CHAPTER 156: EROSION AND SEDIMENTATION

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GENERAL PROVISIONS

§ 156.01 SHORT TITLE.

This chapter may be cited as the Soil and Sedimentation Control Ordinance.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

§ 156.02 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

AGENT . The Public Works Director or other municipal officer designated to administer this chapter.

APPEAL . A request for a review of the agent's interpretation of any provision of this chapter.

DENUDED . An area that is stripped or made bare.

DEVELOPMENT . Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, removal of vegetation, excavation, blasting or drilling operations.

EROSION . The natural wearing away of land by action of running water or wind.

EROSION AND SEDIMENT CONTROL PLAN . A set of plans prepared by a licensed engineer indicating the specific measures and sequencing to be used in controlling sediment and erosion on a development site both during and after construction.

EXCAVATION . Any act by which organic matter, earth, sand, gravel, rock or any other similar material is cut into, dug, quarried, uncovered, removed, displaced or bulldozed and shall include the conditions resulting therefrom.

FILL . Any act by which earth, sand, gravel, rock or other material is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting therefrom.

GABIONS . A flexible woven-wire basket composed of two to six rectangular cells filled with stones.

LAND-DISTURBING ACTIVITY . Any land change which may result in soil erosion from water or wind, and the movement of soil into waters or onto lands or increased runoff of waters including but not limited to clearing, grading, excavating, transporting and filling of land.

NATURAL DRAINAGE . Surface water drain channels formed in the existing surface topography of the earth prior to changes made by unnatural causes.

PARCEL . All contiguous land under one ownership.

PERMANENT VEGETATION . Ground cover mature enough to control soil erosion satisfactorily and survive severe weather conditions.

PERMITTEE . Any person to whom a site development permit is issued.

REMEDIATE. To remove sedimentation caused by the absence or failure of one or more sediment barriers at a site and to restore any property (including gutters, storm sewers, and other land) affected by such sedimentation to the condition in which such property would have existed but for the absence or failure of such sediment barriers.

REMOVAL . Cutting vegetation to the ground or leaving it as stumpage, complete extraction or killing by spraying.

RETAINING WALL . A wall built to provide soil stability at the bottom of the slope. These walls may include metal, wood and concrete cribbing, precast structural blocks and reinforced concrete.

RESPONSIBLE PARTY. A person required by this chapter to erect or maintain sediment barriers, traps or other perimeter controls to prevent erosion or sedimentation at or from a site.

REVETMENT . A facing of masonry or the like for protecting an embankment.

RIPRAP . A permanent, erosion-resistant ground cover constructed of large, angular or sub-angular (rounded) stone.

SEDIMENT BARRIERS . Temporary barriers installed across or at the toe of a slope to prevent sediment from flowing off the site.

SEDIMENT BASIN . A water impoundment constructed to collect and store sediment and/or debris made by constructing a dam or embankment or by excavating a pit or dugout pond for storage.

SEDIMENT TRAP . A small temporary ponding area formed by excavation and/or building a small embankment to intercept sediment-laden runoff and to allow the coarser sediment particles to settle out.

SEDIMENTATION . The process of forming and depositing of suspended matter carried in suspension in water through the action of gravity.

SITE . A lot or parcel of land or contiguous combinations thereof where grading work is performed as a single unified operation.

SITE PLAN . T The map or drawn representation of a proposed development meeting the requirements of this chapter.

SITE PREPARATION . Altering terrain and/or vegetation, typically to facilitate additional construction on the site.

SOIL STABILIZATION . Measures which protect soil from the erosive forces of raindrop impact and flowing water to include without limitation establishment of permanent vegetation, mulching and the early application of gravel base on areas to be paved.

START OF CONSTRUCTION . The first land-disturbing activity associated with a development, including land preparation such as clearing, grading and filling; installation of streets and walkways; excavation for basements, footings, piers or foundations; erection of temporary forms; and installation of accessory buildings such as garages.

STORM EVENT OF TEN YEARS . Rainfall intensity of 2.50 inches per hour or more.

STRIPPING . Any activity which removes the vegetative surface cover, including tree removal, clearing and storage or removal of topsoil.

VARIANCE . A grant of relief from the requirements of this local law which permits a person to undertake construction in a manner otherwise prohibited by this local law where specific enforcement would result in unnecessary hardship.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

§156.03 EROSION AND SEDIMENTATION CONTROL REQUIRED.

(A) Prior to the start of construction, each person performing or causing to be performed any development or other land disturbing activity within the city shall erect and thereafter maintain such barriers, traps or other perimeter controls as may be necessary to prevent a storm event of ten years or less from causing erosion or sedimentation from the site in excess of the amount which would occur in the site's undeveloped and undisturbed state.

(B) A responsible party shall ensure that all sediment barriers, sediment traps, and other temporary sedimentation and erosion control devices are removed as soon as reasonably possible, and in any event not later than substantial completion of construction. Such temporary barriers and devices shall be replaced by permanent natural vegetation, soil stabilization, or other permanent erosion and sedimentation controls to the extent necessary to prevent a storm event of ten years or less from causing erosion or sedimentation from the site in excess of the amount which would occur in the site's undeveloped and undisturbed state.

(Ord.2005-29, passed 9-13-05)

§156.04 REMEDIATION REQUIRED.

A responsible party shall remediate any violation of this chapter. All remediation required by this section shall be completed within 24 hours following the deposit of the sedimentation, or within such longer period of time as may be specified in writing by the agent in consideration of inclement weather or other factors warranting such extension.

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(Ord.2005-29, passed 9-13-05)

§156.05 NUISANCE DECLARED.

Any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to public health, safety, and welfare and is declared and deemed a nuisance.

(Ord.2005-29, passed 9-13-05)

PROVISIONS APPLICABLE TO DEVELOPMENT ON ONE ACRE OR LARGER

§156.15 GENERAL PRINCIPLES.

(A) It is the objective of this subchapter to control soil erosion and sedimentation resulting from development activities covering one or more acre(s). While measures must be taken to control and guarantee that post-development stormwater runoff from any development must not exceed that of pre- development, additional measures must be taken to control erosion and sedimentation ensuring that sediment is not transported from the site by a storm event of 10-year frequency or less.

(B) The following principles shall apply to all development activities covered by this subchapter and to the preparation of the submissions required under § 156.16.

(1) *Preserving and protecting the natural topography.* Site development should be planned so that it is consistent with and conforms to the topography and soils of the site so as to minimize and prevent soil erosion.

(2) *Protection of adjacent properties.* Properties adjacent to the site of a land-disturbing activity shall be protected from sedimentation by preserving a permanent vegetation buffer strip around the lower perimeter of the activity or by installing perimeter controls such as sediment barriers, filters, straw bail dikes or sediment basins or by a combination of such measures. Vegetative buffer strips should be at least 10 feet in width and may be used alone only where runoff in sheet flow is expected according to the Erosion and Sedimentation Control Plan. If at any time it is determined by the agent that a vegetated buffer strip alone is ineffective in preventing sediment movement on to adjacent property, additional perimeter controls must be provided.

(3) *Cut and fill slope.* Development shall reflect the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes where high cuts and fills may be required shall be avoided whenever possible, and natural contours shall be followed as closely as possible. In the design of cut and fill slopes, consideration must be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. Depending on the circumstances, acceptable design options may include:

(a) The use of permanent vegetation alone with special anchoring such as netting to hold mulch on newly seeded areas. When seeding and mulching, special care must be given to ensure land is properly fertilized, seeded, mulched, anchored and watered. Newly seeded areas shall be watered gently and regularly as necessary to keep the soil sufficiently moist. Grass shall be watered as needed until grass is at least two inches tall.

(b) The use of special structural materials such as riprap, gabions, revetments, retaining walls or other methods sufficient to prevent excessive erosion.

(4) *Vegetation.* Natural vegetation shall be retained and protected whenever possible. If vegetation is the developer's choice, a permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation and related structures shall be installed as soon as practical or within the time specified in the site preparation permit. Permanent vegetation shall not be considered established until a ground cover is achieved which, in the opinion of the agent, is mature enough to control soil erosion satisfactorily and to survive severe weather conditions.

(5) *Channel stability in both natural and man-made waterways.* A Texas-registered engineer must design new ditches for adequate stability and capacity. In addition, if existing natural drainage channels will be used to convey increased volumes of stormwater from a site, the engineer may need to provide reinforcement measures. All erosion control plans will detail how to protect the ditches and/or natural drainage from excessive erosion and sedimentation.

(6) *Timing and stabilization of sediment- trapping measures.* Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment on-site must be constructed as a first step in grading and must be made functional before upslope land-disturbing activity takes place. Soil stabilization of earthen structures such as dams, dikes and diversions must occur within 15 days of installation of the structure.

(7) *Stabilization of waterways and outlets.* All on-site stormwater conveyance channels shall be designed and constructed to withstand the expected velocity of flow from a 10-year frequency storm without erosion. Stabilization adequate to prevent erosion must also be provided at the outlets of all pipes and paved channels.

(8) *Construction on slopes or adjacent to water bodies or courses.* For channel or slope construction on slopes greater than 3:1, back-up protection for the primary erosion control measure should be provided. Any new development adjacent to an existing ditch should have a minimum of 15-foot drainage access casements on each side of the ditch. In addition, no property owner may install a fence within 15 feet of a ditch, stream, brook or other natural drainage channel; except where a concrete flume or concrete channel is constructed, the abutting property owner is allowed to construct a fence up to the edge of the concrete. However, the city reserves the right to remove the fence in order to access the drainage structure for needed maintenance.

(9) *Stormwater management criteria for off- site erosion.* Provision shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and after development. Drainageways shall be designed so that the final gradients and the resultant velocities of discharges will not create additional erosion.

(10) *Aesthetics.* In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance shall be considered.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

§156.16 SITE PREPARATION PERMIT.

(A) *Permit Required.* Except as otherwise provided by this subchapter, a site preparation permit is required for any person performing or causing to be performed any land-disturbing activity covering one or more acre(s) within the territorial limits of the city. A permit issued under this subchapter is non-transferable and any attempted or purported transfer shall immediately void the permit.

(B) *Exceptions.* A site preparation permit shall not be required under this subchapter for:

(1) Preparation of a residential lot for home construction where the land-disturbing activity covers less than one acre;

(2) Normal lawn and landscaping maintenance;

(3) Existing nursery and agricultural operations;

(4) Any emergency activity which is immediately necessary for the protection of life, property or natural resources.

(C) *Application submission.* At least one landowner or land user controlling or using the site and desiring to undertake a development or land- disturbing activity subject to this subchapter shall make application for a permit upon a form approved by the agent. Each application for a permit shall be filed with the agent and accompanied by:

(1) A vicinity map in sufficient detail to easily locate, in the field, the site for which the permit is sought, including the boundary line and approximate acreage for the site and a legend and a scale;

(2) A site plan showing:

(a) Existing site conditions on a scale of 1 inch equals 100 feet or larger;

(b) Existing topography of the site and adjacent land within approximately 100 feet of the boundaries drawn at no greater than two-foot contour intervals and clearly portraying the conformation and drainage pattern of the area;

(c) The location of existing buildings, structures, utilities, water bodies, floodplains, drainage facilities, vegetative cover, paved areas, watershed divides and other significant natural or man-made features on the site and adjacent land within approximately 100 feet of the boundary; and

(d) Proposed use of the site, including both present development and planned utilization; areas of excavation, grading and filling; proposed contours, finished grades and provisions for storm drainage, including the control of accelerated runoff with a drainage area map and computations; kinds and locations of utilities; and areas and acreages proposed to be paved, covered and sodded or seeded, vegetatively stabilized or left undisturbed.

(3) An erosion and sediment control plan shall be submitted for land-disturbing activities whenever the proposed activity covers one or more acre(s). The plan shall show:

(a) All erosion control measures necessary to meet the objectives of this local law throughout all phases of construction and permanently after completion of development of the site. Depending upon the complexity of the project, the drafting of intermediate erosion control plans also may be required.

(b) Provisions for maintenance of control facilities, including easements;

(c) Identification of the person(s) or entity which will have legal responsibility for maintenance or erosion control structures and measures after development is completed;

(4) A non-refundable application fee established by the City Council.

(D) *Inspections.* By submitting an application, the applicant authorizes the agent and other employees of the city to enter the site for the purpose of obtaining information required for the review of the erosion and sediment control plan. Such inspections may take place before, during or after any land- disturbing activity. If upon inspection existing site conditions are found to be in conflict with an approved erosion control plan or if such activity is being undertaken without a permit, the agent shall proceed with enforcement under § 156.98.

(E) *Notice of Determination.* The agent shall promptly notify the applicant in writing of the approval or denial of the application within ten working days by sending such notification to the applicant at the address shown on the application.

(1) If the application is denied, the agent shall promptly notify the applicant in writing of such determination, of the reasons for the denial and of any right to appeal the determination.

(2) If the application is approved, the agent shall promptly issue a permit subject to such conditions as may be necessary to serve the general principles set forth in § 156.15.

(F) *Effect of Approval.* Approval of an Erosion Control Plan and issuance of a site preparation permit shall not constitute an acknowledgment or warranty by the city that the Erosion Control Plan will prevent public erosion nuisances, and the city waives no rights to pursue any legal remedies, either under this subchapter or any other applicable ordinances or laws. If for any reason a public erosion nuisance occurs, the fact that a site development permit has been issued or that an Erosion Control Plan has been accepted by the city shall not be a defense or bar to prosecution under this subchapter. Neither any provision of this chapter nor the issuance of a permit under this subchapter shall be construed to authorize any act in violation of any other applicable law or rule.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

§156.17 SURETY REQUIRED.

(A) The recipient of a permit under this subchapter shall provide a surety in the form of cash, certificate of deposit, irrevocable letter of credit acceptable to the city or surety bond underwritten by a surety company licensed to operate in the State of Texas to ensure that vegetative cover and/or other permanent erosion control measures are installed, maintained and functioning properly for not less than two years from the date of final acceptance of the dedicated public improvements by the city. The surety shall be furnished to the city before the final acceptance of the streets and/or utilities and shall be in the amount of 100% of the estimated cost of constructing and/or maintaining the permanent erosion controls for a two-year period. Such estimate shall be signed and sealed by a registered professional engineer. Any permanent vegetative cover which is part of a public improvement project associated with a subdivision development will

not be accepted by the city until the growth has been established and maintained by the developer for a two-year period from the date of final acceptance of public improvements.

(B) After the two-year period has elapsed, the owner of the property shall be responsible for maintaining the erosion controls in good working order. If any future owner modifies or disturbs the erosion controls for the area, that owner must restore or replace the permanent erosion controls at the conclusion of the land-disturbing activity.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

APPEAL, ENFORCEMENT AND PENALTIES

§ 156.90 APPEAL.

(A) *Right of Appeal*. Except as otherwise provided in this chapter, a person aggrieved by the decision may appeal a decision by a city official denying or revoking a site preparation permit or issuing a stop work order under this chapter.

(B) *Notice of Appeal*. Appeals pursuant to the provisions of this chapter shall be made by filing a notice of appeal with the Director of Public Works or his or her designee. Such notice of appeal shall contain a brief statement of the reasons why the aggrieved person believes that the decision should be overturned and shall set forth the relief requested by such person from such decision.

(C) *Hearing*. The Zoning Board of Adjustment shall conduct a public hearing and render a decision on the matter.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)

§ 156.98 ENFORCEMENT.

(A) *Stop-Work Order*. The agent may post a stop-work order at the site if:

(1) Any land-disturbing activity or development is performed in violation of this chapter;

(2) Any term, provision or condition of a site preparation permit issued under this chapter is not satisfied; or

(3) A person is found to be violating any other provision of this chapter.

(B) *Permit Revocation*. If a permittee does not comply with a stop-work order, the agent may revoke the permit by posting notice of such revocation at the permitted site and by sending a copy by certified mail, return receipt requested, to the permittee at the address shown on the permit application.

(C) *Administrative Abatement.*

(1) *Emergency Abatement.* Notwithstanding subsection (2) below, if the agent determines that a condition at a site threatens a public calamity or otherwise poses an immediate risk of serious harm to public health, safety or comfort, such condition may be summarily abated upon order of the City Manager.

(2) *Non-emergency Abatement.* If a responsible party fails to timely remediate a violation as required by this chapter, or otherwise creates or allows a nuisance hereunder, the agent may initiate administrative abatement utilizing the process set forth in § 93.04(C). If no timely appeal is taken, or if abatement is ordered following a hearing, the agent or his designee may enter the site and cause the violation or nuisance to be abated or remedied.

(3) The agent shall keep an accurate record of all expenses incurred by the city in performing administrative abatement, including man-hours, equipment hours, materials and fuel. Each permittee and other responsible party shall be liable to the city for payment of such expenses, and the city shall have a lien against the site to secure payment of such expenses. Property classified as homestead by the Texas Constitution shall be exempt from the provisions of this subsection relating to the imposition of a lien.

(4) An administrative abatement under this section shall have no effect upon a prosecution under § 156.99.

(D) *Injunction.* Compliance with the provisions of this chapter may also be enforced by injunction.

(Ord. 2002-31, passed 11-12-02; Am. Ord. 2005-29, passed 9-13-05; Am. Ord. 2012-20, passed 9-11-12)

§ 156.99 OFFENSES AND PENALTY.

(A) Except as otherwise provided in this chapter, it shall be an offense for any person to perform or cause to be performed any land-disturbing activity covering one or more acre(s) within the territorial limits of the city unless a site preparation permit authorizing such activity has been issued under this chapter and is then in effect.

(B) It shall be an offense for any person to perform or cause to be performed a land-disturbing activity covering one or more acre(s) within the territorial limits of the city in a manner that does not comply with the conditions of a site preparation permit issued for such activity under this chapter.

(C) It shall be an offense for any person to perform or cause to be performed any land-disturbing activity covering one or more acre(s) within the territorial limits of the city at a time and place where a stop-work order issued under this chapter prohibits such activity.

(D) It shall be an offense for any person to knowingly interfere with a lawful inspection under this chapter.

(E) Except as provided in division (D) of this section, proof of a culpable mental state is not required for conviction of an offense under this chapter. It is the intent of the City Council to dispense with the requirement of any culpable mental state in prosecutions filed under this chapter except as provided in division (D) of this section.

(F) A violation of this chapter shall be punishable upon conviction by a fine of not less than $500 nor more than $2,000 and the costs of prosecution for each violation.

(E) It shall be an offense for any person to perform or cause to be performed any development or other land disturbing activity within the city without first having in place such barriers, traps or other perimeter controls as may be necessary to prevent a storm event of ten years or less from causing erosion or sedimentation from the site in excess of the amount which would have otherwise occurred prior to the start of construction.

(F) It shall be an offense for any responsible person to fail, within 24 hours following the deposit of sedimentation or within such longer period of time as may be specified in writing by the agent, to:

(1) Remove any sedimentation caused by the absence or failure of such sediment barrier; or

(2) Restore any property affected by such sedimentation to the condition in which such property would have existed but for such sedimentation.

(G) It shall be an offense for any responsible person to fail to timely replace temporary erosion or sedimentation control devices with permanent erosion or sedimentation control devices as required by this chapter.

(H) Any person violating any provision of this chapter shall be guilty of an offense and, upon conviction, shall be punished by a fine not to exceed $500. A knowing or intentional violation of this chapter shall be punishable upon conviction by a fine of not less than $500 nor more than $2,000 and the costs of prosecution for each violation.

(Ord. 2002-31, passed 11-12-02; Am.Ord.2005-29, passed 9-13-05)