

Chapter 66

ENVIRONMENT*

* **Cross References:** Buildings and building regulations, ch. 26; open burning, § 70-161 et seq.; property maintenance, ch. 112; incinerators, § 70-176 et seq.; solid waste, ch. 122; sewers and sewage disposal, § 146-196 et seq.

Secs. 66-1--66-24. Reserved.

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ARTICLE I.
IN GENERAL

Secs. 66-1--66-24. Reserved.

ARTICLE II.
RESERVED*

* **Editors Note:** Ord. No. 18210, § 67, adopted April 6, 2004, repealed art. II, §§ 66-25--66-36, in its entirety. Formerly, said article pertained to nuisances as enacted by Ord. No. 16900, §§ 10--18, adopted Dec. 19, 1995; as amended. See the Code Comparative Table for a detailed analysis of repeal and inclusion. The users attention is directed to ch. 112.

Secs. 66-25--66-55. Reserved.

ARTICLE III.
RESERVED*

* **Editors Note:** Ord. No. 18210, § 67, adopted April 6, 2004, repealed art. III, §§ 66-56--66-62, in its entirety. Formerly, said article pertained to junked and abandoned vehicles as enacted by Ord. No. 16899, §§ 8--14, adopted Dec. 19, 1995; as amended. See the Code Comparative Table for a detailed analysis of repeal and inclusion. The users attention is directed to ch. 112.

Secs. 66-56--66-85. Reserved.

ARTICLE IV.
EXCAVATIONS*

* **Cross References:** Blasting, § 70-136 et seq.

DIVISION 1.
GENERALLY

Sec. 66-86. Purpose.

The purpose of this article is to safeguard life, limb, property and the public welfare by regulating grading and excavation on public and private property.
(Ord. No. 16432, § 1, 3-10-92)

Sec. 66-87. Scope.

This article sets forth rules and regulations to control grading, excavation and earthwork construction, including fills, embankments and clearing of land in preparation for these activities; establishes the administrative procedure for approval of plans, issuance of permits, and inspection of the project before, during and upon final completion of the work.
(Ord. No. 16432, § 2, 3-10-92)

Sec. 66-88. Penalty for violation of article.

Violation of this article shall be deemed to be a violation of the Code of the City of Topeka and may be prosecuted as such in municipal court.
(Ord. No. 16432, § 10, 3-10-92)

Sec. 66-89. Grading inspections.

(a) *Generally.* All grading operations for which a permit is required shall be subject to inspection by the public works department.

(b) *Grading designations.* All grading in excess of five acres or 5,000 cubic yards shall be performed in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as "engineered grading." Grading involving less than five acres or 5,000 cubic yards shall be designated "regular grading" unless the permittee, with the approval of the public works director, chooses to have the grading performed as engineered grading.

(c) *Engineered grading requirements.*

(1) For engineered grading, it shall be the responsibility of the civil engineer who prepares the approved grading plan to incorporate all recommendations from the soils engineering and engineering geology reports into the grading plan. The civil engineer shall also be responsible for the professional inspection and approval of the grading within his area of technical specialty. This responsibility shall include, but need not be limited to, inspection and approval as to the establishment of line, grade and drainage of the development area.

(2) The civil engineer shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the public works department. The civil engineer shall also be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work. The permit holder shall submit in a form prescribed by the development coordination office a statement of compliance to such as-built plan.

(3) During grading all necessary reports, compaction data and soil engineering and engineering

geology recommendations shall be submitted to the civil engineer and the development coordination office by the soils engineer and the engineering geologist. The soils engineer's area of responsibility shall include, but need not be limited to, the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes and the design of buttress fills, where required, incorporating data supplies by the engineering geologist. The engineering geologist's area of responsibility shall include, but need not be limited to, professional inspection and approval of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters and the need for subdrains or other groundwater drainage devices. He shall report his findings to the soils engineer and the civil engineer for engineering analysis.

- (4) The public works department shall inspect the project at the various stages of the work requiring approval to determine that adequate control is being exercised by the professional consultants.

(d) *Regular grading requirements.* The development coordination office may require inspection and testing by an approved testing agency. The testing agency's responsibility shall include, but need not be limited to, approval concerning the inspection of cleared areas, benches to receive fill, and the compaction of fills. When the development coordination office has reason to believe that geologic factors may be involved, the grading operation will be required to conform to engineered grading requirements.

(e) *Notification of noncompliance.* If, in the course of fulfilling the responsibility under this article, the civil engineer, the soils engineer, the engineering geologist or the testing agency finds that the work is not being done in conformance with this article or the approved grading plans, the discrepancies shall be reported immediately in writing to the person in charge of the grading work and to the public works director. Recommendations for corrective measures, if necessary, shall also be submitted.

(f) *Transfer of responsibility for approval.* If the civil engineer, the soils engineer, the engineering geologist or the testing agency of record is changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of his technical competence for approval upon completion of the work.

(Ord. No. 16432, § 7, 3-10-92)

Sec. 66-90. Completion of work.

(a) *Final reports.* Upon completion of the rough grading work and at the final completion of the work, the development coordination office may require the following reports and drawings and supplements thereto:

- (1) An as-graded grading plan prepared by the civil engineer, including original ground surface elevations, as-graded ground surface elevations, lot drainage patterns and locations and elevations of all surface and subsurface drainage facilities. The civil engineer shall state that to the best of his knowledge the work was done in accordance with the final approved grading plan.
- (2) A soils-grading report prepared by the soils engineer, including locations and elevations of field density tests, summaries of field density tests, summaries of field and laboratory tests and other substantiating data and comments on any changes made during grading and their effect on the

recommendations made in the soils engineering investigation report. The soils engineer shall render a finding as to the adequacy of the site for the intended use.

- (3) A geologic grading report prepared by the engineering geologist, including a final description of the geology of the site and any new information disclosed during the grading and the effect of such new information on recommendations incorporated in the approved grading plan. The engineering geologist shall render a finding as to the adequacy of the site for the intended use as affected by geologic factors.

(b) *Notification of completion.* The permit holder shall notify the development coordination office when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion control measures have been completed in accordance with the final approved grading plan and the required reports have been submitted.

(Ord. No. 16432, § 8, 3-10-92)

Secs. 66-91--66-100. Reserved.

DIVISION 2.

PERMIT

Sec. 66-101. Required; exceptions.

- (a) A grading and excavation permit shall be required when:
 - (1) The removal, increase or stockpiling of any earthwork exceeds one foot in height and the amount of materials to be removed, increased or stockpiled exceeds 100 cubic yards.
 - (2) The extraction of any earth, rock or other natural materials occurs in conjunction with a special permit issued pursuant to applicable zoning ordinances.
 - (3) The grading, excavation or stockpiling of any earthwork significantly changes a recognized, established watercourse or results in a significant change in drainage or runoff conditions to an established drainage easement of record.
 - (4) The clearing, grading, excavation or construction exceeds five acres in area.

(b) The grading and excavation permit shall be obtained prior to clearing of land in preparation for any of the activities set out in subsection (a). When the area exceeds five acres, the permit must be applied for at least 90 days prior to beginning construction.

- (c) Exceptions. A grading and excavation permit shall not be required for the following:
 - (1) The removal or increase of earthwork in conjunction with any construction project of less than five acres for which a building or construction permit has been issued, provided the removal or

increase of earthwork is contained on the parcel of property for which a building permit or construction permit has been issued. Property adjoining the parcel of property for which a building permit or construction permit has been issued may be used for the temporary storage of fill material provided written permission has been obtained from the adjoining property owner and the storage of fill materials ends at the completion of the permitted work. However, the work will conform to the standards and other requirements of this article and other applicable city ordinances.

- (2) Cemetery graves.
- (3) Sanitary landfills, where such landfills have been authorized by a special permit.
- (4) Demolition landfills, where such landfills have been authorized by the health officer.
- (5) Exploratory excavations, tests and sampling under the direction of a soils engineer or engineering geologist or as approved by the department of public works.
- (6) Work of less than five acres conducted by governmental agency crews and contractors employed by the governmental agency, public utility crews and their contractors; however, the work will conform to the standards and other requirements of this article and any other applicable city ordinance.

Nothing contained in this subsection (c) shall be construed as exempting from regulation excavation work which is regulated by separate permit as set forth in section 130-231 (public place excavation) or section 74-48 (floodplain).

(Ord. No. 16432, § 3, 3-10-92)

Sec. 66-102. Application.

(a) An application shall be submitted to the department of public works, development coordination office, for plan review and approval and issuance of a grading and excavation permit. The development coordination office may consult with any division of the public works department or any other city office which has expertise in the area during the processing of a permit application and throughout the duration of the permit.

- (1) Required items. The application shall contain:
 - a. Name of the applicant.
 - b. Name of the property owner, and legal description and address of property where grading application is to take place.
 - c. Quantity of earth to be removed or added, the total area of the site and the area that is expected to undergo excavation during the life of the permit.
- (2) Additional items. In addition, the development coordination office may in its discretion require the following information:

- a. Property limits and accurate contours of existing site.
- b. Limiting dimensions, elevations and finish contours of site.
- c. Details of surface and subsurface drainage devices, walls, cribbing, dams or other protective devices to be utilized during construction.
- d. Locations or proposed locations of buildings or structures on the site, and all other buildings or structures on adjacent land which is within 15 feet of the subject site.
- e. Method of controlling erosion during construction, including planting, seeding, terracing, temporary dams, etc.

(b) For areas involving more than five acres or the moving of more than 5,000 cubic yards of material, the grading plan accompanying the application for a grading and excavation permit shall also include such information as:

- (1) The location, including site map, and the nature of the construction activity, including legend, north point and scale.
- (2) Location and dimension of all streets and utilities extending through and adjacent to the site.
- (3) Approximate limits and elevation of the 100-year floodplain and floodway, if applicable.
- (4) Estimated time schedule for phasing of the development.
- (5) Location of any rock disposal and topsoil stockpile areas.
- (6) Proposed measures, including best management practices, to control pollutants in stormwater discharges during construction, including a brief description of the method of meeting applicable state and local erosion and sediment control requirements.
- (7) Proposed measures to control pollutants in stormwater discharges that will occur after construction operations have been completed.
- (8) An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is completed, the nature of fill material and existing data describing the soil or the quality of the discharge.

- (9) The name of the receiving water.

(Ord. No. 16432, § 4, 3-10-92)

Sec. 66-103. Fees.

All applications for a permit under this article shall be accompanied by a fee to cover the costs of plan review

and inspection. Such fees shall be in accordance with the following:

Removal or Increase of	Fee
0--100 cubic yards....	\$ 30.00
101--1,000 cubic yards....	70.00
1,001--5,000 cubic yards....	120.00
5,001--500,000 cubic yards....	220.00
500,001 or greater cubic yards....	320.00

(Ord. No. 16432, § 9, 3-10-92; Ord. No. 18292, § 15, 7-20-04)

Sec. 66-104. Criteria for approval.

A grading and excavation permit shall be issued only when the requirements of this article with regard to the permit application, grading and erosion control plan, required fees and all other requirements of this article have been satisfied. Any physical change in the site as a result of grading operations, such as surface water drainage, soil and bedrock dislocations, alterations of groundwater discharge or any other natural or manmade modification which would cause doubt to be cast upon the feasibility of the contents of the original permit approval, must be reported in the intervening period between permit approval and completion of grading. (Ord. No. 16432, § 5(1), 3-10-92)

Sec. 66-105. Conditions of approval.

In granting a permit under this article, the development coordination office may attach such conditions as may reasonably be necessary to prevent danger to public or private property or to prevent the operation from being conducted in a manner hazardous to life or property or in a manner likely to create a nuisance. Such conditions may include, but are not limited to:

- (1) Limitations on the hours of operation.
- (2) Designation of traffic routes upon which materials may be transported.
- (3) The place and manner of disposal of excavated or imported materials.
- (4) Requirements as to the control of dust and tracking of dirt or other consequences of the operation which may be offensive or injurious to the neighborhood or to the general public.
- (5) Regulations as to the use of public streets and places in the course of the work.
- (6) Requirements as to paving temporary private drives and roads constructed under the permit.
- (7) Requirements for safe and adequate drainage of the site.
- (8) Requirements for the fencing of excavation or fills which would be hazardous without such fencing.

(Ord. No. 16432, § 5(2), 3-10-92)

Sec. 66-106. Duration.

Every grading and excavation permit shall expire and become null and void if substantial work authorized by such permit has not commenced within 180 days or is not completed within one year from the date of issuance.

(Ord. No. 16432, § 5(3), 3-10-92)

Sec. 66-107. Extension and renewal.

Any permittee holding an unexpired grading and excavation permit may apply in writing for an extension of the time within which grading operations are to be commenced or completed. The development coordination office may extend the expiration date of the permit for a period not exceeding 180 days if the permittee presents satisfactory evidence that unusual difficulties have prevented commencement or completion of grading.

(Ord. No. 16432, § 5(4), 3-10-92)

Sec. 66-108. Revocation.

The development coordination office may revoke a grading and excavation permit if it is found that the applicant has failed to abide by the conditions of approval.

(Ord. No. 16432, § 5(5), 3-10-92)

Secs. 66-109--66-120. Reserved.

DIVISION 3.

MINIMUM STANDARDS

Sec. 66-121. Time limit.

All grading operations shall proceed according to a work schedule included in the grading and erosion control plan. The schedule shall provide that the soil is exposed and unprotected for the shortest possible period of time.

(Ord. No. 16432, § 6(1), 3-10-92)

Sec. 66-122. Dust control.

All graded surfaces and materials, whether filled, excavated, transported or stockpiled, shall be wetted, protected or contained in such a manner to prevent dust or spillage upon adjacent property or streets. Equipment, material and roadways on the site shall be used in such manner or so treated as to prevent excessive dust conditions.

(Ord. No. 16432, § 6(2), 3-10-92)

Sec. 66-123. Slope of cut surfaces.

The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than three horizontal to one vertical unless approved by the department of public works.

(Ord. No. 16432, § 6(3), 3-10-92)

Sec. 66-124. Fills.

(a) *Fill location.* Fill slopes shall not be constructed on natural slopes steeper than three to one unless approved by the department of public works.

(b) *Preparation of ground.* The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials and scarifying to provide a bond with the new fill.

(c) *Fill material.* Detrimental amounts of organic material shall not be permitted in fills. Except as permitted, no rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills. The development coordination office may permit placement of larger rock when a soils engineer properly devises a method of placement, continuously inspects its placement and approves the fill stability.

(d) *Compaction.* All fills shall be compacted to a minimum of 90 percent of maximum density tested by the Standard Proctor method unless specifically exempted from this requirement by the department of public works.

(e) *Slope.* The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than three horizontal to one vertical unless approved by the department of public works.

(Ord. No. 16432, § 6(4), 3-10-92)

Sec. 66-125. Stockpiling and temporary fills.

The minimum standards set out in section 66-124 shall also apply to stockpiling and temporary fills with the exception that subsections (b) through (d) thereof may be waived by the director of public works upon proper written justification.

(Ord. No. 16432, § 6(5), 3-10-92)

Sec. 66-126. Setbacks.

(a) *General.* Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary.

(b) *Top of cut slope.* The top of cut slopes shall be made not nearer to a site boundary line than one-fifth of the vertical height of cut with a minimum of two feet and a maximum of ten feet. The setback may need to be increased for any required interceptor drains.

(c) *Toe of fill slope.* The toe of any fill or stockpile slope shall be made not nearer to the site boundary line than one-half the height of the slope with a minimum of two feet and a maximum of 20 feet.

Where a fill or stockpile slope is to be located near the site boundary and the adjacent offsite property is developed, special precautions shall be incorporated into the work as the public works director deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include, but are not limited to:

- (1) Additional setbacks.
- (2) Provision for retaining or slough walls.
- (3) Mechanical or chemical treatment of the fill slope surface to minimize erosion.
- (4) Provisions for the control of surface waters.

(d) *Modification of slope location.* The public works director may approve alternate setbacks. The public works director may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

(e) *Final contours.* Contours, elevations and shapes of finished surfaces are to be blended with adjacent natural terrain to achieve a consistent grade and natural appearance. The tops and toes of cut and fill slopes are to be rounded off to a minimum radius of five feet to blend with the natural terrain.

(f) *Disposal of cleared or excavated materials.*

- (1) Vegetation removed during clearing of the site may be chipped, to the extent possible, and stockpiled on the site for use as mulch. Vegetation that is not useable should be disposed of properly.
- (2) Topsoil excavated from the site should be stockpiled and protected from erosion while grading operations are underway, provided that such storage is not located where it would cause suffocation of root systems of trees intended to be preserved. After completion of grading, topsoil should be restored to exposed cut and fill embankments or building pads to provide a suitable base for seeding and planting.
- (3) Methods of disposal of any other excavated material should be approved by the public works department.

(Ord. No. 16432, § 6(6), 3-10-92)

Sec. 66-127. Drainage and terracing.

(a) *General.* Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than three horizontal to one vertical.

(b) *Terraces.*

- (1) Terraces at least six feet in width shall be established at not more than 30-foot vertical intervals

on all cut or fill slopes to control surface drainage and debris. For cut or fill slopes greater than 60 feet and up to 120 feet in vertical height, one terrace at approximately midheight shall be 12 feet in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet in height shall be designed by the civil engineer and approved by the public works director. Suitable access shall be provided to permit proper cleaning and maintenance.

(2) Swales or ditches on terraces shall be designed by the civil engineer and approved by the public works director. A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (projected) without discharging into a down drain.

(c) *Subsurface drainage.* Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

(d) *Disposal.* All drainage facilities shall be designed to carry waters to the nearest practicable drainageway approved by the development coordination office and/or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of nonerosive downdrains or other devices. Building pads shall have a drainage gradient of two percent toward approved drainage facilities, unless waived by the public works director.

(e) *Interceptor drains.* Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than 40 feet measured horizontally. The design of the drain shall be approved by the development coordination office. (Ord. No. 16432, § 6(7), 3-10-92)

Sec. 66-128. Erosion control.

(a) *Slopes.* The faces of cut and fill slopes shall be prepared and maintained to control against erosion. The protection for the slopes shall be installed as soon as practicable. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

(b) *Plant material protection methods.*

(1) *Restriction of vehicles to graded areas.* Construction equipment shall be limited to the actual area to be graded according to the approved grading and erosion control plans. Every effort shall be made to restrict the passage of vehicles over areas intended to be left in their natural state according to approved plans.

(2) *Tree buffer zone.* No grading or operation of heavy equipment shall take place within the areas bounded by the dripline of any tree that is intended to be retained on the site unless an alternate method of preservation of the tree is approved by the department of public works.

(3) *Protective barriers.* During grading operations the permittee shall provide appropriate barriers around all native vegetation proposed for retention.

(c) *Responsibility of contractor.* The permittee shall be fully responsible for any damage caused to existing trees or other vegetation not within the construction area, and shall carry the responsibility both for his own employees and for all subcontractors until grading operations have ceased.
(Ord. No. 16432, § 6(8), 3-10-92)

Secs. 66-129--66-150. Reserved.

ARTICLE V.

BUFFER AREAS*

* **Editors Note:** Ord. No. 17837, §§ 1--9, adopted May 21, 2002, did not specifically amend this Code. Hence inclusion of said ordinance provision as §§ 66-151--66-159 was at the discretion of the editor to read as herein set out. See the Code Comparative Table.

Sec. 66-151. Purpose and intent.

The purpose of this article is to create and maintain stream buffers as a best management practice. Stream buffers enhance water quality and provide a method of complying with the city's national pollution elimination discharge permit.

- (1) Buffers adjacent to waterways provide environmental protection and resource management benefits, which include the following:
 - a. Helping protect the public from flooding;
 - b. Controlling erosion and reducing sedimentation;
 - c. Stabilizing stream banks;
 - d. Removing pollutants delivered in stormwater;
 - e. Restoring and maintaining the chemical, physical and biological integrity of the water resources;
 - f. Providing infiltration of stormwater runoff;
 - g. Providing tree canopy to shade streams and promoting desirable aquatic organisms;
 - h. Providing riparian wildlife habitat;
 - i. Furnishing scenic value and recreational opportunity;
 - j. Providing sustainable native vegetation; and
 - k. Maintaining base flow of streams.

It is the desire of the city to protect and maintain the native vegetation in riparian and wetland areas by implementing specifications for the establishment, protection and maintenance of buffer vegetation along waterways within the city limits.

- (2) The intent of this article is to establish the minimum acceptable requirements for the design of buffers to protect the waterways of the city; to protect the water quality of waterways, reservoirs, lakes, and other significant water resources within the city; to protect the city's riparian and aquatic ecosystems; and to provide for the environmentally sound use of the land resources.

(Ord. No. 17837, § 1, 5-21-02)

Sec. 66-152. Definitions.

[The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

Active channel means the area of the stream channel that is subject to frequent flows and that includes the portion of the channel below where the floodplain flattens.

Best management practices (BMPs) means conservation practices or management measures which control flooding, erosion and soil loss, and reduce water quality degradation caused by nutrients, animal wastes, toxins, sediment, and runoff.

Buffer means a vegetated area, including trees, shrubs, and herbaceous vegetation, which exists or is established to protect a stream system, lake, or reservoir.

Development means:

- (1) The improvement of property for any purpose involving building; or
- (2) The division or subdivision of a tract or parcel of land into two or more parcels; or
- (3) The combining of any two or more lots, tracts, or parcels of property for any purpose; or
- (4) The preparation of land for any of the above purposes; or
- (5) The clearing of trees and vegetation and/or excavation or earthwork on a tract or parcel of land.

Levee means a manmade structure to control, divert, and contain stormwater runoff and flood flows.

Non-point source pollution means pollution which is generated by various land use activities rather than from an identifiable or discrete source and is conveyed to waterways through natural processes such as rainfall, storm runoff, or ground water seepage rather than direct discharge.

One hundred year floodplain means the area of land adjacent to a stream that is subject to inundation during a storm event that has a recurrence interval of 100 years.

Pollution means any contamination or alteration of the physical, chemical, or biological properties of any waters that will render the waters harmful or detrimental to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; livestock, wild animals, birds, fish or other aquatic life.

Streams means perennial and intermittent watercourses identified through site inspection and United States Geological Survey (USGS) maps and further defined and categorized as follows:

Type I streams. Type I streams are defined as perennial streams shown as solid blue lines on a United States Geological Survey seven and one-half-minute series topographical map. The total required buffer width is 100 feet on each side perpendicular to the waterway measured from the outer wet edge of the channel during base flows.

Type II streams. Type II streams are defined as intermittent streams shown as a dashed blue lines on a United States Geological Survey seven and one-half-minute series topographical map. The total required buffer width is 50 feet on each side perpendicular to the waterway measured from the centerline of the channel.

Type III streams. Type III streams are defined as waterways, dry channels that have a contributing drainage area of 50 acres or greater. The total required buffer width is 30 feet on each side perpendicular to the waterway measured from centerline of waterway.

Waterways means natural or manmade lakes, channels, rivers, streams, and creeks, which store and/or convey stormwater runoff

Water pollution hazard means a land use or activity that causes a relatively high risk of potential water pollution.

Wetlands means those areas not influenced by tidal fluctuations which are inundated or saturated by surface or groundwater 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.
(Ord. No. 17837, § 2, 5-21-02)

Sec. 66-153. Scope.

(a) This article shall apply to all proposed development except for that development which meets waiver or variance criteria as outlined hereinafter.

(b) This article shall apply to activities that involve clearing, earthwork, and excavation within the buffer zone as defined herein.

(c) Except as provided elsewhere, this article shall apply to all tracts and parcels of land, structures, and activities that cause or contribute to:

(1) Pollution, including non-point source pollution, of the waters of the city.

- (2) Erosion or sedimentation of stream channels.
- (3) Degradation of aquatic or riparian habitat.
- (d) This article shall not apply to development which prior to the effective date of this article:
 - (1) Is covered by a plat recorded of record in accordance with subdivision regulations and no further development is anticipated.
 - (2) Is covered by a valid, unexpired building permit.
 - (3) Has applied for a building permit.

(e) This article shall apply to all development of existing platted parcels occurring after the effective date of this article where the impervious surface increases by 50 percent or more; or where the redevelopment of an existing platted parcel contains one-eighth of a mile or more of a type I, II, or III stream; or where the platted parcel is adjacent to one-eighth of a mile or greater of a type I, II, or III stream.
(Ord. No. 17837, § 3, 5-21-02)

Sec. 66-154. Plan requirements.

- (a) A plan approved by the director of the public works department or designee is required for all development within the buffer zone as defined herein.
- (b) The plan shall contain an informative, conceptual, and schematic representation of the proposed development activity by means of maps, graphs, charts, or other written or drawn documents so as to enable an informed decision regarding the proposed development activity.
- (c) The plan shall contain the following specific information:
 - (1) A location or vicinity map to include maximum two feet contour intervals and scale of no greater than one inch = 100 feet.
 - (2) Field delineated streams, springs, seeps, bodies of water, wetlands, and waterway buffer zones.
 - (3) Limits of the ultimate 100-year floodplain as shown in the most accurate information available as determined by the city's public works department. FEMA maps and stormwater basin studies will be used to determine accuracy.
- (d) A buffer plan shall be submitted in conjunction with the required grading plan for any development, and the buffer should be clearly delineated on the final grading plan.
- (e) Boundary markers will be installed by the applicant prior to commencing clearing and grading operations. Markers will be placed at the outside edge of the buffer zone prior to the start of any activity adjacent to the buffer zone. Markers shall be clearly visible and shall be spaced at a maximum of 100 feet. The markers shall be joined by marking tape or fencing.

(Ord. No. 17837, § 4, 5-21-02)

Sec. 66-155. Design standards for buffers.

(a) A buffer for a stream system shall consist of a strip of land extending along both sides of a stream and its adjacent wetlands, floodplains, or slopes. The buffer width shall be adjusted to include contiguous sensitive areas, such as steep slopes or erodible soils, where development or disturbance may adversely affect water quality, streams, wetlands, or other waterbodies.

(b) The buffer shall begin at the edge of the waterway for type I and at the centerline of the channel for type II and type III waterways. The edge of the waterway is the outer wet edge of the channel during base flow or where the edge of vegetation occurs.

(c) The specific width for all buffers (i.e., the base width) is relative to the type of waterway being protected with the requirement to expand the buffer depending on:

- (1) 100-year floodplain;
- (2) Wetlands or critical areas.

Type I waterway buffer widths shall be modified if there are steep slopes adjacent to the waterway that drain into the system. Specific adjustments are as follows:

Percent Slope	Width Adjustment to Buffer
0 to 14%	No change
15% to 25%	Add 25 feet
Greater than 25%	Add 50 feet

(d) Water pollution hazards. The following land uses and/or activities are designated as potential water pollution hazards and must be set back from any stream or waterbody by the distance indicated below:

- (1) Storage and use of hazardous substances: 300 feet;
- (2) Above or below ground petroleum storage facilities: 300 feet;
- (3) Drainfields from on-site sewage disposal and treatment system: 200 feet;
- (4) Raised septic systems: 500 feet;
- (5) Solid waste landfills or junkyards: 600 feet;
- (6) Confined animal feedlot operations: 500 feet.

(e) The buffer shall be composed of two distinct areas: streamside area and outer area. Each area has allowable uses and vegetativetargets as follows:

WATERWAY BUFFERS

STREAMSIDE AREA				OUTER AREA			
	TYPE I	TYPE II	TYPE III	TYPE I	TYPE II	TYPE III	
Width	50 feet	25 feet	15 feet	50 feet	25 feet	15 feet	
Vegetation	Native vegetation			Native vegetation or managed lawn (type 2 or 3).			
Uses	Flood control, utility corridors			Biking/hiking paths, flood control, detention/retention structure, utility corridors, stormwater BMP's, residential yards, landscape areas.			
	Foot paths, road crossings						
Function	Protect the physical and ecological integrity of the stream ecosystem			Protect key components of the stream and filter and slow velocity of water runoff.			

(Ord. No. 17837, § 5, 5-21-02)

Sec. 66-156. Buffer establishment, management, and maintenance.

(a) The buffer, including wetlands and floodplains, shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations on alteration of the natural conditions of these resources. The following practices and activities are prohibited within the buffer, except with written approval by the director of the public works department or designee.

- (1) Clearing of existing vegetation.
- (2) Grading, stripping, or other soil disturbing practices.
- (3) Filling or dumping.
- (4) Draining the buffer area by ditching, underdrains, or other systems.
- (5) Use, storage, or application of pesticides, except for the spot spraying of noxious weeds or non-native species consistent with recommendations of the Shawnee County Soil Conservation District.
- (6) Housing, grazing, or other maintenance of livestock.
- (7) Storage or operation of motorized vehicles, except for maintenance and emergency use.

(b) The following structures, practices, and activities are permitted in the buffer, with specific design or maintenance features, subject to the review of the director of the department of public works of the city or designee.

- (1) Roads, bridges, paths, and utilities.
- (2) Stream restoration projects, facilities and activities are permitted within the forest buffer.
- (3) Water quality monitoring and stream gauging are permitted within the buffer.

(4) Individual trees within the buffer may be removed with prior approval from the water pollution control division.

(c) Fences constructed within the buffer zone must be of an open, split rail or wood plank type design. Metal fencing may be added but only as an attachment to an acceptable wood fence design. Added metal fencing may not exceed the height of the wood fence. Screening material of any kind is prohibited. No fencing of any kind may extend into the 100-year floodplain area.

(d) All plats prepared for recording shall clearly:

(1) Show the extent of any buffer on the subject property by metes and bounds.

(2) Label the buffer.

(3) Provide a note stating, "There shall be no clearing, grading, construction or disturbance of vegetation except as approved by the Director of the Department of Public Works or designee".

(4) Provide a note stating, "Any buffer shown hereon is subject to protective covenants which may be found in the land records and which restrict disturbance and use of these areas".

(e) All buffer areas shall be established and managed through a declaration of protective covenant which is required to be submitted for approval by the Topeka/Shawnee County Metropolitan Planning Commission. The covenant shall be recorded with the plat of record and shall run with the land and continue in perpetuity.

(f) An offer of dedication of a buffer area to the city shall not be interpreted to mean that this automatically conveys to the general public the right of access to this area.

(g) Buffers situated adjacent to public streets add value to neighborhoods. In order to provide an incentive to locate buffers adjacent to public streets, the city will allow the dedicated right of way width as contained in the city's design criteria adjacent to the improved street to be included within the outer zone of the stream buffer. Also, the city may through its platting process accept the dedication of buffer areas located adjacent to streets and maintain the same as public property.

(Ord. No. 17837, § 6, 5-21-02)

Sec. 66-157. Enforcement procedures.

(a) The director of the department of public works or designee is authorized and empowered to enforce the requirements of this article in accordance with the procedures of this section.

(b) If, upon inspection or investigation, the director or his/her designee is of the opinion that any person has violated any provision of this article, he/she shall with reasonable promptness issue a correction notice to the person. Each such notice shall be in writing and shall describe the nature of the violation, including a reference to the provision within this article, which has been violated. In addition, the notice shall set a reasonable time for the abatement and correction of the violation. Failure to abate or correct the violation or

seek a waiver or variance, as may be applicable, will render the person ineligible for future building permits or for city approvals until such time as the violation is abated, corrected or resolved by waiver or violation as may be applicable.

(c) Any person who violates any provision of this article may be liable for any costs or expenses incurred as a result thereof by the city.
(Ord. No. 17837, § 7, 5-21-02)

Sec. 66-158. Waivers; variances.

(a) The director of public works or designee may grant a waiver for the following:

- (1) Those projects or activities serving a public need where no feasible alternative is available.
- (2) The repair and maintenance of public improvements where avoidance and minimization of adverse impacts to wetlands and associated aquatic ecosystems have been addressed.
- (3) Those developments which have had buffers applied in conformance with previously issued requirements.

(b) Variances for development may be granted if deemed appropriate by the director of public works or designee:

- (1) The buffer width of a type I, II, or III stream may be reduced and the buffer permitted to become narrower at some points as long as the average width of the buffer meets the minimum requirement. This averaging of the buffer may be used to allow for the presence of an existing structure or to recover a lost lot, as long as the streamside area is not disturbed by the narrowing, and no new structure is built within the 100-year floodplain.
- (2) Subject to Topeka/Shawnee County Metropolitan Planning Commission approval, additional density elsewhere on the site may be allowed to counterbalance in the loss of developable land due to the requirements of this article.

(c) The applicant shall submit a written request for a waiver or variance to the director of public works or designee. The application shall include specific reasons justifying the variance and any other information necessary to evaluate the proposed variance request. The director of public works may require an alternatives analysis that clearly demonstrates that no other feasible alternatives exist and that minimal impact will occur as a result of the project or development.

(d) In granting a request for a waiver, the director of public works may require site design, landscape planting, fencing, the placement of signs, and the establishment of water quality best management practices in order to reduce adverse impacts on water quality, streams, wetlands, and floodplains.
(Ord. No. 17837, § 8, 5-21-02)

Sec. 66-159. Conflict with other regulations.

Where the standards and management requirements of this buffer article are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities, or other environmental protective measures, the more restrictive shall apply.

(Ord. No. 17837, § 9, 5-21-02)