

CITY OF KETTERING



STORMWATER RUNOFF CODE

CHAPTER 17

OF THE

CODIFIED ORDINANCES

OF THE

CITY OF KETTERING, OHIO

ORDINANCE NUMBER 4053-06

**PASSED BY CITY COUNCIL
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CHAPTER 17 STORM WATER RUNOFF CODE

SECTION 1701.101 GENERAL PROVISIONS

1701.101.1 Regulation Scope

This Chapter shall apply to all development resulting in a land disturbance of greater than or equal to one acre, and development disturbing less than one acre if that development is part of a larger common plan or phase of development that will cumulatively disturb one acre or more.

1701.101.2 Disclaimer of Liability

Neither submission of a Storm Water Management Plan nor compliance with this Chapter, shall relieve any person from responsibility for damage otherwise imposed by law. The provisions of this Chapter are promulgated to promote the health, safety, and welfare of the public and are not designed for the benefit of any individual or for the benefit of any particular parcel of property.

1701.101.3 Abrogation and Greater Restrictions

These regulations are not intended to replace any existing ordinances including subdivision regulations, zoning codes, or building codes. In the event of a conflict between the provisions of this Chapter and any other chapter, the more restrictive provisions shall be followed.

1701.101.4 Interpretation

In the interpretation and application of these regulations, all provisions shall be:

- A. Considered as minimum requirements; and
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other municipal powers granted under the Ohio law.

Section headings are for convenience only and shall not be considered in interpreting this Chapter.

1701.101.5 Severability

Should any section or provision of this Chapter be declared invalid, such decision shall not affect the validity of the Chapter as a whole, or any part thereof other than the part declared to be invalid.

SECTION 1701.201 DEFINITIONS

For the purposes of this Chapter, the following terms, phrases, words, and their derivations shall have the meanings as set forth herein. When not inconsistent with the context, words in the present tense include the future tense, words in the plural number include the singular number, words in the singular number include the plural number, words in the feminine include the masculine, and words in the masculine include the feminine. The words "shall" and "will" are mandatory and "may" is permissive. Words not defined shall be given their common and ordinary meaning. References hereafter to "Sections" or "Subsections" are, unless otherwise specified, references to Sections or Subsections in this Chapter. Defined terms remain defined terms whether or not capitalized. Words used in this Chapter may be the same as words used in other chapters of the Codified Ordinances. However, the definitions of words used in this Chapter may be different than those used in other chapters.

Best Management Practices ("BMP"): Those soil erosion, sedimentation, pollution, and runoff control practices found in (1) Section 1701.309 or (2) the most current edition of *Rainwater and Land Development*, which is incorporated by reference as if fully rewritten into this Chapter 17. In case of conflict, the most restrictive provisions shall be followed.

City Engineer: The city of Kettering City Engineer or the City Engineer's designee.

Construction: The erection, alteration, repair, renovation, demolition or removal of any building or structure; the clearing, stripping, excavating, filling, or grading, of land.

Critical Storm: A theoretical storm event, calculated on the basis of the percentage increase in runoff volume expected to be caused by development of an area and used to determine the maximum allowable rate of storm water discharge from the development area. The calculation procedure is detailed in Section 1701.305.3 (M).

Debris: The remains of something broken or destroyed.

Detention basin: An area created by constructing an embankment, excavating a pit, or both, for the purpose of temporarily storing runoff.

Detention facility: A detention basin or alternative structure designed to temporarily store runoff and gradually release the runoff at a controlled rate.

Developer: A person or entity causing, directly or indirectly, development or redevelopment of land regardless of ownership.

Development: Any human made change to improved or unimproved real estate, including, but not limited to, clearing, construction, demolition, land-disturbing activities, dredging, filling, grading, mining, paving, or drilling operations; any subdivision of land; any construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any excavation, filling, or land disturbance; and any extension or expansion of the use of land commenced on or after the effective date of this Chapter.

Development Area: Any contiguous area operated as one development unit and being developed for any non-farm purpose in a manner that will involve land-disturbance.

Earth Material: Soil, sediment, rock, sand, gravel, and organic material or residue associated with or attached to the soil.

Erosion: The detachment, wearing away, or movement of land surface through the action of forces such as water, wind, ice, or gravity.

Excavation: Any act by which natural or human made material is dug, cut, quarried, uncovered, removed, displaced, relocated, or bulldozed and shall include the conditions resulting there from.

Fill: Any act by which earth material or other material is placed, pushed, dumped, pulled, transported or moved to a new location above the natural surface of the ground or on top of the stripped surface and shall include the resulting grade conditions; the difference in elevation between a point on the original ground and a designated point of higher elevation on the final grade; the material used to make a fill.

Grading: The excavation, stripping, cutting, filling, stockpiling, or any combination thereof, of the ground's surface; see also land-disturbance.

Hazard: Any danger to public health, welfare, and safety including exposure to risk or damage to property or liability for personal injury; or risk or harm to land, air, or water resulting in environmental degradation. Hazards can include, but are not limited to, flooding and ponding, compaction and settling, landslides, earthquakes, toxic chemicals, radiation, fire, and disease.

Land-Disturbance: Any activity which disturbs natural or human made ground cover which may result in slope instability, erosion, storm water pollution, or accelerated runoff; any increase in impervious surface which may result in slope instability, erosion, storm water pollution, or accelerated runoff.

Land-Disturbance Permit: A permit issued by the city of Kettering allowing land-disturbance as specified in the permit.

Law Director: The city of Kettering Law Director or the Law Director's designee.

Maximum Extent Practicable: The level of pollutant reduction that operators of small municipal separate storm sewer systems regulated under 40 C.F.R. Parts 9, 122, 123, and 124, referred to as NPDES Storm Water Phase II, must meet.

Natural Vegetation: Any ground cover in its original state before commencement of land-disturbing activities.

Non-structural controls: Storm water runoff control and treatment practices that are not structural controls. Non-structural controls use natural measures to control runoff and/or reduce pollution levels by eliminating the source of runoff and/or pollutants. Examples include minimizing impervious area, buffer strips along streams, and preserving existing natural vegetation.

Parcel: Any legally described piece of land created by a partition, subdivision, deed or other instrument recorded with the appropriate entity or agency.

Permittee: Any person granted a permit according to this Chapter, or who is subject to inspection under it.

Person: Any individual, corporation, partnership, joint venture, agency, unincorporated association, municipal corporation, county, or state agency within Ohio, the federal government, or any combination thereof.

Pollution: Alteration of the chemical, physical, and biological integrity of air, earth, and water resources.

Pre-Development Conditions: Site conditions as they existed prior to development.

Rainwater and Land Development: The most current edition of *Rainwater and Land Development - Ohio's Standards for Storm Water Management, Land Development and Urban Stream Protection*, published by the Ohio Department of Natural Resources.

Registered Professional Engineer: A person registered with the State of Ohio as a Professional Engineer under Chapter 4733 of the Revised Code.

Runoff: Water that travels over the ground surface.

- a.) Accelerated Runoff – The increased rate and volume of runoff caused by development.

b.) Peak Rate of Runoff – The maximum rate of runoff for any 24-hour storm of a given frequency.

Sediment: Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site or origin by air, water, gravity, or ice, and has come to rest on the earth's surface either above or below water.

Site: Any lot or parcel of land or a series of lots or parcels of land adjoining or contiguous or joined together under one ownership where development occurs.

Site Development Plan: The written document or set of plans meeting the requirements of this Chapter that provides information on the location of the area proposed for development, the development area in relation to its general surroundings, and existing characteristics of the development area, including limits of land-disturbing activities.

Slope: The face of an embankment or cut section; any ground whose surface makes an angle with the plane of the horizon. Slopes are usually expressed in a percentage based upon vertical difference in feet per 100 feet of horizontal distance.

Soil: All earth material of whatever origin that overlies bedrock, and may include the decomposed zone of bedrock that can be readily excavated by mechanical equipment.

Stop-Work Order: An order that requires all work to cease except work associated with bringing the site into compliance with the approved SWP3 or Site Development Plan.

Storm Frequency: The average period of time in years within which a storm of a given duration and intensity can be expected to be equaled or exceeded.

Storm Water Management Plan (SMP): The written document meeting the requirements of this Chapter that sets forth the plans and practices to be used on a development area to minimize storm water runoff from the site and to safely convey or temporarily store and release post-development storm water runoff at an allowable rate to minimize flooding and erosion.

Storm Water Pollution Prevention Plan (SWP3): The document required by the Ohio EPA for compliance with its NPDES Construction Activity General Permit #OHC000002.

Stripping: Any activity that removes or significantly disturbs the vegetative surface cover.

Structural control: Any human-made facility, structure, or device that is constructed to provide temporary storage and/or treatment of storm water runoff. Examples include retention and detention basins, rock check dams, swales, and constructed wetlands.

Structural control permit: A permit issued by the City which allows the permit holder to construct, maintain, or repair a structural control.

Subdivision: (1) The division of any parcel of land shown as a unit or as contiguous units on the last preceding tax roll, into two or more parcels, sites, or lots, any one of which is less than five acres for the purpose, whether immediate or future, of transfer of ownership, provided, however, that the division or partition of land into parcels of more than five acres not involving any new streets or easements of access, and the sale or exchange of parcels between adjoining lot owners, where such sale or exchange does not create additional building sites, shall be exempted; or (2) The improvement of one or more parcels of land for residential, commercial, or industrial structures or groups of structures involving the division or allocation of land for the opening, widening, or extension of any street or streets, except private streets serving industrial structures; the division or allocation of land as open spaces for the common use by owners, occupants, or lease holders or as easements for the extension and maintenance of public sewer, water, storm drainage, or other public facilities.

Zoning Administrator: The city of Kettering Zoning Administrator or the Zoning Administrator's designee.

SECTION 1701.301 LAND-DISTURBANCE PERMITS

1701.301.1 No person shall perform, cause, or allow to be performed any land-disturbance without a valid land-disturbance permit; land-disturbances for farming are excluded from this requirement.

1701.301.2 If a land-disturbance permit is required, the owner of the land on which the proposed land-disturbance will occur, or the owner's authorized agent, shall make application for the permit on a form prescribed by the Zoning Administrator. Permit applications shall include, but not be limited to, the following:

- A. An application fee in an amount set by the City Manager.
- B. The location of the proposed development area.
- C. Elevations of the proposed development area.
- D. Site location map prepared from a 2,000 scale (one inch = 2,000 feet) USGS topographic base map that shows the area proposed for

development and pertinent adjacent areas and features.

- E. A description of the nature and type of the land-disturbing and construction activity.
- F. A photocopy of the appropriate soil survey sheet found in the USDA Soil Survey of Montgomery County with location of site identified.
- G. Storm Water Management Plan (SMP) prepared and sealed by a Registered Professional Engineer.
- H. Proof of authorization and conformance with all other applicable local, state and federal requirements. Copies of pertinent Notices of Intent (NOI), permits, public notices and letters of authorization related to the development must be included with SMP submissions. These include, but are not limited to, Ohio EPA NPDES Permits authorizing storm water discharges associated with construction activity, Ohio EPA Phase II Storm water Permits, Section 401 and 404 Clean Water Act Permits, Ohio EPA Isolated Wetland Permit, and Ohio Dam Safety Law Permits.
- I. Such other material and information as may be requested by the City Engineer or the Zoning Administrator to determine conformance with, and provide enforcement of these regulations and this Chapter.

1701.301.3 After receipt of an application complying with Subsection 1701.301.2, the Zoning Administrator and the City Engineer shall review the application to ensure that the standards of this Chapter have been met. No land-disturbance permit application shall be considered complete and reviewed until all information required in Subsection 1701.301.2 and the required fee(s) have been received by the Zoning Administrator.

1701.301.4 After the receipt and review of an application complying with Subsection 1701.301.2 and any relevant comments and replies, the Zoning Administrator, based on the written report and recommendation of the City Engineer concerning the application's compliance with this Chapter, shall either approve or disapprove the application. If an application is approved, a land-disturbance permit shall be issued. All land-disturbance permits shall be conditional upon the commencement of work within six (6) months from the permit's issuance date. A land-disturbance permit shall expire thirty (30) days after issuance unless the permitted activity has been substantially begun and is thereafter continuously and diligently pursued to completion.

1701.301.5 For all land-disturbances disturbing one or more acres of land during the same time or collectively during a phased development, applicant's shall provide security in an amount equal to the City Engineer's installation cost

estimate for installation of all structural and non-structural controls; the required security shall be in the form of a bond, irrevocable letter of credit, or cash acceptable to the Law Director.

1701.301.6 Inspections

1701.301.6.1 The City Engineer and the Zoning Administrator may make periodic inspections of the development area until development is complete in order to monitor compliance. If an inspection reveals that a structural or non-structural control is in need of repair or maintenance, with the exception of a sediment-settling pond, it must be repaired or maintained within three (3) days of the inspection. Sediment settling ponds must be repaired or maintained within ten (10) days of the inspection.

1701.301.6.2

1701.301.6.2.1 Once every seven calendar days and within 24 hours after any storm event greater than one-half inch of rain per 24 hour period, land-disturbance permit holders shall inspect all structural and non-structural controls in the development area. The permit holder shall ensure that all structural and non-structural controls are functional, that all provisions of the SMP and this Chapter are being met, and determine if additional control measures are required.

1701.301.6.2.2 The permit holder shall maintain for three (3) years following completion of development a record of inspections, the names(s) and qualifications of personnel making the inspections, the date(s) of inspections, observations relating to the implementation of the SMP and a certification as to whether the site was in compliance with the SMP and identify any incidents of non-compliance.

1701.301.7 Revoking A Land-Disturbance Permit

Development performed without a valid land-disturbance permit shall constitute a nuisance. Failure to implement all aspects of a Storm Water Management Plan or to do so in a timely fashion shall constitute a nuisance. Existence of a nuisance is cause for revoking a land-disturbance permit or issuing a stop work order or both. In the event of the revocation of a permit, an appeal may be taken to the Board of Zoning Appeals in accordance with Section 1705.101.

1701.305 STORM WATER MANAGEMENT PLAN (SMP) REQUIREMENTS

1701.305.1 Storm Water Management Plans (SMP) shall provide information on all soil erosion, sediment and runoff control measures and Best Management Practices (BMPs) to be used and incorporated on the development area, on-site or off-site, both during and after development. This information includes, but is

not limited to, grading, storm water management facilities and practices, erosion and runoff control information, maintenance plans, and other measures that focus on managing the effects of land-disturbances that occur as a result of development.

1701.305.2 Each SMP shall meet or exceed the Best Management Practices.

1701.305.3 A SMP shall include all the following:

- A. A description of prior land use(s) at the development area.
- B. Data describing the soils on the site and the quality of any discharge from the development area.
- C. A determination of runoff coefficients for both the pre-development and post-development site conditions.
- D. For all land-disturbances disturbing one or more acres of land during the same time or collectively during a phased development, a description of post development BMP(s) which will be used to detain and treat a water quality volume (WQv) equivalent to the volume of runoff from a 0.75-inch rainfall.
- E. For all land-disturbances disturbing less than one acre of land during the same time or collectively during a phased development, a description of Best Management Practices that will be used during and after development.
- F. An implementation schedule which describes the sequence of major construction operations (i.e., Clearing, grubbing, excavating, grading, utilities and infrastructure installation) and the implementation of Best Management Practices to be used during each operation of the sequence.
- G. For development where the SWP3 does not call for a centralized sediment control capable of controlling multiple individual lots, a detailed drawing of a typical individual lot showing the Best Management Practices which will be used on each lot in the development.
- H. A detailed description of each proposed control practice and how each proposed control practice meets or exceeds the Best Management Practices. This shall include the identification of responsibility for implementation of each individual control (e.g., contractor A will clear land and install perimeter controls and contractor B will maintain perimeter controls until final stabilization).
- I. A detailed maintenance plan that describes procedures that will be used to ensure the continued performance of the installed Best Management

Practices. Pollutants and debris collected by Structural Controls shall be disposed of in accordance with local, state, and federal regulations.

J. Scaled site development plans, prepared and sealed by a Registered Professional Engineer, that include the following:

- 1) Total area of the development area and the limits of land-disturbance on the development area including associated off-site borrow or spoil areas.
- 2) Soil types in the development area, including locations of unstable or highly erodible soils.
- 3) Surface water locations, including springs, wetlands, streams, lakes, and water wells on or within 200 feet of the development area, including the boundaries of wetlands or stream channels; and first subsequent named receiving water(s) the permittee intends to fill or relocate and which the permittee is seeking approval from the Army Corps of Engineers and/or Ohio EPA.
- 4) The general directions of surface water flow, both before and after development has occurred.
- 5) Location of the 100-year floodplain in relation to the development area.
- 6) Existing and proposed contours. A delineation of drainage watersheds expected during and after major grading activities as well as the size of each drainage watershed, in acres.
- 7) Existing and planned locations of buildings, roads, parking facilities and utilities and other improvements.
- 8) The location of all erosion and sediment control practices, including areas likely to require temporary stabilization during development.
- 9) Sediment and storm water management basins noting their sediment settling volume and contributing drainage area.
- 10) Permanent Best Management Practices to be used to control pollutants in storm water after construction operations have been completed.

- 11) Areas designated for the storage or disposal of solid, sanitary, and toxic wastes, including, but not limited to, dumpster areas, concrete truck washout areas, and vehicle fueling and maintenance.
- 12) The location of designated construction entrances where vehicles will access the development area.
- 13) The location of any in-stream activities, including stream crossings.
- 14) Amount of impervious area before development and after development.

K. An evaluation of pre-development conditions together with during-development and post-development impact studies that quantify the volume and rate of runoff from the site by subdrainage areas. This evaluation shall be prepared according to methods prescribed in *Rainwater and Land Development* and approved by the City Engineer. At minimum, the evaluation shall:

1. Show delineation and sequence of subdrainage units that comprise the area proposed for development.
2. Indicate the hydraulic length of slope per individual subdrainage unit and the length of the natural or human made watercourse that accommodates the surface runoff from each subdrainage unit.
3. Indicate within the legend the average percent slope, erosion factor (K) and runoff curve number (CN) per individual subdrainage unit for a 24-hour storm of a one-year frequency.
4. Include a hydrograph for a 24-hour storm of the critical frequency to be controlled as determined according to Subsection 1701.305.3(M) and all calculations made pertinent to evaluating the effects of the proposed development on the pre-development runoff conditions of the site.

L. Calculations for the design of storm water management facilities shall demonstrate the following for each subdrainage unit:

1. The peak rate of runoff from the Critical Storm and all more frequent storms occurring on the site does not exceed the peak

rate of runoff from a one (1) year frequency, twenty-four (24) hour storm occurring on the same development area under pre-development conditions.

2. Storms of less frequent occurrence than the Critical Storm, up to the 100-year storm, shall have peak runoff rates no greater than the peak runoff rates from equivalent storms under pre-development conditions. Capacity to handle water from the 1, 2, 5, 10, 25, 50, and 100-year storms in design and construction will be considered meeting this standard.

M. Calculation of the Critical Storm for each subdrainage unit of the site shall be determined as follows:

1. Using methods approved by the City Engineer, calculate the total volume of runoff from a one-year frequency, 24-hour storm occurring on the development area before, during, and after development.

2. From the volumes determined in (1) above, determine the percentage increase in volume of runoff due to the proposed development, and using this percentage, select the 24-hour critical storm from this table:

If the percentage of increase in volume of runoff is (see chart below):

<i>% Equal To or Greater Than</i>	<i>% Less Than</i>	<i>The Critical Storm for Peak Rate Control</i>
-	10	1 year
10	20	2 years
20	50	5 years
50	100	10 years
100	250	25 years
250	500	50 years
500	-	100 years

The City Engineer shall approve or reject any calculation method based on its technical validity for the given situation.

N. Exceptions to requiring permanent Best Management Practices may be considered by the City Engineer if all of the following criteria are met:

1. The intent and standards of this Chapter for runoff control can be best achieved by the utilization of off-site storm water control facilities.
 2. Runoff from the development area can be conveyed to off-site storm water facilities in a manner and by means which satisfies or surpasses the standards of this Ordinance.
 3. The applicant has a perpetual right to use the off-site facility for runoff control and the off-site storm water facility will perpetually exist and be maintained.
- O. For all developments utilizing off-site Best Management Practices, one or more easements approved by the city of Kettering Law Director and allowing such use is required; the approved easement shall be recorded with the county recorder before any posted security will be released.

1701.307

Using Best Management Practices, all persons engaged in or causing development shall prevent any building materials, concrete truck washout, chemical(s), litter, garbage, or sanitary waste at the development site from adversely impacting water or soil quality.

1701.309 PERFORMANCE STANDARDS

1701.309.1 Containment Of Erosion And Sediment

Erosion and sedimentation shall be stabilized and confined within the boundaries of the development area.

1701.309.2 Discharge of Untreated Stormwater.

To the maximum extent practicable, no untreated stormwater shall be directly discharged into a receiving body of water.

1701.309.3 Structural and Non-Structural Controls

- A. Non-structural Controls shall be used to reduce polluted storm water runoff to the maximum extent practicable. Such practices may include, but not be limited to, preserving riparian areas, preserving existing vegetation and vegetative buffer strips, phasing of construction, and designation of tree preservation areas.

- B. Non-structural and structural controls shall be designed and implemented in accordance with requirements and standards specified in this Chapter.
- C. Stormwater detention and retention facilities shall be designed and implemented to reduce or eliminate polluted storm water discharge to the maximum extent practicable.

1701.309.4 Stream and Wetland Riparian Buffers

An undisturbed riparian buffer shall be left on all sides of and/or surrounding water resources, except for crossings and other riparian area and wetland impacts approved by the City Engineer. Buffer width will be determined on a case-by-case basis using objective criteria such as floodplain, topography, vegetative cover, canopy cover, and soil types.

1701.309.5 Channel Protection

Best management practices shall be utilized to protect stream channels from degradation.

1701.309.6 Temporary Stabilization of Disturbed Areas and Soil Stockpiles

- A. Temporary vegetative cover shall be established on disturbed areas as specified in Table 1 below.

Table 1: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed area not at final grade.	Within 2 days of the most recent disturbance if that area will remain idle for more than 21 days.
For all construction activities, any disturbed area, including soil stockpiles, which will be dormant for more than 21 days but less than one year.	Within 7 days of the most recent disturbance within the area.
Disturbed areas that will be idle over winter.	Prior to onset of winter weather.

- B. Application practices include seeding, sodding, mulching, and the early application of gravel base on areas to be paved. Soil stabilization

measures shall be appropriate for the time of year, development area conditions, and estimated time of use.

- C. Disturbed topsoil stored in the development area shall be stabilized with quick growing plants or other means, so that the topsoil is protected from wind and water erosion. Topsoil shall be maintained in a usable condition for sustaining vegetation and reused on the site.

1701.309.7 Permanent Stabilization

- A. A permanent vegetative cover shall be established on disturbed areas as specified in Table 2 below.

Table 2: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any area that will lie dormant for 6 months or more.	Within 7 days of the most recent disturbance.
Any area at final grade.	Immediately after reaching final grade within that area.

- B. Permanent vegetation shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and survive severe weather conditions.

1701.309.8 Cut and Fill Slopes

Cut and fill slopes shall be designed, constructed and stabilized in a manner which will minimize erosion. Consideration shall be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. If after final grading excessive erosion takes place, additional slope stabilizing measures shall be taken until erosion is stopped. The following guidelines shall be followed:

- A. Roughened soil surfaces shall be used in lieu of smooth surfaces on slopes.
- B. Diversions shall be constructed at the top of long steep slopes which have significant drainage areas above the slope. Diversions or terraces may also be used to reduce slope length.
- C. Concentrated stormwater shall not be allowed to flow down cut or fill slopes unless contained within an adequate channel, flume, or slope drain structure.

- D. Wherever a slope face crosses a water seepage plane which endangers the stability of the slope, adequate drainage or other protection shall be provided.

1701.309.9 Protection of Adjacent Properties/Public Right-Of-Ways

Properties, public right-of-ways, and streets adjacent to a Development Area or land-disturbance shall be protected from sediment deposition. This shall be accomplished by preserving a well-vegetated buffer at the perimeter of the site, by installing perimeter controls such as sediment barriers, filters, dikes, sediment basins, or by a combination of such measures.

1701.309.10 Structural Controls

A. Structural controls shall be used to control erosion and trap sediment on a development area remaining disturbed for more than 14 days. Such structures may include, but are not limited to, silt fences, storm drain inlet protection, sediment basins and diversions or channels that direct runoff to a sediment basin. All structural controls shall be capable of ponding runoff in order to be considered functional.

B. Structural controls shall be constructed as a first step in grading and be made functional before upslope land-disturbing activities take place. Earthen structures such as dams, dikes, and diversions shall be seeded and mulched as soon as the installation is complete. Sediment control structures shall be functional throughout the course of land-disturbance and until the site is stabilized with permanent vegetation.

C. Sheet flow runoff from the development area shall be intercepted by silt fences or diversions. Silt fences shall be placed on a level contour and shall be capable of temporarily ponding runoff. The relationship between the maximum drainage area to silt fence for a particular slope range is shown in Table 3 below.

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Table 3: Maximum Drainage Area to Silt Fence

Maximum drainage area (in acres) to 100 linear feet of silt fence	Range of slope for a particular drainage area (percent)
0.5	<2%
0.25	≥ 2% but < 20%
0.125	≥ 20% but < 50%

D. Best management practices shall be used to keep runoff away from disturbed areas and steep slopes.

E. Whenever stormwater detention is required, any pollutants shall be removed from stormwater runoff, to the maximum extent practicable, before discharge to a receiving water body. The City Engineer may require sediment basins or traps for smaller disturbed areas where deemed necessary.

1701.309.11 Stabilization of Waterways and Outlets

All on-site stormwater conveyance channels shall be designed and constructed to withstand the expected velocity of flow without erosion. Methods adequate to prevent erosion shall also be provided at the outlets of all pipes and paved channels.

1701.309.12 Storm Sewer Inlet Protection

All storm sewer inlets shall be protected so that sediment-laden water will not enter the conveyance system without first being filtered or otherwise treated to remove sediment.

1701.309.13 Working In or Crossing Watercourses

A. All land-disturbances shall be kept out of watercourses to the maximum extent practicable. Where in-channel work is necessary, Best Management Practices shall be used to stabilize the work area to minimize erosion. Channels (including bed and banks) shall be restored to their original cross-section. All disturbed areas shall be stabilized immediately after in-channel work is completed.

B. Where a watercourse will be crossed regularly during construction, a temporary stream crossing shall be provided and used for the shortest possible period. Stream crossings shall be removed following construction and the disturbed area shall be restored as required by this Chapter.

1701.309.14 Maintenance and Removal of Temporary Measures

A. All temporary erosion and sediment control practices shall be maintained and repaired to assure performance to the maximum extent practicable.

B. All temporary erosion and sediment control measures shall be removed within thirty (30) days after final site stabilization is achieved or after the temporary measures are no longer needed. In areas where temporary measures have been removed, the final grade shall be re-established and the area shall be permanently stabilized using Best Management Practices to prevent further erosion and sedimentation.

SECTION 1703 STRUCTURAL CONTROL PERMITS

1703.101 Permit Required

On and after the effective date of this Chapter, no structural control shall be constructed, maintained, repaired, altered, or removed without a valid structural control permit. No structural control shall discharge into the City storm sewer system without a structural control permit. Temporary structural controls which are authorized to be removed prior to completion of construction or expiration of the land-disturbance permit are exempt.

1703.102 Inspection Required

A minimum of every six months, the owner of land containing any structural or non-structural control shall inspect all structural and non-structural controls to ensure the controls are functional and shall remove any debris or pollutants. If any structural or non-structural controls are not functioning properly, then the owner shall cause the non-functioning control to be repaired. The City Engineer may inspect structural and non-structural controls to ensure compliance with this Chapter.

1703.103 Permit Expiration

Structural control permits shall expire two (2) years after the date of issuance.

1703.104 Permit Application

Application for a structural control permit shall be made on a form prescribed by the City Engineer. The applicant shall aver under oath that before making application, the applicant inspected the structural control identified in the application and that the structural control is in compliance with this Chapter. Applications shall be accompanied by a fee in an amount set by the City

Manager. Prior to granting an application, the City Engineer may inspect the structural control to verify compliance with this Chapter. No permit shall be granted without a complete application. No permit shall be granted for any control not in compliance with this Chapter. No permit shall be granted for any control which does not reduce the discharge of pollutants to the maximum extent practicable. No permit shall be issued to any person owing money to the city of Kettering.

1703.105 Control Maintenance

All structural controls shall kept free of debris and pollutants. All structural controls shall be maintained in a safe and fully functional condition.

SECTION 1705 APPEALS

1705.101 Right To Appeal

Any person directly and negatively impacted by a decision of the City Engineer or the Zoning Administrator under this Chapter may appeal the decision to the Board of Zoning Appeals. Appeals shall be in writing and shall identify the decision being appealed and shall specify the basis for the appeal. Appeals shall be filed within ten (10) calendar days after the date of the decision being appealed or the date of service, whichever is later. Five (5) copies of the written appeal along with the appeal fee in an amount set by the City Manager shall be filed with the Board of Zoning Appeals. The Board of Zoning Appeals shall have no jurisdiction to hear any appeal not complying with all the requirements of this Sub-section. The Board of Zoning Appeals may either overturn or affirm the decision being appealed.

1705.102 Appellate Review

Those aggrieved by a decision made under this Chapter by the Board of Zoning Appeals may appeal such decision to the Court of Common Pleas, as provided in Ohio Revised Code Chapter 2506. The appellant shall pay all costs associated with preparing the record for appeal. Payment shall be due on preparation of the record. Failure to pay those costs as required shall be a nuisance. Recovery of the costs may be made in accordance with Ohio Revised Code Section 715.261 or any other applicable law.

SECTION 1707 ENFORCEMENT

1707.101 Unlawful Acts

No person shall be in conflict with or violate any provision of this Chapter. No person shall fail or refuse to comply with any decision or order of the City Engineer or the Zoning Administrator or any provision of this Chapter. Any

permit issued under this Chapter may be revoked for failure to comply with any provision of this Chapter.

1707.102 Notice of Violation

The City Engineer and the Zoning Administrator shall serve any notice of violation or order issued under this Chapter in accordance with Subsection 1709.

1707.103 Prosecution of Violation

If a notice of violation is not complied with or an order of the City Engineer or the Zoning Administrator is issued for failure to comply, then the Law Director may institute or cause to be instituted a legal proceeding to restrain, correct, or abate such violation, or to require the removal or termination of the unlawful development in violation of the provisions of this Chapter or of the order or direction made pursuant thereto, including penalties for violation of failure to comply.

1707.104 Violation Penalties

Whoever is convicted of or pleads guilty to a violation of any provision of this Chapter, shall be guilty of a minor misdemeanor. Any such violation shall be a strict liability offense (*malum prohibitum*) and no proof of intent shall be necessary. Each day that a violation continues after notice has been served shall be deemed a separate offense.

1707.105 Habitual Offender

Any person who commits a violation of this Chapter, after having previously been convicted by the Court for committing a violation of this Chapter within a thirty-six (36) month period, shall be guilty of a fourth degree misdemeanor.

1707.106 Abatement of Violation

The imposition of the penalties herein prescribed shall not preclude the city of Kettering Law Director or the Law Director's designee from instituting appropriate action to restrain, correct, or abate a violation, or to stop illegal activity.

SECTION 1709 NOTICES AND ORDERS

1709.101 Notice To Owner or To Responsible Person(s).

Whenever the City Engineer or the Zoning Administrator determines that there has been a violation of this Code or has grounds to believe that a violation has occurred, then notice shall be given to the owner or the person(s) responsible therefore in the manner prescribed in Subsections 1709.102 and 1709.103.

1709.102 Form

The notice prescribed in Subsection 1709.101 shall:

- A. Be in writing; and
- B. Include a description of the property sufficient for identification; and
- C. Include a statement of the violation; and
- D. Include a correction order allowing a reasonable time to comply with the provisions of this Chapter; and
- E. Inform the owner or the person(s) to whom the notice of violation is issued of the right to appeal.

1709.103 Method of Service

Any notice or order of the City Engineer or the Zoning Administrator shall be deemed to have been properly served if a copy thereof is:

- A. Delivered personally; or
- B. Left at the usual place of abode of the person to whom it is to be served upon and with someone who is 18 years of age or older; or
- C. Sent by certified, postage prepaid U.S. mail to the last known address; or
- D. If the notice is attempted to be served by certified, postage prepaid U.S. mail and then returned showing that the notice (letter) was not delivered, or the certified letter is not returned within fourteen (14) days after the date of mailing, then notice may be sent by regular, postage prepaid, first-class U.S. mail to the last known address; or
- E. If the notice is attempted to be served by regular, first class U.S. mail, postage prepaid, and within fourteen (14) days after the date of mailing the letter is then returned showing that the letter was not delivered, or is not returned within fourteen (14) days after the date of mailing, then notice shall be posted in a conspicuous place in or about the development, structure, building, premises or property affected by such notice.

1709.104 Stop Work Orders

Notwithstanding anything else to the contrary, stop work orders may be served by placing the order in a conspicuous place on development area. No person shall fail to obey, violate, deface, or remove a stop work order. Notwithstanding anything else to the contrary, failure to obey, violation, defacement, or removal of a stop work order shall be a misdemeanor of the first degree.