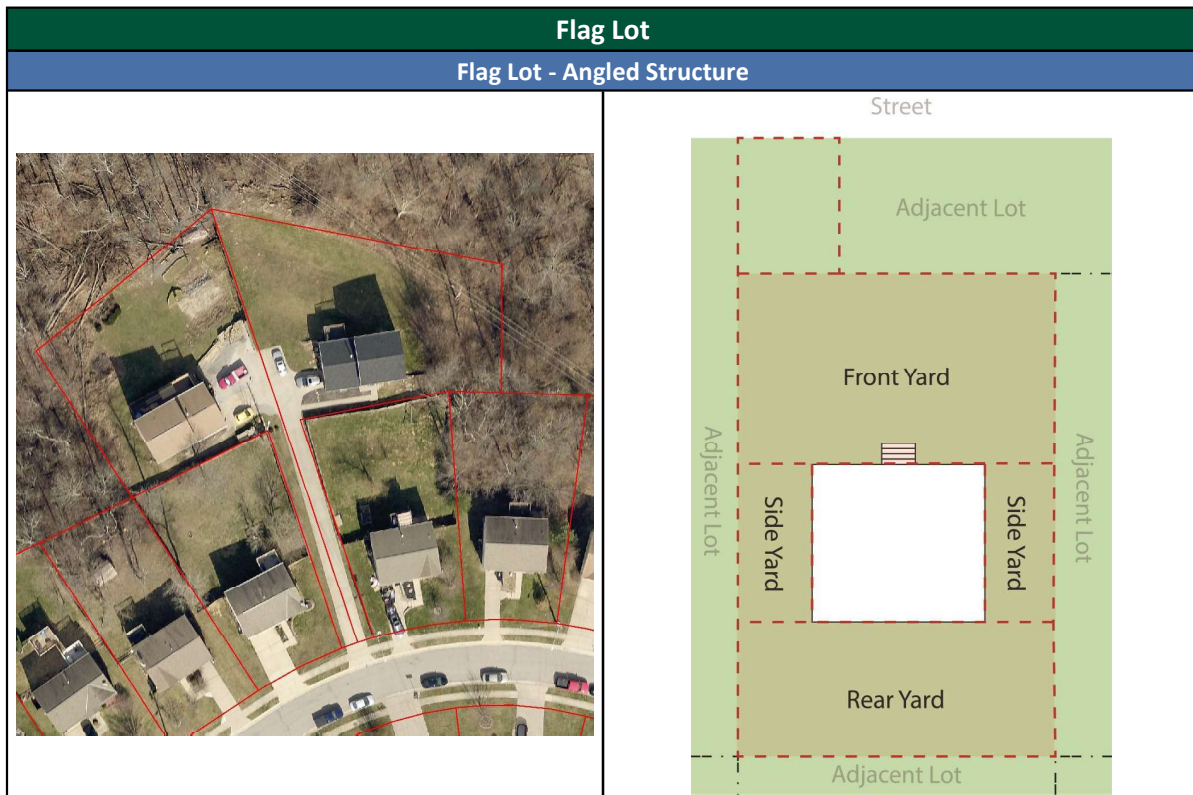
See Section 5.07 for how yards are delineated.

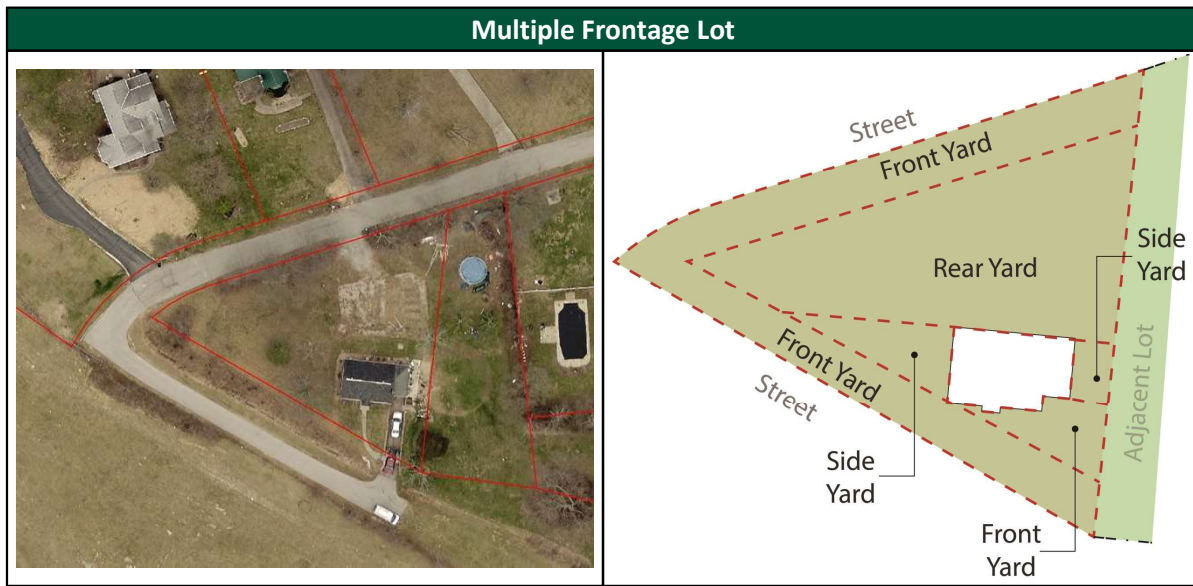
In the case of a(n):











Z

Zone - An established area within the jurisdiction for which the provisions of this ordinance are applicable.

14.03 Definitions for Flood Protection Development Standards

For the purpose of Flood Protection Development Standards (Section 8.04), the following definitions shall be used for the phrases and terms within that Section. If a phrase or term is not specifically defined below, then the definitions found in 14.02 shall be used or shall have their customary meaning as defined in a standard, common dictionary.

A

A Zone - Special Flood Hazard Areas inundated by the 1% annual chance flood (100-year flood). Base flood elevations (BFEs) are not determined.

Accessory structure (Appurtenant structure) - A structure located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Accessory structures should constitute a minimal initial investment, may not be used for human habitation, and should be designed to have minimal flood damage potential. Examples of accessory structures are detached garages, carports, storage sheds, pole barns, and hay sheds.

Accessory use - A use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

Addition (to an existing structure) - Any walled and roofed expansion to the perimeter or height of a structure.

AE zones - Special Flood Hazard Areas inundated by the 1% annual chance flood (100-year flood). Base flood elevations (BFEs) are determined.

AH zone - An area of 100-year shallow flooding where depths are between one and three feet (usually shallow ponding). Base flood elevations are determined.

AO zone - An area of 100-year shallow flooding where water depth is between one and three feet (usually sheet flow on sloping terrain). Flood depths are determined.

Appeal - A request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or from the floodplain administrator's ruling on a request for a variance.

AR/A1 – A30, AR/AE, AR/AH, AR/AO, and AR/A zones - Special Flood Hazard Areas (SFHAs) that result from the de-certification of a previously accredited flood protection system that is in the process of being restored to provide a 100-year or greater level of flood protection. After restoration is complete these areas will still experience residual flooding from other flooding sources.

A99 zone - That part of the SFHA inundated by the 100-year flood which is to be protected from the 100-year flood by a Federal flood protection system under construction. No base flood elevations are determined.

Area of shallow flooding - A designated AO or AH Zone on a community's Flood Insurance Rate Map (FIRM) where the base flood depths range from one to three feet, there is no clearly defined channel, the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

B

Base flood - A flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100 year flood"). Base flood is the term used throughout this ordinance.

Base Flood Elevation (BFE) - The elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, A1-30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, and AR/AO that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

Basement - Any area of a structure having its floor sub-grade (below ground level) on all sides.

Building - See Structure.

C

Community - A political entity having the authority to adopt and enforce floodplain ordinances for the area under its jurisdiction.

Community Rating System (CRS) - A program developed by the Federal Insurance Administration to provide incentives to those communities in the Regular Program to go beyond the minimum floodplain management requirements to develop extra measures for protection from flooding.

Community Flood Hazard Area (CFHA) - An area that has been determined by the Floodplain Administrator (or other delegated, designated, or qualified community official) from available technical studies, historical information, and other available and reliable sources, which may be subject to periodic inundation by floodwaters that can adversely affect the public health, safety and general welfare. This includes areas downstream from dams.

Critical facility - Any property that, if flooded, would result in severe consequences to public health and safety or a facility which, if unusable or unreachable because of flooding, would seriously and adversely affect the health and safety of the public. Critical facilities include, but are not limited to: housing likely to contain occupants not sufficiently mobile to avoid injury or death unaided during a flood; schools, nursing homes, hospitals, police, fire and emergency response installations, vehicle and equipment storage facilities, emergency operations centers likely to be called upon before, during and after a flood, public and private utility facilities important to maintaining or restoring normal services before, during and after a flood, and those facilities or installations which produce, use or store volatile, flammable, explosive, toxic and/or water-reactive materials, hazardous materials or hazardous waste.

D

D zone - An area in which the flood hazard is undetermined.

Development - Any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations, or storage of equipment or materials.

E

Elevated structure – For insurance purposes, a non-basement structure built to have the lowest floor elevated above ground level by foundation walls, shear walls, posts, piers, pilings or columns.

Elevation Certificate - A statement certified by a registered professional engineer or surveyor on the FEMA-approved form in effect at the time of certification that verifies a structure's elevation and other related information to verify compliance with this ordinance.

Emergency Program - The initial phase under which a community participates in the NFIP, intended to provide a first layer amount of insurance at subsidized rates on all insurable structures in that community before the effective date of the initial FIRM.

Enclosure - That portion of a structure below the lowest floor used solely for parking of vehicles, limited storage, or access to the structure.

Encroachment - The physical advance or infringement of uses, plant growth, fill, excavation, structures, or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

Existing construction - Any structure for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. Existing construction may also be referred to as existing structures.

Existing Manufactured Home Park or Subdivision - A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the first floodplain management ordinance adopted by a community.

Expansion to an existing Manufactured Home Park or Subdivision - The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

F

Five-Hundred Year Flood - The flood that has a 0.2 percent chance of being equaled or exceeded in any year. Areas subject to the 500-year flood have a moderate risk of flooding.

Flood or Flooding - A general and temporary condition of partial or complete inundation of normally dry land areas from:

- The overflow of inland or tidal waters.
- The unusual and rapid accumulation or runoff of surface waters from any source.
- Mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
- The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

Flood Boundary and Floodway Map (FBFM) - A map on which the Federal Emergency Management Agency (FEMA) has delineated the areas of flood hazards and the regulatory floodway.

Flood Hazard Boundary Map (FHBM) - A map on which the boundaries of the flood, mudslide (i.e. mudflow), and flood-related erosion areas having special hazards have been designated as Zones A, M, and/or E by the Federal Emergency Management Agency (FEMA).

Flood Insurance Rate Map (FIRM) - A map on which the Federal Emergency Management Agency (FEMA) has delineated special flood hazard areas and risk premium zones.

Flood Insurance Study - The report provided by the Federal Emergency Management Agency (FEMA) containing flood profiles, the Flood Insurance Rate Map (FIRM), and/or the Flood Boundary Floodway Map (FBFM), and the water surface elevation of the base flood.

Floodplain or flood-prone area - Any land area susceptible to being inundated by flood waters from any source.

Floodplain Administrator - The individual appointed by the community to administer and enforce the floodplain management ordinances.

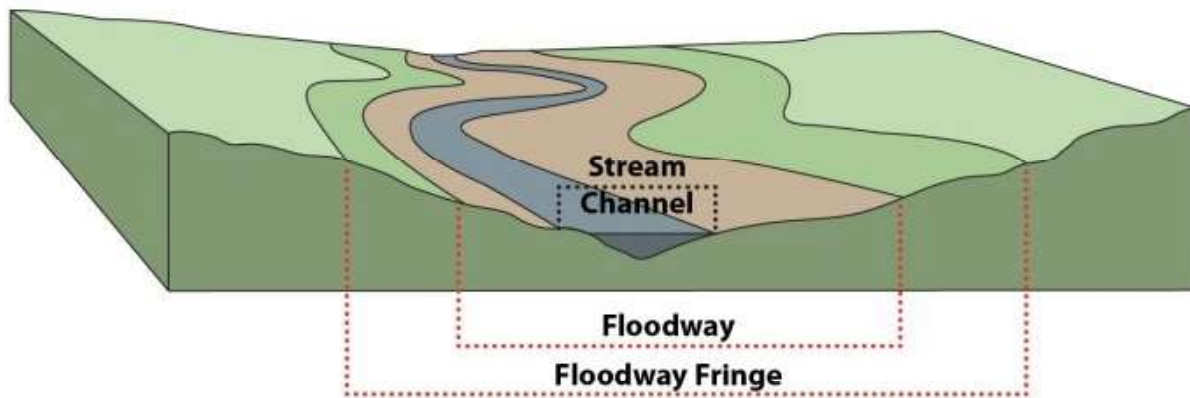
Floodplain Management - The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management ordinances, and open space plans.

Floodplain Management Regulations - This ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control), and other applications of police power, which control development in flood-prone areas. This term describes federal, state and/or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing - Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures, and their contents.

Floodproofing Certificate - A certification by a registered professional engineer or architect, the FEMA form in effect at the time of certification stating that a non-residential structure, together with attendant utilities and sanitary facilities is watertight to a specified design elevation with walls that are substantially impermeable to the passage of water and all structural components are capable of resisting hydrostatic and hydrodynamic flood forces, including the effects of buoyancy and anticipated debris impact forces.

Floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as the “regulatory floodway”.



Floodway fringe - That area of the floodplain on either side of the regulatory floodway.

Freeboard - A factor of safety, usually expressed in feet above the BFE, which is applied for the purposes of floodplain management. It is used to compensate for the many unknown factors that could contribute to flood heights greater than those calculated for the base flood. Freeboard must be applied not just to the elevation of the lowest floor or floodproofing level, but also to the level of protection provided to all components of the structure, such as building utilities, HVAC components, etc.

Fraud and Victimization - As related to Section 8.04, O., of this ordinance, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the County/City Council will consider the fact that every newly constructed structure adds to government responsibilities and remains a part of the community for fifty to one hundred years. Structures that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages may incur. In addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

Functionally dependent use facility - A facility, structure, or other development, which cannot be used for its intended purpose unless it is located or carried out in close proximity to water. The term includes only a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

Governing body - The local governing unit, i.e. county or municipality that is empowered to adopt and implement ordinances to provide for the public health, safety and general welfare of its citizenry.

H

Hazard potential - The possible adverse incremental consequences that result from the release of water or stored contents due to failure of a dam or misoperation of a dam or appurtenances. The hazard potential classification of a dam does not reflect in any way the current condition of a dam and its appurtenant structures (e.g. safety, structural integrity, flood routing capacity).

Highest adjacent grade - The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

Historic Structure - Any structure that is:

- Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district.
- Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - By an approved state program as determined by the Secretary of the Interior, or
 - Directly by the Secretary of the Interior in states without approved programs.

Hydrodynamic Load – A load that results from water flowing against and around a rigid structural element or system.

Hydrostatic Load – A load that results from pressure of a fluid at rest.

I

Increased Cost of Compliance (ICC) – Increased cost of compliance coverage means under the standard flood insurance policy the cost to repair a substantially flood damaged building that exceeds the minimal repair cost and that is required to bring a substantially damaged building into compliance with the local flood damage prevention ordinance. Acceptable mitigation measures are floodproofing (nonresidential), relocation, elevation, demolition, or any combination thereof.

ICC coverage is available on residential and non-residential buildings (this category includes public or government buildings, such as schools, libraries, and municipal buildings) insured under the NFIP.

J

[Reserved]

K

[Reserved]

L

Letter of Map Change (LOMC) – An official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps, Flood Boundary and Floodway Maps, and Flood Insurance Studies. LOMC's include the following categories:

- **Letter of Map Amendment (LOMA)** – A revision based on technical data showing that a property was inadvertently included in a designated SFHA. A LOMA amends the current effective FIRM and establishes that a specific property is not located in a SFHA.
- **Letter of Map Revision (LOMR)** - A revision based on technical data that, usually due to manmade changes, shows changes to flood zones, flood elevations, floodplain and floodway delineations, and planimetric features.
- **Letter of Map Revision – Based on Fill (LOMR-F)** – A determination that a structure or parcel has been elevated by properly placed engineered fill above the BFE and is, therefore, excluded from the SHFA.

Levee - A man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee System - A flood protection system that consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Limited storage - An area used for storage and intended to be limited to incidental items which can withstand exposure to the elements and have low flood damage potential. Such an area must be of flood resistant material, void of utilities except for essential lighting, and cannot be temperature controlled.

Lowest adjacent grade – The lowest elevation of the sidewalk, patio, attached garage, deck support, basement entryway or grade immediately next to the structure and after the completion of construction.

Lowest Floor - The lowest floor of the lowest enclosed area including basement. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, structure access, or storage in an area other than a basement area is not considered a structure's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

M

Manufactured Home - A structure, transportable in one or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected or attached to the required utilities. The term also includes park trailers, travel trailers, and similar transportable structures placed on a site for 180 consecutive days or longer and intended to be improved property. The term "manufactured home" does not include a "recreational vehicle" (see Recreational Vehicle).

Manufactured home park or subdivision - A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Map - The Flood Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a community issued by the Federal Emergency Management Agency (FEMA).

Map Panel Number - The four-digit number on a flood map, followed by a letter suffix, assigned by FEMA. The first four digits represent the map panel. The letter suffix represents the number of times the map panel has been revised. (The letter "A" is not used by FEMA, the letter "B" is the first revision.)

Market value - The property value (as agreed between a willing buyer and seller), excluding the value of the land as established by what the local real estate market will bear. Market value of the structure can be established by independent certified appraisal; replacement cost depreciated by age of structure (Actual Cash Value) or adjusted assessed values.

Mean Sea Level (MSL) - The average height of the sea for all stages of the tide. For the purposes of the National Flood Insurance Program, the MSL is used as a reference for establishing various elevations within the floodplain as shown on the community's FIRM. For purposes of this ordinance, the term is synonymous with either National Geodetic Vertical Datum (NGVD) of 1929 or North American Vertical Datum (NAVD) of 1988.

Mitigation - Sustained actions taken to reduce or eliminate long-term risk to people and property from hazards and their effects. The purpose of mitigation is twofold: to protect people and structures, and to minimize the costs of disaster response and recovery.

Mudslide (i.e. mudflow) - Describes a condition where there is a river, flow, or inundation of liquid mud down a hillside, usually as a result of a dual condition of loss of brush cover and the subsequent accumulation of water on the ground, preceded by a period of unusually heavy or sustained rain. A mudslide (i.e. mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the Floodplain Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

Mudslide (i.e. mudflow) area management - The operation of and overall program of corrective and preventative measures for reducing mudslide (i.e. mudflow) damage, including but not limited to emergency preparedness plans, mudslide control works, and floodplain management regulations.

Mudslide (i.e. mudflow) prone area - An area with land surfaces and slopes of unconsolidated material where the history, geology, and climate indicate a potential for mudflow.

N

National Flood Insurance Program (NFIP) - The federal program that makes flood insurance available to owners of property in participating communities nationwide through the cooperative efforts of the federal government and the private insurance industry.

National Geodetic Vertical Datum (NGVD) - As corrected in 1929, a vertical control used as a reference for establishing varying elevations within the floodplain. (Generally used as the vertical datum on the older FIRM's. Refer to FIRM legend panel for correct datum.)

New Construction - Structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision - A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

Non-Residential – Structures that are not designed for human habitation, including but is not limited to: small business concerns, churches, schools, farm structures (including grain bins and silos), pool houses, clubhouses, recreational structures, mercantile structures, agricultural and industrial structures, warehouses, and hotels or motels with normal room rentals for less than 6 months duration.

North American Vertical Datum (NAVD) – As corrected in 1988, a vertical control used as a reference for establishing varying elevations within the floodplain. (Generally used on the newer FIRM's and Digitally Referenced FIRM's (DFIRM's). (Refer to FIRM or DFIRM panel legend for correct datum.)

O

Obstruction - Includes but is not limited to any dam, wall, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, structure, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

One-Hundred Year Flood (100-Year Flood) - The flood that has a 1-percent or greater chance of being equaled or exceeded in any given year. Any flood zone that begins with the letter A is subject to inundation by the 100-year flood. Over the life of a 30-year loan, there is a 26-percent chance of experiencing such a flood with the SFHA. See Base Flood.

P

Participating Community - A community that voluntarily elects to participate in the NFIP by adopting and enforcing floodplain management regulations that are consistent with the standards of the NFIP.

Pre-FIRM Construction - New construction or substantial improvements for which start of construction occurred on or before December 31, 1974, or before the effective date of the initial FIRM of the community, whichever is later.

Post-FIRM Construction – New construction or substantial improvements for which start of construction occurred after December 31, 1974, or on or after the effective date of the initial FIRM of the community, whichever is later.

Probation – A FEMA imposed change in community's status resulting from violations and deficiencies in the administration and enforcement of the local floodplain management regulations.

Program Deficiency - A defect in a community's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management standards.

Public Safety and Nuisance - Anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

Q

[Reserved]

R

Recreational Vehicle - A vehicle that is:

- Built on a single chassis;
- 400 square feet or less when measured at the largest horizontal projection;
- Designed to be self-propelled or permanently towable to a light duty truck; and
- Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regular Program - The phase of a community's participation in the NFIP where more comprehensive floodplain management requirements are imposed and higher amounts of insurance are available based upon risk zones and flood elevations determined in the FIS.

Regulatory floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. See Base Flood.

Remedy a violation - The process by which a community brings a structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impact of non-compliance. Reduced impact may include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing state or federal financing exposure with regard to the structure or other development.

Repair - The reconstruction or renewal of any part of an existing structure.

Repetitive Loss - Flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damage occurred.

Repetitive Loss Property - Any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling 10-year period, since 1978. At least two of the claims must be more than ten days apart but, within ten years of each other. A RL property may or may not be currently insured by the NFIP.

Riverine - Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

S

Section 1316 - That section of the National Flood Insurance Act of 1968, as amended, which states that no new or renewal flood insurance coverage shall be provided for any property that the Administrator finds has been declared by a duly constituted state or local zoning authority or other authorized public body to be in violation of state or local laws, regulations, or ordinances that are intended to discourage or otherwise restrict land development or occupancy in flood-prone areas.

Severe Repetitive Loss Structure - Any insured property that has met at least one of the following paid flood loss criteria since 1978, regardless of ownership:

- Four or more separate claim payments of more than \$5,000 each (including building and contents payments); or

- Two or more separate claim payments (building payments only) where the total of the payments exceeds the current market value of the property.

In either case, two of the claim payments must have occurred within ten years of each other. Multiple losses at the same location within ten days of each other are counted as one loss, with the payment amounts added together.

Shallow Flooding - Flooding with an average depth limited to 3.0 feet or less where no defined channel exists.

Different types of shallow flooding commonly occur throughout the United States. Types of flows that result in shallow flooding include the following:

- Unconfined flows over broad, relatively low relief areas, such as alluvial plains;
- Intermittent flows in arid regions that have not developed a system of well-defined channels;
- Overbank flows which are independent from the main channel;
- Overland flow in urban areas; and
- Flows collecting in depressions to form ponding areas.

Sheet flow area - See Area of Shallow Flooding.

Special flood hazard area (SFHA) - That portion of the floodplain subject to inundation by the base flood and/or flood-related erosion hazards as shown on a FHBM or FIRM as Zone A, AE, A1 – A30, AH, AO, or AR.

Start of Construction (includes substantial improvement and other proposed new development) - The date a building permit is issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement or other improvement is within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure (including manufactured home) on a site, such as the pouring of slabs or footings, the installation of piles, construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; the installation on the property of accessory structures, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the structure.

Structure - A walled and roofed building, including gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Subdivision - Any division, for the purposes of sale, lease, or development, either on the installment plan or upon any and all other plans, terms and conditions, of any tract or parcel of land into two (2) or more lots or parcels.

Subrogation – A legal action brought by FEMA to recover insurance money paid out where all or part of the damage can be attributed to acts or omissions by a community or other third party.

Substantial Damage - Damage of any origin sustained by a structure whereby the cost of restoring the structure to it's before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement - Any reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during a 1-year period in which the cumulative percentage of improvements equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

- Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local Code Enforcement Official and which are the minimum necessary to assure safe living conditions, or;
- Any alteration of a “historic structure” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

Substantially improved existing manufactured home parks or subdivisions - Repair, reconstruction, rehabilitation, or improvement of the streets, utilities, and pads equaling or exceeding 50 percent of the value of the streets, utilities, and pads before the repair, reconstruction, or improvement commenced.

Suspension - Removal of a participating community from the NFIP for failure to enact or enforce floodplain management regulations required for participation in the NFIP.

T

[Reserved]

U

Utilities – Include, but not limited to, electrical, heating, ventilation, plumbing, and air conditioning equipment that service the structure and the site.

V

Variance - Relief from some or all of the requirements of this ordinance.

Violation - Failure of a structure or other development to fully comply with this ordinance. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

W

Watercourse - A lake, river, creek, stream, wash, channel or other topographic feature on or over which water flows at least periodically.

Water surface elevation - The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Watershed - All the area within a geographic boundary from which water, sediments, dissolved materials, and other transportable materials drain or are carried by water to a common outlet, such as a point on a larger stream, lake, or underlying aquifer.

X

X (shaded) and B zones - Areas of the 0.2% annual chance (500-year) flood that are outside of the SFHA, areas subject to the 100-year flood with average depths of less than one foot or with contributing drainage area less than 1 square mile, and areas protected by levees from the base flood

X (unshaded) and C zones - Areas determined to be outside the 500-year floodplain.

Y

[Reserved]

Z

Zone - A geographical area shown on a Flood Hazard Boundary Map or a Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

14.04 Definitions for Sexually Oriented Businesses

For the purpose of Sexually Oriented Businesses ([Article 9](#)), the following definitions shall be used for the phrases and terms within that Article. If a phrase or term is not specifically defined below, then the definitions found in [14.02](#) shall be used or shall have their customary meaning as defined in a standard, common dictionary.

A

[Reserved]

B

[Reserved]

C

Cabaret or Theater, Sexually-Oriented – A building or portion of a building which provides or allows the provision of sexually oriented entertainment to its customers or which holds itself out to the public as an establishment where sexually oriented entertainment is available. Signs, advertisements or an establishment name including verbal or pictorial allusions to sexual stimulation or gratification or by references to “adult entertainment,” “strippers,” “showgirls,” “exotic dancers,” “gentleman’s club,” “XXX” or similar terms, shall be considered evidence that an establishment holds itself out to the public as an establishment where sexually oriented entertainment is available.

Customer – Any person who:

- Is allowed to enter a business in return for the payment of an admission fee or any other form of consideration or gratuity;
- Enters a business and purchases, rents, or otherwise partakes of any material, merchandise, goods, entertainment, or other services offered therein; or
- Enters a business other than as an employee, vendor, service person, or delivery person.

D

Display Publicly – The act of exposing, placing, posting, exhibiting, or in any fashion displaying in any location, whether public or private, an item in such a manner that it may be readily seen and its content or character distinguished by normal unaided vision viewing it from a street, highway, or public sidewalk, or from the property of others or from any portion of the premises where items and material other than sexually oriented media are offered for sale or rent to the public.

E

Encounter Center, Sexually-oriented – A business or enterprise that, as one of its principal purposes, offers: physical contact between two or more persons when one or more of the persons is in a state of nudity or semi-nudity.

Entertainer, Sexually-oriented – Any person paid as an employee, contractor, subcontractor, or agent of the operator of a cabaret who frequently appears in a state of semi-nudity at any establishment regulated by this chapter.

Entertainment, Sexually-oriented – Any of the following activities, when performed by a sexually oriented entertainer at a sexually oriented business that is required to be licensed: dancing, singing, talking, modeling (including lingerie or photographic), gymnastics, acting, other forms of performing, or individual conversations with customers for which some type of remuneration is received.

Escort – A person who is held out to the public to be available for hire for monetary consideration in the form of a fee, commission, or salary, and who for said consideration consorts with or accompanies or offers to consort with or accompany, another or others to or about social affairs, entertainments, or places of amusement or within any place of public resort or within any private quarters, and shall include a “service oriented escort;” for purposes of this ordinance, the term “escort” shall not include any person who would be understood by a reasonably prudent person as providing “babysitting” services or working as an assisted living companion to the elderly, infirm, disabled, or handicapped, and shall further not include licensed health professionals.

Escort, Service Oriented – An escort that a) operates from an open office; b) does not advertise that sexual conduct will be provided to the patron or work for an escort bureau that so advertises; and c) does not offer to provide sexual conduct.

Escort Bureau, Service Oriented – An escort bureau that a) maintains an open office at an established place of business; b) otherwise operates in full accordance with the countywide licensing ordinance, Kenton County Ordinance No. 451.9, establishing licensing requirements for sexually oriented businesses and service-oriented escort bureaus, as such ordinance may be amended from time to time.

Escort, Sexually-oriented – An escort who: a) works for (either as an agent, employee, or independent contractor), or is referred to a patron by a sexually oriented escort bureau; b) either advertises that sexual conduct will be provided, or works for (either as an employee, agent, or independent contractor), or is referred to a patron by an escort bureau that so advertises; or c) offers to provide or does provide acts of sexual conduct to an escort patron, or accepts an offer or solicitation to provide acts of sexual conduct for a fee from an escort patron or a prospective escort patron.

Escort Bureau, Sexually-oriented – An escort bureau that operates in any of the following manners: a) engages in fraudulent, misleading, or deceptive advertising that is designed to make the prospective client believe that acts of prostitution (as defined under Kentucky law) will be provided; b) collects money (whether paid in advance or paid after the promised proscribed act) for the promise of acts of prostitution by its escorts; c) uses as escorts persons known to have violated the law regarding prostitution, and refuses to cease the use of such a person; d) operates an escort bureau as a “call girl” prostitution operation; e) advertises that sexual conduct will be provided to a patron or customer, or that escorts which provide such sexual conduct will be provided, referred, or introduced to a patron or customer; f) solicits, offers to provide, or does provide acts of sexual conduct to an escort patron or customer; or g) employs or contracts with a sexually oriented escort, or refers or provides to a patron a sexually oriented escort.

Establishment – Any business regulated by this Ordinance.

Explicit Sexual Material – Any pictorial or three-dimensional material depicting human masturbation, deviate sexual intercourse, sexual intercourse, direct physical stimulation of unclothed genitals, sadomasochistic abuse, or emphasizing the depiction of post-pubertal human genitals; provided, however, that works of art or material of anthropological significance shall not be deemed to fall within the foregoing definition.

F

Floor Area, Gross Public – The total area of the building accessible or visible to the public, including showrooms, motion picture theaters, motion picture arcades, service areas, behind-counter areas, storage areas visible from such other areas, restrooms (whether or not labeled “public”), areas used for cabaret or similar shows (including stage areas), plus aisles, hallways, and entryways serving such areas.

Frequently – Two or more times per month.

G

[Reserved]

H

[Reserved]

I

[Reserved]

J

[Reserved]

K

[Reserved]

L

[Reserved]

M

Massage – Touching, stroking, kneading, stretching, friction, percussion, and vibration, and includes holding, positioning, causing movement of the soft tissues and applying manual touch and pressure to the body (excluding an osseous tissue manipulation or adjustment).

Massage Parlor – Any business offering massages that is operated by a person who is not a state licensed “massage therapist” or that provides massages by persons who are not state licensed massage therapists.

Massage Therapy – The profession in which a certified massage therapist applies massage techniques with the intent of positively affecting the health and well-being of the client.

Massage Therapist – A person licensed as a massage therapist in accordance with the provisions of Kentucky Rev. Statutes §309.350 et seq.

Media – Anything printed or written, or any picture, drawing, photograph, motion picture, film, videotape or videotape production, or pictorial representation, or any electrical or electronic reproduction of anything that is or may be used as a means of communication. Media includes but shall not necessarily be limited to books, newspapers, magazines, movies, videos, sound recordings, CD-ROMS, DVDs, other magnetic media, and undeveloped pictures.

Media, Sexually-oriented – Magazines, books, videotapes, movies, slides, CDs, DVDs or other devices used to record computer images, or other media which are distinguished or characterized by their emphasis on matter depicting, describing, or relating to “specified sexual activities” or “specified anatomical areas.”

Media Store with some Sexually-oriented Media – A retail book, video or other media store that has sexually explicit media that constitutes more than 10 percent but not more than 40 percent of its inventory or that occupies more than 10 percent but not more than 40 percent of its gross public floor area.

Media Store, Sexually-oriented – An establishment that rents and/or sells sexually oriented media, and that meets any of the following three tests: a) More than forty percent (40%) of the gross public floor area is devoted to sexually oriented media; b) More than forty percent (40%) of the stock in trade consists of sexually oriented media; or c) It advertises or holds itself out in any forum as a “XXX,” “adult” or “sex” business, or otherwise as a sexually oriented business, other than sexually oriented media outlet, sexually oriented motion picture theater, or sexually oriented cabaret.

Modeling Studio, Sexually-oriented – An establishment or business that provides the services of live models modeling lingerie, bathing suits, or similar wear to individuals, couples, or small groups in a space smaller than 600 feet.

Motel, Sexually-oriented – A hotel, motel, or similar commercial establishment that meets any of the following criteria: a) Offers accommodations to the public for any form of consideration and provides patrons with sexually oriented entertainment or transmissions, films, motion pictures, video cassettes, slides, or other photographic reproductions that are characterized by the depiction or description of “specified sexual activities” or “specified anatomical areas;” or b) Marketed as or offered as “adult,” “XXX,” “couples,” or “sexually oriented.”

Motion Picture Arcade, Sexually-oriented – A building or portion of a building wherein coin-operated, slug-operated, or for any other form of consideration, electronically, electrically, or mechanically controlled still or motion picture machines, projectors, video or laser disc players, or other image-producing devices are maintained to show images of “specified sexual activities” or “specified anatomical areas.”

Motion Picture Arcade Booth, Sexually-oriented – Any booth, cubicle, stall, or compartment that is designed, constructed, or used to hold or seat customers and is used for presenting motion pictures or viewing publications by any photographic, electronic, magnetic, digital, or other means or medium (including, but not limited to, film, video or magnetic tape, laser disc, CD-ROMs, books, DVDs, magazines or periodicals) to show images of “specified sexual activities” or “specified anatomical areas” for observation by customers therein. The term “booth,” “arcade booth,” “preview booth,” and “video arcade booth” shall be synonymous with the term “motion picture arcade booth.”

Motion Picture Theater, Sexually-oriented – A commercial establishment where, for any form of consideration, films, motion pictures, video cassettes, slides, or similar photographic reproductions are frequently shown that are characterized by the depiction or description of “specified sexual activities” or “specified anatomical areas” or that are marketed as or offered as “adult,” “XXX,” or sexually oriented. Frequently shown films, motion pictures, videocassettes, slides or other similar photographic reproductions as characterized herein do not include sexually oriented speech and expressions that take place inside the context of some larger form of expression.

N

Nude Modeling Studio – Any place where a person who appears in a state of nudity or semi-nudity and is to be observed, sketched, drawn, painted, sculptured, photographed, or similarly depicted by other persons who pay money or any form of consideration. “Nude model studio” shall not include a proprietary school licensed by the Commonwealth of Kentucky or a college, junior college, or university supported entirely or in part by public taxation; a private college or university that maintains and operates educational programs in which credits are transferable to a college, junior college, or university supported entirely or partly by taxation.

Nudity or State of Nudity – The showing of the human male or female genitals, pubic area, vulva, anus, anal cleft or cleavage with less than a fully opaque covering, the showing of the female breast with less than a fully opaque covering of any part of the areola or nipple, or the showing of the covered male genitals in a discernibly turgid state. See, also, Semi-nude.

O

Operator – Any person operating, conducting, or maintaining a business regulated under [Article 9 Sexually-Oriented Businesses](#).

Owner(s) – The individual owner of an establishment, or if the legal owner is a corporation, partnership, or limited liability company, the term shall include all general partners, any limited partner with a financial interest of ten percent (10%) or more, all corporate officers and directors, and any shareholder or member with a financial interest of ten percent (10%) or more. “Owner” includes the spouse(s) of any of the above individuals.

P

Person – An individual, firm, partnership, joint-venture, association, independent contractor, corporation (domestic or foreign), limited liability company, trust, estate, assignee, receiver or any other group or combination acting as a unit.

Premises – The physical location at which a business operates; as used in [Article 9 Sexually-Oriented Businesses](#), the term shall include all parts of that physical location, both interior and exterior, which are under the control of the subject business, through ownership, lease or other arrangement.

Primary Entertainment – Entertainment that characterizes the establishment, as determined (if necessary) from a pattern of advertising case well as actual performances.

Protected Land Use – Residential zoning district, school, religious institution, park, library, public recreation area, or day care center.

Public Area – A portion of a sexually oriented business, excluding sexually oriented motels, that is accessible to the customer, excluding restrooms, while the business is open for business.

Q

[Reserved]

R

[Reserved]

S

Sadomasochistic Practices – Flagellation or torture by or upon a person clothed or naked, or the condition of being fettered, bound, or otherwise physically restrained on the part of one so clothed or naked.

Semi-nude or in a Semi-nude Condition – The showing of the female breast below a horizontal line across the top of the areola at its highest point. This definition shall include the entire lower portion of the human female breast, but shall not include any portion of the cleavage of the human female breast, exhibited by a dress, blouse, skirt, leotard, bathing suit, or other apparel, provided the areola is not exposed in whole or in part.

Sex Shop – An establishment offering goods for sale or rent and that meets any of the following tests: a) It offers for sale items from any two (2) of the following categories: sexually oriented media; lingerie; leather goods marketed or presented in a context to suggest their use for sadomasochistic practices; sexually oriented novelties; and the combination of such items constitute more than ten percent (10%) of its stock in trade or occupies more than 10 percent (10%) of its floor area; b) More than five percent (5%) of its stock in trade consists of sexually-oriented toys or novelties; or c) More than five percent (5%) of its gross public floor area is devoted to the display of sexually oriented toys or novelties.

Sexually-oriented Business – An inclusive term used to describe collectively the following businesses: sexually oriented cabaret or theater; sexually oriented entertainment; sexually oriented motion picture theater; sexually oriented motion picture arcade; sexually oriented encounter center; sexually oriented media store; sexually oriented escort bureau; bathhouse; massage parlor; sex shop; sexually oriented modeling studio; or any other such business establishment whose primary purpose is to offer sexually oriented entertainment or materials. This collective term does not describe a specific land use and shall not be considered a single use category for purposes of the County or any applicable municipal zoning code or other applicable ordinances.

Sexually-oriented Business License – Any license applied for under the countywide licensing ordinance, Kenton County Ordinance No. 451.9 as amended, establishing licensing requirements for sexually oriented businesses and service-oriented escort bureaus, adopted in 2004.

Sexually Oriented Toys or Novelties – Instruments, devices, or paraphernalia either designed as representations of human genital organs or female breasts or designed or marketed primarily for use to stimulate human genital organs.

Specified Anatomical Areas – Include: a) Less than completely and opaquely covered human genitals, pubic region, or the areola or nipple of the female breast; b) Human male genitals in a discernibly turgid state, even if completely and opaquely covered; and c) Areas of the human anatomy included in the definitions of “nude” or “nudity.”

Specified Sexual Activities – Acts of human masturbation, sexual intercourse, or sodomy. These activities include, but are not limited to the following: bestiality, erotic or sexual stimulation with objects or mechanical devices, acts of human anilingus, cunnilingus, fellatio, flagellation, masturbation, sadism, sadomasochism, sexual intercourse, sodomy, or any excretory functions as part of or in connection with any of the activities set forth above with any person on the premises. This definition shall include apparent sexual stimulation of another person’s genitals whether clothed or unclothed.

T

[Reserved]

U

[Reserved]

V

[Reserved]

W

[Reserved]

X

[Reserved]

Y

[Reserved]

Z

[Reserved]

ARTICLE 15 APPENDICES

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- A. The City of Villa Hills, after consultation among the mayors, councils, commissioners and staffs of the municipalities and the county within the County, found that a substantial need exists to revise significantly the ordinances regarding sexually oriented businesses within Kenton County.
- B. The City of Villa Hills, in association with the Planning and Development Services of Kenton County and the Fiscal Court of adjacent Campbell County its cities in the Northern Kentucky Community, retained Duncan Associates to conduct a study of existing sexually oriented uses and related businesses in Kenton and Campbell Counties, which is part of a single, larger community.
- C. Duncan Associates assigned two nationally-known planners, Eric Damian Kelly, FAICP and Connie B. Cooper, FAICP, to conduct that study
- D. Kelly and Cooper have completed that study, including the following elements:
 - 1. Field study, involving visits to all identified existing sexually oriented businesses in Kenton and Campbell Counties;
 - 2. Meetings with stakeholder groups involved in these businesses;
 - 3. Consultation with the Kenton County, Campbell County Attorney, and the city attorneys for certain cities, and the community at large on this issue;
 - 4. Consultation with the professional staff of the PDS on this issue;
 - 5. Review of studies and litigation concerning sexually oriented businesses in other communities;
 - 6. Investigation of regulatory approaches to massage therapy;
 - 7. Review of existing ordinances in Kenton and Campbell Counties;
 - 8. Review of similar ordinances in a number of communities outside the Commonwealth of Kentucky;
 - 9. Review of Kentucky statutes related to regulating sexually oriented businesses.
- E. Duncan Associates has summarized this work and presented recommendations to PDS and Kenton and Campbell Counties and their cities in an August 2003 report entitled "Site Visit Analysis: Sexually Oriented and Related Businesses in Kenton and Campbell Counties" (hereinafter called simply the "Kelly and Cooper Study").
- F. That study has also been made available to the legislative bodies of Kenton and Campbell Counties for their consideration and use.
- G. That study has been accepted and used by the Fiscal Court of Kenton County in adopting the countywide licensing ordinance, Kenton County Ordinance No. 451.9, as amended, establishing licensing requirements for sexually oriented businesses and service oriented escort bureaus in 2004.
- H. The United States Supreme Court in *City of Renton v. Playtime Theater, Inc.*, 475 U.S. 41 (1986), held that local governments may rely upon the experiences of other cities as well as on its own studies in enacting local legislation to regulate sexually oriented businesses;
- I. The United States Supreme Court in *Renton* and other cases has held that a local government may regulate such uses through content-neutral, time, place, and manner restrictions, so long as

said regulations are designed to serve the government interest and do not unreasonably omit avenues of communication, and are aimed not at the content of protected speech within said establishments but rather at the secondary effects of said establishments on the surrounding communities.

- J. The study by Kelly and Cooper found extensive physical interaction between patrons and dancers at many of the establishments in both Kenton and Campbell Counties.
- K. Covington, the only municipality in Kenton County that has had sexually oriented businesses within its border, from January 1, 2002, to February 11, 2004, the police made a total of 469 calls to sexually oriented businesses in the city. The crimes committed at these establishments during this time period included robbery, assault, fraud, malicious mischief, public intoxication, and possession of illegal drugs. In addition, on June 13, 2003, Covington police arrested three individuals for prostitution-related charges at Liberty's Show Lounge, a sexually oriented cabaret in the city.
- L. As the Sixth Circuit Court of Appeals noted in a decision addressing issues related to the Adult Entertainment ordinance in the City of Newport (Campbell County), there is a long history underlying efforts to regulate sex businesses in Northern Kentucky:

Defendant City of Newport ("City" or "Newport") long ago gained a reputation as home to a veritable smorgasbord of vice, attracting patrons from across the nation. For decades, the small city was considered the Midwest's answer to Las Vegas, and leaders of organized crime were said to operate its gambling casinos and nightclubs.

In the 1960's, public pressure began to demand that Newport be cleaned up. This pressure has continued until the present, with varying degrees of success.

A 1986 report generated by the Newport Alcoholic Beverage Control Administrator indicated that of 28 adult bars opened since 1978 (including successive bars at the same site), 21 had had at least one prostitution-related conviction, and 18 had had multiple convictions. Def. Ex. K, p. 2. The report explained that "all of the prostitution in businesses with adult entertainment involved an alcoholic beverage as the median [sic] of exchange and the solicitation of such drinks by 'mixers.'" Id. In all, 98% of prostitution arrests in Newport occurred in the vicinity of these bars. Id. Adult entertainment establishments, which constituted 12% of all businesses serving alcohol, accounted for 17% of all police runs. Def. Ex. K, p. 21.

A later review, conducted in 1990 by the Newport License Inspector, documented the continued prostitution arrests occurring at several adult dancing establishments. Def. Ex. G. Moreover, the City determined that over \$ 70,000 was expended in 1990 to target, patrol and prosecute the illicit behavior occurring in and around the bars. Def. Ex. H.

Several of Newport's citizens, merchants and church groups also opposed the presence of the semi-nude dancing clubs. These groups generally believed that the adult entertainment clubs were "clouds over [the] neighborhood that keep [it] from growing in the [right] direction." See Def. Ex. I (letter to Mayor from Taylors Landing Business District). Complaints commonly expressed were that the seamy establishments deterred other merchants from locating in Newport's business district, deterred shoppers, served a poor example for the City's youth, and generally tarnished the City's image. Id.

Bright Lights, Inc., v. City of Newport, 830 F. Supp. 378, 380-81 (E. D. Ky. 1993).

Based on those findings, the court went on to hold in relevant part:

Having considered the matter carefully, the court concludes that some leeway must be afforded the reform efforts of the City Council of Newport. This body has been elected by the citizens to attempt to “clean up the image” of the City.

To do this, it must overcome the sleazy impression of Newport and Northern Kentucky that survives from “the heyday” when things ran wide open; reform candidates were literally drugged and framed for morals offenses by public officials and police officers; the members of reform citizens groups were vilified and harassed; and a “liberal” in local parlance was a person favoring the continued open and notorious violation of the gambling and morals laws.

To illustrate that the Council’s perception of a need to clean up the image of the City is not paranoid, the court notes the following statements in a national magazine’s satirical Chapter on Newport’s big sister, the city of Cincinnati.

“The city’s streets fairly shine; the odd litterer draws a scornful stare. Wide avenues, bosky side streets, the most inviting of thoroughfares. And clean. So clean. No X-rated movie theaters, no adult-book stores, no bare-breasted night joints soil these streets, all of them long ago jettisoned over to the Kentucky side of the river.”

Peter Richmond, “Town Without Pity,” *Gentlemen’s Quarterly*, July 1993, at 102, 104.

This court holds that the City of Newport has the right to secede as Cincinnati’s combat zone.

The court holds that the City has “an important and substantial governmental interest” in advancing these reform goals, which interest is furthered by the ordinances in question. *Barnes*, 111 S. Ct. at 2461. The court further finds and holds that in the case of the City of Newport, given its unique history, the ordinances’ “incidental restriction on alleged First Amendment freedoms is no greater than is essential to the furtherance of that interest.” *Id.* (quoting *O’Brien*, 391 U.S. at 376-77, 88 S. Ct. at 1678-79).

Newport’s image affects that of all of Northern Kentucky, a community of nearly 300,000 people. That City and its community have the right to project a progressive and decent image. The nudity ordinances contribute to the enhancement of this interest and will be upheld. 830 F.Supp. at 384;

- M. The Supreme Court had earlier noted in upholding another regulation in Newport, “it is plain that, as in *Bellanca*, the interest in maintaining order outweighs the interest in free expression by dancing nude.” *Newport v. Iacobucci*, 479 U.S. 92, 97, 93 L. Ed. 2d 334, 340, 107 S. Ct. 383, 386 (1986). Although the significance of the opinion itself is now questionable (see *J&B Social Club # 1 v. City of Mobile*, 966 F. Supp. 1131, 1135 (S.D. Ala. 1996)), the quoted part of the opinion stands unchallenged.
- N. The cities of Covington and Newport continue their efforts to improve their image. Since 1985, Covington has redeveloped its riverfront, creating several new office towers, high-end condominiums, hotels, and a convention center. In Newport, in conjunction with private development and Southbank Partners, Inc., the City has built a major entertainment center along the river. This initiative has promoted improved pedestrian and transit connections in Northern Kentucky’s river cities to and from the stadiums and other attractions along the Cincinnati riverfront.
- O. Despite these efforts, the areas of downtown Covington and Newport away from the riverfront continue to suffer in many ways. The study by Kelly and Cooper found in the area near to existing sexually oriented uses a number of building vacancies and building maintenance falling far short of that found in the revitalized areas near the river.

- P. The City of Villa Hills respects the Constitutional rights of its citizens, including the right to present certain types of entertainment that may not appeal to the entire population. Through this ordinance, it is the desire of the City of Villa Hills to balance the Constitutional rights of businesses that present sexually oriented entertainment with the City of Villa Hills interests in ensuring that this community not suffer from the same sorts of adverse effects that Covington and Newport have long suffered.
- Q. From long experience in Covington and Newport, as well as from the following studies and others not listed, the City of Villa Hills also finds that such businesses may have primary and secondary effects involving crimes related to the activities in the establishments, of which prostitution and crimes of violence are those of greatest concern. See for example:
1. "Final Report to the City of Garden Grove: The Relationship between Crime and Adult Business Operations on Garden Grove Boulevard," Richard W. McCleary, Ph.D., James W. Meeker, J.D., Ph.D., October 23, 1991.
 2. "Survey of Appraisers: Fort Worth and Dallas – Effects of Land Uses on Surrounding Property Values," Duncan Associates, Eric Damian Kelly, FAICP, and Connie B. Cooper, FAICP, September 2004.
 3. "Adult Entertainment Businesses in Indianapolis, An Analysis," 1984.
 4. "Adult Business Study," by City of Phoenix Planning Department, May 25, 1979.
 5. "Effects on Surrounding Area of Adult Entertainment Businesses in Saint Paul," June 1978, City of Saint Paul Division of Planning, Department of Planning and Management; and Community Crime Prevention Project, Minnesota Crime Control Planning Board.
 6. "Staff Report, Whittier City Planning Commission; Subject: Adult Business Regulations," July 11, 1994.
 7. "Adult Entertainment Study," Department of City Planning, City of New York, Second Printing, November 1994.
 8. "Adult Use Study," Newport News Department of Planning and Development, March 1996.
 9. "A Report on the Secondary Impact of Adult Use Businesses in the City of Denver," prepared by multiple city departments for Denver City Council, January 1998.
 10. "Survey of Appraisers in Monroe County, New York," Summer 2000. For detailed results of the survey, see Kelly and Cooper, Everything You Always Wanted to Know about Regulating Sex Businesses, Planning Advisory Service Report No. 495-96. Chicago: American Planning Association, 2000; pages 51-57.
 11. The Tucson "study" consisting of two memos: one from the Citizens Advisory Planning Committee, addressed to the Mayor and City Council, and dated May 14, 1990; and the other from an Assistant Chief of Police to the City Prosecutor, regarding "Adult Entertainment Ordinance," dated May 1, 1990.
- R. The City of Villa Hills recognizes that some of the cited studies included bars without sexually oriented entertainment among the businesses studied; the City of Villa Hills finds, nevertheless, that addressing the establishments that have live, sexually oriented entertainment is a more critical local issue than that of bars without such entertainment, for three reasons:
1. Bars in Kentucky are already regulated by the Commonwealth, and those state regulations directly address many of the concerns that arise with the service of alcohol;
 2. The local history of prostitution and sex-related crimes has largely been related to businesses with live, sexually oriented entertainment, and not with other establishments that serve alcohol; and

3. The interaction between dancers who are paid to work with very limited clothing and the customers who pay to see them work in the establishments with live entertainment creates a sexually charged environment and the opportunity to negotiate for the provision of additional services that do not involve dancing or other protected expression and that are simply unacceptable under the standards of the County and its citizens.
- S. As noted earlier in these findings, there is a long local history of prostitution and sex-related crimes at or incident to the operation of establishments with live, sexually oriented entertainment. Further, the studies shown herein provide further evidence of the potential crime-related secondary effects from such businesses. Although the methodologies and quality of these studies vary somewhat, local experience has demonstrated to the City of Villa Hills that the relationship between crime and such establishments is a fact in Northern Kentucky and not just a theory published in a study.
- T. The City of Villa Hills has reviewed evidence and testimony presented at public meetings before the County, and information based on the past experiences of the Kenton and Campbell Counties and the cities of Covington and Newport, the experiences of the County Attorneys' offices prosecuting numerous and varied offenses that have occurred in and around the sexually oriented entertainment establishments, and based upon the documented experiences of other governmental units within Kentucky and elsewhere in dealing with the impact of sexually oriented entertainment, that such businesses can, if not properly regulated, be deleterious to said community.
- U. The City of Villa Hills finds that the countywide licensing ordinance related to sexually oriented businesses and service oriented escort bureaus adopted by the Fiscal Court of Kenton County is an effective tool for addressing the many operational issues that can arise with such businesses.
- V. The City of Villa Hills finds that amendments to the Zoning Ordinance regarding the location and design of such businesses are important variables in the nature and extent of adverse secondary effects of sexually oriented businesses on the community, and further finds that location and design are among the types of issues that are typically addressed through zoning.
- W. Based on the recommendations of Kelly and Cooper, which are based on their experience in other communities and their review of the studies cited above and other local efforts to address such secondary effects, the City of Villa Hills finds that the following principles are essential to effective zoning controls of sexually oriented businesses:
 1. Sexually oriented businesses should, to the maximum extent practicable, be separated from one another by a distance that is greater than a convenient walking distance, because experience elsewhere has shown that the location of such businesses near one another may increase the adverse secondary effects, particularly those related to crime, by a greater than arithmetic factor;
 2. Although there are currently several such businesses located near one another in Covington's downtown area, the Covington City Commission has determined that the City will not attempt to require these existing businesses be relocated;
 3. Sexually oriented businesses have the greatest adverse effect on residential neighborhoods and should thus be separated to the maximum extent practicable from residential neighborhoods;
 4. Sexually oriented businesses are likely to attract criminal elements that prey on "soft targets," including children, and it is thus important to separate sexually oriented businesses from schools, parks, recreation centers, and religious institutions, all of which are places where children are likely to congregate, often without parental protection;

5. Also because of the tendency of sexually oriented businesses to attract criminal elements that prey on soft targets, it is important to seek locations for such businesses that are not located along pedestrian routes, where young people, old people and others who are vulnerable, are likely to walk in going about their day-to-day business. Thus, locations to which the primary access is by automobile minimize the risk of persons going about their daily business encountering persons who are visiting or even loitering around the sexually oriented business;
 6. Experiences in other communities show that private booths, back rooms, “VIP” rooms and other small and private spaces in sexually oriented businesses create the opportunity for casual sexual activity and create logistical difficulties and risks of physical endangerment for police officers responsible for dealing with such activities. For that reason, it is essential that movies, performances and other activities at sexually oriented businesses should be permitted only in large rooms that are open and visible to management, other patrons and code and police officers who may visit the establishment during operating hours.
- X. FINDINGS: The facts and other matters set forth in the previous clauses that form the preamble to this ordinance are hereby adopted as findings of fact in support of the legislative action of the City of Villa Hills in adopting this amendment to the Zoning Ordinance. Upon adoption of this zoning amendment, these shall be incorporated into the Zoning Code by reference as if fully set forth therein to the adopting Resolution.

Appendix 15.02 Preamble to the Sign Regulations

The purpose of [Article 11, Signs](#), is to establish a comprehensive scheme for the regulation of signs within the jurisdiction of the City. These regulations are designed to protect and promote the public health, safety and welfare by controlling the type, number, location and physical dimensions of signs, to prevent the disruptions, obstructions and hazards to vehicular and pedestrian traffic that signs may cause, and to enhance the quality of the environment in residential and nonresidential districts. As a basis for adopting these regulations, the City finds:

- A. Signs are an essential form of communication in the built environment, providing way-finding guides to residents, visitors, public safety officials, customers and potential customers of local businesses, delivery people and others.
- B. Signs also provide communication on public issues, as the U.S. Supreme Court found in *City of LaDue v. Gilleo*: Signs that react to a local happening or express a view on a controversial issue both reflect and animate change in the life of a community. Often placed on lawns or in windows, residential signs play an important part in political campaigns, during which they are displayed to signal the resident’s support for particular candidates, parties, or causes. They may not afford the same opportunities for conveying complex ideas as do other media, but residential signs have long been an important and distinct medium of expression.
- C. Retailers and other businesses depend on signs to help people find their businesses, and, in a large and expensive media market like that of Cincinnati (a market which includes City), many small businesses depend on signs as one of the most affordable forms of advertising.
- D. Although signs thus serve many important purposes in society in general and in Kenton County in particular, there are other considerations that the City Council weighs heavily.
- E. Signs may distract drivers and lead to deaths and injuries to pedestrians and cyclists as well as to drivers and passengers and to property damage. Moving, flashing and rapidly changing signs are particularly distracting to drivers. A proliferation of signs on a particular site can have the same

effect as moving signs, as drivers try to sort through the visual cacophony to find the information that they want or need.

- F. The City Council, with the advice of the Kenton County Planning Commission and its professional staff, and with input from residents through the Direction 2030. planning process, has placed an increasing emphasis on preserving the sense of place and the design of the built environment; limiting the size, height and number of signs is an important tool in preserving a sense of place, a tool that accompanies the City's standards for landscaping.
- G. Direction 2030 recommends that policies, regulations and incentives be developed and implemented that preserve and improve the existing community fabric.
- H. Balancing these competing considerations is particularly difficult in residential areas, where people value both their pleasing and visually appealing environments and their ability to communicate their opinions regarding candidates and public issues through yard signs.
- I. In updating its ordinance in 2016 after the Supreme Court's landmark decision in *Reed v. Town of Gilbert*, the City Council, working with Planning and Development Services (PDS) staff and an outside consultant, has made a major effort to limit content as a factor in its sign regulations. After due consideration, however, it has concluded that one way to leave room for extensive free expression through signs in residential areas while limiting total sign clutter is to maintain significant limits on commercial signs in residential areas. Recognizing the importance of "for sale" and "for lease" signs in maintaining the occupancy of healthy neighborhoods (see the U.S. Supreme Court decision in *Linmark Associates, Inc. v. Willingboro*), those signs must remain. There is a similar utility in providing for yard sale signs, which allow people to dispose of unwanted items without sending them to a landfill.
- J. Although as the Court found in *Reed v. Gilbert*, time limits on signs can be arbitrary, as the Court recognized in 2009 in *Pleasant Grove v. City of Summum*, a significant distinction between speakers expressing an opinion and signs is that "Speakers, however long-winded, will eventually come to the end of their remarks." Members of the City Council have long noted that signs for political campaigns as well as those advertising pancake breakfasts and spaghetti dinners for civic organizations are often abandoned after the events, contributing to clutter long after they have served their purpose. Although such signs were once typically paper or cardboard that would eventually decay, many today are plastic and will remain until removed. Thus, despite the expressed concern of the Supreme Court with time limits, the City Council finds that it has a substantial governmental interest in clarifying the status of signs for past events that thus no longer serve a purpose so that there is a legal basis for the City to remove them or force their removal.
- K. The City has long allowed unlimited numbers of small signs bearing non-commercial messages to allow merchants and others to designate handicapped parking places, provide directions to ATMs and restrooms, warn of guard dogs and other hazards and provide a variety of other place-based information. With the prohibition of commercial messages on such signs, it has been the observation of City Council members and their professional staff members that property owners are judicious and appropriate in posting such signs. The City thus finds that it has a substantial interest in allowing merchants and property owners freely to post necessary informational signs but without allowing an endless proliferation of commercial messages.
- L. Although in findings above the City Council has recognized the multiple values of signs in the built environment, the City officials after consultation with the Planning Commission and representatives of cities and towns in the County concluded several years ago that there is no place for signs of overwhelming size and no relation to context in an urban and urbanizing environment like the City. Although previous versions of these regulations followed the pattern

of state and federal laws by defining such billboard as “off-site” signs, this Ordinance addresses the same issue by establishing a form of circuit breaker size limit, prohibiting very large signs on small lots, on vacant lots, or on lots with only small buildings.

- M. These are complex public policy issues, and the City Council, with the help of its professional planners, attorneys and outside consultant, has attempted to balance the competing considerations in a way that it believes best protects the public health, safety and welfare of the citizens of City, including its many valued businesses and the tens of thousands of visitors who arrive or pass through the City Council each month.

Appendix 15.03 Specifications For Paving of Off-Street Parking and Loading Areas

All new off-street parking facilities shall be paved with asphalt or Portland cement concrete and shall be designed and constructed in accordance with the standards and procedures herein established.

A. Asphalt Concrete Pavement

1. General Design Requirements

- a. Asphalt concrete pavements shall consist of specified thickness of asphalt concrete surface course and a base course, or courses, all constructed on prepared subgrade. Required pavement thickness shall be determined from Table 15.05-1 of the appropriate subgrade soil and traffic use.
- b. Paved areas shall be so designed and constructed that water will quickly drain from the surface and be conducted away from the area through approved systems. Transverse and/or longitudinal slopes of not less than 5/8 inch in 10 feet shall be provided. For large paved areas, approved catch basins and storm drainage systems shall be provided.
- c. When the pavement includes a granular base, and the pavement is not constructed over granular subgrade, perimeter subsurface drainage shall be provided to prevent lateral flow of water into the base course and to provide for removal of seepage water that may enter the base.
- d. Successive layers of the pavement shall be offset from the edge of the underlying layer a distance equal to the course thickness of the lower layer, except when abutting existing construction. When the asphalt layers of the pavement abut a building foundation, barrier curb, or similar vertical surface, the abutting surface shall be heavily painted with asphalt prior to construction of the asphalt course. The surface course shall be finished 1/4 inch above adjacent flush construction to permit proper compaction.

2. Construction Materials and Procedures

- a. Base courses shall consist of the following materials. Construction procedures shall conform to the requirements applicable to the base course selected.
 1. Asphalt Concrete Base Course - Materials and construction shall conform to the current requirements of the Kentucky Department of Transportation, Bureau of Highways', Specifications for Asphalt Concrete Base Course, Sections 401, 403, except as noted herein.
- b. Crushed Stone Base Course - Crushed stone base course shall conform to all the current requirements of the Kentucky Department of Transportation, Bureau of Highways, for Dense Graded Aggregate Base Course, Section 303.

- c. Asphalt Concrete Surface Course - Materials and construction shall conform to the current requirements of the Kentucky Department of Transportation, Bureau of Highways, for Asphalt Concrete Surface, Type B, State Highway Designation Section 401, 402.
- d. Asphalt Prime and Tack Coat
 1. Asphalt Prime shall conform to the Kentucky Department of Transportation, Bureau of Highways' requirements for Cutback Asphalt Emulsion Primer, Type L, as per Section 407. Prime shall be applied to the surface of granular base course at a rate of 0.25 to 0.50 gallons per square yard, as directed by the legislative body's engineer or inspector.
 2. Tack Coat (SS-1h) shall meet the requirements of the Kentucky Department of Transportation, Bureau of Highways, as per Section 407. It shall be diluted with equal parts of water, when directed by the inspector. Tack coat shall be applied, upon direction of the legislative body's engineer, to the surface of asphalt courses that have become dusty or dry, at a rate of 0.10 gallons per square yard of the diluted SS-1h before the subsequent course is constructed.

B. Concrete Paving for Parking and Access Drive Areas

1. General Requirements - Thickness of concrete parking and access drives shall be:
 - a. A minimum of four (4) inches for driveways and parking areas serving single and two-family dwellings.
 - b. A minimum of five (5) inches for passenger cars and panel or pickup trucks serving industrial, commercial, and multi-family areas.
 - c. A minimum of six (6) inches for light trucks serving industrial, commercial, and multi-family residential areas.
 - d. A minimum of seven (7) inches for heavier commercial or industrial needs.
2. General Requirements - Concrete Paving
 - a. Minimum Cement Content - 564 lb./cu.yd. of concrete (6 U.S. bags).
 - b. Maximum Size of Aggregate - 1-1/4 inches.
 - c. Maximum Water Content - 0.49 lb./1 lb. of cement (5.5 gal./ bag).
 - d. Maximum Slump - five (5) inches when using hand-finishing techniques, three (3) inches when using a mechanical finishing machine.
 - e. Strength of Concrete - The concrete shall attain a minimum expected strength of concrete at 28 days of 3,500 pounds per square inch compressive strength and/or 550 pounds per square inch flexural strength "modulus of rupture".
 - f. Air Entrainment

MAXIMUM SIZE	ENTRAINED
Aggregate (inches)	Air (percent)
1 - 1/4	5 + 1
3/4, 1	6 + 1
3/8, 1/2	7-1/2 + 1

3. Construction Procedures

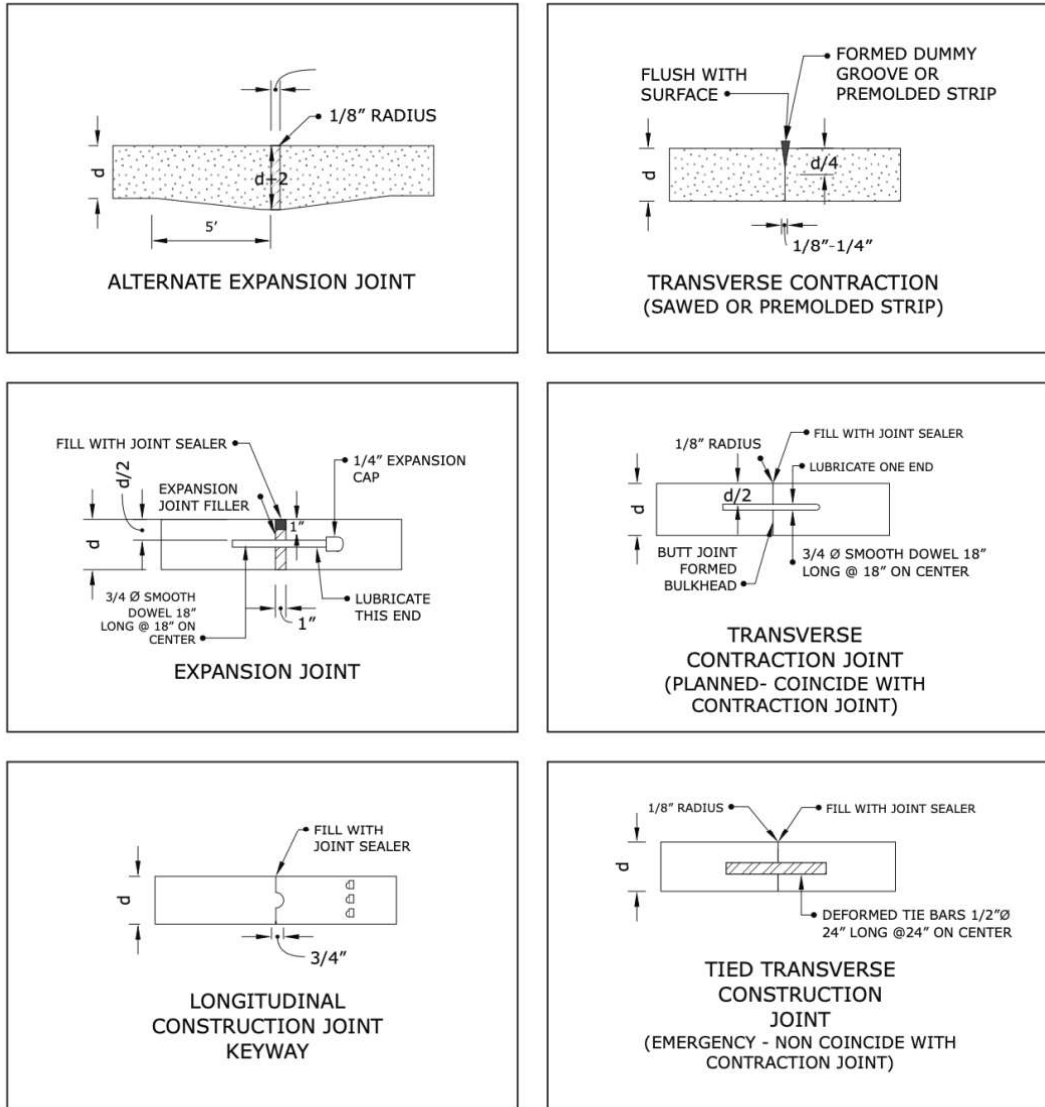
- a. All soft and yielding material and other portions of the subgrade which will not compact readily when rolled or taped, shall be removed and replaced with suitable material, placed and compacted. The subgrade shall be thoroughly compacted with suitable equipment so as to have uniform density at moisture contents of not less than standard optimum (AASHTO-T98).
- b. Longitudinal joint spacing shall not exceed 15 feet and be designed in accordance with the joint details in Figure 15.05-2.
- c. Transverse joint spacings shall be at regular intervals of twenty (20) feet.
- d. All transverse construction joints shall be designed in accordance with the joint details in Figure 15.05-2.
- e. Form offsets at radius points shall be at least two (2) feet.
- f. Pavement joints must be continuous through the curbs.
- g. Where curbs are required, they shall be cast integrally.
- h. The pavement shall be struck-off, consolidated, and finished, to the grades shown on the plans. All catch basins and manhole castings shall be boxed out and separated from the pavement with expansion joint material. All except premolded or sawed joints shall be edged with a tool having a maximum radius of 1/8 inch. Sawed and formed joints shall be cleaned and sealed before opening to traffic. Final surface texture shall be that obtained with a burlap drag. Curing shall be that obtained with a uniform coverage of white membrane curing compound or by seven-day coverage of white polyethylene or waterproof paper. The completed pavement shall be closed to traffic for at least fourteen (14) days or by the time it has attained a compressive strength of 3,500 pounds per square inch and/or 550 pounds per square inch flexural strength. This traffic restriction shall apply to the contractor's construction equipment and vehicles, as well as general traffic.

TABLE 15.03-1
THICKNESS REQUIREMENTS OF SURFACE AND BASE COURSES FOR
AUTOMOBILE AND TRUCK PARKING FACILITY PAVEMENTS

VEHICLE TYPE	FULL DEPTH ASPHALT CONCRETE		ASPHALT CONCRETE WITH GRANULAR SUBBASE			ASPHALT CONCRETE WITH GRANULAR BASE	
	SURFACE KDOT (1) (SEC. 401, 402)	BASE KDOT (1) (SEC. 401, 403)	SURFACE KDOT (1) (SEC. 401, 402)	BASE KDOT (1) (SEC. 401, 403)	GRANULAR SUBBASE KDOT (1) (SEC. 303)	SURFACE KDOT (1) (SEC. 401, 402)	GRANULAR BASE KDOT (1) (SEC. 303)
	TYPE B (INCH)	(INCH)	TYPE B (INCH)	(INCH)	INCH)	TYPE B (INCH)	(INCH)
Auto Parking Facilities	1-1/2	4	1-1/4	2	6	2	9
Truck Parking Facilities	1-1/2	6 - 1/2	1-1/2	2-1/2	10	N.A.	N.A.

(1) Refers to the Kentucky Department of Transportation (KDOT) Bureau of Highways, Standards and Specifications for Road and Bridge Construction (1976 Edition, or as amended).

**FIGURE 15.03-1
JOINT DETAILS**



Appendix 15.04 Approved Planned Unit Developments

Approved PUD Standards			
PUD Name	Approved Development Plan	Approved Development Narrative	Approved City Ord/ City or Staff Action
The Orchard	Map Amendment (Z-94-03-02/1135R)		
	Stage I (Z-94-03-03/1136R)		
	Stage II (Z-94-11-01/1175R)		Staff Action
	Stage II (Z-95-01-01/1184R)		Staff Action

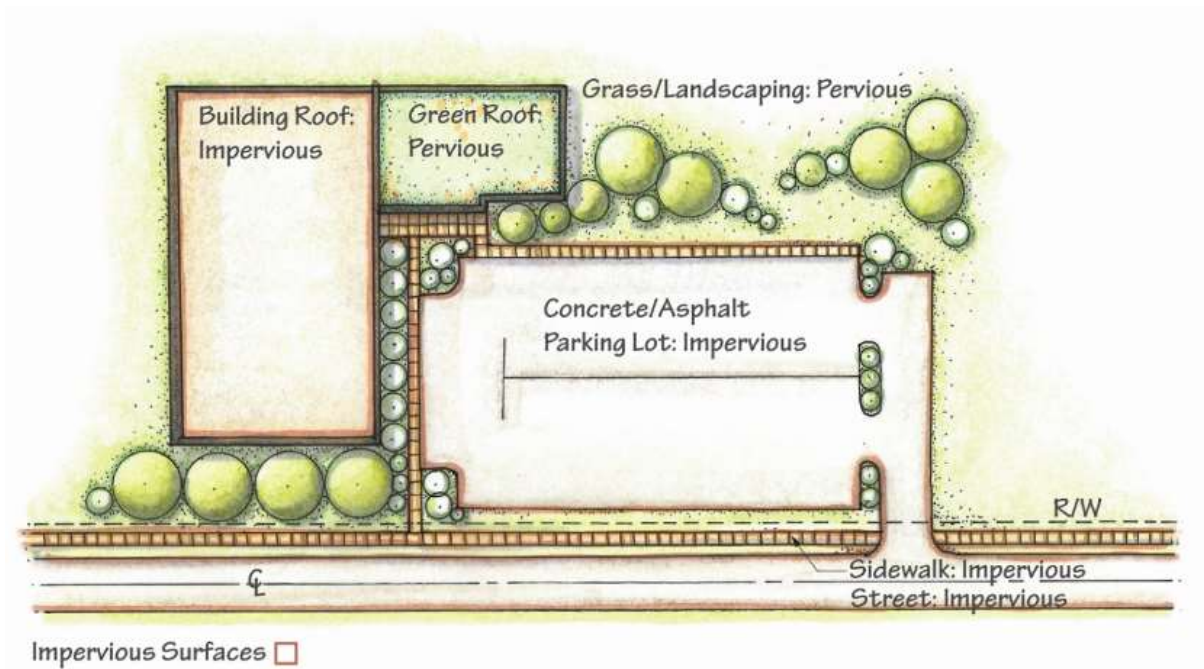
Approved PUD Standards			
PUD Name	Approved Development Plan	Approved Development Narrative	Approved City Ord/ City or Staff Action
	Stage II (Z-95-05-04/1202R)		Staff Action
Prospect Point	Stage II (Z-4-10-03/1704R)		Staff Action
Ria Vista	Stage I (Z-81-01-03/539R)		Council Action
	Map Amendment (Z-89-11-03/929R)		
Sanctuary Village	Stage I (PC1712-0005)	Development Narrative	City Action
	Stage II - Phase 1 (PC1905-0006)		Staff action
	Stage II - Phase 1A (PC2002-0005)		Staff Action
Squire Valley	Stage I (Z-85-08-05)		
	Map Amendment (Z-85-08-05/673R)		
	Stage II Grading Plan (Z-01-05-04/1504R)		Staff Action
	Stage II (Z-02-01-02/1543R)		Staff Action

Appendix 15.05 Landscape and Planting Manual

15.05 A. Landscape and Planting Standards

A. Introduction

The purpose of the landscape and planting manual is to assist citizens, business owners, and developers with conforming with the Landscape, Screening, and Buffer requirements of the zoning ordinance. The plant lists that are provided are suggested plant materials and are plants that have been successful in this region for urban landscaping. Additional plant materials, not included in the lists provided, may be approved on a case-by-case basis. The graphic details and planting specifications are the guidelines to complete a landscape project in an appropriate manner. The plan submission guidelines should be helpful to the engineer, landscape designer, or landscape architect to ensure the submitted site plan provides the information necessary for a timely review by the Zoning Official. Landscaping in urban areas is essential to mitigate the impact of impervious surfaces. Impervious surfaces produce heat in summer months causing the temperature to rise. Impervious surfaces also increase water runoff and prevent water absorption into the soil which can contribute to sewer overloading during storm events. Landscaping in parking areas helps reduce the quantity of water runoff entering the sewer system. Street trees and tree plantings in parking areas and provides shade and regulates temperatures that have proven public health benefits for pedestrians and motorists.



B. Landscape Plan Submission

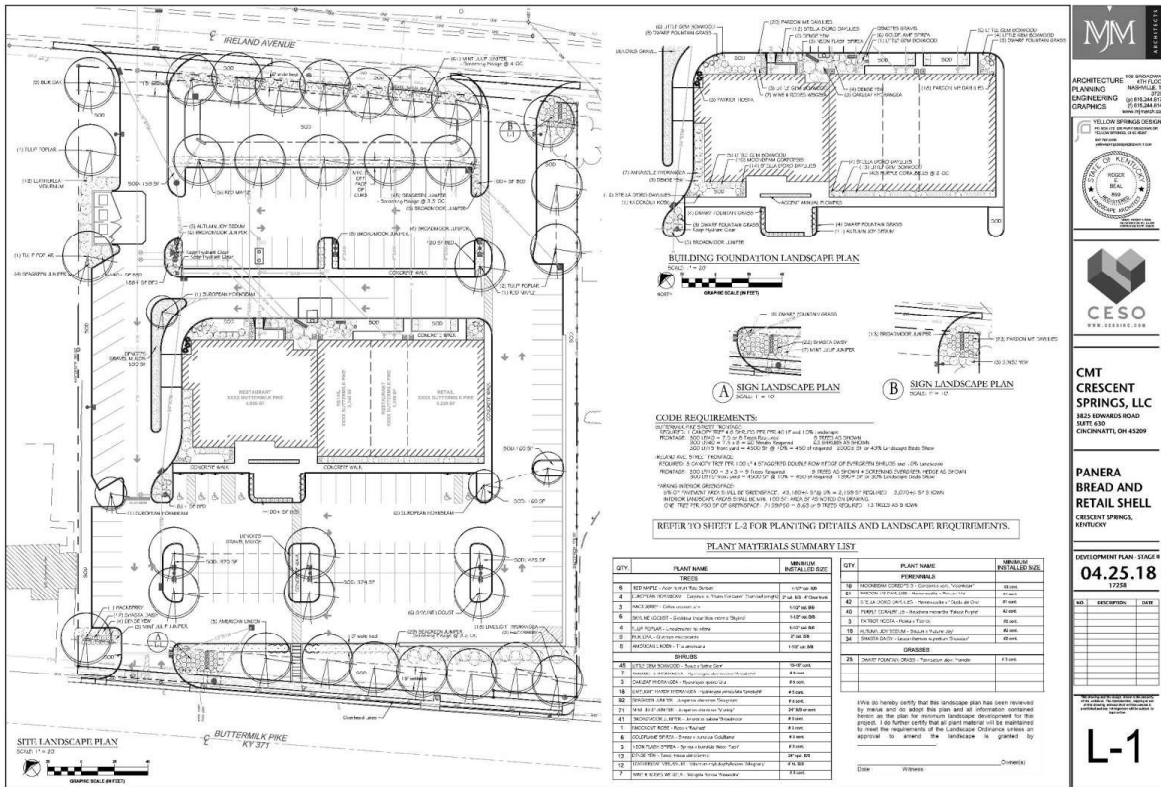
The following charts, graphic details, specifications, and guidelines are provided to assist persons in conforming to the Landscape Ordinance. The graphic details proposed for planting but are the guidelines that are helpful in completing a landscape project in a proper manner. These notes are primarily for the nursery staff that are installing the plant material.

1. *Landscape Plan*

The landscape plan should be drawn to a scale no smaller than 1" = 100' and should include:

- a. Property lines with metes and bounds
- b. All adjacent property owners, land uses/zones, rights-of-way and easements should be identified on the plan
- c. Location of all existing and proposed buildings and structures
- d. Location of all driveways, loading areas, and adjacent off-site roads and streets, vehicular use areas labeled as to size and number of parking spaces with pavement details.
- e. Required landscape compliance statistics
- f. Location of dumpster and trash facilities, including dumpster screening details.
- g. North arrow and scale
- h. Location of above and below-ground utility lines and sewer locations
- i. Indication of areas for sodding and seeding.
- j. Location of all proposed plant material keyed to a plant schedule.
- k. The plant schedule should contain information as follows: Plant botanical and common names; the quantity of each species to be planted and landscape compliance statistics; plant size (height, spread, caliper, or container size); and any specific planting notes.
- l. Location of existing trees and vegetation that are to be retained as part of the required landscaping with a protection plan.
- m. Tree and shrub planting details

An example of a landscape plan shows the information which should be found on a landscape plan and how it is displayed. Enlarged sections of the plan further clarify abbreviations and plan details.



2. Plant Schedule Table

This table is the identification key which lets the inspector know which plants are to be planted, the total number of each species, and which graphic symbol and code are used to identify the plant on the landscape plan. Additional information that should be noted in this table is the plant container, the height or size of the planting material, and the caliper of all tree species.

PLANT MATERIALS SUMMARY LIST							
QTY.	PLANT NAME		MINIMUM INSTALLED SIZE	QTY.	PLANT NAME		MINIMUM INSTALLED SIZE
TREES							
6	RED MAPLE - Acer rubrum 'Red Sunset'		1-1/2" cal. B/B	10	MOONBEAM CORIOPUS - Coriopus vert. 'Moonbeam'		#2 cont.
4	EUROPEAN HORNBEAM - Carpinus b. 'Frans Fontaine' (Narrow/Upright)		2" cal. B/B - E Clear trunk	61	PARDON ME DAVILS - Hemerocallis x 'Pardon Me'		#1 cont.
3	HACKBERRY - Celtis occidentalis		1-1/2" cal. B/B	42	STELLA D'OR DAVILS - Hemerocallis x 'Stella d'Or'		#1 cont.
4	SKYLINE LOCUST - Gladiolus truncatus 'Skyline'		1-1/2" cal. B/B	40	PURPLE CORALBELLS - Heuchera moranthe 'Purple'		#2 cont.
4	TULIP POPLAR - Liriodendron tulipifera		1-1/2" cal. B/B	3	PATRIOT HOSTA - Hosta x 'Patriot'		#2 cont.
5	BUR OAK - Quercus macrocarpa		2" cal. B/B	16	AUTUMN JOY SEDUM - Sedum x 'Autumn Joy'		#2 cont.
9	AMERICAN LINDEN - Tilia americana		1-1/2" cal. B/B	34	SHRIMP DART - Leucostemum superbum 'Shrimp Dart'		#2 cont.
SHRUBS							
45	LITTLE GEM BOXWOOD - Buxus x 'Little Gem'		15-18" cont.	25	DWARF FOUNTAIN GRASS - Pennisetum alopec. 'Fountain'		#3 cont.
7	ANNABELLE HYDRANGEA - Hydrangea abnormis 'Annabelle'		#5 cont.				
3	OAKLEAF HYDRANGEA - Hydrangea quercifolia		#5 cont.				
18	LIMELIGHT HARDY HYDRANGEA - Hydrangea paniculata 'Limelight'		#5 cont.				
92	SEA GREEN JUNIPER - Juniperus chinensis 'Sea Green'		#3 cont.				
71	MINT JELLY JUNIPER - Juniperus chinensis 'Mint Jelly'		24" B/B or cont.				
41	BROADDOOR JUNIPER - Juniperus sabina 'Broaddoor'		#3 cont.				
1	KNOCKOUT ROSE - Rosa x 'Knockout'		#3 cont.				
6	GOLDFLAME SPIREA - Spiraea x 'Goldflame'		#3 cont.				
3	NEON FLASH SPIREA - Spiraea x 'Neon Flash'		#3 cont.				
13	DODGE YEW - Taxus media 'Dodge Yew'		24" cal. B/B				
12	LEATHERLEAF VIBURNUM - Viburnum thyrsiflorum 'Astrakhan'		4" cal. B/B				
7	WINE & ROSES WIGGLA - Weigelia florida 'Moussini'		#3 cont.				

I/We do hereby certify that this landscape plan has been reviewed by me/us and do adopt this plan and all information contained herein as the plan for minimum landscape development for this project. I do further certify that all plant material will be maintained to meet the requirements of the Landscape Ordinance unless an approval to amend the landscape is granted by _____.

Owner(s)

Date _____

Witness _____

3. Landscape Compliance Statistics

A table should be included which identifies how the landscape buffer requirements of the zoning ordinance have been met by the proposed plantings.

CODE REQUIREMENTS:

BUTTERMILK PIKE STREET FRONTAGE:

REQUIRED: 1 CANOPY TREE & 8 SHRUBS PER PER 40 LF and 10% Landscape

FRONTAGE: 300 LF/40 = 7.5 or 8 Trees Required 8 TREES AS SHOWN
 300 LF/40 = 7.5 x 8 = 60 Shrubs Required 63 SHRUBS AS SHOWN
 300 LF/15' front yard = 4500 SF @ 10% = 450 sf required 2000± SF or 43% Landscape Beds Show

IRELAND AVE. STREET FRONTAGE:

REQUIRED: 3 CANOPY TREE PER 100 LF & STAGGERED DOUBLE-ROW HEDGE OF EVERGREEN SHRUBS and 10% Landscape

FRONTAGE: 300 LF/100 = 3 x 3 = 9 Trees Required 9 TREES AS SHOWN & SCREENING EVERGREEN HEDGE AS SHOWN
 300 LF/15' front yard = 4500 SF @ 10% = 450 sf required 1390± SF or 30% Landscape Beds Show

PARKING INTERIOR GREENSPACE:

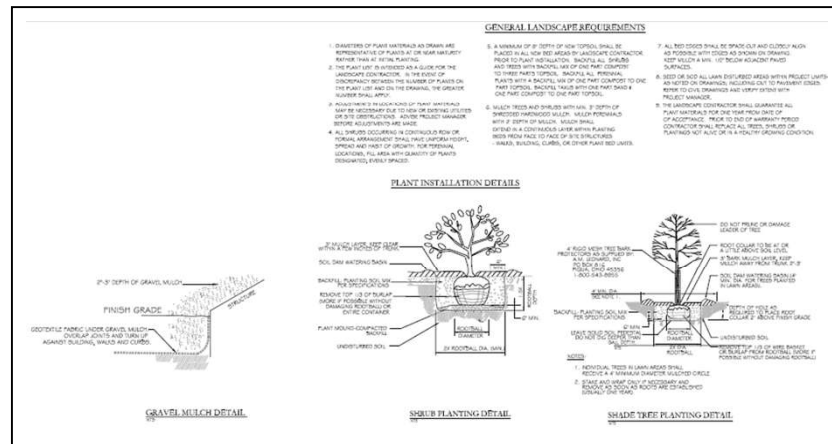
5% OF PAVEMENT AREA SHALL BE 'GREENSPACE'. 43,180+/- SF @ 5% = 2,159 SF REQUIRED 3,070+/- SF SHOWN

INTERIOR LANDSCAPE AREAS SHALL BE MIN. 100 SF AREA SF AS NOTED ON DRAWING.

ONE TREE PER 250 SF OF GREENSPACE: 2159/250 = 8.63 or 9 TREES REQUIRED 13 TREES AS SHOWN

4. Planting Notes

The planting notes and diagrams are primarily for use by the nursery personnel during the installation of the plant materials. When included in the landscape plan, the plan reviewer is made aware that proper installation is intended to ensure plant survival.



C. Inspection of Landscaping for Permit Approval

Prior to final approval of a new development project, the requirements of the landscape ordinance must be met. The site inspection will also include compliance with parking regulations, paving, waste receptacles, lighting, and signage. A temporary Certificate of Occupancy may be issued even though the required landscaping has not yet been installed. A final Certificate of Occupancy is not issued unless either:


The landscape ordinance requires all landscaping to be in healthy condition one year after the initial inspection. A second inspection will be made by the Zoning Administrator at this time.

- All landscaping has been installed and passed the landscape field inspection or;
- An extension of six months has been granted by the Zoning Administrator to accommodate planting seasons as required for plant species

The landscape ordinance requires all landscaping to be in healthy condition one year after the initial inspection. A second inspection will be made by the Zoning Administrator at this time.

- Schedule a one-year re-inspection with the Zoning Administrator. This inspection evaluates the health condition of the plant materials and their compliance with the landscape planting plan as submitted and approved by the Zoning Administrator.

The following form is used for field inspections. It will be helpful to permit applicants to review this information to expedite the length of the approval process.



PDS

INITIAL FIELD INSPECTION

Project Name _____ Permit Number _____

Project Address _____

Inspector Name _____ Date _____

	Pass	Fail	
OPEN SPACE/ PERVIOUS AREA			
All areas indicated as being landscaped areas have been constructed in accordance with the approved plans (i.e., no pavement, structures, etc., constructed in landscape areas)			
Landscape buffer widths are as indicated on the approved plans.			
The width of the landscape dividing strips in parking lots are consistent with the widths indicated on the approved plans.			
TREES			
Trees planted in locations indicated on landscape plan and in conformance with the recommended species list. Number of trees, species and tree size planted are consistent with the approved plan.			
Trees are in a healthy and growing condition.			
"All trees are planted according to ANSI A300 standards – including proper depth (at or slightly above existing grade with trunk flares exposed)			
Trees to be saved to meet buffer requirements have been protected and have not been damaged during construction.			
Trees destroyed or damaged during construction have been replaced to meet quantities specified in the approved plans.			
SHRUBS			
Perimeter landscape requirements have been met and determine if there are any encroachments into landscape easements.			
Interior landscape requirements have been met.			
Plant materials, species, sizes and locations conform to approved plan.			
All plant materials are in a healthy and growing condition.			
GROUND COVER			
Ground covers are planted in such a manner as to present a finished appearance and the expectation of reasonably complete coverage within twelve months of planting.			
All non-paved areas are landscaped with grass, ground cover or other landscape treatment. No exposed, stabilized earth remains.			
DUMPSTERS			
Screening fences are installed per the approved plan and adequately serve the purpose intended.			
Plant materials, species, sizes and locations conform to approved plan.			
All plant materials are in a healthy and growing condition.			
LIGHTING			
All lighting is consistent with approved plan			
SIGNS			
All signs installed meet the requirements of the zoning ordinance and as specified in the approved plan			
PARKING			
Number and size of parking spaces are consistent with plan. Circulation is consistent with plan.			

D. Minimum Caliper and Height Requirements

All plants shall be equal to or exceed the following minimum acceptable size requirements. Plant height shall be measured before pruning with branches in a normal position. No plant shall be pruned back to such an extent that it no longer meets the size requirements. All measurements shall be taken at the time of planting.

Plant Group	Minimum Size at Planting
Large Shade Trees	10 feet in height, 2.0- inch caliper
Medium Trees	6 feet in height, 2.0-inch caliper
Evergreen Trees	5 feet in height, 2.0-inch caliper
Large Deciduous Shrubs	24 inches balled and burlapped
Medium Deciduous Shrubs	3 gallon
Small Deciduous Shrubs	3 gallon
Low Deciduous Shrubs	3 gallon
Large Evergreen / Broadleaf Shrubs	24 inches balled and burlapped
Medium Evergreen/Broadleaf Shrubs	3 gallon
Small Evergreen/Broadleaf Shrubs	3 gallon
Low Evergreen/Broadleaf Shrubs	3 gallon
Large Street Trees	10 feet in height, 2.0-inch caliper
Medium Street Trees	6 feet in height, 2.0-inch caliper
Ground Cover	No minimum

E. Plant List

The plant list has been designed to provide information to the community and assist in identifying trees and shrubs which fulfill the requirements of the zoning ordinance. Plants are listed in alphabetical order according to the scientific name. Directly below the scientific name is the common name and cultivars that are considered to be acceptable. Plant material found in the acceptable list is not all-inclusive. These trees and shrubs listed are hardy to northern Kentucky in USDA Zones 6A and 6B. These landscape materials should be relatively maintenance-free, as well as, suitable to the weather and soil conditions in northern Kentucky. Native plants are recommended and preferable for use.

There are some plant materials which, due to interference with underground utilities, undesirable thorns or fruit, growth patterns, susceptibility to disease, and incompatibility with urban environments, or are considered to be Terrestrial Nuisance Species / Invasive Species, are not to be used to meet the landscape regulations. Trees and shrubs which are deemed to fall into these categories are found in the Unacceptable for Use Table.

Terrestrial Nuisance Species (TNS)- are defined by the Kentucky Department of Fish & Wildlife Resources as “Non-native species that threaten the diversity or abundance of native terrestrial species or the ecological stability of ecosystems, or the commercial, agricultural, or recreational activities dependent on such ecosystems.”

Invasive Species- are defined by the Federal Invasive Species Advisory Committee as “A species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm to human health.

The level of threat of TNS or invasive species to the natural ecosystems of Kentucky fall within two categories:

Severe Threat- According to the Kentucky Exotic Pest Plant Council a severe threat is an “Exotic plant species which possess characteristics of invasive species and spread easily into native plant communities and displaces native vegetation; includes species which are or could become widespread in Kentucky.”

Significant Threat- According to the Kentucky Exotic Pest Plant Council a significant threat is an “Exotic plant species which possess some invasive characteristics, but have less impact on native plant communities; may have the capacity to invade natural communities along disturbance corridors, or to spread from stands in disturbed sites into undisturbed areas, but have fewer characteristics of invasive species than #1 rank.”

TNS and invasive species are a problem for Kentucky because of the biological, socio-economic, and aesthetic impacts of these species. Control of these species can preserve the vast amount of beautiful landscape Northern Kentucky has. TNS and invasive species can sometimes be found in nurseries and unknowingly distributed.

- **Biological impact-** TNS and invasive species can disrupt the balance of food webs and nutrient cycling, degrade natural habitats, reduce native organisms and increase competition, and decrease biodiversity.
- **Socio-economic impact-** TNS and invasive species can deplete limited management resources, contribute to a loss of tourism dollars such as hunting or hiking, reduce property values by “smothering” forests and open space, decrease productivity and increase costs of commercial logging and agricultural operations, and interfere with transportation rights-of-way.
- **Aesthetic impact-** TNS and invasive species can also impact the cultural and generational integrity of living near and having access to a healthy ecosystem because TNS and invasive species permanently change the function and form of the landscape.

The plant material is systematically assigned into lists based upon height as the primary characteristic and secondly based upon whether it is deciduous or coniferous. This information is necessary to determine planting location compatibility with manmade environmental features such as utility lines, sidewalks, and streets. Information on each plant is divided into plant characteristics and plant uses. Plant characteristics refer to the physical attributes of a plant, including height, spread, form, urban tolerance, disease, and insect intolerance. Plant use refers to the appropriate location of use such as perimeter, interior, street tree, buffer, or open space.

Acceptable Plant List	
I.	Large Shade Trees
II.	Medium Trees (25-50 Feet in Height)
III.	Evergreen Trees
IV.	Large Deciduous Shrubs
V.	Medium Deciduous Shrubs
VI.	Small Deciduous Shrubs
VII.	Low Deciduous Shrubs
VIII.	Large Evergreen Shrubs
IX.	Medium Evergreen Shrubs

Acceptable Plant List	
X.	Small Evergreen Shrubs
XI.	Low Evergreen Shrubs
XII.	Large Street Trees
XIII.	Medium Street Trees
XIV.	Ground Covers

Unacceptable Plant List	
I.	TNS / Invasive Species - Severe Threat
II.	TNS/ Invasive Species - Significant Threat
III.	Other Unacceptable Plants and Trees

1. *Planting List Species Characteristics*

a. Plant Type

Each acceptable material in the plant list is either deciduous (D) or evergreen (E). This is essential since only specific plant types can meet ordinance requirements such as winter opacity or triangle visibility. Unacceptable plants and trees are those which cannot be planted in public spaces because they do not have suitable characteristics. Ordinance required landscaping cannot include these plants and trees.

b. Height

The height of plant materials is given in ranges because dimensions vary depending on site conditions, climate, temperature, and how well plants adapt to these conditions. For example, under ideal conditions, a plant may reach a height of up to 20 feet, but because of conditions at a specific site, the same tree may be limited to a height of just 10 feet. Limited room for root growth also restricts maximum height. Such areas include raised planters, parking lots, streets, or areas where there is considerable competition between plants. Plants that tolerate pruning may be kept to a smaller size.

c. Spread

Spread refers to the width of a tree's mature crown. Spread partially determines the suitability of a plant for a particular. Plants with wide-spreading forms, require a large area to develop. Upright forms are used effectively where space is limited. All plants shall be allowed ample room to develop. Spread shall be measured in feet, with the average mature spread of the plant indicated. Spread is normally listed as a range because of its variability.

d. Form

Form is generally referred to as the outline of the crown but indicates much more. Form is determined by the line, direction, and arrangement of branches and twigs. Form has mass and volume since trees project in all directions: upward, downward, and sideways. The form of a plant should be typical of the species at the time of installation, but may be altered to create a desired effect, as long as the plant still meets ordinance requirements.

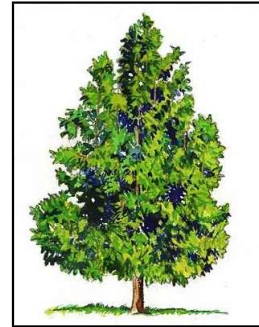
Rounded



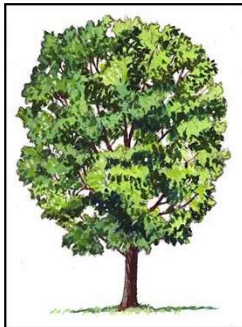
Spreading



Pyramidal



Oval



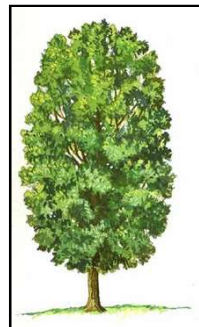
Conical



Vase Shaped



Columnar



e. Urban Tolerance

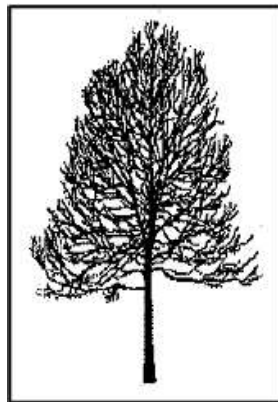
A plant tolerant of urban conditions must be able to withstand a variety of adverse conditions, including air pollution, poor and infertile soils, compact soils, heat and drought, and other similar conditions. Plants that have relatively few problems are considered to be urban tolerant.

f. Disease and Insect Tolerant

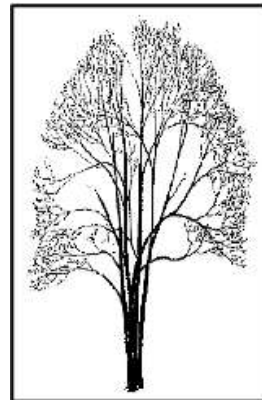
Disease and insect problems affect all trees to some extent. Some problems are barely noticeable and exert little effect on a tree's health. Disorders can restrict the tree's growth, cause a gradual decline in health, and eventually lead to the tree's death. The severity of a problem depends on the type of tree, condition of the tree, type of disorder, time of year, immediate weather conditions, along with many other factors. Disorders that are frequent, widespread, or highly destructive should greatly limit the use of a particularly susceptible tree species, e.g. tip blight on Austrian pines.

g. Density

Density refers to a quantity of foliage and branching and is measured by comparing positive space to negative space. Positive space includes all tree characteristics perceived when the tree is viewed as a two-dimensional silhouette with dense branching and foliage. Negative space is a space that appears between branching and foliage. It is the open area through which the sky and background can be seen.



Dense



Open

h. Planting Location

The Plant List identifies the appropriate location where each species may be planted to accommodate its particular growth pattern, urban tolerance, and root system as it relates to meeting the landscape regulations.

2. *Modifications*

Recognizing that it is sometimes not possible to provide to find sufficient plant material due to supply, species availability, site conditions, or customer preference, modifications are possible. Species are not limited to those found in the Plant List. Other species may be approved by the Zoning Administrator provided the species achieves the screening requirements and are hardy to the northern Kentucky environment in USDA Zones 6A and 6B.

All landscaping has been installed and passed the landscape field inspection or;

An extension of six months has been granted by the Zoning Administrator to accommodate planting seasons as required for plant species

The landscape ordinance requires all landscaping to be in healthy condition one year after the initial inspection. A second inspection will be made by the Zoning Administrator at this time.

Schedule a one-year re-inspection with the Zoning Administrator. This inspection evaluates the health condition of the plant materials and their compliance with the landscape planting plan as submitted and approved by the Zoning Administrator.

The following form is used for field inspections. It will be helpful to permit applicants to review this information to expedite the length of the approval process.

15.05 B. Acceptable Plant List

I. Large Shade Trees

I. Large Shade Trees		PLANT CHARACTERISTICS						PLANT USES							COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
ACER NEGUNDO Box Elder	D	30' to 50'	30' to 50'											X	Riparian zone only plantings. Will naturally seed in if no-mow zone is established by stream.
ACER RUBRUM Red Maple 'Armstrong' 'Autumn Flame' 'Columnar' 'October Glory' 'Red Sunset' 'Scarlet Sentinel'	D	40' to 60'	40' to 50'	Oval			X	7'+	X	X	X	X		X	Numerous cultivars are superior to the basic species and should be considered for use. Requires room to develop; won't tolerate heavily polluted urban streets; preferred food of Asian Longhorn Beetle.
ACER SACCHARNIUM Silver Maple	D	50' to 70'	40' to 50'											X	Surface roots, especially in compacted soil. Don't cut into heartwood-decays rapidly-otherwise a hardy tree.
ACER SACCHARUM Sugar Maple	D	60' to 75'	50' to 60'	Rounded	X	X	X	7'+	X	x	X			X	One of the best larger lawn and shade trees; not for downtown or other crowded areas. Possible

I. Large Shade Trees		PLANT CHARACTERISTICS						PLANT USES							COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															use in suburban areas as a street tree. Intolerant of road salt. Subspecies "Nigrum" is more drought tolerant.
ASECULUS GLABRA Ohio Buckeye	D	40' to 70'	20' to 40'	Rounded										X	All parts poisonous if ingested.
ASECULUS OCTRANDRA (A. Flava) Yellow Buckeye	D	60' to 75'	20' to 40'	Oval										X	All parts poisonous if ingested.
BETULA LENTA Sweet Birch	D	40' to 50'	30' to 40'	Pyramidal to Rounded					X	X	X			X	Intolerant of polluted urban areas; best birch for yellow fall color; good for large, naturalized areas. Nice bark.
BETULA NIGRA River Birch	D	40' to 70'	40' to 60'	Oval to Rounded		X			X	X	X			X	More adaptable and disease resistant than other birch trees; handsome tree; good for wet areas.
CARYA ILLINOINENSIS Pecan	D	70' to 100'	40' to 75'	Oval										X	Grows in rich, moist soil in full sun. Hard to transplant. No major pest problems.
CARYA CORDIFORMIS Butternut Hickory	D	50' to 75'	20' to 30'	Irregular										X	Can be planted by streams.
CARYA GLABRA	D	50'	25'	Oval										X	Showy fruit and

I. Large Shade Trees		PLANT CHARACTERISTICS						PLANT USES							COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
Pignut Hickory		to 60'	to 35'												good fall color. Grows in well drained soil. Intolerant of shade and needs a large space to grow.
CARYA LACINIOSA Shellbark Hickory	D	60' to 80'	20' to 30'	Spreading										X	Needs a large space to grow and grows in areas that are periodically flooded.
CARYA OVATA Shagbark Hickory	D	60' to 80'	40' to 60'	Oblong										X	Can be planted by streams. Needs a large space to grow.
CATALPA SPECIOSA Northern Catalpa	D	40' to 60'	20' to 40'	Irregular										X	Surface roots. Tolerant of both wet and dry soils.
CELTIS LAEVIGATA Sugar Hackberry	D	60' to 80'	50' to 60'	Rounded	X	X	X	7'+	X	X	X				Wonderful shade tree. Locate where mechanical injury unlikely; tends to rot if injured.
CELTIS OCCIDENTALIS Common Hackberry 'Chicagoland' 'Prairie Pride'	D	40' to 60'	40' to 60'	Rounded		X	X	7'+						X	Excellent wildlife tree. 'Prairie Pride' is immune to mite that causes witches broom.
CLADRATIS KENTUCKEA Yellowwood	D	30' to 50'	40' to 50'	Vase Shaped			X	7'+	X	X	X			X	Excellent flowers and foliage; tolerates moist soil conditions; poor branching angles often require corrective pruning; surface

I. Large Shade Trees	PLANT CHARACTERISTICS						PLANT USES								
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	COMMENTS
															roots.
<i>DIOSPYROS VIRGINIANA</i> Common Persimmon	E	35' to 60'	20' to 35'	Oval										X	Establishes well on compacted soils.
<i>FAGUS GRANDIFOLIA</i> / <i>FAGUS AMERICANA</i> American Beech	D	50' to 70'	100' to 120'	Rounded		X							X	X	Recommended for shade areas only. Has surface roots.
<i>GLEDISTIA TRIACANTHOS</i> var <i>inermis</i> Thornless Honey Locust 'Moriane' 'Shademaster' 'Skyline' 'Sunburst'	D	50' to 75'	30' to 50'	Rounded	X		X	7'+	X	X	X				Only thornless cultivars are acceptable; cultivars have less disease and insect problems than straight species; provides a light, filtered shade; widely used. 'Sunburst, not generally recommended due to overplanting and disease problems. Seed pods rather unsightly and create a lot of litter. Surface roots.
<i>HALESIA TETRAPTERA</i> Carolina Silverbell	D	30' to 40'	20' to 35'	Oval to Rounded		X	X	5'+	X	X	X				Prefers rich, well drained, acid soils; intolerant of adverse conditions; often must be limbed to meet ordinance.
<i>LIQUIDAMBAR STYRACIFLUA</i> Sweetgum	D	60' to 70'	40' to 50'	Pyramidal to Oval			X	8'+	X	X	X			X	Excellent tree for large areas; extensive root system needs

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'Festival' 'Moraine' 'Happidaze' 'Rotundiloba'															room to develop; avoid polluted areas. Fruit can be considered a nuisance. Needs pH of 6.5 or less. 'Happidaze' and 'Rotundiloba' are almost fruitless.
LIRIODENDRON TULIPFERA Tulip Poplar Yellow Poplar	D	70' to 90'	35' to 50'	Oval to Rounded			X	8'+	X	X	X			X	Can grow to 150' or taller, not for small areas. Verticillium develops if salt gets on roots. Never in a monoculture. Honeydew/sooty mold.
MAGNOLIA ACUMINATA Cucumbertree Magnolia	D	50' to 80'	50' to 80'	Pyramidal to Rounded			X	8'+	X	X	X			X	Develops massive spreading branches, not for polluted areas or dry soils. Does not tolerate compaction.
NYSSA SYLVATICA Black Gum, Tupelo	D	30' to 50'	20' to 30'	Oval to Rounded	X	X	X	5'+	X	X	X	X		X	One of the most beautiful native trees; intolerant of high pH soils difficult to transplant.
OSTRYA VIRGINIANA Hophornbeam	D	25' to 40'	20' to 30'	Rounded	X	X	X	5'+	X	X	X	X		X	Good tree where space is limited; somewhat slow to establish; occasionally must be limbed. Lovely bark and foliage, nice downtown street tree.
PINUS ECHINATA	E	80'	25'	Pyramidal										X	Easily grown in

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Short Leaf Pine		to 100'	to 35'												average, dry to medium, well-drained soils in full sun. Tolerates some light shade. Tolerates a wide range of soils, but prefers sandy loams
PINUS STROBUS White Pine	E	50' to 80'	20' to 40'	Pyramidal					X				X		Soft, feathery appearance because of foliage, extremely intolerant of air pollution; and weak wooded.
PRUNUS SEROTINA Black Cherry	D	50' to 60'	25' to 30'	Oval										X	Easily grown in average, medium, well-drained soils in full sun to part shade. Best in moist, fertile loams in full sun
QUERCUS ALBA White Oak	D	60' to 100'	50' to 80'	Rounded	X	X	X	7'+	X	X	X			X	Best grown in rich, moist, acidic, well-drained loams in full sun Drought Tolerant.
QUERCUS BICOLOR Swamp White Oak	D	50' to 60'	50' to 55'	Rounded	X		X	7'+	X	X	X			X	Excellent floodplain tree. Good anywhere; drought tolerant.
QUERCUS COCCINEA Scarlet Oak	D	70' to 75'	40' to 50'	Pyramidal to Rounded	X	X	X	7'+	X	X	X				Difficult to locate commercially; outstanding ornamental tree; somewhat difficult to transplant.

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QUERCUS FALCATA Southern Red Oak	D	70' to 80'	50' to 70'	Rounded	X	X	X	7'+						X	Tolerates some part shade. Grows well in sandy soils. Tolerates poor soils and drought. Also tolerates soils with brief flooding. Tolerates air pollution
QUERCUS IMBRICARIA Shingle Oak	D	50' to 60'	40' to 60'	Oval to Rounded	X	X	X	7'+	X	X	X			X	Nice tree when allowed room to develop; easier to transplant than most oaks. Tolerates most adverse conditions.
QUERCUS MACROCARPA Bur Oak	D	70' to 80'	70' to 80'	Irregular	X				X					X	Needs large site. Easily grown in average, dry to medium, well-drained soils in full sun. Prefers moist well-drained loams, but adapts to a wide range of soil conditions. Good drought tolerance.
QUERCUS MUEHLENBERGII Chinkapin Oak	D	70' to 80'	80' to 100'	Rounded	X	X	X	7'+	X	X	X			X	Easily grown in average, medium, well-drained soils in full sun. Although it primarily grows in dry, rocky soils in the wild, it seems to prefer moist fertile loams in cultivation. Relatively good drought

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															tolerance. May take up to 30 years for this tree to bear a first crop of acorns.
QUERCUS NIGRA Water Oak	D	50' to 80'	40' to 60'	Oval to Rounded	X	X	X	7'+	X	X	X			X	Used extensively in the South; adaptable to moist, wet sites; leaves persist into winter.
QUERCUS PALUSTRIS Pin Oak 'Crown Rite' 'Sovereign'	D	60' to 70'	25' to 40'	Pyramidal	X				X					X	Limit use to floodplain areas. Easily grown in average, medium to wet, acidic soils in full sun. Prefers moist loams. Tolerates poorly drained soils. Tolerates some flooding.
QUERCUS PHELLOS Willow Oak	D	40' to 60'	40' to 50'	Pyramidal to Oval	X	X	X	7'+	X	X	X			X	Very handsome tree; widely used in South; finer textured than other oaks.
QUERCUS ROBUR English Oak 'Fastigiata'	D	60' to 80'	50' to 60'	Pyramidal to Rounded	X				X	X	X				Widely used in Europe; too large for most settings; tolerates high pH soils. Powdery mildew is a cosmetic issue.
QUERCUS RUBRA Northern Red Oak	D	60' to 75'	40' to 50'	Rounded	X	X	X	7'+	X	X	X			X	Widely used; fast growing oak; transplants easily; valuable for a variety of landscape uses.
QUERCUS	D	40' to	40' to	Rounded	X	X	X	7'+	X	X	X			X	Not widely known and

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SHUMARDII Shumard Oak		60'	50'												difficult to find commercially. Excellent street tree
QUERCUS STELLATA Post Oak	D	40' to 50'	25' to 35'	Rounded										X	Shrubby. Best grown in rich, moist, acidic, well-drained loams in full sun. Adapts to a wide variety of soil conditions from poor dry sandy soils to moist heavy loams. Prefers acidic soils. Good drought tolerance.
SASSAFRAS ALBIDUM Sassafras	D	30' to 60'	25' to 40'	Rounded	X	X			X	X	X			X	May need to be limbed up for some uses. Tends to sucker.
STEWARTIA PSEUDO-CAMELLIA Japanese Stewartia	D	20' to 35'	20' to 30'	Oval		X			X	X	X				Superb specimen tree; requires rich, moist soils; difficult to transplant; hardiest of the stewartias; hard to find commercially.
TAXODIUM DISTICHUM Bald Cypress 'Shawnee Brave'	D	50' to 70'	20' to 30'	Pyramidal	X	X	X	7'+	X	X	X			X	Often must be limbed up to meet ordinance requirements; handsome specimen tree.
THUJA 'GREEN GIANT'	E	40' to 60'	12' to 18'	Columnar	X	X			X				X		Best grown in moist, fertile, well-drained soils in full sun to part shade.

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THUJA OCCIDENTALIS Western Arborvitae	E	40' to 60'	10' to 15'	Columnar	X	X			X				X		Very dense evergreen; requires considerable atmospheric moisture; numerous cultivars, but most are much smaller.
TILIA AMERICANA American Linden	D	60' to 80'	30' to 60'	Rounded			X	7'+	X					X	Inferior to T. cordata Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Tolerates some drought. Prefers moist, fertile, well-drained loams. Generally intolerant of air pollution and urban conditions.
ULMUS ALATA Winged Elm	D	30' to 40'	20' to 30'	Rounded				5'+						X	Often infected with powdery mildew. Tough trees; limb up for street trees.
ULMUS AMERICANA American Elm *Must be a hybrid resistant to Dutch Elm Disease	D	60' to 80'	40' to 55'	Rounded				7'+	X	X	X			X	Use only hybrids resistant to Dutch Elm Disease
ULMUS PARVIFOLIA Lacebark Elm	D	40' to 50'	40' to 50'	Rounded	X	X		7'+	X	X	X				Resistant to Dutch Elm disease; often confused with U. pumila, but is a much superior ornamental tree. Produces lots of

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															seedlings, has an aggressive root system, absorbs water, nutrients and space.
ACER BUERGERANUM Trident Maple	D	30' to 35'	25'	Oval-Rounded to Round Rounded	X	X	X	5'+	X						Fall color; can be trained to a single trunk and limbed up; popular street tree.
ACER CAMPESTRE Hedge Maple	D	25' to 35'	25' to 35'	Rounded	X	X	X	5'+	X	X	X				Excellent medium-sized tree; useful in areas where space is limited; attractive dark green foliage.
AESCULUS x Carnea 'Red Horse Chestnut'	D	30' to 40'	30' to 40'	Rounded	X			7'+	X						Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers moist, fertile soils. Foliage tends to scorch and generally depreciate in dry conditions.
CARPINUS BETULUS European Hornbeam 'Asplenifolia' 'Columnaris' 'Fastigiata'	D	40' to 60'	30' to 50'	Oval		X			X	X	X			X	Must be limbed up to meet Landscape Ordinance requirements; outstanding specimen tree; there are many excellent cultivars that deserve use.
CERCIDPHYLLUM JAPONICUM	D	40' to 50'	30' to 50'	Oval to Columnar	X	X	X	7'+	X	X	X	X			Male forms are narrow and upright while

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Kastura Tree															female forms are round and spreading; handsome tree; has to be limbed to meet ordinance requirements. Shallow roots. Drought intolerant; must be watered in a drought.
CHAMAECYPARIS OBTUSE Hinoki Falsecypress	E	50' to 70'	10' to 20'	Pyramidal		X			X				X		Very dense evergreen; needs moist, humid conditions and protection from wind; many cultivars, but most are a smaller size.
CHAMAECYPARIS PISIFERA Sawara Falsecypress	E	50' to 70'	10' to 20'	Pyramidal		X			X	X			X		Requires moist, humid conditions; numerous outstanding cultivars.
CORYLUS COLUMA Turkis Filbert	D	40' to 50'	20' to 30'	Pyramidal	X		X	5'+	X	X	X				Excellent street tree. Best in full sun. Tolerates average soils, but not unamended heavy clays. Newly planted trees need consistent moisture. Once established in the landscape, trees tolerate drought. Suckering may occur. Generally tolerant of urban conditions.

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EUCOMMIA ULMOIDES Hardy Rubber Tree	D	40' to 50'	40' to 50'	Rounded	X	X	X	7'+	X	X	X	X			Virtually problem free; outstanding dark foliage; excellent street tree. Very drought tolerant; must cut water sprouts.
FAGUS SYLVATICA European Beech 'Asplenifolia' 'Fastiagata' 'Riversii' 'Rohanii' 'Rotundifolia'	D	50' to 60'	35' to 45'	Oval to Rounded		X							X	X	Doesn't meet most ordinance requirements because of low branching pattern, many excellent cultivars that could be used as a large screen; needs room to develop.
GINKGO BILOBA (Males Only) Ginkgo 'Autumn Gold' 'Fastiagata'	D	50' to 80'	30' to 50'	Pyramidal to Rounded	X	X	X	7'+	X	X	X				Tolerates adverse conditions; excellent tree for streets and other urban uses; outstanding ornamental qualities.
LARIX DECIDUA European Larch	D	70' to 75'	25' to 35'	Pyramidal			X	7'+	X	X			X	X	Nice specimen tree for large areas; intolerant of adverse conditions; messy winter appearance; does well in wet areas; especially good for tough sites.
METASEQUOIA GLYPTOSTROBILDES Dawn Redwood	D	70' to 100'	25'	Pyramidal to Conical	X	X		8'+	X	X			X		Can suffer from early freeze damage; should only be used in large areas; very

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															adaptable.
<i>PARROTIA PERSICA</i> Persian Parrotia	D	20' to 40'	15' to 30'	Oval	X	X	X	5'+	X	X	X				Outstanding bark and foliage color; excellent for a variety of uses although not very well known. Needs shade, good soil, uniform moisture.
<i>PHELLODENDRON AMURENSE</i> Cork Tree	D	30' to 45'	30' to 40'	Rounded	X	X	X	5'+	X	X	X				Very adaptable, withstands most adverse conditions, useful in largest settings. Picturesque appearance. Male only for street tree, female is invasive.
<i>PICEA ABIES</i> Norway Spruce	E	40' to 60'	25' to 30'	Pyramidal	X				X				X		Loses form with age. Commonly used as a windbreak; can be pruned into a hedge.
<i>PICEA GLAUCA</i> White Spruce	E	40' to 60'	10' to 20'	Pyramidal	X				X				X		Very adaptable; tolerates adverse conditions better than other spruce trees.
<i>PICEA OMORIKA</i> Serbian Spruce	E	50' to 60'	20' to 25'	Pyramidal	X				X				X		Excellent dark green foliage; tolerates city conditions.
<i>PICEA ORIENTALIS</i> Oriental Spruce	E	50' to 60'	20' to 30'	Pyramidal	X				X				X		Outstanding ornamental evergreen; needs protection from winter winds;

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															low branching pattern restricts use.
PINUS RESINOSA Red Pine	E	50' to 80'	20' to 40'	Pyramidal to Oval	X	X			X				X		Tolerates adverse conditions; does best farther north; develops a picturesque, symmetrical form with age.
PLANTANUS x ACERIFOLIA London Planetree 'Bloodgood'	D	70' to 100'	60' to 80'	Pyramidal to Rounded	X		X	8'+	X	X					Tolerates adverse conditions; best used in large areas because of size; disease and insects' problems can be serious; surface roots; good tough street tree.
PRUNUS SARGENTII Sargent Cherry 'Columnaris'	D	40' to 50'	30' to 50'	Rounded	X	X		5'+	X	X	X	X			Tolerant of adverse conditions; one of the best large cherries for ornamental use. Fruit of 'Columnaris' can be messy.
PRUNUS SUBHIRTILLA Higan Cherry 'Autumnalis' var. pendula	D	20' to 40'	15' to 30'	Rounded	X	X		5'+	X	X	X				Variable in form and flower colors; striking when in flower; numerous cultivars.
PRUNUS x YEDOENSIS Yoshino Cherry	D	20' to 40'	20' to 40'	Rounded	X	X		5'+	X	X	X				High maintenance but outstanding pinkish-white flowers. Attracts birds and

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															butterflies.
QUERCUS ACUTISSIMA Sawtooth Oak	D	35' to 45'	30' to 40'	Rounded	X	X	X	7'+	X	X	X			X	Slow growth rate limits use; lustrous dark green foliage; not widely known but deserves more use. Doesn't produce much fruit; remove lower branches as street tree.
STEPHANOLOBIUM JAPONICUM Japanese Pagoda 'Princeton Upright'	D	30' to 40'	40' to 60'	Rounded	X		X	7'+	X	X	X				Excellent flowers; adaptable to moist conditions; good tree for a variety of uses; should be used more extensively. Beans are messy and can discolor concrete.
STYRAX JAPONICUS Japanese Snowbell	D	20' to 30'	20' to 30'	Rounded	X		X	7'+	X						Likes good soil, uniform moisture and a bit of shade. Low branched.
SYRINGA RETICULATA Japanese Tree Lilac	D	20' to 30'	15' to 25'	Oval	X	X	X	5'+	X	X	X				Most trouble - free lilac; more adaptable than other lilac; spectacular white flower display.
TILIA CORDATA Littleleaf Linden 'Chancellor' 'Greenspire' 'June Bride'	D	60' to 70'	30' to 50'	Oval	X		X	7'+	X	X	X	X			Smaller leaves (less messy) and less prone to breakage than T. americana

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TILIA TORMENTOSA Silver Linden 'Sterling'	D	50' to 70'	30' to 50'	Oval to Rounded	X		X	5'+	X	X	X	X		X	More drought tolerant and tolerant of alkaline soils; Japanese beetle less of a problem.
TILIA X EUCHLORA Crimean Linden 'Redmond'	D	40' to 60'	20' to 30'	Oval	X	X	X	7'+	X	X	X	X			Easily grown in average, medium moisture, well- drained soils in full sun to part shade. Adapts to a wide range of soil conditions. Good tolerance for urban conditions. Purchase trees on their own roots, where available.
ZELKOVA SERRATA Japanese Zelkova 'Village Green'	D	50' to 80'	40' to 70'	Vase- shaped	X		X	7'+	X	X	X				Outstanding ornamental tree; has been used as a replacement for American Elm; tolerates wind and drought; excellent street tree needs timely pruning.

II. Medium Trees

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ACER BUERGERANUMA Trident Maple	D	30' to 35'	25'	Oval-Rounded to Round Rounded	X	X	X	5'+	X						Fall color; can be trained to a single trunk and limbed up; popular street tree.
ACER CAMPESTRE Hedge Maple	D	25' to 35'	25' to 35'	Rounded	X	X	X	5'+	X	X	X				Excellent medium-sized tree; useful in areas where space is limited; attractive dark green foliage.
ACER PALMATUM Japanese Maple 'Actropurpureum' 'Bloodgood' 'Burgundy Lace' 'Crispum'	D	15' to 25'	15' to 25'	Rounded					X	X	X				Outstanding ornamental tree; frequently used because of slow growth and need for winter protection; recommended for private use.
ACER PENSYLVANICUM Striped Maple	D	15' to 20'	12' to 20'	Rounded		X			X	X	X				Tree form only; prefers partial shade; intolerant of adverse conditions; lovely white striped bark.
ACER TATARICUM var. Ginnala Amur Maple	D	15' To 18'	15' To 20'	Rounded	X	X		7'+	X	X	X			X	Handsome multi-stemmed shrub tree; withstands heavy pruning; inconsistent fall color; very adaptable; tough.
AESCULUS PAVIA Red Buckeye	D	10' to 20'	10' to 20'	Rounded	X	X			X	X			X	X	Attracts hummingbirds; foliage tends to

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															scorch and generally depreciate in dry conditions.
ALNUS SERRULATA Tag Alder	D	15' to 25'	10' to 20'	Rounded	X	X			X	X			X	X	Excellent for use along stream banks and in poor soil areas.
AMELANCHIER ARBOREA Downy Serviceberry	D	25' to 30'	10' to 15'	Rounded			X	5'+	X	X			X		Does best in a naturalistic planting. Only single trunks allowed for street trees.
AMELANCHIER CANADENSIS Shadblow Serviceberry	D	10' to 20'	10' to 20'	Rounded		X							X	X	Dense, upright shrub with erect stems tolerates wet soil better than other serviceberries; use as screen if planted close together.
AMELANCHIER LAEVIS Allegheny Serviceberry	D	25' to 30'	15' to 25'	Rounded		X	X	7'+	X	X	X			X	Attractive multi-stemmed tree; often must be limbed up to meet ordinance requirements; possible use in sight triangle if single-stemmed forms are selected. Prefers some shade.
ASIMINIA TRILOBA Pawpaw	D	15' to 20'	15' to 20'	Rounded	X	X			X	X			X	X	Aggressive competitor. Excellent for use in stream areas.

II. Medium Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
CARPINUS CAROLINIANA American Hornbeam	D	20' to 30'	20' to 30'	Rounded		X	X	5'+	X	X	X			X	Full sun to partial shade; often must be limbed up to meet ordinance requirements; tolerates moist, well drained soils, interesting native tree. Can be low branched; limb up in nursery; surface roots.
CERCIS CANDENSIS Eastern Redbud 'Flame' 'Forest Pansey' 'Oklahoma' 'Royal'	D	20' to 25'	20' to 30'	Rounded	X	X			X	X	X			X	Excellent native tree; graceful ascending branches, normally must be limbed up to meet ordinance requirements; showy pink-purple flowers. Best not used as street trees due to low disease resistance and short life. 'Oklahoma' has nicer foliage.
CHIONANTHUS VIRGINICUS White Fringetree	D	15' to 30'	15' to 30'	Broadly Rounded	X	X	X	7' +	X	X	X		X		Probably best with some afternoon shade; attracts birds, Seldom needs pruning. Tolerant of air pollution and adapts well to urban settings. Intolerant of prolonged dry conditions.

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CORNUS ALTERNIFOLIA Pagoda Dogwood	D	15' to 25'	20' to 30'	Rounded	X	X			X	X	X			X	Low branched tree or shrub; interesting horizontal branching; must be limbed up to meet ordinance requirements.
CORNUS FLORIDA Flowering Dogwood 'Cherokee Chief' 'Cherokee Princess' var. rubra 'White Cloud'	D	20' to 25'	20' to 30'	Rounded		X		7' +	X	X	X			X	Excellent low branched ornamental tree; must be limbed up to meet ordinance requirements; spectacular when flowering; recommended for private use.
CORNUS KOUSA Kousa Dogwood 'Milky Way'	D	15' to 20'	15' to 20'	Rounded		X		7' +	X	X	X		X	X	Possibly use if limbed up, but naturally develops a low branching structure; recommended for private use.
CORNUS MAS Corneliancherry Dogwood	D	20' to 25'	15' to 20'	Oval to Rounded	X	X			X	X	X		X		Usually branches to ground; possible if limbed up; attractive yellow flower display; recommended for private use.
CRATAEGUS X LAVALLEI Lavelle Hawthorn	D	15' to 25'	10' to 20'	Oval	X		X	7' +	X	X	X	X	X		Small dense tree, essentially thornless; normally must be limbed up to meet

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															ordinance regulations.
<i>EUONYMUS ATROPURPUREUS</i> Eastern Wahoo	D	12' to 24'	10' to 20'	Irregular	X				X	X			X	X	Susceptible to scale, good for use in rain garden, attracts birds, will not tolerate wet, poorly-drained soil
<i>HAMAMELIS VERNALIS</i> Ozark Witch Hazel	D	20' to 30'	20' to 25'	Rounded	X	X							X	X	Fall blooming. Consistent moisture is best (leaf scorch may occur during periods of summer drought)
<i>MAACKIA AMURENSIS</i> Amur Maackia	D	20' to 30'	25'	Rounded	X	X	X	5'+							Narrow diameter trunk; prune early on to remove low branches.
<i>MAGNOLIA VIRGINIANA</i> Sweetbay Magnolia	D	10' to 20'	10' to 20'	Oval		X			X		X		X		Large multi-stemmed; better in wet soils than other magnolias, possible use if central leader forms are used.
<i>MAGNOLIA X SOULANGIANA</i> Saucer Magnolia	D	20' to 25'	20' to 30'	Rounded		X			X	X	X		X		Low-branched and normally must be limbed up to meet ordinance requirements although this destroys form. Seldom used to meet landscaping requirements,

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															but recommended highly for private use.
(varieties) 'Bob White' 'Coral Cascade' ' 'Dolgo' 'Harvest Gold' 'Red Jade' 'Red Swan' 'Snowdrift' 'Vanguard' 'White Angel'	D	10' to 25'	10' to 30'	Varied	X	X		7'+	X	X	X	X			Only disease and insect resistant cultivars are acceptable; possible use depends on branching height; often must be limbed up; valued for foliage, fruit, flowers, and variations in size and form; numerous cultivars and landscape uses.
PHILADELPHUS X VIRGINALIS Mockorange	D	10' to 15'	10' to 15'	Rounded	X	X									Attracts butterflies, This hybrid shrub may be cut to the ground (also immediately after flowering) if it becomes scraggly, unkempt or otherwise in need of rejuvenation.
PRUNUS AMERICANA American Plum	D	15' to 25'	12' to 18'	Rounded									X	X	Easily grown in average, dry to medium, well-drained soils in full sun to part shade. Remove suckers to prevent unwanted spread. Fairly adaptable.

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
PRUNUS ANGUSTIFLORIA Chickasaw Plum	D	12' to 20'	15' to 20'	Rounded									X	X	Remove root suckers to prevent any unwanted spread. Adaptable to wide range of growing conditions and soils.
SERRULATA (Cult) Oriental Cherry (Cult) 'Kwanzan' 'Shirofugen'	D	15' to 20'	15' to 20'	Vase-Shaped	X				X	X	X				Straight species is inferior and seldom used, but there are numerous outstanding cultivars; excellent flower display; low branched.
PRUNUS VIRGINIANA Common Chokecherry	D	20' to 30'	18' to 25'	Rounded										X	Grow in average, dry to medium, well-drained loams in full sun to part shade. Best flowering is in full sun.
PTELEA TRIFOLIATA Hoptree	D	15' to 20'	15' to 20'	Rounded	X	X			X	X			X		Does well in sun or shade. Easily grown in average, dry to medium, well-drained soils
RHAMNUS CAROLINIANA Carolina Buckthorn	D	10' to 25'	10' to 25'	Oval	X	X			X	X			X		Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers alkaline soils (add lime to acidic soils). Prefers consistent

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															moisture.
RHUS TYPHINA Staghorn Sumac	D	15' to 25'	15' to 25'	Spreading	X	X			X	X			X		Plant may spread aggressively by root suckers. Tolerant of a wide range of soils except for those that are poorly drained.
STAPHYLEA TRIFOLIA American Bladdernut	D	10' to 15'	5' to 10'	Upright	X	X								X	Prefers damp, moist, well-drained soils.
STEWARTIA PSEUDO-CAMELLIA Japanese Stewartia	D	20' to 35'	20' to 30'	Oval		X			X	X	X				Superb specimen tree; requires rich, moist soils; difficult to transplant; hardiest of the stewartias; hard to find commercially.
STYRAX JAPONICUS Japanese Snowbell	D	20' to 30'	20' to 30'	Rounded	X			7'+	X						Likes good soil, uniform moisture and a bit of shade. Low branched.

III. Evergreen Trees

III. Evergreen Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
ABIES CONCOLOR White Fir	E	30' to 50'	15' to 30'	Pyramidal	X	X			X				X		Can be used as a screen between conflicting land uses; doesn't meet other ordinance requirements because of the low branch pattern; best used in large areas where there is room for plant development.
CHAMAECYPARIS OBTUSE Hinoki Falsecypress	E	50' to 70'	10' to 20'	Pyramidal		X			X				X		Very dense evergreen; needs moist, humid conditions and protection from wind; many cultivars, but most are a smaller size.
CHAMAECYPARIS PISIFERA Sawara Falsecypress	E	50' to 70'	10' to 20'	Pyramidal		X			X	X			X		Requires moist, humid conditions; numerous outstanding cultivars, but they are a smaller size, loses beauty with age.
DIOSPYROS VIRGINIANA Common Persimmon	E	35' to 60'	20' to 35'	Oval										X	Establishes well on compacted soils.

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
PICEA ABIES Norway Spruce	E	40' to 60'	25' to 30'	Pyramidal	X				X				X		Loses form with age. Commonly used as a windbreak; can be pruned into a hedge
PICEA GLAUCA White Spruce	E	40' to 60'	10' to 20'	Pyramidal	X				X				X		Very adaptable; tolerates adverse conditions better than other spruce trees.
PICEA OMORIKA Serbian Spruce	E	50' to 60'	20' to 25'	Pyramidal	X				X				X		Excellent dark green foliage; tolerates city conditions; does well in almost any urban area.
PICEA ORIENTALIS Oriental Spruce	E	50' to 60'	20' to 30'	Pyramidal	X				X				X		Outstanding ornamental evergreen; needs protection from winter winds; low branching pattern restricts use.
PINUS ECHINATA Short Leaf Pine	E	80' to 100'	25' to 35'	Pyramidal										X	Easily grown in average, dry to medium, well-drained soils in full sun. Tolerates some light shade. Tolerates a wide range of soils,

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
PINUS RESINOSA Red Pine	E	50' to 80'	20' to 40'	Pyramidal to Oval	X	X			X				X		Tolerates adverse conditions; does best farther north; develops a picturesque, symmetrical form with age.
PINUS STROBUS White Pine	E	50' to 80'	20' to 40'	Pyramidal					X				X		Soft, feathery appearance because of foliage, intolerant of air pollution; weak wooded.
ILEX OPACA American Holly	E	40' to 50'	18' to 40'	Pyramidal to Irregular					X				X	X	Needs sheltered location; some leaf minor problems. Need male and female for fruit. Normally 20' to 30' in height; can be used as a large screen; must be limbed up to meet most ordinance requirements
ILEX PEDUNCULOSA Longstalk Holly	E	20' to 30'	10' to 15'	Dense, Rounded	X	X			X	X			X		One of the hardiest red fruiting hollies.
JUNIPERUS VIRGINIAN Eastern Redcedar	E	40' to 50'	10' to 20'	Pyramidal	X	X			X				X		Can be used as a screen between conflicting land uses;

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															cultivars are superior to straight species, but most are smaller in size. Best used in large areas; doesn't meet other ordinance requirements because of low branching pattern.
<i>PINUS CEMBRA</i> Swiss Stone Pine	E	30' to 40'	15' to 25'	Pyramidal	X				X	X	X				Handsome evergreen; slow growth rate limits use; requires an open area with good air movement; transplants easier than most pines.
<i>PINUS PARVIFLORA</i> Japanese White Pine	E	25' to 50'	25' to 50'	Rounded	X				X				X		Develops a low-branched, wide-spreading form; tolerates most soils; good tree for small areas, slow growth rate.

IV. Large Deciduous Shrubs

IV. Large Deciduous Shrubs	PLANT CHARACTERISTICS						PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERMITER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SCREENING	OPEN SPACE USE	COMMENTS
AMELANCHIER CANADENSIS Shadblow Serviceberry	D	10' to 20'	10' to 20'	Rounded		X	Dense				X	X	Dense, upright shrub with erect stems tolerates wet soil better than other serviceberries; use as screen if planted close together.
*ASIMINA TRILOBA Pawpaw	D	15' to 20'	15' to 20'	Rounded	X	X	Dense	X	X		X	X	Aggressive competitor. Excellent for use in stream areas. Berries are edible.
CORNUS KOUSA Kousa Dogwood 'Milky Way'	D	15' to 20'	15' to 20'	Rounded		X	Dense	X	X	X	X	X	Possibly use if limbed up, but naturally develops a low branching structure; recommended for private use.
CORNUS MAS Cornelian Cherry-Dogwood	D	20' to 25'	15' to 20'	Oval to Rounded	X	X	Dense	X	X	X	X		Usually branches to ground; possible if limbed up; attractive yellow flower display; recommended for private use.
FORSYTHIA X INTERMEDIA Border Forsythia	D	8' to 10'	10' to 12'	Rounded	X	X	Dense	X			X		Benefits from selective pruning of larger branches; can be kept smaller with pruning.

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SCREENING	OPEN SPACE USE	COMMENTS
HYDRANGEA PANICULATA Panicle Hydrangea	D	15' to 25'	10' to 20'	Irregular	X		Dense				X	X	Should probably be reserved for large out of the way areas.
MAGNOLIA STELLATA Star Magnolia	D	15' to 20'	10' to 15'	Rounded		X	Dense	X			X		Dense shrub-like form; good screen but needs ample room, needs winter protection; avoid southern exposure.
MAGNOLIA VIRGINIANA Sweetbay Magnolia	D	10' to 20'	10' to 20'	Oval		X	Dense	X		X	X		Large multi-stemmed shrub; better in wet soils than other magnolias, possible use if central leader forms are used.
PHILADELPHUS X VIRGINALIS Mockorange	D	10' to 15'	10' to 15'	Rounded	X	X							Attracts butterflies, full sun to part shade. Tolerates a wide range of soils except poorly-drained ones.
*STAPHYLEA TRIFOLIA American Bladdernut	D	10' to 15'	5' to 10'	Upright	X	X						X	Prefers damp, moist, well-drained soils.
VIBURNUM LENTAGO Nannyberry	D	15' to 18'	6' to 10'	Rounded	X	X	Dense	X	X		X		Attracts birds and butterflies, tolerant of air pollution, Remove root suckers to

IV. Large Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERMITER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SCREENING	OPEN SPACE USE	COMMENTS
													control spread unless naturalization is desired.
VIBURNUM OPULUS Cranberrybush Virburnum	D	8' to 10'	10' to 15'	Oval to Rounded	X		Dense	X	X		X	X	Attractive fruit and flower display; good screen for large area.
VIBURNUM PRUNIFOLIUM Blackhaw Viburnum	D	12' to 15'	8' to 12'	Rounded	X	X	Dense	X	X		X	X	Attracts birds and butterflies, Tolerates drought. Prune immediately after flowering since flower buds form in summer for the following year.
VIBURNUM X RHYTIDOPHYLLOIDES 'Alleghany' 'Willowwood'	D	8' to 10'	8' to 10'	Rounded	X	X		X			X	X	Attracts birds and butterflies, full sun to part shade
VIBURNUM RUFIDULUM Southern or Rusty Blackhaw	D	12' to 15'	8' to 12'	Rounded	X	X	Dense	X	X		X	X	Attracts birds and butterflies, full sun to part shade, plants generally grow denser in full sun
VIBURNUM SIEBOLDII Siebold Viburnum	D	15' to 20'	10' to 15'	Rounded	X	X	Dense	X			X	X	Large, coarse shrub; requires ample moisture; best used in large areas.
VIBURNUM TRIOBUM	D	8' to 12'	8' to 12'	Rounded	X	X	Dense	X	X		X	X	Multi-stemmed shrub;

IV. Large Deciduous Shrubs	PLANT CHARACTERISTICS						PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERMITER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SCREENING	OPEN SPACE USE	COMMENTS
American Cranberrybush													transplants easily; needs well drained moist soil, good screen for large areas.

V. Medium Deciduous Shrubs

V. Medium Deciduous Shrubs	PLANT CHARACTERISTICS						PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SCREENING	OPEN SPACE USE	COMMENTS
ACANTHOPANAX SIEBOLDIANUS Five-leaf Aralia	D	8' to 10"	8' to 10"	Rounded	X	X	Dense	X	X	X			Erect shrub with arching branching; extremely adaptable; numerous sharp-pointed thorns that are effective for stopping circulation.
ARONIA ARBUTIFOLIA Red Chokeberry	D	6' to 10'	3' to 5'	Oval to Columnar	X	X	Inter-mediate	X	X	X		X	Somewhat leggy, develops a rounded crown. Requires a low facer plant to be effective for screening; must be planted closely together to achieve required

V. Medium Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SCREENING	OPEN SPACE USE	COMMENTS
													density.
ARONIA MELANOCARPA Black Chokeberry	D	3' to 5'	3' to 5'	Rounded	X	X	Open	X	X	X		X	Tends to sucker profusely and forms large colonies.
BERBERIS JULIANAE Wintergreen Barberry	D	6' to 10'	6' to 10'	Columnar to Rounded	X	X	Dense	X	X	X		X	Semi-evergreen; numerous small thorns; excellent screen or barrier plant; hardiness is sometimes a problem.
CALYCANTHUS FLORIDUS Carolina Allspice	D	6' to 9'	6' to 12'	Rounded	X	X	Dense	X	X	X		X	Very fragrant flowers with a sweet strawberry scent; adaptable; does well in shade.
CEPHALANTHUS OCCIDENTALIS Buttonbush	D	3' to 6'	3' to 6'	Rounded		X	Open					X	Best reserved for moist areas in a naturalized situation.
CHAENOMELES SPECIOSA Flowering Quince	D	6' to 10'	6' to 10'	Rounded	X		Dense	X	X	X			Dense, twiggy form with spiny branches; used mainly because of flower display; good barrier plant.
CORNUS AMOMUM Silky Dogwood	D	6' to 10'	6' to 10'	Rounded		X	Open					X	Best used for naturalizing in moist and wet soils; prefers partially

V. Medium Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SCREENING	OPEN SPACE USE	COMMENTS
													shaded areas
CORNUS SERICA Redosier Dogwood	D	7' to 9'	10'+	Rounded	X		Open	X	X	X		X	Very adaptable; twig blight can be a problem.
COTONEASTER LUCIDUS Hedge Cotoneaster	D	5' to 10'	6' to 10'	Rounded	X	X	Dense	X	X	X			Frequently used as a hedge; handsome dark green foliage; vigorous, durable shrub.
COTONEASTER MULTIFLORA Many Flowered Cotoneaster	D	8' to 12'	12' to 15'	Rounded	X	X	Dense	X	X	X			Develops a fountain-like appearance; somewhat difficult to transplant; attractive white flowers; requires room to develop.
FORSYTHIA SUSPENS Weeping Forsythia	D	8' to 10"	10' to 15'	Fountain-like	X	X	Dense	X		X			Branches can be trained along a wall, fence, or other structure.
FORSYTHIA MAJOR Larger Fothergilla	D	6' to 10'	5' to 8'	Pyramidal to Rounded		X	Dense	X	X	X			Requires acid soil and good drainage; attractive dark green foliage.
HAMAMELIS VERNALIS Vernal Witchhazel	D	6' to 10'	6' to 10'	Rounded	X	X	Dense	X	X	X		X	Neat, multi-stemmed form. Smallest witch hazel; durable,

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SCREENING	OPEN SPACE USE	COMMENTS
													adaptable plant; flowers early.
LINDERA BENZOIN Spicebush	D	6' to 12'	6' to 12'	Rounded	X	X	Dense	X	X	X		X	Forage for wildlife, excellent open space selection.
LONICERA FRAGRANTISSIMA Fragrant Honeysuckle	D	6' to 10'	6' to 10'	Rounded	X		Dense	X	X	X			Tangled mass of branches; good hedge; very adaptable; fragrant white flowers.
MYRICA PENSYLVANICA Northern Bayberry	D	5' to 12'	5' to 12'	Rounded	X	X	Dense	X	X	X			Semi-evergreen; extremely adaptable; combines well with broadleaf evergreens; many uses.
SAMVUCUX CANADENSIS American Elder	D	Var	Var	Spreading	X	X	Open					X	Best used in naturalized areas.
VIBURNUM DENTATUM Arrowwood Viburnum	D	6' to 8'	6' to 12'	Rounded	X	X	Dense	X	X	X		X	Most durable viburnum; not as attractive as most viburnums; good as a hedge; suckers freely and can become unkempt
VIBURNUM MOLLE Kentucky Viburnum	D	8' to 12'	8' to 12'	Rounded	X	X	Dense	X	X	X		X	Fall foliage is red to reddish-purple; full

V. Medium Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SCREENING	OPEN SPACE USE	COMMENTS
													sun to part shade
<i>VIRBURMUM PLICATUM</i> VAR. <i>TORMENTOSUM</i> Cranberrybush Viburnum	D	8' to 12'	9' to 12'	Rounded	X	X	Dense	X	X	X			Horizontal branching; outstanding flower display; excellent screen for large areas.
<i>VIRBURMUM X BURKWOODII</i> Burkwood Viburnum	D	8' to 10'	6' to 8'	Oval to Rounded	X	X	Inter-mediate	X	X	X			Blends well with broadleaf evergreens; somewhat unkempt in appearance and usually requires pruning; very fragrant flowers.

VI. Small Deciduous Shrubs

VI. Small Deciduous Shrubs	PLANT CHARACTERISTICS						PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER SCREENING	SERVICE AREA SCREENING	GROUND COVER	OPEN SPACE USE	COMMENTS
CLETHRA ALNIFOLIA Summersweet Clethra	D	5' TO 7'	5' TO 7'	Oval to Rounded	X	X	Dense		X				Good shrub for wet areas; attractive, fragrant flowers appear in late summer; very clean.
RHUS AROMATICA Fragrant Sumac	D	3' to 6'	6' to 10'	Spreading	X	X	Dense		X				Size can vary; develops into a low, spreading mound; good plant for difficult sites.
RIBES ALPINUM Alpine Currant	D	3' to 6'	6' to 9'	Rounded	X		Dense		X				Responds well to pruning and makes an excellent hedge; tolerant to adverse conditions
ABELIA X GRANDIFLORA Glossy Abelia	D	3' to 5'	3' to 5'	Rounded to Wide-Spreading	X	X	Dense		X				Often killed back in severe winters unless protected; handsome pink flower display; blends well with broadleaf evergreens; limited hardiness.
ABELIOPHYLLUM DISTICHUM Korean Abelialeaf	D	3' to 5'	3' to 4'	Rounded to Wide-Spreading	X	X	Intermediate		X				Excellent early spring flower display; requires winter protection.
BERBERIS THUNBERGII Japanese Barberry 'Crimson Pygmy'	D	3' to 5'	4' to 7'	Rounded	X	X	Very Dense		X				Good hedge or barrier; numerous sharp, spiny thorns; 'Crimson Pygmy' seldom

VI. Small Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER SCREENING	SERVICE AREA SCREENING	GROUND COVER	OPEN SPACE USE	COMMENTS
													above 2.5' in height; very adaptable
BERBERIS VERRUCULOSA Warty Barberry	D	3' to 5'	3' to 6'	Rounded to Wide-Spreading	X	X	Dense		X			X	Excellent low barrier or screen; lustrous, dark green foliage; possible winter damage if not protected.
CEANOTHUS AMERICANUS New Jersey Tea	D	3' to 4'	3' to 5'	Rounded	X	X						X	Attracts hummingbirds, and butterflies, likes full sun and partial shade
COTONEASTER HORIZONTALIS Rock Cotoneaster	D	2' to 3'	5' to 8'	Rounded to Wide-Spreading	X	X	Dense				X		Flat and wide-spreading; excellent ground cover for a large area.
DEUTZIA GRAXILIS Slender Deutzia	D	2' to 4'	3' to 4'	Rounded	X	X	Intermediate		X				Very adaptable; best of the Deutzias; good flower display; use as a low hedge or screen.
FOTHERGILLA GARDENII Dwarf Fothergilla	D	2' to 4'	3' to 4'	Rounded		X	Intermediate		X				Requires moist, acid soils; handsome flowers and foliage; possible for a variety of uses.
HYPERICUM FRONDOSUM Golden St.	D	3' to 4'	3' to 4'	Upright		X	Intermediate		X			X	Excellent for filler strip along stream.

VI. Small Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER SCREENING	SERVICE AREA SCREENING	GROUND COVER	OPEN SPACE USE	COMMENTS
Johnswort													
HYPERICUM PROLIFICUM Shrubby St. Johnswort	D	2' to 4'	2' to 4'	Rounded	X	X	Dense		X			X	Tolerates a variety of adverse conditions; attractive bright yellows flowers add color in summer.
POTENTILLA FRUTICOSA Bush Cinquefoil 'Ferreri' 'Moonlight'	D	1' to 4'	2' to 4'	Rounded	X	X	Intermediate		X				Graceful, refined appearance; requires pruning every 2 to 3 years to keep from becoming straggly; handsome low shrub.
SPIRAEA X BUMALDA Bumalda Spirea 'Anthony Watereri'	D	2' to 3'	3' to 5'	Rounded to Wide-Spreading	X		Dense		X				Often used as a facer plant for tall, leggy screens; tolerates all but wet soils.

VII. Low Deciduous Shrubs

VII. Low Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	COMMENTS
ABELIA X GRANDIFLORA Glossy Abelia	D	3' to 5'	3' to 5'	Rounded to Wide-Spreading	X	X	Dense		X				Often killed back in severe winters unless protected; handsome pink flower display; blends well with broadleaf evergreens; limited hardiness.
ABELIOPHYLLUM DISTICHUM Korean Abelialeaf	D	3' to 5'	3' to 4'	Rounded to Wide-Spreading	X	X	Intermediate		X				Excellent early spring flower display; requires winter protection.
BERBERIS THUNBERGII Japanese Barberry 'Crimson Pygmy'	D	3' to 5'	4' to 7'	Rounded	X	X	Very Dense		X				Good hedge or barrier; numerous sharp, spiny thorns; 'Crimson Pygmy' seldom above 2.5' in height; very adaptable
BERBERIS VERRUCULOSA Warty Barberry	D	3' to 5'	3' to 6'	Rounded to Wide-Spreading	X	X	Dense		X				Excellent low barrier or screen; lustrous, dark green foliage; possible winter damage if not protected.
CEANOTHUS AMERICANUS New Jersey Tea	D	3' to 4'	3' to 5'	Rounded	X	X	Dense		X				Attracts hummingbirds, and butterflies, likes full sun and partial shade
COTONEASTER HORIZONTALIS	D	2' to 3'	5' to 8'	Rounded to Wide-	X	X	Dense					X	Flat and wide-spreading; excellent

VII. Low Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	COMMENTS
Rock Cotoneaster				Spreading									ground cover for a large area.
DEUTZIA GRAXILIS Slender Deutzia	D	2' to 4'	3' to 4'	Rounded	X	X	Inter-mediate		X				Very adaptable; best of the Deutzias; good flower display; use as a low hedge or screen.
FOTHERGILLA GARDENII Dwarf Fothergilla	D	2' to 4'	3' to 4'	Rounded		X	Inter-mediate		X				Requires moist, acid soils; handsome flowers and foliage; possible for a variety of uses.
HYPERICUM FRONDOSOM Golden St. Johnswort	D	3' to 4'	3' to 4'	Upright		X	Inter-mediate		X				Excellent for filler strip along stream.
HYPERICUM PROLIFICUM Shrubby St. Johnswort	D	2' to 4'	2' to 4'	Rounded	X	X	Dense		X				Tolerates a variety of adverse conditions; attractive bright yellows flowers add color in summer.
POTENTILLA FRUTICOSA Bush Cinquefoil 'Ferrerri' 'Moonlight'	D	1' to 4'	2' to 4'	Rounded	X	X	Inter-mediate		X				Graceful, refined appearance; requires pruning every 2 to 3 years to keep from becoming straggly; handsome low shrub.

VII. Low Deciduous Shrubs		PLANT CHARACTERISTICS					PLANT USES						
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	COMMENTS
<i>SPIRAEA X BUMALDA</i> Bumalda Spirea 'Anthony Watereri'	D	2' to 3'	3' to 5'	Rounded to Wide-Spreading	X		Dense		X				Often used as a facer plant for tall, leggy screens; tolerates all but wet soils.

VIII. Large Evergreen Shrubs

VIII. Large Evergreen Shrubs	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
<i>ILEX X ATTENUATA</i> Foster Holly 'Fosteri'	E	10' to 20'	5' to 10'	Pyramidal	X	X	Very Dense	X		X		X		Dense, handsome evergreen; excellent year-round screen; possible winter damage.
<i>JUNIPERUS CHINENSIS</i> Chinese Juniper 'Hetzii' 'Keteleeri' 'Mint Julip' 'Mount Batten' 'Pfitzeriana' 'Robusta Green'	E	12' to 25'	Varied	Varied	X		Very Dense	X	X	X		X		Only cultivars are acceptable; uses depend on the size, shape, and growth habit of each cultivar; dense evergreen forms.

VIII. Large Evergreen Shrubs		PLANT CHARACTERISTICS					PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
PINUS MUGO Mugo Pine	E	15' to 20'	20' to 30'	Varied	X		Inter- mediate					X		Variable in form, although normally low, and broad- spreading, can be pruned yearly to keep dwarf.
PLATYCIADUS ORIENTALIS Oriental Arborvitae	E	15' to 25'	10' to 12'	Pyramidal to Oval	X	X	Very Dense	X	X	X		X		Dense evergreen form; tolerates heat and adverse soils; needs wind and protection.
TAXUS CUSPIDATA Yew (Cult) 'Capitata' 'Intermedia' 'Nana' 'Thayen'	E	10' to 20'	10' to 30'	Varied	X	X	Very Dense	X		X		X		Responds well to pruning and can be kept much smaller than size listed; excellent dense hedges.
VIBURNUM RHYTIDOPHYLLUM Leatherleaf Viburnum	E	10' to 15'	10' to 15'	Rounded	X	X	Dense			X		X	X	Blends well with other evergreens; tolerates heavy shade; best used in large area.

IX. Medium Evergreen Shrubs

IX. Medium Evergreen Shrubs	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
CHAMECYPARIS PISIFERA Sawara Falselyparis 'Cyano-viridis' 'Filifera' 'Filifera Aurea' 'Plumosa' 'Pulomosa Aurea' 'Squarrosa'	E	6' to 8'	6' to 7'	Varied		X	Very Dense	X	X	X		X		Only cultivars are acceptable for this size group; numerous outstanding cultivars; all prefer moist, humid conditions; large variety of forms, colors, and textures.
ILEX CRENATA Japanese Holly 'Convexa' 'Microphylla' 'Rotundifolia'	E	5' to 8'	5' to 8'	Rounded	X	X	Dense		X			X		Slow growth rate limits use as a large screen; possible winter damage pending on cultivar; best used as a low shrub or hedge.
ILEX GABRATA Inkberry	E	6' TO 8'	8' TO 10'	Oval to Rounded	X	X	Dense		X			X		Becomes somewhat open with age, but responds well to heavy pruning; slow growth rate; many uses.
ILEX VERTICILLATA Winterberry	E	6' to 9'	6' to 9'	Oval to Rounded	X	X	Dense	X	X	X	X	X	X	Excellent for wet areas; requires both male and female plant for fruit; prefers rich acid soils; slow growing.
ILEX MESERVE	E	6' to	6' to	Varied	X	X	Dense	X	X	X		X		Shrubby evergreen

IX. Medium Evergreen Shrubs		PLANT CHARACTERISTICS					PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
Meserve Holly 'Blue Angel' 'Blue Prince' 'Blue Princess'		10'	10'											form; seldom any winter damage; one of the hardiest and most ornamental holly; can be kept smaller by pruning.
*JUNIPERUS COMMUNIS Common Juniper	E	5' to 10'	8' to 12'	Varied	X		Dense	X				X	X	Attractive to wildlife, excellent for songbirds cover and screen
KALMIA LATIFOLIA Mountain-laurel	E	7' to 10'	7' to 10'	Rounded			Dense		X			X		Can grow to 30' further south; handsome broadleaf evergreen; requires rich, moist, acid soil.
PIERIS JAPONICA Japanese Pieris	E	9' to 12'	6' to 8'	Oval			Dense	X	X	X		X		Broadleaf evergreen; requires rich, moist, acid soil, difficult to grow; requires winter protection; highly recommended for use with other broadleaf evergreens; should only be used in protected areas.
(Varieties) Rhododendron	E	Var	Var	Varied			Dense	X	X	X		X		Requires shade and protection

IX. Medium Evergreen Shrubs	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
(Var)														from winter and wind damage; excellent plant where it will grow; blends well with other broadleaf evergreens.
TAXUS X MEDIA Anglojap Yew 'Brownii' 'Chadwickii' 'Densiflora' 'Hatfieldii' 'Hicksii' 'Wardii'	E	5' to 12'	Var	Varied	X	X	Very Dense	X	X	X		X	X	Can eventually grow to 10' tall if not pruned; responds extremely well to pruning and can be kept as low as 2' to 3' tall indefinitely; makes an excellent hedge.

X. Small Evergreen Shrubs

X. Small Evergreen Shrubs	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	SCREENING	OPEN SPACE USE	COMMENTS
CHAMAECYPARIS OBTUSA Hinoki Falsecypress	E	5' TO 7'	5' TO 7'	Rounded		X	Very Dense		X			X		Straight species can grow to 60' or more in height; only cultivars are

'Compacta' 'Grachs' 'Nana Gracillis'														acceptable; thick, dark green foliage.
LEUCOTHOE FONTANESIANA Drooping Leucothoe	E	5' TO 7'	5' TO 7'	Weeping		X	Inter- mediate		X					Fountain-like appearance; intolerant of drought or winds; good undergrowth plant; broadleaf evergreen.
PINUS MUGHO Mugho Pine 'Compacta' var. mugho 'Slavinii'	E	5' TO 7'	5' TO 7'	Varied	X		Very Dense		X			X		Slow-growing; cultivars seldom become large enough to meet some landscape screening requirements; excellent low evergreen screens.

XI. Low Evergreen Shrubs

XI. Low Evergreen Shrubs	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	COMMENTS
<i>BRUXUS MICROPHYLLA</i> Littleleaf Boxwood 'Compacta' var koreana 'Tide Hill' 'Wintergreen'	E	3' to 4'	3' to 4'	Rounded	X	X	Very Dense		X					Handsome, compact evergreen; protect from drying winds and very low temperatures; excellent hedge or screening.
<i>ILEX CRENATA</i> Japanese Holly 'Glory' 'Green Luster'	E	2' to 4'	2' to 4'	Rounded to Spreading		X	Dense		X			X		Straight species is too large for this size group, numerous outstanding

XI. Low Evergreen Shrubs		PLANT CHARACTERISTICS					PLANT USES							COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	
'Hellen' 'Hetzi'														cultivars; possible need for winter protection depending on cultivar; excellent for a variety of uses.
JUNIPERUS CHINENSIS var. sargentii Sargents Chinese-Juniper	E	1.5' to 2.5'	7' to 9'	Wide-Spreading	X	X	Very Dense					X		One of the most adaptable junipers; salt-tolerant and blight resistant; excellent evergreen ground cover.
JUNIPERUS HORIZONTALIS Creeping Juniper 'Plumosa' 'Plumosa Compacta' 'Youngstown'	E	2' to 2.5'	6' to 10'	Wide Spreading	X	X	Very Dense					X		Compact evergreen form; one of the most popular junipers.
PICEA ABIES Norway Spruce 'Nidformis'	E	3' to 5'	4' to 5'	Rounded to Wide Spreading			Very Dense		X					Straight species is too large for this size group; handsome birds' nest shaped evergreen.
PRUNUS LAUROCERASUS Common Laurelcherry 'Ohio Luyken' 'Rotundifolia'	E	3' to 6'	3' to 6'	Rounded to Wide-Spreading			Dense		X					Broadleaf evergreen shrub; possible winter damage; handsome when used as a hedge;

XI. Low Evergreen Shrubs		PLANT CHARACTERISTICS					PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	COMMENTS
'Zabeliana'														withstands pruning well.
TAXUS BACCATA English Yew 'Repandens'	E	2' to 4'	3' to 5'	Rounded to Wide-Spreading	X	X	Very Dense		X					Straight species exhibits frequent winter damage; 'Repandens' is a dwarf cultivar and is hardy.

XII. Large Street Trees

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
ACER RUBRUM Red Maple 'Armstrong' ' Autumn Flame' 'Columnar' 'October Glory' 'Red Sunset' 'Scarlet Sentinel'	D	40' to 60'	40' to 50'	Oval			X	7'+	X	X	X	X		X	Numerous cultivars are superior to the straight species and should be considered for use. Requires room to develop; won't tolerate heavily polluted urban streets; preferred food of Asian Longhorn Beetle. Surface roots for species diversity, too many already.
ACER SACCHARUM Sugar Maple	D	60' to 75'	50' to 60'	Rounded	X	X	X	7'+	X	x	X			X	One of the best larger lawn and shade trees; not for downtown or other crowded areas. Possible use in suburban areas as a street tree. Intolerant of road salt. Subspecies "Nigrum" is more drought tolerant.
CELTIS LAEVIGATA Sugar Hackberry	D	60' to 80'	50' to 60'	Rounded	X	X	X	7'+	X	X	X				Wonderful shade tree. Locate where mechanical injury unlikely; tends to rot if

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															injured.
CELTIS OCCIDENTALIS Common Hackberry 'Chicagoland' 'Prairie Pride'	D	40' to 60'	40' to 60'	Rounded		X	X	7'+						X	Excellent wildlife tree. 'Prairie Pride' is immune to mite that causes witches' broom.
CLADRATIS KENTUCKEA Yellowwood	D	30' to 50'	40' to 50'	Vase Shaped			X	7'+	X	X	X			X	Excellent flowers and foliage; tolerates moist soil conditions; poor branching angles often require corrective pruning; surface roots.
GLEDISTIA TRIACANTHOS var Thornless Honey Locust 'Moriane' 'Shademaster' 'Skyline'	D	50' to 75'	30' to 50'	Rounded	X		X	7'+	X	X	X				Only thornless cultivars are acceptable; cultivars have less disease and insect problems than straight species; provides a light, filtered shade; widely used.
HALESIA TETRAPTERA Carolina Silverbell	D	30' to 40'	20' to 35'	Oval to Rounded		X	X	5'+	X	X	X				Prefers rich, well drained, acid soils; intolerant of adverse conditions; often must be limbed to meet ordinance.

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
LIQUIDAMBAR STYRACIFLUA Sweetgum 'Festival' 'Moraine' 'Happidaze' 'Rotundiloba'	D	60' to 70'	40' to 50'	Pyramidal to Oval			X	8'+	X	X	X			X	Excellent tree for large areas; extensive root system needs room to develop; avoid polluted areas. Fruit can be considered a nuisance. Needs pH of 6.5 or less. 'Happidaze' and 'Rotundiloba' are almost fruitless.
NYSSA SYLVATICA Black Gum, Tupelo	D	30' to 50'	20' to 30'	Oval to Rounded	X	X	X	5'+	X	X	X	X		X	One of the most beautiful native trees; intolerant of high pH soils difficult to transplant.
OSTRYA VIRGINIANA Hophornbeam	D	25' to 40'	20' to 30'	Rounded	X	X	X	5'+	X	X	X	X		X	Good tree where space is limited; somewhat slow to establish; occasionally must be limbed. Lovely bark and foliage.
QUERCUS ALBA White Oak	D	60' to 100'	50' to 80'	Rounded	X	X	X	7'+	X	X	X			X	Drought Tolerant.
*QUERCUS BICOLOR Swamp White Oak	D	50' to 60'	50' to 55'	Rounded	X		X	7'+	X	X	X			X	Excellent floodplain tree. Good anywhere; drought

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															tolerant.
QUERCUS COCCINEA Scarlet Oak	D	70' to 75'	40' to 50'	Pyramidal to Rounded	X	X	X	7'+	X	X	X				Difficult to locate commercially; outstanding ornamental tree; somewhat difficult to transplant.
QUERCUS FALCATA Southern Red Oak	D	70' to 80'	50' to 70'	Rounded	X	X	X	7'+						X	Tolerates some part shade. Grows well in sandy soils. Tolerates poor soils and drought. Also tolerates soils with brief flooding.
QUERCUS IMBRICARIA Shingle Oak	D	50' to 60'	40' to 60'	Oval to Rounded	X	X	X	7'+	X	X	X			X	Nice tree when allowed room to develop; easier to transplant than most oaks. Tolerates most adverse conditions.
QUERCUS MUEHLENBERGII Chinkapin Oak	D	70' to 80'	80' to 100'	Rounded	X	X	X	7'+	X	X	X			X	Easily grown in average, medium, well- drained soils in full sun. Relatively good drought tolerance.
QUERCUS NIGRA Water Oak	D	50' to 80'	40' to 60'	Oval to Rounded	X	X	X	7'+	X	X	X			X	Used extensively in the South; adaptable to

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															moist, wet sites; leaves persist into winter.
QUERCUS PHELLOS Willow Oak	D	40' to 60'	40' to 50'	Pyramidal to Oval	X	X	X	7'+	X	X	X			X	Very handsome tree; widely used in South; finer textured than other oaks.
QUERCUS RUBRA Northern Red Oak	D	60' to 75'	40' to 50'	Rounded	X	X	X	7'+	X	X	X			X	Widely used; fast growing oak; transplants easily; valuable for a variety of landscape uses.
QUERCUS SHUMARDII Shumard Oak	D	40' to 60'	40' to 50'	Rounded	X	X	X	7'+	X	X	X			X	Not widely known and difficult to find commercially. Excellent street tree
TAXODIUM DISTICHUM Bald Cypress 'Shawnee Brave'	D	50' to 70'	20' to 30'	Pyramidal	X	X	X	7'+	X	X	X			X	Often must be limbed up to meet ordinance requirements; handsome specimen tree.
TILIA AMERICANA American Linden	D	60' to 80'	30' to 60'	Rounded			X	7'+	X					X	Inferior to T. cordata, attracts birds and butterflies, Easily grown in average, medium moisture,

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															well-drained soils in full sun to part shade. Tolerates some drought, Generally intolerant of air pollution and urban conditions.
ULMUS PARVIFOLIA Lacebark Elm	D	40' to 50'	40' to 50'	Rounded	X	X	X	7'+	X	X	X				Resistant to Dutch Elm disease; often confused with U. pumila, but is a much superior ornamental tree. Produces lots of seedlings, but doesn't seem to move to the woods. Aggressive root system, absorbs water, nutrients and space.
ACER BUERGERANUM Trident Maple	D	30' to 35'	25'	Oval- Rounded to Round Rounded	X	X	X	5'+	X						Fall color; can be trained to a single trunk and limbed up; popular street tree.
ACER CAMPESTRE Hedge Maple	D	25' to 35'	25' to 35'	Rounded	X	X	X	5'+	X	X	X				Excellent medium-sized tree; useful in areas where space is limited; attractive dark green foliage.
AESCULUS Carnea	D	30' to	30' to	Rounded	X		X	7'+	X						Foliage tends to scorch in

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
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'Red Horse Chestnut'		40'	40'												dry conditions.
CARPINUS BETULUS European Hornbeam 'Asplenifolia' 'Columnaris' 'Fastigiata'	D	40' to 60'	30' to 50'	Oval		X	X		X	X	X			X	Must be limbed up to meet Landscape Ordinance requirements; outstanding specimen tree; there are many excellent cultivars that deserve use.
CERCIDPHYLLUM JAPONICUM Kastura Tree	D	40' to 50'	30' to 50'	Oval to Columnar	X	X	X	7'+	X	X	X	X			Limed up to meet ordinance requirements. Shallow roots. Drought intolerant; must be watered in a drought.
CORYLUS COLUMA Turkis Filbert	D	40' to 50'	20' to 30'	Pyramidal	X		X	5'+	X	X	X				Excellent street tree. full sun to part shade. Best in full sun. Tolerates average soils, but not unamended heavy clays. Newly planted trees need consistent moisture. Once established in the landscape, trees tolerate drought.
EUCOMMIA	D	40' to	40' to	Rounded	X	X	X	7'+	X	X	X	X			Virtually problem free;

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
ULMOIDES Hardy Rubber Tree		50'	50'												outstanding dark foliage; lacking in other ornamental qualities; excellent street tree. Very drought tolerant; must cut water sprouts.
GINGKO BILOBA (Male Only) Ginkgo 'Autumn Gold' 'Fastigata'	D	50' to 80'	30' to 50'	Pyramidal to Rounded	X	X	X	7'+	X	X	X				Good street tree, tolerates air pollution, Tolerant of a wide range of soil conditions,
LARIX DECIDUA European Larch	D	70' to 75'	25' to 35'	Pyramidal			X	7'+	X	X			X	X	Nice specimen tree for large areas; intolerant of adverse conditions; messy winter appearance; does well in wet areas; especially good for tough sites.
METASEQUOIA GLYPTOSTROBODES Dawn Redwood	D	70' to 100'	25'	Pyramidal to Conical	X	X	X	8'+	X	X			X		Can suffer from early freeze damage; should only be used in large areas; very adaptable. Limb up for street tree.
PARROTIA PERSICA Persian Parrotia	D	20' to 40'	15' to 30'	Oval	X	X	X	5'+	X	X	X				Outstanding bark and foliage color; needs shade,

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															good soil, moisture.
<i>PHELLODENDRON AMURENSE</i> Cork Tree	D	30' to 45'	30' to 40'	Rounded	X	X	X	5'+	X	X	X				Withstands most adverse conditions, useful in largest settings. Male only for street tree, female is invasive.
<i>PLANTANUS x ACERIFOLIA</i> London Planetree 'Bloodgood'	D	70' to 100'	60' to 80'	Pyramidal to Rounded	X		X	8'+	X	X					Tolerates adverse conditions; best used in large areas because of size; disease and insect problems can be serious; surface roots; good tough street tree.
<i>QUERCUS ACUTISSIMA</i> Sawtooth Oak	D	35' to 45'	30' to 40'	Rounded	X	X	X	7'+	X	X	X			X	Slow growth rate limits use; lustrous dark green foliage; not widely known but deserves more use. Doesn't produce much fruit; remove lower branches as street tree.
<i>STEPHANOLOBIUM JAPONICUM</i> Japanese Pagoda 'Princeton Upright'	D	30' to 40'	40' to 60'	Rounded	X		X	7'+	X	X	X				Excellent flowers; adaptable to moist conditions; good tree for a variety of uses; should

XII.Large Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															be used more extensively. Beams are messy and discolor concrete.
STYRAX JAPONICUS Japanese Snowbell	D	20' to 30'	20' to 30'	Rounded	X		X	7'+	X						Likes good soil, uniform moisture and a bit of shade. Low branched.
TILIA CORDATA Littleleaf Linden 'Chancellor' 'Greenspire' 'June Bride'	D	60' to 70'	30' to 50'	Oval	X		X	7'+	X	X	X	X			Smaller leaves less messy and less prone to breakage than T. americana
TILIA TORMENTOSA Silver Linden 'Sterling'	D	50' to 70'	30' to 50'	Oval to Rounded	X		X	5'+	X	X	X	X		X	More drought tolerant and tolerant of alkaline soils; Japanese beetle less of a problem
TILIA X EUCHLORA Crimean Linden 'Redmond'	D	40' to 60'	20' to 30'	Oval	X	X	X	7'+	X	X	X	X			Low maintenance, full sun to part shade, purchase trees on their own roots, where available.
ZELKOVA SERRATA Japanese Zelkova 'Village Green'	D	50' to 80'	40' to 70'	Vase-shaped	X		X	7'+	X	X	X				Outstanding ornamental tree; has been used as a replacement for American Elm; tolerates wind and drought;

XII.Large Street Trees	PLANT CHARACTERISTICS						PLANT USES								
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	COMMENTS
															excellent street tree, needs timely pruning.

XIII. Medium Street Trees

XIII. Medium Street Trees	PLANT CHARACTERISTICS						PLANT USES								
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	COMMENTS
ACER BUERGERANUMA Trident Maple	D	30' to 35'	25'	Oval-Rounded to Round Rounded	X	X	X	5'+	X						Fall color; can be trained to a single trunk and limbed up; popular street tree.
ACER CAMPESTRE Hedge Maple	D	25' to 35'	25' to 35'	Rounded	X	X	X	5'+	X	X	X				Excellent medium-sized tree; useful in areas where space is limited; attractive dark green foliage.
ACER TATARICUM var. Ginnala Amur Maple	D	15' To 18'	15' To 20'	Rounded	X	X	X	7'+	X	X	X			X	Handsome multi-stemmed shrub tree; withstands heavy pruning; inconsistent fall color; very adaptable;

XIII. Medium Street Trees		PLANT CHARACTERISTICS					PLANT USES								COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	
															tough.
AMELANCHIER ARBOREA Downy Serviceberry	D	25' to 30'	10' to 15'	Rounded			X	5'+	X	X			X		Does best in naturalistic planting. Only single trunks allowed for street trees.
CARPINUS CAROLINIANA American Hornbeam	D	20' to 30'	20' to 30'	Rounded		X	X	5'+	X	X	X			X	Full sun to partial shade; often must be limbed up to meet ordinance requirements; tolerates moist, well drained soils, interesting native tree. Can be low branched; limb up in nursery; surface roots.
CHIONANTHUS VIRGINICUS White Fringetree	D	15' to 30'	15' to 30'	Broadly Rounded	X	X	X	7' +	X	X	X		X		Probably best with some afternoon shade.
CRATAEGUS X LAVALLEI Lavelle Hawthorn	D	15' to 25'	10' to 20'	Oval	X		X	7'+	X	X	X	X	X		Small dense tree, essentially thornless; normally must be limbed up to meet ordinance regulations;
MAACKIA AMURENSIS Amur Maakia	D	20' to 30'	25'	Rounded	X	X	X	5'+							Narrow diameter trunk; remove low branches.
STYRAX	D	20' to	20' to	Rounded	X		X	7'+	X						Likes good soil, uniform

XIII. Medium Street Trees	PLANT CHARACTERISTICS						PLANT USES								
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	STREET TREE	RECOMMENDED PLANTING STRIP WIDTH	PROPERTY PERMITTER	VEHICULAR USE AREA PERIMETER	VEHICULAR USE AREA INTERIOR	SIGHT TRIANGLE	INCOMPATIBLE LAND USE SCREENING	OPEN SPACE USE	COMMENTS
JAPONICUS Japanese Snowbell		30'	30'												moisture, and a bit of shade. Low branched.

XIV. Ground Cover

XIV. Ground Cover		PLANT CHARACTERISTICS						PLANT USES						COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	
AJUGA GENEVENSIS Geneva Bugle	E	4" to 12"	Var	Wide-Spread	X	X	Dense					X		Tolerates sun or shade; evergreen; easily crushed if walked on.
AJUGA REPTANS Carpet Bugle	E	4" to 12"	Var	Wide-Spread	X	X	Dense				X	X		Very adaptable; numerous outstanding cultivars; excellent evergreen ground cover.
ARCTOSTAPHYLOS UVA-URSI Bearberry	D	6" to 12"	2' to 4'	Wide-Spread	X	X	Dense				X	X		Thick, broad, evergreen mat; does best in poor sandy soils; excellent ground cover for adverse situations.
*BIGNONIA CAPREOLATA Crossvine	E	Var	Var	Climbing Vine	X	X	Inter-mediate				X	X		Attracts hummingbirds, tolerates heavy shade, but flowers best in full sun or partial sun.

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SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	
CALLUNA VULGARIS Scotch Heather	D	4" to 24"	2' to 3'	Wide- Spread	X	X	Dense				X	X		Requires rich, acid soil; very exacting cultural requirements; only lower growing cultivars are acceptable for use in sight triangle; one of the most beautiful ground covers.
*CAMPSIS RADICANS Trumpet creeper	D	Var	Var	Clinging Vine	X	X	Dense						X	Native but has a tendency to take over an area.
*CELASTRUS SCANDENS American Bittersweet	D	Var	Var	Twining Vine	X	X	Inter- mediate						X	Low maintenance, attracts birds, mature vines require little pruning
*CLEMATIS VIRGINIANA Virginsbower	D	Var	Var	Climbing Vine	X	X	Inter- mediate				X	X		Low maintenance, full sun to part shade, species will thrive and bloom in considerable shade, can spread aggressively
COTONEASTER ADPRESSA Creeping Cotoneaster	D	12" to 18"	4' to 6'	Wide- Spread	X	X	Inter- mediate				X	X		Handsome horizontal branching; roots where branches touch the soil.
COTONEASTER DAMMERI Bearberry Cotoneaster 'Skogholm'	D	12" to 18"	6' to 8'	Wide- Spread	X		Inter- mediate				X	X		Branches creep along the ground; vigorous and fast growing; excellent ground cover.
ERICA CARNEA Spring Heath	D	6" to 18"	2' to 3'	Wide- Spread	X		Dense				X	X		Seldom grows over 12" tall; fine textured evergreen ground cover;

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														similar to C. vulgaris.
FORSYTHIA VIRIDISSIMA Bronze Forsythia 'Bronxensis'	D	12" to 18"	2' to 3'	Rounded to Wide-spreading	X	X	Inter-mediate				X	X		Straight species is too large for use; 'Bronxensis' is a dwarf cultivar; excellent foliage and early spring flowers.
*GAYLUSSACIA BRACHYCERA Box Huckleberry	E	6" to 18"	Indef.	Dwarf Wide-spread	X	X	Dense				X	X		Requires acid, well-drained soil; full sun to partial shade.
HYPERICUM CALYGINUM St. Johnswort	D	12" to 18"	18" to 24"	Rounded to Wide-spread	X	X	Inter-mediate				X	X	X	Experiences frequent winter damage.
JUNIPERUS CONFERTA Shore Juniper 'Blue Pacific' 'Emerald Sea'	E	12" to 18"	6' to 9'	Wide-spread	X	X	Very Dense				X	X		Possible winter damage; very adaptable; one of the most handsome juniper ground covers.
JUNIPERUS HORIZONTALIS Creeping Juniper 'Bar Harbor' 'Blue Chip' 'Blue Mar' 'Douglasi' 'Procumbens' 'Wiltoni'	E	12" to 24"	4' to 8'	Wide-spreading	X	X	Very Dense				X	X		Only lowest cultivars are acceptable for use in sight triangle; very adaptable; excellent for any dry, sunny area; numerous outstanding cultivars.
JUNIPERUS SABINA Savin Juniper 'Arcadia' 'Broadmoor' var tamariscifolia	E	12" to 18"	3' to 5'	Wide-spreading	X	X	Very Dense				X	X		Straight species is of little value, but numerous outstanding cultivars; withstands adverse conditions.
LIRIOPE MUSCARI Liriope	E	12" to 18"	Var	Wide-spreading	X	X	Inter-mediate				X	X		Tolerates almost any type of adverse

XIV. Ground Cover		PLANT CHARACTERISTICS					PLANT USES							COMMENTS
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	
														condition; attractive, fine- textured grass- like appearance.
*PACHISTIMA CANBYI Pachistima (Mountain Lover)	E	4" to 12"	Var	Wide- Spreading	X	X	Inter- mediate				X	X	X	Low maintenance, Best grown in organically rich, well- drained soils in part shade. Tolerates full sun. Thrives in rocky-sandy soils.
PACHYSANDRA TEMINALIS Japanese Spurge	E	1" to 10"	Var	Wide- Spreading	X	X	Inter- mediate				X	X		Foliage tends to bleach when grown in too much sun. Plants thrive in sun dappled shade under large trees, spread by rhizomes to form large colonies
PARTHENOCISSUS TRICUSPIDATA Boston Ivy	E	4" to 6"	2.5' to 3.5'	Wide- Spreading	X	X	Inter- mediate				X	X		Fast growing evergreen vine; likes partial shade and will cling to wall and fences.
ROSA WICHURIANA Memorial Rose	D	12"+	Var	Wide- Spreading	X	X	Inter- mediate				X	X		Semi- evergreen ground cover or vine; excellent for preventing soil erosion.
SPIREA JAPONICA VAR. ALPINE	D	8" to 12"	2' to 3'	Rounded to Wide- Spreading	X		Inter- mediate				X	X		Very fast growing delicate. Fine- textured plant; handsome pink flowers.
THYMUS SERPHYLLUS Mother-of-thyme	D	1" to 3"	Var	Wide- Spreading	X	X	Inter- mediate				X	X		Often dies back in winter and is used as a perennial.

XIV. Ground Cover	PLANT CHARACTERISTICS						PLANT USES							
SCIENTIFIC NAME Common Name 'Cultivar'	PLANT TYPE	HEIGHT	SPREAD	FORM	URBAN TOLERANT	DISEASE AND INSECT TOLERANT	DENSITY	PROPERTY PERIMETER SCREENING	VEHICULAR USE AREA PERIMETER	SERVICE AREA SCREENING	SIGHT TRIANGLE	GROUND COVER	OPEN SPACE USE	COMMENTS
VINCA MINOR Periwinkle	D	3" to 6"	Var	Wide-Spreading	X		Inter-mediate				X	X		Excellent evergreen ground cover; handsome lilac blue flowers.
*WISTERIA FRUTESCENS American Wisteria	D	Var	Var		X	X	Inter-mediate				X	X		Full sun, Vines need regular pruning(s) in order to control size and shape of the plant and to encourage flowering.
*XANTHORHIZA SIMPLICISSIMA Yellowroof	D	12" to 24"	Var	Wide-Spreading		X	Inter-mediate					X		Suckers freely from roots; good ground cover for moist areas.

15.05 C. Unacceptable Plant List

I. TNS/ Invasive Species - Severe Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
Ailanthus altissima	Tree of Heaven	This tree produces extensive suckers from its roots and has been known to lift sidewalks and crack pavement up to 50' from the trunk.
Alliaria petiolata	Garlic Mustard	Most abundant in basic soils but spreading elsewhere; A serious pest of mesic forest and woodland; Highly disruptive to ecological systems and species
Carduus nutans	Musk Thistle	Across the state, most abundant on base-rich soils; Largely a disturbing ground/Ag weed, but with potential to invade natural grassland/woodland (not forest); prolific seeder; chemical control must be timed correctly because seed can ripen in treated heads
Celastrus orbiculata	Oriental Bittersweet	Across the state, most abundant on base-rich soils; rapidly spreading; Bird and people spread; measures to prevent its use in decorations needed; can form large thickets: usually open ground, but can invade the forest, woodland; threatens native bittersweet's gene pool
Conium	Poison	Widespread in KY; Forms large patches that choke out native spp., can poison livestock

I. TNS/ Invasive Species - Severe Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>maculatum</i>	Hemlock	
<i>Coronilla varia</i>	Crown vetch	Widespread, widely planted on roadsides; for erosion control; Forms monocultures that choke out most other species; fire promoted; especially prolific on base-rich soils; can invade grasslands, open forest, woodlands; threatening federally listed sp.
<i>Dioscorea oppositifolia</i>	Chinese yam	Widespread in KY; Serious pest of an open, mesic forest, woodland, riparian areas; plowing, disking, etc. spread it through fields and field to field; forms DENSE choking monocultures.
<i>Elaeagnus umbellata</i>	Autumn Olive	Widespread in KY; Most planted (mine areas, roadsides, w/l openings), and escaped; can form dense thickets under which little grows; persists under a canopy; bird spread
<i>Euonymus alatus</i>	Winged Euonymus, Burning Bush	Widespread in KY; Widely cultivated and escaped; bird spread; will establish in open or closed habitat and can form dense thickets
<i>Euonymus fortunei</i>	Winter Creeper	Widespread in KY; Widely cultivated and escaped; bird spread; will establish in open or closed habitat and can form dense thickets; high climber and can choke trees
<i>Festuca arundinacea</i> or <i>Lolium arundinaceum</i>	Kentucky 31 fescue	Widespread; Serious invader of grasslands/glades; threatens federally endangered sp.; can be damaging to wildlife and livestock
<i>Hibiscus syriacus</i>	Rose of Sharon	This prolific seeder has a deep taproot that is difficult to remove once the plant is 2-3 years old. It has escaped intended plantings to invade, crowd out and displace more desirable native plants. (sterile varieties are available)
<i>Lespedeza cuneata</i>	Sericea Lespedeza	Serious pest in grasslands; responds well to prescribed fire
<i>Ligustrum sinense</i> , <i>L. vulgare</i>	Chinese Privet	Throughout KY, but scattered; Widely planted for ornament and escaping; serious pest of wet to mesic forest systems; can establish under a canopy; bird spread, capable of forming regen killing thicket
<i>Lonicera japonica</i>	Japanese Honeysuckle	Widespread in KY; Serious pest in forests, open habitats too; chokes out native veg
<i>Lonicera maackii</i> , <i>L. morrowi</i> , <i>L. tatarica</i>	Amur/Bush Honeysuckle, Morrow's	Across KY, most abundant in base-rich soil areas; Invades disturbed ground and open forest; rapid growth; forms dense colonies prolific sprouted; rapid spread; prolific seeder (wind) Aggressive, rapidly spreading (birds) shrub/small tree which forms dense vegetation excluding (including trees) thickets under a tree canopy or in open
<i>Lythrum salicaria</i> L.	Purple Loosestrife	This aggressive invader replaces native vegetation, degrades wildlife habitat, and obstructs natural waterways.
<i>Melilotus alba</i>	White Sweet Clover	Across KY, most abundant in base-rich soil areas; Widely grown for forage; w/l openings, mine reclamation; extremely difficult to eradicate from thin gravelly or rock soils (such as glades); fire scarified seed so potential problem for grasslands, woodlands

I. TNS/ Invasive Species - Severe Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>Melilotus officinalis</i>	Yellow Sweet Clover	Across KY, most abundant in base-rich soil areas; Widely grown for forage; w/l openings, mine reclamation; extremely difficult to eradicate from thin gravelly or rock soils (such as glades); fire scarified seed so a potential problem for grasslands, woodlands
<i>Microstegium vimineum</i>	Japanese Stilt Grass	The species spreads by seed. It flowers in late summer, and the small, abundant seeds can float and readily move with wildlife. It normally establishes on disturbed areas, both natural and manmade, and can tolerate a range of soil conditions.
<i>Miscanthus sinensis</i>	Chinese Silver Grass	Across KY, scattered, locally abundant; Aggressive, rapidly spreading (windblown seed); forms dense colonies excluding other vegetation; an extreme fire hazard in late fall/winter/early spring; invades open disturbed ground, grasslands, woodlands, and open forest; fire promoted, so of concern for Rx burn areas
<i>Paulownia tomentosa</i>	Princess Tree	Across KY, scattered, locally abundant; Generally, along roadsides, open areas, but can establish in the forest after a fire, wind events, etc.; prolific seeder (gravity, wind) and sprouted
<i>Phragmites australis</i>	Common Reed	invades a site it quickly can take over a marsh community, crowding out native plants, changing marsh hydrology, altering wildlife habitat, and increasing fire potential. Native plant species that are adapted to local conditions should be used in restoration projects and as a substitute for Phragmites erosion control practices.
<i>Polygonum cuspidatum</i>	Japanese Knotweed	Initially useful for erosion control, as an ornamental, and for landscape screening, Japanese knotweed spreads quickly to form dense thickets that can alter natural ecosystems or interfere with landscaping.
<i>Pyrus calleryana</i>	Callery Pear	Throughout KY, scattered, locally abundant; Widely planted street/yard tree; bird spread primarily starlings; establishes in open disturbed ground-roadsides, waste areas, fields, but also in grasslands and woodlands; tolerant of fire (good resprouter); expansion currently rapid; While this species group has been commonly used in the past in private and public landscaping, it exhibits problems with branch separation from the main trunk.
<i>Pueraria lobata</i>	Kudzu	This aggressive vine can grow 60 feet per year forming a continuous blanket of foliage. This massive covering often chokes out-competing native vegetation that provides food and habitat for native animals. The result is a large-scale alteration of biotic communities. Kudzu is also a problem in forest-agriculture and landscaping.
<i>Rosa multiflora</i>	Multiflora Rose	Statewide; Problem in forest openings, woodlands, and grasslands – seeds spread by birds; persistent in forests
<i>Sorghum halepense</i>	Johnson Grass	Widespread; Invades grasslands and woodlands from adjacent ag and roadside locations; difficult to control
<i>Stellaria media</i>	Chickweed	Primarily a species of disturbed, open ground, but can spread into forest settings and displace natives-extremely difficult to eradicate/control in this case without damage to natives

II. TNS/ Invasive Species- Significant Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>Akebia quinata</i>	Chocolate Vine	Is able to invade forested habitats because it is shade tolerant. The dense mat of vines formed can displace native understory species. It can also climb into, smother, and kill small trees and shrubs.
<i>Albizia julibrissin</i>	Mimosa	Strong competitor with native trees and shrubs in open areas or forest edges as it can grow in a variety of soils, produce large seed crops, and re-sprout when damaged. Can become a serious competitor along riparian area. This tree is weak wooded, and messy with seed pods littering the ground. It is disease and insect intolerant.
<i>Arthraxon hispidus</i>	Jointhead Grass	It can form dense stands, particularly along shorelines that may threaten native vegetation. Jointhead grass often occurs with another highly invasive annual grass species, Japanese stilt grass
<i>Arctium minus</i>	Common Burdock	Can become a problematic invader of pastures, hay fields and open prairie ecosystems. It acts as a secondary host for pathogens, such as powdery mildew and root rot, which affect economically important plants. Reduces the value of sheep's wool due to the seed heads entangling in it. It is responsible for tainting milk products if grazed in large quantities.
<i>Berberis thunbergii</i>	Japanese Barberry	Is most problematic in mature forest communities in the eastern United States, where it often forms dense thickets. It occurs in upland and riparian settings, wetlands, pastures, and meadows
<i>Bromus inermis</i>	Smooth Brome grass	Largely in high-base soils areas, but scattered throughout KY; Strongly rhizomatous and quickly forms monoculture; especially of concern for prairie areas, pasture
<i>Centaurea biebersteinii</i>	Spotted Knapweed	Across state, prefers baserich soil; Spreads rapidly, difficult to eradicate; invades grasslands easily; promoted by fire—will invade open forest, woodland
<i>Chrysanthemum leucanthemum</i>	Ox-eye Daisy	The plants have been shown to carry several crop diseases. It can thrive in a wide variety of soil types and can grow in sun to partial shade.
<i>Cirsium arvense</i>	Canada Thistle	Produce large numbers seeds, distribution in agricultural landscapes
<i>Daucus carota</i>	Queen Anne's Lace	Widespread; Serious pest in native grasslands/glades
<i>Dipsacus sylvestris</i>	Common Teasel	mainly a weed of pastures and roadsides, it sometimes also grows in natural communities and forms a large basal rosette of leaves in the early stages of growth. This rosette of leaves can cover a large area and shade other ground-dwelling plants nearby
<i>Eleusine indica</i>	Goose Grass	dominant weed" especially in farming systems and annual row-crops where it grows vigorously and produces abundant seedlings; invades disturbed habitats in natural areas and the margins of natural forests and grasslands, marshes, stream banks and coastal areas
<i>Glechoma hederacea</i>	Ground Ivy	Weedy and invasive; toxic to horses if they consume a large amount of fresh material or hay;
<i>Hedera helix</i>	English Ivy	aggressive invader threatening all levels of forested and open areas, growing along the ground

II. TNS/ Invasive Species- Significant Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
		as well as into the forest canopy. Vines climb up tree trunks and envelop branches and twigs, blocking sunlight from the host tree's foliage, impeding photosynthesis. An infested tree will exhibit decline for years before it dies. The weight of vines also makes trees susceptible to blowing over in storms. This plant has been confirmed as a reservoir for bacterial leaf scorch (<i>Xylella fastidiosa</i>), which affects a wide variety of trees
<i>Ipomoea hederacea</i>	Ivy-Leafed Morning-Glory	Considered a troublesome weed
<i>Ipomoea purpurea</i>	Purple Morning-Glory	Entwines around structures with tiny stems, grows to a height of 6' – 9' tall
<i>Lespedeza bicolor</i>	Bicolor Lespedeza	Across KY; Much planted with mine reclamation and in w/l openings; a serious pest in areas where Rx fire used as in grassland, forest or woodland; fire scarified seed and enhanced plant; forms dense thickets that can choke regen trees and native species
<i>Lespedeza stipulacea</i> (=Kummerowia)	Korean Lespedeza	Throughout KY, Widely planted for wildlife; Highly invasive in disturbed sites such as roadsides, lawns, waste areas and areas under Rx burn such as grassland, woodland
<i>Lespedeza striata</i> (=Kummerowia)	Kobe lespedeza	Throughout KY, Widely planted for wildlife; Highly invasive in disturbed sites such as roadsides, lawns, waste areas and areas under Rx burn such as grassland, woodland
<i>Mentha piperata</i>	Mint	An aggressive spreader: can overtake native plants if released near woodlands
<i>Morus alba</i>	White Mulberry	The mulberries are unsuitable because of the fruit that they produce, which is flesh and extremely messy.
<i>Mosla dianthera</i>	Miniature Beefsteak	prefers wet habitats such as marshes and roadside ditches.
<i>Ornithogalum umbellatum</i>	Star-of-Bethlehem	Plants can be aggressive spreaders in the garden (multiply by bulbils), and will quickly naturalize garden areas, often escaping into the wild.
<i>Poa pratensis</i>	Bluegrass	is considered an invasive weed in natural grassland ecosystems where it outcompetes native species and reduces biodiversity and alters nitrogen cycling and ecosystem function
<i>Polygonum cespitosum, persicaria</i>	Bunchy Knotweed, Lady's Thumb	occurs in disturbed habitats such as along roadsides and in pastures. Plants also inhabit wet areas.
<i>Populus (all)</i>	Poplar	All poplars are unacceptable because they are disease prone and weak wooded.
<i>Setaria faberi, viridis</i>	Giant Foxtail, Green Foxtail	Plants invade disturbed sites such as roadsides, landfills, fence rows, and right of ways.

II. TNS/ Invasive Species- Significant Threat		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>Spiraea japonica</i>	Japanese spiraea	Invades a variety of habitats including fields, forests, stream banks, and many disturbed areas. Once established, it can form dense stands that displace native vegetation and close open areas.
<i>Vinca minor</i>	Lesser Periwinkle	inhabits open to shady sites including forests and often escapes from old homesites. Vinca minor grows vigorously and forms dense and extensive mats along the forest floor, displacing native herbaceous and woody plant species

III. Other Unacceptable Plants and Trees		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>Acer negundo</i>	Box Elder	Flowers are borne in messy tassel-like clusters
<i>Acer saccharinum</i>	Silver Maple	The use of this tree should be tempered because of its extensive shallow root system that will cause drain tiles to clog and sidewalks to buckle. The tree is also weakly wooded which causes it to become a liability with age; often becomes too large for a street tree.
<i>Aesculus hippocastanum</i>	Horse Chestnut	These trees are all very messy, which is caused by the large fruit and low rate of leaf drop. None of these trees are hardy in a restricted area and therefore they should not be used in an urban area.
<i>Betula papyrifera</i>	Paper Birch	Susceptible to Bronze Birch Borer. Life expectancy in a site with some stress (i.e. street tree) is short in urban areas.
<i>Betula pendula</i>	European White Birch	This tree is very popular, unfortunately, the leaf miner and bronze Birch Borer are serious pests. Since most property owners will not take the necessary precautions it is advisable not to use this plant to meet any landscaping requirements. This tree is also intolerant of urban stress, short-lived with low branching pattern.
<i>Fraxinus species</i>	Anything in Fraxinus Sp. Genus	The Emerald Ash Borer kills these trees.
<i>Ginkgo biloba (Female)</i>	Ginkgo	The female of this species is unacceptable anywhere because of its fruit. The fleshy seed is extremely messy and malodorous. Males are ok.
<i>Gleditsia triacanthos</i>	Common Honey Locust	This tree is too thorny for use in the urban environment to meet the ordinance requirements. Note that thornless varieties are OK (listed above).
<i>Gymnocledus dioica</i>	Kentucky Coffee Tree (Female)	Has very large seed pods and is messy.

III. Other Unacceptable Plants and Trees		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>Juglans species</i>	Walnut	Messy seed pods.
<i>Kalopanax pictus</i>	Castor Aralia	A good shade tree, but excessive thorns make this tree unacceptable.
<i>Maclura promifera</i>	Osage Orange	Female flowers ripen to become a large, spherical syncarp (clustered fruit) weighing up to 2 lbs. Individual fruit looks similar to an orange and can be up to 4" in diameter.
<i>Morus rubra</i>	Red Mulberry	The mulberries are unsuitable because of the fruit that they produce, which is flesh and extremely messy.
<i>Pinus nigra</i>	Austrian Pine	Highly susceptible to Diploda tip blight
<i>Pinus sylvestris</i>	Scotch Pine	Not suitable for underplanting or shelterbelts. Variable hardiness, habitat, and adaptability.
<i>Platanus occidentalis</i>	American Sycamore	Disease and insect problems can be serious.
<i>Pseudotsuga menziesii</i>	Douglas Fir	Many disease problems. Not suitable for dry, windy areas or underplanting or windbreaks.
<i>Quercus palustris</i>	Pin Oak	Highly susceptible to Bacterial Leaf Scorch.
<i>Robinia pseudoacacia</i>	Black Locust	Very prolific and can out-compete other native plants, thorny.
<i>Catalpa bignonioides</i>	Southern Catalpa	Because of its weak wood and its fruit, this tree is too messy to warrant its use except in open areas.
<i>Malus sp.</i>	Crabapple	This tree is weedy and its fruit is too large to warrant the use of this tree to meet ordinance requirements. Some varieties are susceptible to disease.
<i>Salix babylonica</i>	Weeping Willow	Messy (always dropping small branches), weak wooded, susceptible to canker (disease), taps sewer and water lines but is beneficial in stormwater management.
<i>Sorbus sp.</i>	Mountain Ash	These trees are susceptible to a host of diseases and pests that should temper its use. Not recommended as a street tree because it is not urban tolerant and it has fleshy seed pods. Best used in open lawn areas for private use.
<i>Aralia spinosa</i>	Devil's Walking Stick	Vigorous spreader which can be a maintenance problem.
<i>Eleagnus angustifolia</i>	Russian Olive	Short lived
<i>Euonymus</i>	Spreading	Susceptible to severe winter damage or death.

III. Other Unacceptable Plants and Trees		
SCIENTIFIC NAME	COMMON NAME 'CULTIVAR'	COMMENTS
<i>kiautschovica</i>	Euonymus	
<i>Ilex cornuta</i>	Chinese Holly	Some leaves bear sharp strong spines making this shrub unacceptable to meet the requirements of this ordinance.
<i>Laburnum x watereri</i>	Golden Chain Tree	Flowers (the main reason for growing plants) do not survive winters and seeds are poisonous.
<i>Prunus cerasifera (straight species)</i>	Cherry Plum (straight species)	These trees experience serious disease problems and are pollution sensitive.
<i>Prunus persica</i>	Peach	These trees experience serious disease problems and are pollution sensitive.
<i>Rhamnus catharica</i>	Common Buckthorn	Dieback on compacted, waterlogged, or heavy soils. Susceptible to winter dieback.
<i>Rhamnus frangula</i>	Glossy Buckthorn	This shrub experiences serious disease problems and tends to become weedy because birds drop seeds. It also has problems surviving in areas with heavy traffic because of soil compaction. On the watch list for invasive species.
<i>Staphylea trifolia</i>	American Bladdernut	This shrub suckers extensively. Unless it is maintained properly it tends to become very weedy.
<i>Vitex angustatus</i>	Chastletree	The Chastletree is not hardy in this region.
<p>Information gathered from:</p> <p>https://eec.ky.gov/Natural-Resources/Forestry/forest-health/Pages/Invasive-Plant-Threats.aspx</p> <p>https://www.se-eppc.org/ky/KYEPPC_2013list.pdf</p> <p>https://www.se-eppc.org/ky/list.htm</p> <p>https://fw.ky.gov/More/Documents/KYTerrestrialNuisanceSpeciesPlan.pdf</p>		