

Memorandum

City of Lawrence and Douglas County Planning & Development Services

TO: Lawrence-Douglas County Planning Commission

FROM: Mary Miller, Planning Staff

CC: Scott McCullough, Planning Director
Sheila Stogsdill, Assistant Planning Director

Date: July 14, 2008

RE: Item No. 18; Revisions to the Text Amendment for Protection of Environmentally Sensitive Areas, Section 20-1109, Development Code

The Planning Commission initiated text amendment TA-12-27-07 at their October meeting to revise the protection standards, clarify the Sensitive Areas Site Plan review process in Section 20-1101, and revise definitions in 20-1701. The Planning Commission received public comment on the amendment at their May meeting, and deferred taking any action to the June meeting. The amendment was revised and provided to the Commissioners at the June meeting where additional public comment was received and revisions were suggested by several of the Commissioners. The amendment was revised to reflect the comments received and is being presented to the Commission at their July meeting with a staff recommendation to forward the text amendment to the City Commission with a recommendation for approval.

The various comments received and revisions made are discussed below:

1. A statement listing the benefits provided by the protection of environmentally sensitive areas was added as recommended by Commissioner Harris in Section 22-1109(a).
2. Section 20-1109(c) which states that appeals from the Planning Commission's determination could be made to the City Commission has been revised to state that the Planning Director's determination on the site plan can be appealed to the City Commission.
3. Several Commissioners asked about the list of native trees and questioned if all native trees should be included. Staff contacted the Douglas County Extension Office and the Kansas Biological Survey and developed a list of native trees which includes both indigenous and naturalized trees. The text amendment has been revised to remove the list of native tree species and to reference the more comprehensive list which is available in the Planning Office. (The list of native trees is included as Attachment A with this memo.)

4. It was suggested that Archaeological and Historic Sites which have had an application for listing submitted prior to the submittal of the sensitive area site plan be protected in addition to sites which are listed. The Commission asked staff to determine if someone other than a property owner could submit an application to list a property or structure. Section 22-402 of the City Code contains the application procedure and Section 22-405 contains the protest procedure for listings. Applications may be made only by resolution of the City Commission or the Historic Resource Commission. It may be possible for someone other than the property owner to request that the City Commission submit an application for a property. If the property owner protests, the City Commission will either discontinue the application, or a 2/3 vote would be required for approval if the site was determined to be 'highly significant.' In Staff's opinion, it would be difficult for someone other than the property owner to submit an application for listing on a property; therefore the revision to include properties which have had an application submitted as an environmentally sensitive feature has been made.
5. It was suggested that Individually Significant Trees should have separate dimensions for different species of trees. In the interest of making this a transparent and easily implemented regulation, the use of one size for evergreen and one size for deciduous trees is appropriate. Staff discussed this issue with staff from the Kansas Biological Survey (KBS) who indicated that 10" for evergreen and 12" for deciduous trees should capture the majority of the individually significant trees.
6. Kelly Kindscher, environmental scientist with KBS, proposed a revision regarding the identification of native prairie remnants. While he stated that the Kansas Biological Survey would be happy to help in the identification, he pointed out that there are other companies which are qualified to do this work that we should include. Consulting firms have been included to the entities which may make determinations of native prairie. In addition, a list of approved consulting firms will be maintained in the Planning Office.
7. Kelly also recommended including replanting requirements for native prairies which were destroyed. Section 20-1101(h)(3) includes his recommended language.
8. Commissioner Rasmussen suggested revising the term 'wetland specialist' to more clearly define who could make the wetland determination. Staff researched the Army Corps of Engineers website and has revised the language in Section 20-1109(c)(2) to state that jurisdictional wetlands are 'determined' by the Army Corps of Engineers, rather than 'approved'. The person who can make a wetland delineation has been revised from a 'wetland specialist' to a **professional wetland scientist, certified by the Society of Wetland Scientists or the Army Corps of Engineers, the Natural Resource Conservation Service, the Kansas Biological Survey, or the Army Corps of Engineers** in Section 20-1109(i)(1)(b).
9. Commissioner Rasmussen questioned the policy that 100% of a jurisdictional wetland must be preserved. He asked if jurisdictional wetlands could be developed for road construction. Infrastructure is exempt from the provisions of this regulation, per Section 22-1109(e) if the Planning Director has determined that the amount of damage to the sensitive features is minimized either through construction methods or location and has provided written approval of the

exemption request. The term 'infrastructure' as defined in the Development Code includes 'roads'. Staff provided alternate language in Section 20-1109(m)(5) to include a provision for development on up to 15% of critical sensitive features through the appeal process to the City Commission with the exception of floodway. Development is prohibited in the floodway in the Floodplain Management Regulations, in Section 12 of the Development Code.

10. The Planning Director asked Staff to clarify who has standing to make an appeal from a sensitive area site plan. The property owner, applicant, City Commission and adjacent property owners have standing to make an appeal. This language is included in Section 20-1109 (m) and (n).
11. The public commented on the possibility of protecting drainageways and ephemeral streams as well as constant and intermittent streams. Staff discussed this with the City Stormwater Engineer who indicated that the drainage study would address proposed changes to drainageways. If a drainageway were proposed to be disturbed, adequate drainage would be required to be provided on the site. Staff also spoke with Andy Zigler of the Kansas Office of the US Geological Survey who indicated that the intermittent streams shown with a dashed line of the Quad Maps would include any ephemeral streams for property within the City and the area surrounding it. Therefore, it is not necessary to include a separate category for ephemeral streams.
12. Commissioner Rasmussen questioned the ranking of wildlife corridors. Continuous woodland areas create wildlife corridors and woodlands which were contiguous or connected to other woodlands off-sites were listed as a higher priority than isolated woodlands. Section 20-1109(j)(2) was revised to place woodlands that are contiguous with other off-site woodland areas that may function as wildlife corridors in the 'important sensitive area' ranking rather than the 'desirable' to emphasize the higher priority ranking.
13. Some commissioners questioned if 'expert testimony' should be required when items are brought before the Planning Commission or City Commission. Staff and the applicant always have the option of including information from experts; however, this should not be a requirement of this provision. The goal of this text amendment is to provide clear provisions and regulations which can be implemented by staff. Expert advice may be sought and used during the review or modification process but is not intended to be necessary for implementation of these standards.

PLANNING COMMISSION REPORT
Regular Agenda -- Public Hearing Item

PC Staff Report
05/21/08

ITEM NO. 9: TEXT AMENDMENT TO CHAPTER 20, ARTICLE 11 DEVELOPMENT CODE (MKM)

TA-12-27-07: Consider proposed revisions to Section 20-1101 of the Development Code to extend the protection standards for environmentally sensitive features to all zoning districts and to clarify the standards and process. The text amendment was initiated by the Planning Commission at the December, 2007 meeting.

RECOMMENDATION: Staff recommends that the Planning Commission forward a recommendation for approval of the proposed amendment [TA-12-12-27-07] to revise the Sensitive Area Protection Standards in Chapter 20, Development Code to the City

Reason for Request: In reviewing and applying the Development Code, a number of issues have been identified regarding the protection standards for environmentally sensitive areas contained in Section 20-1101. Adoption of the initiated revisions will extend the protection standards to all zoning districts. The revision will also clarify the protection standards and define the Sensitive Areas Site Plan process.

RELEVANT GOLDEN FACTOR:

- Conformance with the Comprehensive Land Use Plan is the relevant factor that applies to this request. Adoption of new regulatory tools, one of which is this amendment to the Development Code, is an implementation step in Chapter 13 of HORIZON 2020, the City/County Comprehensive Land Use Plan.

PUBLIC COMMENT RECEIVED PRIOR TO PRINTING

- No written correspondence has been received.

OVERVIEW OF REVISIONS PROPOSED

Staff has identified the following issues with the implementation of the Sensitive Land Standards contained in Section 20-1101(d) as part of the Protection Standards for Residential Districts.

- The lack of clear definitions resulted in confusion as to which features are 'environmentally sensitive'; therefore, clearer definitions were established.
- Currently, the only options for developing a property which contains environmentally sensitive features is to develop as a Planned or Cluster Development. The revisions will also permit development through the traditional site planning or subdivision process if the Sensitive Area Site Plan indicates that the required amount of sensitive areas can be protected through site planning or platting without requiring variances from the

standards of the Development Code.

- The protection standards are being extended to all zoning districts with this revision; therefore, the protection standards in subsections 20-1101(d) and (e), which pertains only to development in residential districts, will be removed and a new section will be created with 'Protection Standards for Environmentally Sensitive Areas'. To avoid having to renumber all the Sections in Article 11, this section will be 20-1109.
- The revisions clarify the priority ranking of different environmentally sensitive features and provide guidance to the amount which is required to be protected.
- The revisions contain an exemption section which exempts properties meeting certain criteria from the protection standards, for instance properties which were platted prior to the adoption of this text amendment and to woodland management activities-such as tree farms.

Conformance with *Horizon 2020*

Horizon 2020 contains several recommendations for protection of environmentally sensitive features.

Policy 3.3(d)(ii), of Annexation Policies recommends that approval of development proposals be dependent on the ability to develop the land without encroachment into floodways, steep slopes (15% or greater), other environmentally sensitive lands, or sites of historic landmarks or historic features. These lands are recommended for protection when located in areas which will annex in the future, and this protection would extend into the City.

In the Residential, Commercial and Industrial Chapters Horizon 2020 recommends the integration of mature trees, natural vegetation, natural and environmentally sensitive areas whenever feasible to buffer different land uses, whether differing density residential districts or commercial and industrial from other developments.

In Policy 3.1(e)(6) of the Industrial Chapter it also recommends preserving open space and environmentally sensitive features to serve as site amenities within developments in the industrial districts.

Policy 4.4(b) of the Parks and Open Space Chapter recommends that natural areas such as steep slopes, woodlands, natural prairies, wetlands, lakes/ponds, groundwater recharge, prominent ridgelines, and other environmentally sensitive areas be integrated into the parks, recreation, and open space system, wherever possible, to encourage community connectivity and to preserve the natural processes of such areas.

Horizon 2020, in the Parks and Recreation Chapter further states that the purpose of open space is to preserve unique areas such as floodplains, wetlands, wildlife habitat, steep slopes & rock outcroppings, native prairie remnants, historic sites, agricultural lands, and other environmentally sensitive areas. (page 9-5)

As Horizon 2020 recommends the preservation of open space to serve as greenways, buffer areas, and as open space, the text amendment is in conformance with the Comprehensive Plan.

Criteria for Review and Decision-Making

Section 20-1302(f) provides review and decision-making criteria on proposed text amendments. It states that review bodies shall consider at least the following factors:

Whether the proposed text amendment corrects an error or inconsistency in the Development Code or meets the challenge of a changing condition; and

The proposed amendment corrects the following errors or inconsistencies in the Development Code:

- The Sensitive Areas Site Plan is required in the current Code, but the process has proven complicated in practice. The text amendment establishes the Sensitive Areas Site Plan process.
- The existing definitions have proven to be too vague to allow proper determination of sensitive features. The text amendment provides clear definitions of the sensitive features which are to be included.
- The existing provisions do not recognize the fact that adequate protection of sensitive lands may be possible through traditional site planning or subdivision processes, and requires any land with sensitive features to develop as a Planned or Cluster Development. Representatives of the development community have stated that in order to avoid the Planned Development or Cluster process and the requirement to preserve sensitive areas, owners would be advised to destroy any sensitive areas prior to making application for development. The text amendment provides additional development options beyond the Planned or Cluster Development to allow for more conventional platting and site planning.
- The existing language does not contain a provision for reparation of damaged lands that contained environmentally sensitive lands; thereby permitting, and even encouraging, the destruction of the environmentally sensitive features prior to the submittal of a development plan. The text amendment requires reparation of sensitive features which have been damaged prior to submittal or approval of a development proposal.

The existing language was a good foundation, but as Staff began implementing the provisions inadequacies became apparent and more definitive provisions were desired.

Whether the proposed text amendment is consistent with the Comprehensive Plan and the stated purpose of this Development Code (Sec. 20-104).

The proposed amendment to revise the Protection Standards for the Environmentally Sensitive Areas is consistent with the Comprehensive Plan and with the stated purpose of the Development Code. The Comprehensive Plan recommends setting aside land as open space for the purpose of preserving unique areas such as floodplains, wetlands, wildlife habitat, steep slopes & rock outcroppings, native prairie remnants, historic sites, agricultural lands, and other environmentally sensitive areas. In addition, the Comprehensive Plan recommends using environmentally sensitive areas and natural features to serve as buffer areas.

The proposed text amendment is also consistent with the purpose of the Development Code which is listed in Section 20-104 as implementing the Comprehensive Plan in a manner which protects, enhances and promotes the health, safety, and general welfare of the citizens of Lawrence. The protection of environmentally sensitive areas will enhance and promote the health, safety, and general welfare of the citizens of Lawrence. Protection of environmentally sensitive areas serves to reduce hazards by limiting development in the regulatory floodplain, within stream corridors or on steep slopes; and enhances the general welfare by maintaining wooded areas which serve to moderate the micro-climate, provide windbreaks, and provide connected greenways for wildlife habitat and possible future pedestrian/bike pathways through the City.

The text amendment proposes deleting Section 20-1101(d) from the Development Code and replacing it with the language below as Section 20-1109:

Section 20-1109 Protection Standards for Environmentally Sensitive Areas

(a) Purpose

The Environmentally Sensitive Area Standards are intended to protect and, where possible, enhance the natural environment of the City of Lawrence while recognizing the need for urban development.

These standards are intended to provide flexibility in the design of developments on lands with environmentally sensitive areas in order to use land efficiently and to preserve environmentally sensitive areas as open space amenities. These standards are intended to allow modifications of the requirements of the base zoning district and subdivision regulations. During the review process, the specific circumstances surrounding each application, such as the types and amounts of sensitive features that are present; special constraints to the development such as being in an infill location; and the need for the extension of public utilities or infrastructure will be considered. The Environmentally Sensitive Area standards will be applied in an effort to achieve development solutions that best promote the spirit, intent and purpose of protecting environmentally sensitive lands.

(b) Objectives

The objectives of these standards are:

- (1) To identify and prioritize environmentally sensitive areas during the initial stages of the development review process.
- (2) To establish levels of protection for environmentally sensitive features which vary with the priority ranking of each feature or combination of features.
- (3) To aid developers in the creation of plans so that negative impacts to the environmentally sensitive areas are avoided or minimized to the greatest extent possible.
- (4) To coordinate sensitive areas protection with other City environmental programs such as the Floodplain Management Regulations, and the City Stormwater Ordinance.
- (5) To encourage the use of innovative and flexible development techniques and to provide flexibility in the planning process when needed to balance environmental and economic goals.

- (6) To establish levels of protection for existing sensitive lands and institute requirements for the reparation of lands found to be prematurely destroyed or altered.

(c) Modifications to the Sensitive Area Design Standards and Guidelines

The development standards and guidelines contained in this section are to be used as minimum requirements for evaluating development plans on lands containing environmentally sensitive areas. However, the standards and guidelines are not intended to restrict creativity or prohibit reasonable economic returns on developing property. An applicant may request modifications of the sensitive areas design standards and guidelines, such as, but not limited to, a reduction in the area required to be preserved, or a change in the hierarchy ranking of protected features, if all the following criteria are met:

- (1) The modification will be in harmony with the purpose and intent of this section.
- (2) The modification will generally enhance the sensitive areas site or development plan and will not have an adverse impact on its physical, visual or spatial characteristics.
- (3) The modification shall not result in a configuration of lots or a street system which is impractical.
- (4) The modification shall not threaten or diminish the public's health, safety or welfare.
- (5) The modification shall not include or alter environmentally sensitive features for which protection is required, such as 'floodway' or 'jurisdictional wetlands'.

Modification requests will be reviewed by Planning Staff and presented to the Planning Commission. The Planning Commission shall make the determination on the modification request. Appeals of the Planning Commission's decision shall be made to the City Commission.

(d) Applicability of Environmental Design Standards

The provisions of this Article regarding environmental protection for sensitive lands shall apply to all construction and development activity in all zoning districts except as expressly exempted in this section.

If a proposed development, as specified in this section, contains any of the environmentally sensitive features described below the environmentally sensitive design standards and guidelines shall apply. Where disagreements occur regarding the presence or amount of environmentally sensitive features contained on a property, the Planning Commission shall determine compliance with this Article based upon the submitted evidence of staff and/or the applicant.

Environmentally Sensitive Features include the following:

- (1) Regulatory Floodplain:
 - (i) Regulatory Floodway, designated on the FEMA Flood Insurance Rate Map for Douglas County.
 - (ii) Regulatory Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County.
- (2) Jurisdictional wetlands as determined and regulated by the U.S. Army Corps of Engineers.

- (3) Streams, shown on the United States Geological Survey Quadrangle (USGS Quad) Maps, and their corridors*² as defined by the City Stormwater Engineer.
- (4) Woodland Areas: Any tract of land with a contiguous wooded area not less than two (2) acres, as measured by the tree canopy, and containing not less than one hundred (100) trees per acre that are two inches (2") in diameter or greater 36" above the ground..
- (5) Individually Significant Trees: an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) or any of the following native species: walnut, red maple, shagbark hickory, black cherry, black locust, American elm, Chinese elm, hackberry, osage orange, white/red mulberry, chinkapin oak, bur oak, white oak, black oak, honeylocust, cottonwood, sycamore, red cedar, black gum, or yellow poplar.
- (6) Prominent Geographic Features with Rocky Outcroppings: A rocky protrusion of 50% or more exposed rock having greater than a 3:1 slope, a minimum height of 20' above the surrounding grade and covering an area of 1 or more acres.
- (7) Archaeological and Historic Sites listed on local, state, or federal registers.
- (8) *Prairie remnant of one (1) acre or larger: Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger. Prairie areas will be determined by the Kansas Biological Survey Prairie areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies) *¹*
- (9) Slopes:
 - (i) Steep Slopes: A slope of fifteen percent (15%) but less than twenty five percent (25%).
 - (ii) Critical Slopes: A slope of twenty five percent (25%) but less than forty percent (40%)
 - (iii) Protected slopes: Any slope of forty percent (40%) or steeper.

(e) Determination of Development Land Area

In determining whether a proposed development contains sensitive lands, all contiguous lands under the same ownership or control shall be considered. Lands owned or controlled by a partnership, trust or corporation shall be considered along with lands owned directly by the applicant and lands under option to the applicant or a partnership, trust or corporation under the effective control of the applicant.

(f) Exemptions.

The following activities are exempt from the requirements of this section:

- (1) Extension of public utilities and infrastructure: A written request for exemption must be submitted to the Planning Director. Development activity may occur only after the Planning Director has determined that the amount of damage to the sensitive features is minimized either through construction methods or location and has provided written approval of the exemption request.
- (2) Existing Single-Dwelling and Duplex Residences: Normal maintenance/expansion of single-family or duplex residences, including exterior remodeling,

reconstruction, construction, or replacement of single-family or duplex residences and accessory structures.

- (3) Existing Subdivisions for Single-Dwelling and Duplex Residences: Construction of new single-family or duplex residences in platted subdivisions that are in existence, or for which applications for plats have been submitted, prior to the effective **DATE OF THIS TEXT AMENDMENT**.

(g) Woodland Management Activities. Practices associated with 'timber management standards' as defined by the International Society of Arboriculture, or its successor, or existing tree farming operations, such as Christmas tree farming, fruit, or nut production and tree nurseries, during such time as the land is used for tree farming operations are exempt.

(h) Sensitive Areas Site Plan

Development on lands with environmentally sensitive areas as set forth in Section **XX(4)** shall require submission of a Sensitive Areas Site Plan.

A Sensitive Areas Site Plan must be submitted to, and approved by the Planning Commission prior to woodland clearing, grading or any development activity on lands that contain environmentally sensitive features specified in **Section XX(4)**. The Sensitive Areas Site Plan can be submitted concurrent with the submittal of any other site plan or development plan. The Sensitive Areas Site Plan will be incorporated with other development or site plans for the property.

(i) Development Activity Which Occurs Without Approval of a Sensitive Areas Site Plan

If clearing, grading or other development activity occurs without approval of a Sensitive Areas Site Plan, the sensitive areas and features will be determined for the property using the best available data (aerials, surveys, etc.) and the property shall be made whole to the extent required in Section X(10) under the following guidelines prior to building permits being granted:

- (1) Removal of trees from woodland areas: If woodland areas are altered by human activity such as clearcutting or removal of trees to the degree that the property no longer meets the definition of 'woodland', the property owner shall protect the area that would have been required to be protected and replace the trees at a ratio of 1 tree per every 200 sq. ft. of prior woodland area to the extent required in Section X(10). (This requirement is in addition to any street tree, buffering, or other landscaping that is required by the Development Code.)
- (2) Damage to Stream Corridor: If the stream or the stream corridor, as required by the City Stormwater Engineer*², is altered by human activity, such as the removal of trees or vegetation or in anyway altering the channel, the property owner shall reestablish the channel and replace the trees at a ratio of 1 tree per every 200 sq. ft. of area of stream corridor as determined by the City Stormwater Engineer and shall reestablish ground cover per the approval of the City Stormwater Engineer.
- (3) Destruction of remnant prairie. If an area that has been determined by the KS Biological Survey as having remnant prairies is plowed or otherwise destroyed, the

area of the former remnant prairie, as defined by the KS Biological Survey must be preserved as open space and replanted with prairie vegetation to the extent required in Section X(10) . *¹

(j) Sensitive Areas Site Plan Procedure

A Sensitive Areas Site Plan shall be submitted and approved prior to any development activity, including vegetation removal or grading. The Sensitive Areas Site Plan may be submitted prior to, or concurrent with, another development application, i.e. plat, site plan, rezoning, etc. The Sensitive Areas Site Plan shall delineate and note all sensitive areas and designate protected sensitive areas and associated buffers.

A Sensitive Areas Site Plan shall be reviewed by the Planning Director in accordance with the Site Plan review procedure listed in Section 20-1305.

A Sensitive Areas Site Plan is normally submitted in preparation for another development proposal, such as a plat, development plan or site plan. There is no review fee for a Sensitive Areas Site Plan.

(1) Site Plan Contents:

(i) The site plan should be arranged so the top of the plan represents north or, if otherwise oriented, is clearly and distinctly marked.

(ii) The site plan should clearly delineate the property boundaries and all of the sensitive areas located on the property and shall designate protection zones for sensitive areas as prescribed below.

a. Regulatory Floodplain, including Floodway and Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County.

b. Wetlands. The site plan shall show the delineation of a jurisdictional wetland area that is accepted by the US Army Corps of Engineers prior to submittal of the Sensitive Areas Site Plan; and the site plan shall show any area that is included on the U.S. Fish and Wildlife Service Wetland Mapper as a suspected or potential wetland area, along with a 100' buffer area unless a certified wetland specialist, the Kansas Biological Survey, or the Army Corps of Engineers, determine that the area is not a wetland.

c. Streams and stream corridors. Streams that are shown in solid or dashed blue lines on the USGS Quad Map shall be included with corridors as established by the City Stormwater Engineer.*² When other sensitive features are located within a stream corridor, the most stringent required protective buffer shall apply. Unless exempt under the provisions of this Section, the following buffer requirements shall be maintained:

The City Stormwater Engineer will rank the streams and will provide the required width of each stream corridor based on the size of the stream, and frequency and amount of seasonal flow. *²

The amount of stream corridor required may be reduced by the City Stormwater Engineer if requiring the full stream corridor buffer would preclude reasonable use of the property, and enhanced vegetative cover will be provided in any remaining buffer area to the extent possible. A waiver request must be provided in writing to the City Stormwater Engineer which explains how the provision of the full required stream corridor precludes reasonable use of the property.

- d) Woodland Areas. Any property containing a woodland area must submit a Sensitive Areas Site Plan prior to woodland clearing or any development activity. The following requirements apply to development on properties with woodland areas:

The woodland area required to be retained shall be delineated to include a buffer area by measuring fifty feet (50') outward from the trunks of trees intended to be preserved.

If the Planning Commission determines that the required woodland area cannot be retained due to site constraints or infrastructure requirements, replacement trees will be required. One tree shall be planted for every two hundred (200) square feet of woodland removed from the otherwise required retention area and shall be of the same or equivalent species as those being removed.

The replacement of trees may be waived if it is determined by the Parks and Recreation Director that site constraints prohibit the replacement of trees on site.

To the extent possible, woodlands located on steep slopes and/or within 100 year floodplains should be given the highest retention priority.

- e) Individually significant trees. The species and size of the tree(s) shall be noted on the plan.
- f) Archaeological and Historic Sites.
- g) *Prairie remnants one acre in area or larger*
If development is proposed on a property which is shown on the Douglas County Natural Areas Inventory Map as containing remnant prairies these areas must be delineated and noted on the Sensitive Areas Site Plan, if confirmed by the Kansas Biological Survey.

*Prairie remnants associated with other sensitive features should be treated as environmental assets, and should be considered no-build areas to the extent possible, and used for buffers, filter strips along waterways and/or neighborhood open space. *¹*

- h) Steep slopes, slopes with grades of 15% or higher
Any property with slopes greater than 15% grade shall be required to submit a Sensitive Areas Site Plan.

Any property with slopes between 25% and 40% grade shall be required to submit a Sensitive Areas Site Plan and a grading plan. Disturbance of slopes with 25% to 40% grades requires approval of the City Stormwater Engineer.

Any property with slopes of 40% grade or more shall be required to submit a Sensitive Areas Site Plan. Slopes greater than 40% grade shall not be graded and must remain in the existing state, except that natural vegetation may be supplemented by other plant material. A buffer will be required around any slopes of 40% grade or more. Two feet (2') of buffer will be provided for each foot of vertical rise of the slope up to a maximum buffer of fifty feet (50'). No development activity, including removal of trees and other vegetation, shall be allowed within the buffer.

- i) A site summary table must be provided which includes the total site area, the area of each environmentally sensitive area delineated on the site plan, and the percentage of the total site which is included in each area. Areas with overlapping environmentally sensitive features must be listed along with the percentage of the total.

(k) Ranking and Required Protection of Environmentally Sensitive Features

Protection of certain environmentally sensitive features is more critical than others. The following priority scheme will assist in the determination of environmentally sensitive areas in which protection is 'critical', those in which protection is important and should be achieved to the greatest extent possible and those for which protection is desirable.

All protected areas together shall not be required to exceed 20% of gross land area unless critical sensitive areas exist. Critical sensitive areas must be protected in their entirety. 10% of the protected area shall serve, and may be improved, as an open space amenity to the development as passive or active recreation.

When determining which features should be protected, protection will be required in the following ranking order:

- (1) Critical Sensitive Areas. Areas containing the following critical sensitive features: floodway, stream corridors, jurisdictional wetlands, slopes with greater than 40% grade, or archaeological and historic sites. Protection of 100% of these sensitive features is required.
- (2) Protected Sensitive Areas. Slopes between 25% and 40% grade, floodplain and areas with two or more environmentally sensitive features, other than those listed as 'critical sensitive features', occurring together. Environmentally Sensitive Features or Areas that occur together are of higher priority than any one feature occurring singularly. The priority increases with the number of

environmentally sensitive features occurring together. Protection of areas containing these features is required to the maximum extent noted above.

- (3) Desirable Sensitive Areas. Areas with environmentally sensitive features, other than those listed as critical or protected sensitive areas, occurring singularly. In addition, woodland areas that are part of a larger continuous wooded area that may extend off site are of higher priority than woodland areas that are isolated. Protection of areas containing these features is required to the maximum amount noted above.

Environmentally Sensitive Features shown on the site plan are prioritized for protection by the ranking scheme above in combination with an evaluation of the development proposal, the surrounding area (to determine connectivity) and the mix of sensitive features present on the site.

(I) DEVELOPMENT OPTIONS

The following development options are available for properties containing environmentally sensitive lands:

- (1) May develop as a Planned Development, per standards in Section 20-701, to protect the greatest amount of environmentally sensitive features possible while accommodating development. The minimum amount of natural open space to be preserved will be determined after a review of the Sensitive Areas Site Plan. Planned Developments provide the following additional flexibility: reduced lot sizes, increase in maximum net residential density by up to 25%, reduction in minimum setback standards of the base district with some restrictions, increase in the height of the buildings, and reduction in the number of off-street parking spaces required.
- (2) May develop as a Cluster Development per standards listed in Section 20-702. If environmentally sensitive features are present, a Cluster Development may exceed the 35 lots permitted in Section 20-702(c)(1). Cluster Development allows the property to develop at the same maximum density as the base zoning district permits, but with no minimum lot area or lot width requirements. Special setbacks for the perimeter apply and 10' separation is required between all detached dwellings.
- (3) May develop with a site plan, or single-dwelling or duplex residential development may occur through a traditional subdivision, when a review of the Sensitive Areas Site Plan indicates that it is possible to develop the property according to the regulations of the base zoning district while protecting the sensitive areas through easements, building envelopes, common-ownership tracts, or other means. The development proposal shall be reviewed with the approved Sensitive Areas Site Plan to insure that the proposed development will preserve the amount of sensitive area necessary. The Sensitive Areas Site Plan shall be incorporated with any submitted development proposal, i.e. plat, site plan, development plan, etc. The protected sensitive areas and building envelopes must be shown on the preliminary and final plat to insure that buildings and construction activity do not encroach into the sensitive areas. A note must be included on the plat or site plan noting the party responsible for

the maintenance of the protected environmentally sensitive areas and stating that all development activity, including grading and construction, is prohibited within the protected sensitive areas.

(m) Sensitive Areas Development Design Guidelines:

- (1) Street rights-of-way, public utility corridors and building sites should be located so as to minimize their impact on environmentally sensitive areas.
- (2) Where possible, environmentally sensitive areas to be protected should be located within designated public or private open space, either through dedication, a conservation easement, or control by a homeowner's association.
- (3) If a review of the Sensitive Areas Site Plan and proposed development indicates that it is not possible or reasonable to protect the required amount of sensitive features, mitigation may be possible. A mitigation plan shall be submitted to the Planning Commission for review. Any appeals from the Planning Commission's determination on the mitigation plan would be heard by the City Commission.

Notes. The text amendment is a draft document. Changes may be required as a result of the input received at the Planning Commission meeting. Changes to definitions of the following environmentally sensitive features are anticipated by Staff as more information is obtained:

**¹ --Prairie Remnants will be included in this text amendment if a map is available which shows where prairie remnants are located or if criteria is established which will allow for the identification of prairie remnants by Planning Staff and property owners.. It is Planning Staff's intent that the criteria for determining if environmentally sensitive features are present should be objective and easy for Staff, developers and property owners to apply.*

**² --Stream Corridor widths vary based on the size of the stream and the amount of seasonal flow. Staff is working with the City Stormwater Engineer to establish corridor widths for different types of streams rather than requiring a 100' wide corridor for all streams.*

The following are definitions to be added to general glossary

Clearcutting. The removal of most or all trees on a site, or the removal of more than one-half (0.5) acre of trees in an area determined to be sensitive by this section, during a single timber harvesting operation or within a three (3) year period.

Environmentally Sensitive Areas – Areas containing natural features and/or natural resources which include regulatory floodplain, jurisdictional wetlands, streams and their corridors, woodland areas, individually significant trees, prominent geographic features with rocky outcroppings, archaeological and historic sites, prairie remnants and steep slopes.

Individually Significant Tree – A significant tree is an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) or any of the following native species: Walnut, Red Maple, Shagbark Hickory, Black Cherry, Black Locust, American Elm, Chinese Elm, Hackberry, Osage Orange, White/Red Mulberry, Chinkapin Oak, Bur Oak, White Oak, Black Oak, Honey Locust, Cottonwood, Sycamore, Red Cedar, Black Gum, or Yellow Poplar.

Open Space – An area of land or water, either landscaped or essentially unimproved, which is used to meet human recreational or spatial needs, or for resource protection. Open space areas may or may not be improved but can include playfields, trails, greenbelts/greenways, community gardens, farmed areas, buffers between land uses of differing intensities, areas within community or neighborhood parks and other environmentally sensitive areas.

*Prairie Remnants – Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger: Prairie areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies) *¹*

Stream – A stream is a natural body of flowing water, whether constant or intermittent, that begins at headwaters and gathers water from run-off, rain, snow melt, or from underground springs. Streams hold great importance regardless of size or flow. Streams provide water, a variety of aesthetic values and are important wildlife habitats. All streams shown in blue dashed or solid lines on the USGS Quad maps are included in this listing.

The following term will be replaced:

~~Stand of Mature Trees: An area of ½ acre or more covered by densely wooded growth of mature trees having a minimum height of 25 feet.~~

Woodland Area – Any tract of land with a contiguous wooded area not less than two (2) acres and containing not less than one hundred (100) trees per acre that are two inches (2") in diameter or greater measured 36" above the ground. The extent of any woodland plant community or any part thereof shall be measured from the outermost drip line of all the trees in such plant community. Woodland shall include any area where clearcutting has occurred within the previous three years.

The following term will be revised:

Stream Corridor – ~~A strip of land 100 feet wide, of which the centerline shall be the centerline of a stream that is not an intermittent stream or an intermittent stream specifically identified in the comprehensive plan as a significant intermittent stream subject to protection.~~

A stream corridor is a stream and its buffer area, the width of which varies according to the size of the stream, the amount of flow, and topography of the site. The City Stormwater Engineer will determine the required buffer area for streams. *²