

1003.109 "KP" Karst Preservation District Regulations.

1. Purpose and Intent.

An approximately four square mile area of north St. Louis County located in the community of Old Jamestown is characterized by a unique karst topography. It has been scientifically identified as the "Florissant Karst" region by the geologic/scientific community as being one of the finest examples of deep funnel-shaped sinkholes in the central United States.

Sinkholes, springs, and caves are among the common features in karst areas. This type of topography presents serious constraints to urban development in particular soil creep near sinkhole depressions, localized flooding near sinkholes, and potential groundwater contamination from stormwater runoff and sewage effluent. A primary characteristic of this karst area is the existence of surface sinkholes into which all surface runoff flows. The area is considered to be internally drained, and as a result has no surface channels that convey surface runoff to larger surface streams.

This section is therefore necessary to protect this significant natural environmental geologic area.

It is the purpose of this section to preserve the Florissant Karst area in its natural state, while allowing development at an intensity that can be accommodated within the constraints of the geological features of this unique area.

2. Scope of Provisions.

This section contains the regulations for the "KP" Karst Preservation District of St. Louis County.

All of the area within the "KP" Karst Preservation District is located in the Florissant Karst area, as described in subsection 1, and is subject to all of the provisions of this subsection.

3. Permitted Land Uses and Developments.

The following land uses and developments are permitted in the "KP" Karst Preservation District:

- (1) Adult day care homes licensed under Chapter 819 of Title VIII SLCRO 1974, as amended, which are located 500 feet or more, when measured from lot lines, from another adult day care home as determined by the Department of Planning.
- (2) Child day care home licensed under Chapter 819 of Title VIII SLCRO 1974, as amended, which are located 500 feet or more, when measured from lot lines, from another child day care home as determined by the Department of Planning.
- (3) Churches.
- (4) Commercial vegetable and flower gardening, as well as plant nurseries and greenhouses, but not including any structure used as a salesroom.
- (5) Dairy farming.
- (6) Dwelling, single family.
- (7) Dwelling, single family earth sheltered.
- (8) Farming, including the cultivation and sale of any plant crops and domestic animals.
- (9) Forests, wildlife reservations, and conservation projects.
- (10) Golf courses, including practice driving tees on the same premises. Miniature golf courses and independent practice driving tees are excluded.
- (11) Group homes for the handicapped occupied by not more than eight (8) individuals (excluding supervisory personnel) who need not be related by blood or marriage to the operator or operators of the facility.
- (12) Home occupations.
- (13) Hunting and fishing as well as propagation of wildlife of any kind.

- (14) Libraries, public or private not-for-profit.
- (15) Local public utility facilities sixty (60) feet or less in height or one hundred thousand (100,000) cubic feet in volume or less, provided that any installation, other than poles and equipment attached to the poles shall be:
 - (a) adequately screened with landscaping, fencing, or walls, or any combination thereof, or
 - (b) placed underground, or
 - (c) enclosed in a structure in such a manner so as to blend with and complement the character of the surrounding area.

All plans for screening these facilities shall be submitted to the Department of Planning for review. No building permit or installation permit shall be issued until these plans have been approved by the Department of Planning.
- (16) Mausoleums or Crematoriums in an existing cemetery, any other provision of the law notwithstanding, but no such structure shall be situated closer than 100 feet to any cemetery property line.
- (17) Parks, parkways, and playgrounds, public or private not-for-profit.
- (18) Schools, public or private kindergarten, secondary, and collegiate.
- (19) Schools, public or private elementary, on a tract of land of at least five (5) acres.
- (20) Telecommunication towers of forty (40) feet or less in height and co-used telecommunication towers or disguised support structures of sixty (60) feet or less in height.

4. Conditional Land Use and Development Permits issued by the Commission.

The following land uses and developments may be permitted under conditions and requirements specified in Section 1003.181 Conditional Use Permits:

- (1) Administrative offices and educational facilities for religious purposes.
- (2) Adult day care centers.
- (3) Cemeteries, including mortuaries operated in conjunction with the cemetery.
- (4) Child care centers.
- (5) Clubs, private not-for-profit.
- (6) Extraction of raw materials from the earth and the processing of these raw materials. (O.No. 24509 – Adopted 9/15/2010).
- (7) Feed or grain storage, commercial or cooperative.
- (8) Foster homes for handicapped children.
- (9) Golf courses which are illuminated and practice driving tees.
- (10) Group homes for the handicapped, to be occupied by nine (9) or more individuals (excluding supervisory personnel) not related by blood or marriage to the operator or operators of the facility.
- (11) Group homes for the elderly.
- (12) Local public utility facilities over sixty (60) feet in height or over one hundred thousand (100,000) cubic feet in volume.
- (13) Nursing homes, but not including self-care units.
- (14) Police and fire stations.
- (15) Public utility facilities.
- (16) Recreational camps and camping facilities.
- (17) Recreational land uses, commercial or not-for-profit.
- (18) Retreats owned and operated by religious, educational, or other not-for-profit establishments and religious convents.
- (19) Riding stables, kennels, and veterinary clinics.
- (20) Rifle ranges, skeet shooting clubs, and other activities featuring the use of firearms when all parts of these activities are located at least 100 feet from the boundaries of the property involved.
- (21) Salesrooms, when established as an accessory use to commercial gardens, plant nurseries,

and greenhouses, for the sale of nursery products and related items for use in preserving the life and health of such products, hand tools, and plant containers. The preceding items shall not include power-driven equipment, lawn and garden furniture or decorative accessories, fencing, or bulk sale of sand, gravel, mulch, railroad ties or similar materials. The salesroom may occupy all or a portion of a building.

- (22) Schools, public or private elementary, on a tract of land of at least three (3) acres but less than five (5) acres.
- (23) Sewage treatment facilities, other than facilities permitted as an accessory use.
- (24) Solar arrays as the primary use (O.No. 26111 – Adopted 6/30/15)
- (25) Specialized private schools.
- (26) Telecommunication towers up to two hundred (200) feet in height.

5. Accessory Land Uses and Developments.

Subject to compliance with the procedures of this Section, accessory buildings, structures, and uses are permitted, in conjunction with a permitted land use or development or (unless restricted by applicable condition) a conditional land use or development, when such accessory building, structure or use is customarily found in conjunction with the primary use, is a reasonably necessary incident to the primary use, is clearly subordinate to the primary use, and serves only to further the successful utilization of the primary use. Accessory uses include the following:

- (1) Devices for the generation of energy, such as solar panels, solar arrays, above ground equipment associated with ground source heat pump systems, wind energy systems, and similar devices. Accessory solar arrays shall not exceed one half of the footprint of the principle structures, or 600 square feet, whichever is greater. (O. No. 26111 – Adopted 6/30/15)
- (2) Individual sewage treatment facilities serving an individual dwelling, farm, or non-residential use, as approved by the appropriate regulatory agency. The sewage treatment facilities shall not exceed 5,000 gallons per day flow.
- (3) Manufacturing plants, such as asphalt or concrete plants, when located on the same premises as an operation authorized under Section 1003.181 Conditional Use Permit Procedure engaged in the extraction of raw materials from the earth and the processing of these raw materials. (O.No. 24509 – Adopted 9/15/2010).
- (4) Private stables.
- (5) Signs (business, directional, and information).

6. Development Criteria.

- (1) Sinkholes are not adequate natural discharge points. No use or development in the “KP” Karst Preservation District shall:
 - (a) increase the surface runoff onto other properties,
 - (b) change the overall surface runoff pattern of the existing sinkhole network,
 - (c) create artificial routing of stormwater between sinkholes,
 - (d) result in the blockage or filling of sinkholes,
 - (e) create or cause to be created artificial stormwater structures within sinkholes,
 - (f) allow for the disposal of any materials into a sinkhole that will degrade the quality of water entering the subsurface through the sinkhole,
 - (g) decrease the rate that water enters the subsurface through the sinkhole, or
 - (h) permit the discharge of developed stormwater into a sinkhole. O.No. 26111 – Adopted 6/30/15
- (2) A Geotechnical Engineer shall submit a geotechnical report for most new development. This report will be submitted to the Department of Highways and Traffic for review and approval, and, to insure compliance with this Section and stormwater design criteria as it pertains to Florissant

Karst geology and proximity to sinkholes. A statement of compliance with this study, signed by the Geotechnical Engineer preparing the report, shall be included on any Site Plans. The Geotechnical Engineer shall sign and seal all plans with a certification that the proposed construction will be completed in accordance with the grading and soils requirements and conditions contained in the report. The Department of Highways and Traffic may require such additional data or engineering studies as may be necessary to determine the adequacy of the proposed plan for addressing stormwater treatment.

7. Performance Standards.

All uses in the "KP" Karst Preservation District shall operate in conformity with the appropriate performance standards contained in Section 1003.163 Zoning Performance Standard Regulations.

8. Height Limitations for Structures.

The total height of any structure shall not exceed that permitted in Section 1003.161 Air Navigation Space Regulations.

9. Lot Area and Yard Requirements.

The minimum lot area and yard requirements for land uses and developments in the "KP" Karst Preservation District shall be as set out below:

(1) Minimum Lot Area Requirements:

- (a) The following Permitted and Conditional Land Uses shall be situated on tracts of land providing not less than the following areas:

Use	Minimum Area
Adult day care center	3 acres
Administrative offices and educational facilities - religious	4 acres
Child Care Center	3 acres
Church	3 acres
Dwelling, single family	3 acres
Dwelling, single family, earth sheltered	3 acres
Group homes for the handicapped	3 acres
Group homes for the elderly	3 acres
Local public utility facilities and telecommunication towers	10,000 sq. ft.
Mechanical sewage treatment facility	3 acres
Schools	
kindergarten (separate)	3 acres
elementary (permitted use)	5 acres
elementary (conditional use)	3 acres
junior high	10 acres
senior high	20 acres
collegiate	10 acres

- b) Any lot or tract-of record on the effective date of this ordinance, which contains less than three (3) acres, may be used as a site for one (1) single family dwelling together with customary accessory structures and uses.

- (c) Specialized private schools shall be located on a tract of land containing one (1) acre for each fifteen (15) pupils, but in no case less than five (5) acres, nor more than that required by the school land area requirements, as listed in paragraph 9.(1)(a).
- (d) Mechanical sewage treatment facilities may be located on tracts of land less than three (3) acres in area where the facility is located on platted common land within a subdivision. The minimum lot area, however, shall in no case be less than 10,000 square feet.
- (e) All other Permitted or Conditional Land Uses in this District shall be situated or conducted on tracts of land at least five (5) acres in area.

(2) Creation of New Lots.

No new lots shall be created of less than three (3) acres in area except for local public utility facilities. Lots of less than three (3) acres in area, created for a local public utility facility, shall not be used for any other use.

(3) Minimum Yard Requirements: General.

- (a) Front yard. No structure shall be allowed within fifty (50) feet of any roadway right-of-way line.
- (b) Side and rear yard. No structure shall be allowed within twenty (20) feet of any property line other than a roadway right-of-way line.
- (c) Sinkhole. No structure shall be allowed within seventy-five (75) feet of the edge of any sinkhole.
- (d) No septic tank shall be closer than fifty (50) feet to the edge of sinkhole; and the septic tank's leach field shall be a minimum of one hundred (100) feet from the edge of any sinkhole.

(4) Specific Yard Requirements and Exceptions.

- (a) Notwithstanding any other provisions of this Chapter, on corner lots, no structure or plant material exceeding three (3) feet in height above the elevation of the street pavement is allowed within the sight distance triangle.
- (b) Boundary walls or fences, six (6) feet or less in height, are allowed within the minimum yard requirements.
- (c) Permitted information signs, six (6) feet or less in height, are allowed within the minimum front yard setback.
- (d) Permitted directional signs, three (3) feet or less in height, are allowed within the minimum front yard setback or sight distance triangle.
- (e) A permitted free-standing business sign may be located no closer than twenty-five (25) feet from any roadway right-of-way line.
- (f) Light standards for street lighting or at points of ingress and egress, but not including parking lot lighting, are allowed within the minimum front yard setback when approved by the Department of Planning. Light standards for parking lot lighting are allowed no closer than ten (10) feet of any side or rear yard line which adjoins property in the "KP" Karst Preservation, "NU" Non-Urban, "PS" Park and Scenic, or any "R" Residence District.
- (g) Solar arrays or above ground equipment associated with ground source heat pumps may not be located within the front yard setback.
- (h) Solar arrays shall be located a minimum of twenty (20) feet from all property lines and other structures.
- (i) A solar array shall not exceed one half the footprint of the principal structure or 600 feet, whichever is greater.

- (j) Above ground equipment associated with ground source heat pump stations shall meet the structure setbacks of the underlying zoning district and shall not encroach on any easement or right-of-way. (O. No. 26111 – Adopted 6/30/15)
- (k) In the event that greater than fifty (50) percent of the existing dwelling structures on the same side of a street and in both directions from a lot, for a distance of 500 feet or to the nearest intersecting street, whichever distance is less, have a variation in front yard setbacks of no more than ten (10) feet, the required front yard for that lot shall be the average setback of those structures. However, in no case shall any building be located closer than fifteen (15) feet from any roadway right-of-way line, nor shall a setback of greater than seventy-five (75) feet be required.
- (l) If a lot of record existing on the effective date of this Ordinance has a width of one hundred (100) feet or less, the side yard on each side of any structure erected on such lot may be reduced to a width of not less than ten (10) percent of the width of the lot, but in no instances shall such yard be less than five (5) feet in width.
- (m) Any non-residential structure, other than a public utility tower authorized by a Conditional Use Permit, which exceeds thirty (30) feet in height shall be set back from all property lines at least one (1) additional foot for every foot of height above thirty (30) feet.
- (n) No private stable shall be allowed within one hundred (100) feet of any property line or the edge of any sinkhole. Affiliated pasture areas shall be fenced.
- (o) Notwithstanding any other provisions of this Chapter, no wind energy systems or telecommunication towers shall be closer to a property line of "PS" Park and Scenic District, "KP" Karst Preservation, "NU" Non-Urban District or "R" Residence District property than a distance equivalent to the height of the proposed telecommunication tower. A greater setback may be required by the conditions of a Conditional Use Permit.
- (p) The turbine and tower of a wind energy system shall remain painted or finished in the color that was originally applied by the manufacturer. Bright, luminescent, or neon colors as determined by the Director of Planning shall be prohibited.
- (q) The blade tip or vane of any wind energy system shall have a minimum ground clearance of fifteen feet as measured from the lowest point of the arc of the blades.
- (r) No illumination of or on the turbine or tower shall be allowed unless required by the FAA.
- (s) Any climbing foot pegs or rungs below twelve feet of a freestanding tower shall be removed to prevent unauthorized climbing. (O. No.26111 – Adopted 6/30/15).

10. Off-Street Parking and Loading Requirements.

Off-street parking and loading requirements and setbacks for parking areas, loading spaces and internal drives are set forth in Section 1003.165 Off-Street Parking and Loading Requirements.

11. Sign Regulations.

Sign regulations are set forth in Section 1003.168 Sign Regulations.

12. Procedure - Approval of Site Plan.

If the standards required by this subsection are satisfactorily met in respect to any lot or tract of land in the "KP" Karst Preservation District, the property may then be used for such permitted uses or those conditional uses as authorized by the Planning Commission for the particular property. Prior to authorization for any development or redevelopment in the "KP" Karst Preservation area, the following requirements shall be met:

- (a) Submit a Site Plan to the Department of Planning for review and approval if required by Section 1003.179 Site Plan Review Procedure; or

- (b) Submit plans for single lot residential developments to the Department of Public Works to be reviewed for compliance with the Zoning ordinance.
- (c) Plans shall include contours, setbacks, sinkhole location, building dimensions, a geotechnical report insuring compliance with this subsection and stormwater design criteria as it pertains to the Florissant Karst geology and other pertinent information as deemed necessary. Exceptions:

A detailed site plan and geotechnical report are not required for any of the following provided sinkholes are shown on the site plan:

- (i) agricultural buildings less than 2,000 square feet in gross floor area,
- (ii) additions to single family residences when the addition is less than fifty percent (50%) of the existing building's gross floor area and the addition does not exceed 2,000 square feet, or
- (iii) accessory structures (including garages and retaining walls) less than 1,000 square feet.

(O.No. 23925 – Adopted 3/4/09)