CITY OF COLUMBUS

DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE

EROSION AND SEDIMENT POLLUTION

CONTROL REGULATION

ADOPTED REGULATION

JUNE 1, 1994

CITY OF COLUMBUS

Proposed Erosion and Sediment Pollution Control Regulation

Adopted Regulation June 1, 1994

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CITY OF COLUMBUS EROSION AND SEDIMENT POLLUTION CONTROL REGULATION

Adopted Regulation June 1, 1994

This regulation has been adopted as a guideline for implementing pollutant reduction programs on construction sites in the City of Columbus. This regulation is applicable to all premises within the City of Columbus and other appropriate premises per the provisions defined in Columbus City Code, Chapter 1145.70.

Earth and land disturbing activities associated with construction contribute to the pollution of public waters through soil erosion and sedimentation. Control programs designed to minimize these problems should incorporate the following planning, inspection, enforcement requirements and best management practices.

ARTICLE 1: DEFINITIONS

For the purposes of this regulation, certain rules of word usage apply to the text as follows:

- a. Words used in the present tense include the future tense; and the singular includes the plural, unless the context clearly indicates the contrary.
- b. The term "shall" is always mandatory and is not discretionary; the word "may" is permissive.
- c. The word or term not interpreted or defined by this article or otherwise defined in Columbus City Codes Chapter 101 or 1145, shall be used with a meaning of common or standard utilization, so as to give the regulation its most reasonable application.

- 1. <u>Applicant:</u> any person submitting an erosion and sediment control plan for approval or requesting the issuance of a permit, when required, authorizing land-disturbing activities to commence.
- 2. <u>Approving Agent:</u> the governing body of the City of Columbus or its duly designated representative being the City of Columbus, Division of Sewerage and Drainage, Department of Public Utilities.
- 3. <u>Best Management Practices (BMP's):</u> means schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters. BMP's also include treatment requirements, operating procedures, and practices to control construction site runoff, or drainage from material storage.
- 4. <u>Channel:</u> a natural stream that conveys water; a ditch excavated and/or constructed for the flow of water.
- 5. <u>Clearing:</u> the clearing, grubbing, scraping, scalping, removal of trees and stumps, and removing and disposing of vegetation and debris within the site, and shall include the conditions resulting therefrom.
- 6. <u>Construction:</u> the erection, alteration, repair, renovation, demolition or removal of any building or structure; and the clearing, stripping, excavating, filling, grading, and regulation of sites with connection therewith.
- 7. <u>Denude:</u> the act of stripping, scraping, and/or scalping a site of vegetation, thus exposing bare soil.
- 8. <u>Detention:</u> the capture, collection, and subsequent slow release of stormwater runoff; the primary purpose of which is to mitigate increases in stormwater runoff rates, providing protection, whether complete or partial, to down-slope areas, from the adverse effects of increased runoff rates. This can be accomplished through the use of one or more of the following methods:

<u>Dry Detention:</u> a basin or storage area, generally man-made, that is designed to normally drain completely between storm events.

<u>Wet Detention:</u> a basin or storage area , generally man-made, that is designed to drain down to a level that is normally wetted; that is, to a normal pool level, below which there is no outlet other than through infiltration into the ground. These facilities do not normally drain completely dry.

- 9. <u>Developer:</u> any individual, subdivider, firm, association, syndicate, partnership, corporation, trust, or any other legal entity commencing proceedings under these regulations to effect the development of land for himself or for another.
- 10. <u>Development:</u> any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
- 11. <u>Development Area:</u> any contiguous (abutting) area owned by one person or developed as a single phase or multiple phases (units) and used or being developed or redeveloped, for non-farm commercial, industrial, residential, or other non-farm purposes upon which earth-disturbing/land-disturbance activities are planned or underway.
- 12. <u>Ditch:</u> an open channel with intermittent flow, either man-made or natural, for the purpose of drainage or irrigation. (See also channel and stream)
- 13 <u>Dumping</u>: grading, pushing, piling, throwing, unloading, or placing of fill material, composed of earth, soil, rock, sand, gravel, or demolition material.
- 14. <u>Earth-Disturbing Activity:</u> any grading, excavating, filling, or other alteration of the earth's surface where natural or man-made ground cover is destroyed and which may result in or contribute to erosion and sediment pollution.
- 15. <u>Erosion:</u>
 - a. The wearing away of the land surface by running water, wind, ice or other geological agents, including such processes as gravitational creep.
 - b. Detachment and movement of soil or rock fragments by wind, water, ice, or gravity.
 - c. Erosion includes:

(1) <u>Accelerated Erosion:</u> erosion much more rapid than normal, natural or geologic erosion, primarily as a result of the influence of the activities of man.

(2) <u>Floodplain Erosion</u>: abrading and wearing away of the nearly level land situated on either side of a channel due to overflow flooding.

(3) <u>Gully Erosion:</u> a type of erosion caused by water accumulating in narrow channels and over short periods during and immediately after rainfall or snow or ice melt activity, which removes soil such that channels become considerably deeper than what would otherwise result by normal smoothing or tilling operations.

(4) <u>Natural (Geological) Erosion:</u> the wearing away of the earth's surface by water, ice or other natural agents under natural environmental conditions of climate, vegetation, etc., undisturbed by man.

(5) <u>Normal Erosion:</u> the gradual erosion of land used by man which does not greatly exceed natural erosion.

(6) <u>Rill Erosion:</u> an erosion process in which numerous small channels only several inches deep are formed; occurs mainly recently disturbed soils.

(7) <u>Sheet Erosion:</u> the removal of a fairly uniform layer of soil from the land surface by wind or runoff water.

(8) <u>Stream Bank Erosion:</u> erosion of the stream bank or channel bottom due to the high velocity of flow within the stream.

- 16. <u>Exemption</u>: those activities that are not subject to the erosion and sediment control requirements contained in this regulation.
- 17. <u>Final Stabilization:</u> means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of at least 70% of the cover for the disturbed area has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed.
- 18. <u>Finished Grade:</u> the final grade or elevation of the ground surface conforming to the site-grading plan.
- 19. <u>First Order Stream</u>: means all streams identified on a U.S.G.S. 7.5-minute topographic map by either a dashed or solid blue line.
- 20. <u>Grading:</u> the stripping, cutting, filling, stockpiling, or any combination thereof of earth disturbing activities, including land in its cut or filled conditions.
- 21. <u>Grubbing:</u> any activity, which removes or significantly disturbs the root matter within the ground.
- 22. <u>Hazard:</u> any danger to public health, welfare and safety including exposure to risk or damage to property or liability for personal injury' or risk of harm to land, air or water resulting in environmental degradation. Hazards can include flooding and ponding, compaction and settling, landslides, earthquakes, toxic chemicals, radiation, fire and disease.
- 23. <u>Land-Disturbing Activities:</u> any land change that may result in soil erosion from water or wind and the movement of sediment into waters or onto lands, including

but not limited to, clearing, grading, excavating, transporting and filling of land, except that the term shall not include:

- 1) Minor land-disturbing activities such as home gardens and individual home landscaping, repairs, and maintenance work;
- 2) Individual service connections.
- 3) Installation, maintenance or repair of any underground public utility lines when such activity occurs on an existing hard surfaced road, street or sidewalk (provided the land-disturbing activity is confined to the area of the road, street or sidewalk that is hard surfaced), and does not involve dewatering operations that produce sediment-laden effluent discharging to surface-lands and/or surface-waters;
- 4) Septic tank lines or drainage fields unless included in an overall plan for land-disturbing activity relating to the construction of the building to be served by the septic tank system;
- 5) Tilling, planting or harvesting of agricultural, horticultural, or forest crops or livestock feedlot operations; including soil conservation operations related to agriculture as follows: construction of terraces, terrace outlets, check dams, de-silting basins, dikes, ponds, ditches, strip cropping, lister furrowing, contour cultivating, contour furrowing, and land drainage and land irrigation which does not cause an increase in storm water runoff and does not exacerbate erosion and sedimentation.
- 6) Repair or rebuilding of the tracks within the right-of-way of a railroad company;
- 7) Emergency work to protect life, limb or property and emergency repairs; however, if the land-disturbing activity would have required an approved erosion and sediment control plan, if the activity were not an emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of the City.
- 24. <u>Mulching:</u> the application of suitable materials on the soil surface to conserve moisture, hold soil in place, and aid in establishing plant cover.
- 25. <u>Nuisance:</u> a public nuisance as known by common law or in equity jurisprudence.
- 26. <u>One-hundred-year floodplain:</u> any land area which is susceptible to being inundated by water caused by a flood event having a one (1) percent chance of being equaled or exceeded in any given year.

- 27. <u>Owner:</u> the person in who is vested the fee ownership, dominion, or title of property, i.e. the proprietor. The word "owner", when applied to property, shall include any part-owner or joint-owner of the whole or any part of such property.
- 28. <u>Permittee:</u> any person to whom approval of an erosion and sediment control plan according and pursuant to this standard is granted, or who is subject to inspection under it.
- 29. <u>Plan:</u> as used in this regulation, "Plan" shall mean the Erosion and Sediment Control Plan.
- 30. <u>Pollution:</u> the man-made or man-induced alteration of the chemical, physical, biological, or radiological integrity of air and water resources.
- 31. <u>Public Waters:</u> those waters within lakes (except private ponds and lakes on single properties), rivers, streams, ditches, and/or waters leaving property on which surface water originates.
- 32. <u>Retention:</u> the collection and storage of stormwater runoff without subsequent discharge other than through infiltration into the ground, or evaporation.
- **33.** <u>Runoff:</u> the portion of rainfall, melted snow or irrigation water that flows across the ground surface and eventually is returned to streams, rivers, lakes, and ponds.
 - (1) <u>Accelerated Runoff</u>: increased rate and volume of runoff due to less permeable surface or reduced time of concentration primarily caused by urbanization.
 - (2) <u>Peak Rate of Runoff:</u> the maximum rate of runoff for any 24 –hour storm of a given frequency.
- 34. <u>Sediment:</u> solid material, both mineral and organic, that is or was in suspension, is being or has been transported, or has been moved from its site of its origin by air, water, gravity, or ice, and has come to rest on the earth's surface either above or below water.
- 35. <u>Sediment Basin:</u> a facility such as a depression storage area, a pond or trap, barrier, dam, or other suitable detention facility built across an area of water-flow to settle and retain sediment carried by surface drainage runoff water.
- 36. <u>Sediment Control plan:</u> a written description, in graphical and descriptive terms, subject to review and approval by the approving agency, of methods for controlling sediment pollution from accelerated erosion of a development area of two or more contiguous acres.

- 37. <u>Site:</u> any lot or parcel, or a series of lots or parcels of land adjoining or contiguous or joined together under one ownership where clearing, stripping, grading or excavating is performed.
- 38. <u>Slip:</u> any lot or parcel, or a series of lots or parcels of land adjoining or contiguous or joined together under one ownership where clearing, stripping, grading or excavating is performed.
- **39.** <u>Sloughing:</u> a slip or downward movement of an extended layer of soil resulting from the undermining action of water or the earth-disturbing activity of man.
- 40. <u>Soil Loss:</u> soil relocated on or removed from a given site by the forces of erosion and the redeposit of the soil at another site on land or in a body of water.
- 41. <u>Stabilization:</u> the prevention of soil movement by any vegetative and/or structural means.
- 42. <u>Storm Frequency:</u> the average period of time within which a storm of a given duration and intensity can be expected to be equaled or exceeded.
- 43. <u>Storm water (Stormwater):</u> water runoff resulting from storm events, including snow melt, surface water runoff and drainage.
- 44. <u>Stream:</u> a body of water running or flowing on the earth's surface or channel in which such flow occurs. Flow may be seasonally intermittent.
- 45. <u>Stripping:</u> any activity, which removes or significantly disturbs the vegetative surface cover.
- 46. <u>Subdivision:</u> (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, for the purpose, whether immediate or future, of transfer of ownership; 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 of any 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.
- 47. <u>Topsoil:</u> surface and upper surface soils, which presumably are darker, colored, fertile soil materials, ordinarily rich in organic matter or humus debris.

- 48. <u>Waiver:</u> A permit of <u>conditional</u> exemption from the regulation in part or in whole, as specified by the approving agent, in a formal written statement. A waiver from the regulation shall not be assumed to be in effect, without the expressed written statement from the City.
- 49. <u>Watercourse:</u> any natural or artificial waterway (including, but not limited to, streams, rivers, creeks, drainageways, waterways, gullies, ravines, or washes) in which waters flow in a definite direction or course, either continuously or intermittently; and including any area adjacent thereto which is subject to inundation by reason of overflow of flood water.

ARTICLE 2: GENERAL PROVISIONS

2.1 <u>Title:</u>

City of Columbus Erosion and Sediment Pollution Control Regulation

2.2 <u>Statutory Authorization:</u>

This regulation of the Department of Public Utilities, Division of Sewerage and Drainage, is adopted pursuant to Columbus City Code Chapter 1145, as authorized by the Director of Public Utilities.

2.3 <u>Purpose:</u>

This erosion and sediment pollution control regulation is adopted for the purpose of controlling the pollution of public waters by sediment from accelerated soil erosion and stormwater runoff caused by earth –and land-disturbing activities and land use changes associated with construction activities. Control of such pollution will promote and maintain the health, safety and general well being of all life and inhabitants with the City of Columbus.

ARTICLE 3: SCOPE AND INTENT

3.1 <u>Objectives:</u>

This regulation of the City of Columbus, shall apply to earth-disturbing and land-disturbing activities, as defined in Article 1, on areas designated below which are within the jurisdiction of the City of Columbus, unless otherwise excluded within this regulation or unless expressly excluded by state law, including: Land used or being developed for commercial, industrial, residential, recreational, public service or other non-farm purposes.

3.2 <u>Disclaimer of Liability:</u>

Neither submission of a plan under provisions of this regulation, nor compliance with provisions of this regulation shall relieve any person from responsibility for damage to any person or property otherwise imposed by law, nor impose any liability upon the City of Columbus for damage to any person or property.

3.3 <u>Severability:</u>

If any clause, section, or provision of this regulation is declared invalid or unconstitutional by a court of competent jurisdiction, validity of the remainder shall not be affected thereby.

3.4 <u>Requirements</u> (Regulation applicability)

No person shall cause or allow earth- and/or land- disturbing activities on a development area except in compliance with the standards set out in this regulation and the applicable items below:

a. An erosion and sediment control plan shall be submitted and approved prior to any land- disturbing activities on development areas involving earth disturbance of two (2) or more acres, including those development areas being a part of a larger common plan of development or sale. The person proposing such land-disturbing activities shall develop and submit for approval a plan containing erosion and sediment pollution control practices so that compliance with other provisions of this regulation will be achieved during and after development. Such a plan shall address specific requirements established by the City of Columbus as set out in Articles 4, 5, and 6 of this regulation.

The person proposing land-disturbing activities shall submit the plan, and supporting information, as outlined in Article 6, to the following office:

> Stormwater Program Manager Division of Sewerage and Drainage Department of Public Utilities 910 Dublin Road, Utilities Complex Columbus, Ohio 43215

b. For proposed development areas involving land-disturbance of less than two acres that is not part of a larger common plan of development or sale, it is not necessary to submit an erosion and sediment control plan; however, the person proposing such landdisturbing activities must comply with all other provisions of this regulation. All land-disturbing activities shall be subject to inspection and site investigation by the City of Columbus to determine compliance with the standards and regulations.

3.5 <u>Exemptions:</u>

Development activities that are exempt from this regulation include the following:

- a. An erosion and sediment control plan shall not be required for public road, highway, or other transportation, or drainage improvement, or maintenance thereof, undertaken by a government agency or entity if such agency or entity plans to follow a statement of erosion and sediment control policy which has been submitted by the sponsoring agency or entity and approved by the City of Columbus.
- b. Clearing and grading activities that disturb less than 2000 square feet AND are situated no closer than 50-feet to a first order stream.
- c. Regular farming activities on land intended for such use, <u>except when</u> <u>these activities involve practices</u>, <u>which increase storm water runoff</u> <u>and</u> exacerbate erosion and sedimentation.
- d. Emergency work to ensure health, safety and property and emergency repairs. However, if the land disturbing activity would have required an approved erosion and sediment control plan if the activity were not an emergency, then the land area disturbed shall be shaped and stabilized in accordance with the requirements of this regulation.

3.6 <u>Waivers</u>

a. It is conceivable that development situations not automatically subject to exemption may exist such that development will have none of the harmful effects of sediment deposition. Such development situations, subject to City concurrence, are eligible for a waiver from this regulation. Waiver requests shall be made in writing to the Stormwater Program Manager, Division of Sewerage and Drainage, and shall include sufficient detail to support that granting a waiver will not be detrimental to abutting properties or to watercourses, public waters, or to the sewer system.

- b. Issuance of a waiver shall apply only to the requirement of erosion and sediment control per this regulation, and shall not in any way imply a relaxation of any requirements outlined in the City's Storm Water Drainage Manual, including, but not limited to provisions for adequate on-site drainage, and the ability to accept runoff from land tributary to the development.
- c. At the discretion of the City, a waiver may be subject to specific conditions, including, but not limited to:
 - 1) Reasonable control of soil erosion and sediment.
 - 2) The preparation of plans, maps and/or specified information.
 - 3) Requirements that any additions, extensions, or modifications of a development for which a waiver has been granted, shall be required to provide erosion and sediment control for the entire site if preceding limitations are exceeded by subsequent additions, extensions, or modifications.
- d. At the discretion of the City, a waiver may be granted if it is demonstrated the development is not likely to:
 - 1) Have an adverse impact on a wetland, watercourse or water body;
 - 2) Contribute to the degradation of water quality; or
 - 3) Otherwise impair attainment of the objectives of this regulation.
- e. Examples of the types of development activities which may be considered for waivers include the following:
 - 1) Single family residential development involving landdisturbance on an individual lot in a previously approved subdivision, which contains active and effective erosion and sediment control measures that, in the opinion of the City, are operating efficiently and are being properly maintained in good working condition.

ARTICLE 4: STORMWATER RUNOFF CONTROL STANDARDS

4.1 <u>General Requirements:</u>

- a. The requirement for and design of permanent drainage systems for the control of storm water runoff, shall be based upon the general and specific policies and standards and specifications outlined in the latest version of the City of Columbus Storm Water Drainage Manual.
- b. Temporary stormwater runoff controls shall be designed in accordance with the standards and specifications outlined in the latest edition of the U.S. Department of Agriculture Soil Conservation Service's Manual entitled, "Water Management and Sediment Control for Urbanizing Areas." Other federal, state, or local manuals containing standards and specifications for erosion and sediment control practices may be used, subject to prior approval of these manuals by the Division of Sewerage and Drainage.

ARTICLE 5: SOIL EROSION AND SEDIMENT CONTROL STANDARDS

- 5.1 <u>General Requirements:</u>
 - a. In order to control sediment pollution of water resources, the owner or person responsible for the development area shall use conservation planning and practices to maintain the level of conservation established by the standards outlined in section 5.2.
 - b. These standards outlined herein are general guidelines and shall not limit the right of the City to impose additional, more stringent requirements, nor shall the standards limit the right of the City to waive individual requirements.
 - c. Erosion and sediment control practices used to satisfy the standards outlined herein shall meet the specifications in the latest edition of SCS's Manual entitled, "Water Management and Sediment Control for Urbanizing Areas", or specifications in other erosion and sediment control manuals, or other accepted practices, receiving prior Division approval. Reasonable modifications will be considered by the City provided that the proposed modification meets the basic requirements of this regulation. Justification shall be provided, upon submission of erosion and sediment control plans for review and approval, for rejecting each practice outlined in Article 5.2, based on site conditions.

5.2 <u>Standards and Criteria:</u>

- a. <u>Sediment deposition</u> caused by accelerated stormwater runoff over a development site or by accelerated erosion due to the sloughing or sliding of surface soil that has been exposed by grading, dumping, stockpiling or any other excavation-related earth disturbances shall be retarded and confined to within the boundaries of the development site, during site development.
- b. <u>Timing of Sediment-Control Practices:</u> Sediment control practices shall be functional throughout earth-disturbing activities. Sediment Ponds (including sediment basins and traps) and perimeter controls intended to trap sediment shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is restabilized.
- Stabilization/Non-structural Practices: Control practices shall c. preserve existing vegetation where attainable and disturbed areas shall be re-vegetated as soon as practicable after grading or construction. Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing activities (to minimize denuded areas), and protection of trees. Denuded areas shall have soil stabilization applied within fourteen (14) days of denudation if they are to remain dormant (undisturbed) for more than forty-five days, whether or not final grade has been established. During this 45-day dormant period, the 14-day period shall run concurrent. For areas within fifty (50) feet of any first-order stream (or larger), soil stabilization practices shall be initiated within seven (7) days on all inactive disturbed areas.
- d. <u>Structural Practices:</u> Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days. Such structural practices shall store runoff allowing sediments to settle and shall store runoff allowing sediments to settle and shall divert flows from exposed soils or otherwise limit runoff from eroding exposed areas of the site. Such practices may include, among others, sediment traps, sediment basins, silt fences, earth diversion dikes, check dams, and storm drain inlet protection:
 - 1) Settling Ponds: Concentrated stormwater runoff from denuded areas flowing at rates, which exceed the design capacity of sediment barriers, shall pass through a sediment-settling pond. The pond's storage capacity shall be sixty-seven (67) cubic yards per acre of total drainage area. Settling ponds, by definition, include sediment basins and traps. To the extent

practicable, and without causing adverse effect to adjacent properties, the off-site contributory area to settling ponds should be minimized or eliminated, using diversion berms around the perimeter of the site disturbed area.

- 2) Sediment Barriers: Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions directing runoff to settling ponds, shall protect adjacent properties and water resources from sediment transported by sheet flow.
- 3) Storm Sewer Inlet Protection: All storm sewer inlets which accept water runoff from the development area shall be protected so that sediment-laden water will not enter the storm sewer system without first being ponded and filtered or otherwise treated to remove sediment, unless prior approval is granted by the City and/or the storm sewer system drains to a settling pond.
- e. <u>Stream Protection:</u> Structural practices shall be designed and implemented on site to protect all adjacent streams, from the impacts of sediment runoff. If a stream channel must be disturbed, the environmental impacts of the disturbance shall be minimized. Furthermore, if a stream channel must be disturbed, the site owner shall provide notification to the Division of Sewerage and Drainage, at least 48-hours <u>prior to</u> any such work. In the event work is necessary within or across a stream, the following controls shall be implemented.
 - 1) Mitigation measures shall be undertaken to stabilize disturbed areas and repair damages to the stream channel and adjacent bank area immediately after the disturbance is completed.
 - 2) Streams including channel-bed and banks shall be re-stabilized immediately after in-channel work is completed, interrupted, or stopped. To the extent practicable, construction vehicles shall be kept out of streams. Where in-channel work is necessary, precautions shall be taken to stabilize the work area during construction to minimize erosion.
 - 3) If a wet channel must be crossed by construction vehicles regularly during construction, a temporary stream crossing shall be provided.
- f. <u>Construction Access Routes:</u> Measures shall be taken to prevent soil transport onto surfaces or onto public roads where runoff is not

checked by sediment controls.

- g. <u>Sloughing and Dumping:</u>
 - 1) No soil, rock, debris, or any other material shall be dumped or placed into a water resource or into such proximity that it may readily slough, slip, or erode into a water resource, unless such dumping or placing is authorized by the City or its representatives and when applicable, the U. S. Army Corps of Engineers, for such purposes as, but not limited to, construction of bridges, culverts, and erosion control structures.

2) Unstable soils prone to slipping or landsliding shall not be graded, excavated, filled or have loads imposed upon them unless the work is done in accordance with a qualified professional engineer's recommendations to correct, eliminate, or adequately address the problems.

- h. <u>Cut and Fill Slopes:</u> Cut and fill slopes shall be designed and constructed in a manner, which will minimize erosion. Consideration shall be given to the length and steepness of the slope, soil type, upslope drainage area, groundwater conditions, and slope stabilization.
- i. <u>Stabilization of Outfalls and Channels:</u> Outfalls and constructed or modified channels shall be designed and constructed to withstand the expected velocity of flow from a post-development, ten-year frequency storm without eroding.
- j. <u>Establishment of Permanent Vegetation</u>: A permanent vegetation shall not be considered established until ground cover is achieved which, in the opinion of the City, provides adequate cover and is mature enough to control soil erosion satisfactorily and to survive adverse weather.
- k. <u>Disposition of Temporary Practices:</u> All temporary erosion and sediment control practices shall be disposed of within thirty days after final site stabilization is achieved or after the temporary practices are no longer needed, unless otherwise authorized by the approving agency. Trapped sediment shall be removed or permanently stabilized to prevent further erosion.
- 1. <u>Maintenance:</u> All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as

needed to assure continued performance of their intended function. The person or entity responsible for continued maintenance of permanent and temporary erosion controls shall be identified to the satisfaction of the City.

- m. To the maximum extent practicable, <u>soil loss shall be minimized</u> through the use of Best Management Practices (BMP's), as referenced within the latest edition of the U. S. Soil Conservation Service's manual entitled "Water Management and Sediment Control for Urbanizing Areas", or referenced within other design manuals, determined to be acceptable by the Division of Sewerage and Drainage.
- n. <u>Underground utility line construction involving</u> dewatering operations: To the extent practicable, sediment-laden effluent from dewatering operations and effluent discharged from dewatering operations to surface-lands and/or surface-waters, shall be controlled by structural practices to filter and trap sediment, such that the erosion and sedimentation resulting from dewatering operations, does not affect flowing streams and lands on or off-site.

5.3 Off-site Drainage Facilities for Sediment Control:

At the City's discretion, the City may allow surface water runoff and associated sedimentation to be discharged into drainage facilities off the site of development only if each of the following conditions are met:

- 1) It is not practicable to completely manage runoff and sedimentation on the site in a manner that meets the performance standards and design standards of this regulation;
- 2) The off-site drainage facilities and channels leading to them are designed, constructed and maintained in accordance with the requirements of this regulation;
- 3) Adverse environmental impacts on the site of development will be minimized.
- 4) A request to use off-site drainage facilities and all information related to these proposed drainage facilities should be made a part of the developer's application.

ARTICLE 6: SOIL EROSION AND SEDIMENT CONTROL PLAN REQUIREMENTS

6.1 <u>Plan Requirements:</u>

a. When required by this regulation, a soil erosion and sediment control plan shall be required for the land disturbance activities outlined in Article 3. Furthermore, in accordance with the appropriate requirements of Article 3, the plan shall be prepared, submitted to the City, and approved by the City, prior to any earth- or landdisturbance. The person proposing land-disturbing activities shall submit the plan, and supporting information, as outlined herein, to the following office:

> Stormwater Program Manager Division of Sewerage and Drainage Department of Public Utilities 910 Dublin Road, Utilities Complex Columbus, Ohio 43215

- b. The erosion and sediment control plan shall contain sufficient information, drawings, and notes to describe how soil erosion and offsite sedimentation will be minimized. It is preferred that the erosion and sediment control plan be submitted as part of the Stormwater Drainage Plan, i.e., CC and/or Drawer D drawings. The City shall review the plan to determine compliance with this regulation and the Standards and Specifications prior to approval. The plan shall serve as a basis for all- subsequent grading and stabilization.
- 6.2 Erosion and Sediment Control Plan Content:

Any person seeking approval of a land disturbance proposal shall, on a map rendered from a base derived from the site Master Drainage Plan or site grading plan, at a scale not to exceed 1"=100', provide the following information:

- a. Location of the land disturbance area and its general surroundings including but not limited to:
 - 1) Vicinity map indicating north arrow, scale, and other information necessary to easily locate the site;
 - 2) Off-site areas susceptible to sediment deposits or to erosion caused by accelerated runoff from the land disturbance area, such as ponds and small streams;
 - 3) Off-site areas affecting potential accelerated runoff and

erosion control.

- b. Existing topography of the land disturbance area and adjacent land within fifty feet of the boundaries. A topographic map should contain an appropriate contour interval to clearly portray the conformation and drainage pattern of the area;
- c. The location of existing buildings, structures, utilities, water bodies, drainage facilities, vegetative cover, paved areas (streets, roads, driveways, sidewalks, etc.) and other significant natural or man-made features on the land disturbance area and adjacent land within fifty feet of the boundaries.
- d. A general description of the predominant soil types, their location and their limitations for the proposed use;
- e. Proposed use of the land disturbance area including present development and ultimate utilization with detail on final soil cover, both vegetative and impervious;
- f. All proposed earth disturbance including:
 - 1) Areas of excavation, grading, and filling.
 - 2) The proposed final elevations and slopes.
 - 3) Kinds of utilities and proposed areas of installation.
 - 4) **Proposed paved and covered areas in square feet.**
 - 5) Proposed kind of cover on areas not covered by buildings, structures, or pavement. Description shall be in such terms as: lawn, turfgrass, shrubbery, trees, forest cover, rip-rap, mulch, etc;
- g. Provisions for temporary and permanent erosion and sedimentation control, per the standards of Article 5. Provisions should include the number, types, dimensions, and locations of all runoff; erosion or sediment control devices to be utilized either temporarily or permanently on the area of land disturbance.
- d. A general description of the predominant soil types, their location and their limitations for the proposed use;

- e. Proposed use of the land disturbance area including present development and ultimate utilization with detail on final soil cover, both vegetative and impervious;
- f. All proposed earth disturbance including:
 - 1) Areas of excavation, grading, and filling.
 - 2) The proposed final elevations and slopes.
 - 3) Kinds of utilities and proposed areas of installation.
 - 4) **Proposed paved and covered areas in square feet.**
 - 5) Proposed kind of cover on areas not covered by buildings, structures, or pavement. Description shall be in such terms as: lawn, turfgrass, shrubbery, trees, forest cover, rip-rap, mulch, etc;
- g. Provisions for temporary and permanent erosion and sedimentation control, per the standards of Article 5. Provisions should include the number, types, dimensions, and locations of all runoff; erosion or sediment control devices to be utilized either temporarily or permanently on the area of land disturbance.
- h. Provisions for management of stormwater, per the requirements of this regulation and the City's Stormwater Drainage Manual. Provisions should be made for both on-site and off-site tributary areas, including control of accelerated on-site runoff to a stable receiving outlet, the site conditions around points of all surface water discharge from the site, and velocities of the 10-year flow at outfalls;
- i. Description of measures that will be undertaken to prevent pollution of existing streams during construction activities and after construction is complete.
 - 1) Description of mitigation measures to repair damage to the stream channels if the stream channel must be disturbed.
 - 2) Justification for earth disturbance within the stream channel.
- j. Provisions for maintenance of control facilities including easements to ensure short-term erosion and sediment pollution control;
- k. Proposed construction sequence describing the relationship between the implementation and maintenance of controls, including

permanent and temporary stabilization and the various stages or phases of earth disturbance and construction. The sequence of construction shall, as a minimum, include a schedule and time frame for the following activities:

- 1) Clearing and grubbing for those areas necessary for installation of perimeter controls;
- 2) Construction of perimeter controls;
- 3) Remaining clearing and grubbing;
- 4) Road grading;
- 5) Grading for the remainder of the site;
- 6) Utility installation and whether storm drains will be used, protected or abandoned after construction;
- 7) Final grading, landscaping or stabilization; and;
- 8) Removal of controls.
- 1. Seeding mixtures and rates, lime and fertilizer application rates, and kind and quantity of mulching for both temporary and permanent vegetative control measures. Details on proposed methods and schedules of providing temporary and permanent stabilization, pertaining to seeding and/or mulching shall be included;
- m. Map reference data including title, scale, direction, legend, and date on all plan maps; additionally, the plan, as part of the overall stormwater drainage plan, shall provide space for signatures of City of Columbus officials;
- n. Statement identifying the name, address, and telephone number of the person(s) preparing the plan, the owner of the property where the grading is proposed and the developer and/or person responsible for the development area;
- A statement indicating that the owner will notify the City forty-eight (48) hours before commending any land disturbing activity. At the time this notice is given, the owner shall identify the site manager.
- p. Appearing on the Erosion and Sediment Control Plan, as part of the overall Stormwater Drainage Plan, shall be a certification (signature and seal) by a Professional Engineer, registered in the State of Ohio, that the plan has been prepared in accordance with the requirements of this regulation, and in accordance with good engineering practices and principles.
- 6.3 The City may waive specific requirements for plan detail or may require additional information to show that work will conform to basic requirements of this regulation.

6.4 Any person seeking approval of an Erosion and Sediment Control Plan shall submit design computations and applicable assumptions for all structural measures for erosion and sediment control. Volume and velocity of flow shall be provided for all surface water conveyance. This information shall be provided for surface water outlets.

ARTICLE 7: ADMINISTRATION AND APPEALS

7.1 <u>General Intent:</u>

Prior to the development or re-development of any land in the City, the responsible person shall meet the requirements outlined in Article 3.4 of this regulation:

- a. For projects involving earth- or land-disturbance of 2 or more acres, an erosion and sediment control plan shall be developed and submitted for review and approval to the City, to ensure that compliance with the provisions of this regulation will be achieved during and after development. This plan shall be approved prior to commencement of work.
- b. For projects involving earth- or land-disturbance of less than 2-acres, when not a part of a larger common plan of development, it is not necessary to submit an erosion and sediment control plan; however, the person responsible for such land- disturbing activities must comply with all other provisions of this regulation. These sites will be subject to spot-inspection and site investigation by the City to ensure compliance with this regulation.

7.2 <u>Plan Review:</u>

The City shall upon receipt of the plan initiate review and make a good faith effort to indicate its approval or disapproval (status of compliance or noncompliance) within 21-days, to the person who filed the plan. Indication of disapproval (non-compliance) shall include the plan deficiencies and the procedures for filing a revised plan. In the event an approved plan necessitates a revision, pending preparation and approval (determination of compliance) of the revised plan, earth-disturbing activities shall proceed only in accordance with conditions outlined by the approving agent. Failure to act within the above-described plan review time, shall not imply or represent plan approval.

Plan approval does not constitute assurance that the proposed facilities will perform in the manner indicated by the design. The responsibility of the

proper functioning operation and maintenance of the facilities remains with the owner. The owner shall be responsible for providing any additional means or methods necessary to meet the intent of these regulations.

7.3 <u>Appeal Process:</u>

Regarding this regulation, any person aggrieved by any written order or written requirement, final determination (whether approval or disapproval), and action or inaction (including failure to respond or review plans per the requirements of this regulation) may appeal to the Director of Public Utilities, pursuant to City of Columbus Code Chapter 1145.82.

ARTICLE 8: COMPLIANCE RESPONSIBILITY

8.1 <u>Performance Liability:</u>

No provision of this standard shall limit, increase or otherwise affect the liabilities of the developer nor impose any liability upon the City not otherwise imposed by law.

8.2 **Ownership and Maintenance:**

The person(s) or entity responsible for the continued maintenance of temporary and permanent erosion control measure shall, prior to any earthor land-disturbance, be identified to the satisfaction of the City. Erosion and sediment control facilities, which are to be privately owned and maintained by an individual or group of property owner(s) shall be:

- a. Designed and constructed by the developer with easements sufficient to allow adequate access for inspections, maintenance and corrective actions, if necessary, by the City.
- b. Inspected as needed by the City to ensure privately owned installations are being properly maintained and, if not, the City may compel the owners to make the necessary repairs at the expense of the owner.
- c. Maintained as installed by the developer according to the approved design and not be altered unless approved by the City.
- d. All temporary and permanent erosion and sediment control practices shall be designed and constructed to minimize maintenance requirements. They shall be maintained and repaired as needed to assure continued performance of their intended function.
- 8.3 **Operations and Management:**

Prior to any earth- or land-disturbance on a development area, the person(s) or entity responsible for continued operation and management of temporary and permanent erosion and sediment control measures, shall be identified to the satisfaction of the City.

Both during and after site development the responsible person(s) or entity, as identified above, is responsible for:

- a. Carrying out all provisions as approved on the erosion and sediment control plan and required by this standard.
- b. Promptly removing all soil, miscellaneous debris or other materials that may become spilled, dumped or otherwise deposited on any public thoroughfares during transport to and from the development site, and
- c. Taking precautions to inhibit the deposition of sediment into any sewer system or natural watercourse.
- d. The developer shall assume responsibility and all cost for removing any sedimentation deposited in downstream drainage ways or facilities deemed objectionable by the City to the proper functioning of these downstream areas.

8.4 **Inspection and Enforcement:**

- a. <u>Development Sites involving land-disturbance of less than 2-acres,</u> <u>when not a part of a larger plan of common development:</u> These sites, while not requiring submission of an erosion and sediment control plan, are subject to spot-inspection and site investigation by the City to determine that requirements of this regulation are being met.
- b. Development Sites involving land-disturbance of 2 or more acres, including those development areas being a part of a larger common plan of development or sale: It shall be the responsibility of the site owner to provide notification to the City 48-hours prior to commencement of initial site land-disturbance. In addition, the site owner shall provide notification to the City, at least 48-hours prior to any work within or across a stream-channel. Furthermore, within 45days after Site Final Stabilization has been achieved, it shall be the responsibility of the site owner to file a Notice that site activities are complete. All notifications shall be made to the following City office:

Stormwater Program Manager Division of Sewerage and Drainage Department of Public Utilities 910 Dublin Road, Utilities Complex Columbus, Ohio 43215

Phone: (614) 645-6311

Inspection and enforcement actions shall include the following:

1) <u>General Inspection Requirements:</u>

- i) The City or its representative, may inspect all site development activities, including erosion and sediment control devices and facilities while a development site, when subject to this regulation, is under construction. When facilities are not constructed according to approved plans, the City has the explicit authority to compel compliance with the approved plan and the objectives and standards of this regulation.
- ii) <u>Final Inspection:</u> Prior to final inspection, the developer's engineer shall provide the site grading plan documenting the intended site final grades.

2) <u>General Inspection Procedures:</u>

- i) A copy of the approved erosion and sediment control plan shall be maintained on site, or in a location easily accessible by the contractor and the City's inspector.
- ii) On developing areas with disturbed areas in excess of 2 acres, the permittee may request that the inspection agency inspect work completed at the stages of construction specified below to ensure accordance with the approved erosion and sediment control plan, the grading or building permit, and this regulation:
 - (a) Upon completion of installation of perimeter erosion and sediment controls, prior to proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until initial approval by the inspection agency is made; and
 - (b) Upon final stabilization before removal of sediment controls.

- iii) Every active site having a designed erosion and sediment control plan may be inspected for compliance with the plan at a frequency to be determined by the City.
- iv) Inspectors shall prepare written reports after every inspection. The inspection report shall describe:
 - (a) The date and location of the site inspection;
 - (b) Whether or not the approved plan has been properly implemented and maintained;
 - (c) Any practice deficiencies or erosion and sediment control plan deficiencies; and the agreed upon type(s) of corrective action necessary to rectify any identified deficiencies.
 - (d) If a violation exists, the type of enforcement action taken.
 - (e) The site manager shall sign and receive a copy of the report before the inspector leaves the site.
- The inspection agency shall notify the on-site personnel or the v) owner /developer when deficiencies are observed, describing the nature of the deficiency, the agreed upon corrective action. and the time period in which to have the deficiency corrected. If after a reasonable amount of time for voluntary compliance, the corrective actions are not undertaken to the satisfaction of the City, the City may issue a Notice of Violation pursuant to Columbus City Codes Section 1145.80 and proceed with other enforcement remedies as provided by Columbus City Codes Chapter 1145 and other applicable provisions of the Columbus City Codes. Where the violations and/or deficiencies represent an immediate and substantial threat to the public health, safety welfare, the City may immediately proceed with or enforcement remedies as provided by Columbus City Codes Chapter 1145 and other applicable provisions of the Columbus **City Codes.**