

# **CITY OF GEORGETOWN ORDINANCE NO. 2003-**

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## **AN ORDINANCE RELATED TO THE AMENDMENT OF THE GEORGETOWN/SCOTT COUNTY SUBDIVISION & DEVELOPMENT REGULATIONS REGARDING ARTICLE XII & APPENDIX III- ENVIRONMENTALLY SENSITIVE AREAS**

**WHEREAS:** The existing Subdivision & Development Regulations requirements are not satisfying the community's needs. In order to provide for the safe and orderly development of property, the maintenance of property values, and the delivery of governmental services for the public's protection and safety, it is necessary to maintain the planning and zoning process with periodic amendments in response to new and existing challenges. The regulation requirements must be updated to reflect the current professional thinking, engineering principles and best management practices to address environmentally sensitive areas and sinkhole areas. Georgetown and Scott County contain numerous environmentally sensitive areas, including sinkhole related areas that must be addressed during the development process.

All new developments, including those that require substantial renovations or expansions, within the urbanized area will be required to adhere to the new requirements regarding environmentally sensitive areas. Every time that a piece of land is developed, certain and expected changes occur. Changes potentially to the surface and sub-surface areas can be impacted. The new regulations hope to reduce and offset those issues.

The intent of this proposed ordinance is to provide an appropriate means to maintain and protect the integrity of environmentally sensitive areas within our neighborhoods and the City of Georgetown ;

**WHEREAS:** This proposed amendment to the Georgetown-Scott County Subdivision & Development Regulations has been submitted to the citizens through a properly advertised public hearing before the Georgetown-Scott County Planning and Zoning Commission conducted at their July 10, 2003, August 14, 2003, and September 11, 2003, public meeting. The Commission voted unanimously to recommend the adoption of this amendment to the City Council of Georgetown;

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL FOR THE CITY OF GEORGETOWN, KENTUCKY, as follows:**

**SECTION ONE: NEW PROVISIONS.**

[Superseded language is shown as stricken. All other language is new]

~~G. MULTIPLE ENVIRONMENTALLY SENSITIVE AREAS~~

~~During conceptual or preliminary plan or plan review, the Planning Commission staff shall advise the developer of areas with a concentration of environmentally sensitive resources or areas prone to hazards to human health and safety, and the Planning Commission shall based upon findings of fact regarding these areas, require analysis and implementation of measures to mitigate impacts of development. Examples include concentrations of sinkholes, cave areas, major rock formations, and extremely steep slopes.~~

G. ENVIRONMENTALLY SENSITIVE AREAS

Environmentally sensitive areas are defined as those features located on a property including sinkholes, cave areas, major rock formations and outcroppings, springs, floodplains/floodways, landfills/refuse areas,. Properties proposed for development that include environmentally sensitive areas are encouraged to “design around” those areas and designate them as “non-buildable” whenever possible in order to mitigate any potential negative impacts on the area or within the development.

Due to the nature of portions of Georgetown and Scott County , including Stamping Ground and Sadieville, steep slope areas are referenced here but not formally included within the definition of an environmentally sensitive area. For areas with existing steep slopes (i.e., those exceeding 10 percent), those areas shall be shown on the zone change application/concept plan or master plan, preliminary development plan or subdivision plat approval, and required construction plans, as noted below. Existing steep slope areas include those areas greater than 100’ in length and width.

Applicants for development proposals and/or their representatives shall provide the Planning Commission staff with information regarding environmentally sensitive areas and existing steep slope

areas as follows:

- a. (recommended) zone change application/concept plan or master plan approval, including a map showing the specific location of the environmentally sensitive feature and/or existing steep slope areas.
- b. (required) preliminary development plan or subdivision plat approval. The information shall include at a minimum a map showing the specific location of the environmentally sensitive feature and/or existing steep slope areas that will be further studied and examined. For existing steep slopes, the map shall include the slope of the property at 100' intervals across the slope; the Planning Commission Engineer may require intervals less than 100' if deemed necessary.
- c. (required) construction plan approval. The information shall include specific location and extent or boundary(s) of the environmentally sensitive feature and/or existing steep slope areas, method used to determine the extent or boundary(s) of the feature and proposed remediation, if applicable. Additional information regarding protective measures during construction, as applicable, shall be included as part of the construction plans.
  - i. Examination of sinkholes, springs and other similar features shall be completed by a licensed geo-technical engineer. The Planning Commission shall require the geo-technical engineer to submit a complete report of the findings, proposed remediation and verification of remediation (i.e., certification of inspection of the remediation materials and construction standards). Two (2) copies of the analysis and study, including any remediation methods shall be submitted to the Planning Commission Engineer for review and recordkeeping. Verification and certification of any remediation methods is required prior to final development plan or subdivision plat approval.
- d. (required) final development plan or subdivision plat approval. Environmentally sensitive areas shall be shown on the final development plan or final subdivision plat. Existing steep slope areas must be shown or referenced on the final development plan or final subdivision plat, if required by the Planning Commission or Planning Commission Engineer. For sinkholes

and other similar features the final development plan or final subdivision plat shall include approval and signature of Appendix III – Form M Sinkhole Certification by the geotechnical engineer who performed the analysis of the area. A note shall be placed on the final development plan or subdivision plat indicating these areas, referencing the required study, including the date performed.

For areas with a sinkhole, multiple sinkholes and/or a sinkhole cluster, the following requirements shall apply:

Definitions:

#### Sinkhole

any closed depression formed by removal (typically underground) of water, surficial soil, rock, or other material. The existing of a sinkhole shall be as indicated by the closed depression contour line(s) as shown on the USGS, KGS, GSCPC-GIS Section mapping or other documents as approved by the Planning Commission Engineer and/or City Engineer, as applicable. The actual limits may however be determined by field measurements with concurrence of the Planning Commission Engineer and/or City Engineer. Sinkholes may be either circular in plan or irregular, depending upon structural control.

#### Immediate Sinkhole Drainage Area

any area that contributes surface water directly to the sinkhole(s) not including areas which contribute surface water indirectly to a sinkhole (via streams or other means).

#### Sinkhole Cluster Area

Any area that contributes surface water other than by way of a stream to a sinkhole that is located in a group of two or more sinkholes clustering together or in a line.

Sinkholes are natural depressions which drain a significant portion of the mid- to lower areas of Scott County, including the City of Georgetown and Stamping Ground. Sinkholes and sinkhole systems are part of a complex drainage system that is tied to caves, springs and underground streams. Flooding, subsidence and water pollution are the major problems associated with sinkhole area developments. Those problems are generally illustrated in Exhibit 1 (source: Development Impacts in Sinkhole Areas – Knoxville/Knox

Requirements:

1. An applicant seeking subdivision plat or development plan approval:
  - a. May divert enough of the sinkhole drainage area so that the development of the remaining area does not increase the total quantity of runoff into the sinkhole. For approval of this type of proposal, the applicant shall provide for approval, a study which must show that the development will not aggravate flooding on the proposed development, adjacent properties or lands, or connected/adjacent sinkhole clusters or systems.
  - b. Where the sinkhole outlet is offsite, either the runoff leaving the subject property must be shown to be no greater in flow or in quantity than that which is exerted before the development.
  - c. Sinkhole limits and non-buildable areas are to be defined by a certified geologist and/or geotechnical engineer. The sinkhole limits shall be identified as outlined in sections g.i., and h.i., of this ordinance. The plats and plans shall provide a reference to the required study detailing the method(s) of the investigation used to define said limits.
  - d. Sinkhole limits and non-buildable areas are to be identified on the preliminary or final development plan, preliminary or final subdivision plat, and construction plans by shading or other means to clearly identify those areas.
  - e. Post-developed discharges shall be treated prior to draining into the sinkhole limits.
  - f. Structures located adjacent to the closed contour of a sinkhole or adjacent to an immediate sinkhole drainage area shall not be permitted to have a basement or first floor elevation lower than an elevation, USGS Datum or other comparable source, to be determined on a case-by-case basis, said elevation being at least one (1) foot above the 100 year 24-hour storm event (maximum) assuming no outflow from the sinkhole. Minimum Floor Elevations for such lots are to be referenced and shown on the plat.
  - g. The applicant or applicant's representative shall verify any requirement of the Environmental Protection Agency

(EPA) including but not limited to ground water injection permit(s).

- h. In the event that a sinkhole, immediate sinkhole drainage area, sinkhole cluster area, or portions of such items are not shown on the referenced maps and documentation but are determined or discovered during the course of construction, the applicant shall:
  - i. Notify the Planning Commission Engineer and City Engineer, where applicable, immediately.
  - ii. Shall provide all documentation, studies, and any related information to the Planning Commission Engineer and City Engineer, where applicable, as if the sinkhole, immediate sinkhole drainage area, sinkhole cluster area, or portions of such items were identified prior to approval and noted on the preliminary development plan and/or preliminary subdivision plat.
    - 1. Upon determination of a sinkhole, immediate sinkhole drainage area, sinkhole cluster area, or portions of such items, as noted in section f.ii., any approvals of a preliminary or final development plan, preliminary or final subdivision plat, or construction plans shall not constitute automatic approval and shall not be grounds for the continuation of any construction or development activity within the identified area until such time as the required documentation, including detailed study, have been reviewed and approved by the Planning Commission Engineer and City Engineer, where applicable.
- i. For residential areas (i.e., single family detached, attached and multi-family developments):
  - i. A sinkhole, immediate sinkhole drainage area, sinkhole cluster area, or portions of such items shall be shown on the preliminary and final development plan and/or preliminary and final subdivision plat, and construction plans where they exist.
  - ii. The sinkhole and its defined limits (i.e., closed contours) shall be noted as “non-buildable” and may not be treated, filled, or enclosed. No structure,

right-of-way, including roads (public or private) may be located within the defined limits of a sinkhole.

1. For the purpose of calculating density for a development, areas identified as sinkholes, including its defined limits, and noted as non-buildable may be counted towards the total net acreage of the development.
  - j. For non-residential developments (i.e., professional office, commercial, industrial):
    - i. A sinkhole, immediate sinkhole drainage area, sinkhole cluster area, or portions of such items shall be shown on the preliminary and final development plan and/or preliminary and final subdivision plat where they exist.
    - ii. The sinkhole may be treated only upon review and approval of a study certified by a licensed geotechnical engineer as to the sinkhole limits, and proposed treatment/remediation methods. Upon completion of the treatment, certification that the proposed work was completed in accordance with the study and recommendations.
2. Required Notes/Certifications
- a. The following notes shall be placed on the preliminary and final development plan, preliminary and final subdivision plat and construction plans:
    - i. Residential Uses:
      1. "Any sinkhole related non-buildable area identified here has been determined to be unsuitable for any construction activity and no buildings, parking areas or other structures shall be permitted within this area."
      2. "Residential structures located adjacent to the closed contour of a sinkhole or adjacent to an immediate sinkhole drainage area shall not be permitted to have a basement or first floor elevation lower than an elevation, USGS Datum or other comparable source, to be determined on a case-by-case basis, said elevation being at least two (2) foot above the 100 year 24-hour storm event (maximum) assuming no outflow from the sinkhole. Minimum Floor Elevations

for such lots are to be referenced and shown on the plat."

ii. Non-Residential Uses:

1. "Identified sinkhole area(s) were investigated in the vicinity of \_\_\_\_\_. This investigation was performed by \_\_\_\_\_ (geotechnical engineer) on \_\_\_\_\_ (date) and is on file with the offices of the Planning Commission and City Engineer, where applicable. The report details the activities used to explore these areas and any recommendations regarding non-buildable areas (shown on the plat/plan) and treatment areas suitable for construction."
2. "Structures located adjacent to the closed contour of a sinkhole or adjacent to an immediate sinkhole drainage area shall not be permitted to have a basement or first floor elevation lower than an elevation, USGS Datum or other comparable source, to be determined on a case-by-case basis, said elevation being at least two (2) foot above the 100 year 24-hour storm event (maximum) assuming no outflow from the sinkhole. Minimum Floor Elevations for such lots are referenced and shown on the plat."

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### **APPENDIX III - FORM M**

#### **CERTIFICATION OF SINKHOLE NOTICE**

~~I hereby certify that the sinkhole(s) on this property pose no hazard to health or safety, that no excess stormwater shall be directed to the sinkhole(s), and that all areas designated for load-bearing construction are acceptable for such construction.~~

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Registered Engineer

### **APPENDIX III - FORM M (Amended)**



## CERTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS NOTICE

I hereby certify that the environmentally sensitive areas as defined in Article XII, Section 1200. G, have been identified and shown on this plat. For areas including sinkholes, springs and other related features, a study was performed including an analysis of these features noting any non-buildable areas and, where permitted, any remediation methods, techniques and materials that were implemented and inspected in accordance with that analysis. A copy of this analysis and related documents has been submitted to the Planning Commission for their records.

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Registered Engineer/Geotechnical Engineer/Certified Geologist

### **SECTION TWO: EFFECTIVE DATE:**

This Ordinance shall take effect upon passage and publication.

The foregoing Ordinance was introduced and read for the first time at the Council's regular meeting October 2, 2003 , and for the second time, adopted and approved, at the Council's regular meeting October 16, 2003

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APPROVED BY: EVERETTE VARNEY, MAYOR

ATTESTED BY: SUE LEWIS, CLERK