

FRIDLEY CITY CODE
CHAPTER 208. STORMWATER MANAGEMENT AND EROSION CONTROL
(Ref. 1011, 1226)

208.01 PURPOSE AND INTENT

The purpose of this ordinance is to control or eliminate storm water pollution along with soil erosion and sedimentation within the City of Fridley. It establishes standards and specifications for conservation practices and planning activities, which minimize storm water pollution, soil erosion and sedimentation.

208.02 SCOPE

Except where a variance is granted, any person, firm, sole proprietorship, partnership, corporation, state agency, or political subdivision proposing a land disturbance activity within the City of Fridley shall apply to the city for the approval of the storm water pollution control plan. No land shall be disturbed until the plan is approved by the city and conforms to the standards set forth herein.

208.03 DEFINITIONS

These definitions apply to this ordinance. Unless specifically defined below, the words or phrases used in this ordinance shall have the same meaning as they have in common usage. When not inconsistent with the context, words used in the present tense include the future tense, words in the plural number include the singular number, and words in the singular number include the plural number. The words “shall” and “must” are always mandatory and not merely directive.

1. Applicant: Any person or group that applies for a building permit, subdivision approval, or a permit to allow land disturbing activities. Applicant also means that person's agents, employees, and others acting under this person's or group's direction. The term “applicant” also refers to the permit holder or holders and the permit holder's agents, employees, and others acting under this person's or group's direction.
2. Best Management Practices (BMPs): Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing the degradation of surface water, including construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by state or designated area-wide planning agencies.
3. Common Plan of Development or Sale: A contiguous area where multiple separate and distinct land disturbing activities may be taking place at different times, or on different schedules, but under one proposed plan. This item is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land disturbing activities may occur.

4. **Developer:** Any person, group, firm, corporation, sole proprietorship, partnership, state agency, or political subdivision thereof engaged in a land disturbance activity.
5. **Development:** Any land disturbance activity that changes the site's runoff characteristics in conjunction with residential, commercial, industrial or institutional construction or alteration.
6. **Discharge:** The release, conveyance, channeling, runoff, or drainage, of storm water, including snowmelt, from a construction site.
7. **Energy Dissipation:** This refers to methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to; aprons, riprap, splash pads, and gabions that are designed to prevent erosion.
8. **Erosion:** Any process that wears away the surface of the land by the action of water, wind, ice, or gravity. Erosion can be accelerated by the activities of people and nature.
9. **Erosion Control:** Refers to methods employed to prevent erosion. Examples include soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing.
10. **Erosion and Sediment Practice Specifications or Practice:** The management procedures, techniques, and methods to control soil erosion and sedimentation as officially adopted by the state, county, city or local watershed group, whichever is most stringent.
11. **Exposed Soil Areas:** All areas of the construction site where the vegetation (trees, shrubs, brush, grasses, etc.) or impervious surface has been removed, thus rendering the soil more prone to erosion. This includes topsoil stockpile areas, borrow areas and disposal areas within the construction site. It does not include temporary stockpiles or surcharge areas of clean sand, gravel, concrete or bituminous. Once soil is exposed, it is considered "exposed soil," until it meets the definition of "final stabilization."
12. **Filter Strips:** A vegetated section of land designed to treat runoff as overland sheet flow. They may be designed in any natural vegetated form from a grassy meadow to a small forest. Their dense vegetated cover facilitates pollutant removal and infiltration.
13. **Final Stabilization:** Means that all soil disturbing activities at the site have been completed, and that a uniform (evenly distributed, e.g., without large bare areas) perennial vegetative cover with a density of seventy-five (75) percent of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures have been employed. Simply sowing grass seed is not considered final stabilization.
14. **Hydric Soils:** Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

15. Hydrophytic Vegetation: Macrophytic (large enough to be observed by the naked eye) plant life growing in water, soil or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

16. Impervious Surface: A constructed hard surface that either prevents or retards the entry of water into the soil, and causes water to run off the surface in greater quantities and at an increased rate of flow than existed prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.

17. Land Disturbance Activity: Any land change that may result in soil erosion from water or wind and the movement of sediments into or upon waters or lands within the City of Fridley, including construction, clearing & grubbing, grading, excavating, transporting and filling of land. Within the context of this rule, land disturbance activity does not mean:

- A. Minor land disturbance activities such as home gardens and an individual's home landscaping, repairs, and maintenance work.
- B. Additions or modifications to existing single family structures that which result in creating under five thousand (5,000) square feet of exposed soil or impervious surface.
- C. Construction, installation, and maintenance of fences, signs, posts, poles, and electric, telephone, cable television, utility lines or individual service connections to these utilities, which result in creating under five thousand (5,000) square feet of exposed soil or impervious surface.
- D. Tilling, planting, or harvesting of agricultural, horticultural, or forest crops.
- E. Emergency work to protect life, limb, or property and emergency repairs, unless the land disturbing activity would have otherwise required an approved erosion and sediment control plan, except for the emergency. If such a plan would have been required, then the disturbed land area shall be shaped and stabilized in accordance with the City of Fridley's requirements as soon as possible.
- F. Street and utility reconstruction projects that result in a net increase in impervious area of less than 5%.

18. Native Vegetation: The presettlement (Already existing in Minnesota at the time of statehood in 1858) group of plant species native to the local region, that were not introduced as a result of European settlement or subsequent human introduction.

19. Ordinary High Water Mark: Minnesota Statute 103G.005, subdivision 14 defines. "Ordinary high water level" as the boundary of waterbasins, watercourses, public waters, and public waters wetlands, and:

- A. the ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;
- B. for watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and
- C. for reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

The term “ordinary high water mark” is further defined in Minnesota Rule 6120.2500, subpart 11. Ordinary high water marks are determined by the Minnesota Department of Natural Resources’ area hydrologist.

- 20. Paved Surface: A constructed hard, smooth surface made of asphalt, concrete or other pavement material. Examples include, but are not limited to, roads, sidewalks, driveways and parking lots.
- 21. Permanent Cover: Means “final stabilization.” Examples include grass, gravel, asphalt, and concrete. See also the definition of “final stabilization.”
- 22. Permit: With in the context of this code a “permit” is a written warrant or license granted for construction, subdivision approval, or to allow land disturbing activities
- 23. Phased Project or Development: Clearing a parcel of land in distinct phases, with at least fifty percent (50%) of the project’s preceding phase meeting the definition of “final stabilization” and the remainder proceeding toward completion, before beginning the next phase of clearing.
- 24. Runoff Coefficient: The fraction of total precipitation that is not infiltrated into or otherwise retained by the soil, concrete, asphalt or other surface upon which it falls, that will appear at the conveyance as runoff. This coefficient is usually estimated for an event or on an average annual basis.
- 25. Sediment: The product of an erosion process; solid material both mineral and organic, that is in suspension, is being transported, or has been moved by water, wind, or ice, and has come to rest on the earth's surface either above or below water level.
- 26. Sedimentation: The process or action of depositing sediment.
- 27. Sediment Control: The methods employed to prevent sediment from leaving the development site. Examples of sediment control practices are silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

28. **Significant Redevelopment:** Alterations of a property that changes the “footprint” of a site or building in such a way that results in the disturbance of over one (1) acre of land. This term is not intended to include activities, which would not be expected to cause adverse storm water quality impacts and offer no new opportunity for storm water controls, such as exterior remodeling.
29. **Soil:** The unconsolidated mineral and organic material on the immediate surface of the earth. For the purposes of this document, temporary stockpiles of clean sand, gravel, aggregate, concrete or bituminous materials are not considered “soil” stockpiles.
30. **Stabilized:** The exposed ground surface after it has been covered by sod, erosion control blanket, riprap, pavement or other material that prevents erosion. Simply sowing grass seed is not considered stabilization.
31. **Steep Slope:** Any slope steeper than fifteen (15) percent (Fifteen (15) feet of rise for every one hundred (100) feet horizontal run).
32. **Storm Water:** Under Minnesota Rule 7077.0105, subpart 41b storm water, “means precipitation runoff, storm water runoff, snow melt runoff, and any other surface runoff and drainage.” (According to the Code of Federal Regulations (CFR) under 40 CFR 122.26 [b][13], “Storm water means storm water runoff, snow melt runoff and surface and drainage.”). Storm water does not include construction site dewatering.
33. **Storm Water Pollution Control Plan:** A joint storm water and erosion and sediment control plan that is a document containing the requirements of Section 208.05, that when implemented will decrease soil erosion on a parcel of land and off-site nonpoint pollution. It involves both temporary and permanent controls.
34. **Stormwater Pond or Basin:** A permanent man-made structure used for the temporary storage of runoff. Detention Pond is considered a permanent man-made structure containing a temporary pool of water. A Retention Pond or a Wet Retention Facility is considered a permanent man-made structure containing a permanent pool of water.
35. **Structure:** Anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures, earthen structures, roads, parking lots, and paved storage areas.
36. **Subdivision:** Any tract of land divided into building lots for private, public, commercial, industrial, etc. development. Minnesota Rule 6120.2500, subpart 17 defines subdivision as, “land that is divided for the purpose of sale, rent, or lease, including planned unit development.”

37. Temporary Protection: Short-term methods employed to prevent erosion. Examples of such protection are straw, mulch, erosion control blankets, wood chips, and erosion netting.

38. Vegetated or Grassy Swale: A vegetated earthen channel that conveys storm water, while treating the storm water by biofiltration. Such swales remove pollutants by both filtration and infiltration.

39. Very Steep Slope: Any slope steeper than one foot of rise for each three feet of horizontal run (Thirty-three (33) percent slope)

40. Waters of the State: As defined in Minnesota Statutes section 115.01, subdivision 22 the term “. . . “waters of the state’ means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.”

41. Wetlands: As defined in Minnesota Rules 7050.0130, subpart F, “. . . ‘wetlands’ are those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes:

- A. A predominance of hydric soils;
- B. Inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; and
- C. Under normal circumstances support a prevalence of such vegetation.”

208.04 TECHNICAL GUIDES

The following handbooks are adopted by reference:

1. “Protecting Water Quality in Urban Areas”, Minnesota Pollution Control Agency
2. “Storm-Water and Wetlands: Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Storm-Water and Snow-Melt Runoff on Wetlands”, Minnesota Pollution Control Agency
3. “Minnesota Urban Small Sites BMP Manual”, Metropolitan Council
www.metrocouncil.org/environment/environment.htm

4. “Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices”, United States Environmental Protection Agency
5. “Erosion Control Design Manual”, Minnesota Department of Transportation
6. “Field Office Technical Guide of the United States Department of Agriculture”, Soil Conservation Service
7. “Soil Survey of Anoka County”, developed by the United States Department of Agriculture, Soil Conservation Service
8. Minnesota Construction Site Erosion and Sediment Control Planning Handbook

208.05 STORMWATER POLLUTION CONTROL PLAN

Every applicant for a building permit, subdivision approval, or a permit to allow land disturbing activities must submit a storm water pollution control plan to the city engineer. No building permit, subdivision approval, or permit to allow land disturbing activities shall be issued until the city approves this plan.

1. Storm Water Runoff Rates. Release rates from storm water treatment basins shall not increase over the predevelopment twenty-four (24) hour two (2) year, ten (10) year and one hundred (100) year peak storm discharge rates, based on the last ten (10) years of how that land was used. Accelerated channel erosion must not occur as a result of the proposed activity. For discharges to wetlands volume control is more important than discharge rate control.
2. The Storm Water Pollution Control Plan and the Grading Plan. The storm water pollution control plan’s measures, the limit of disturbed surface shall be marked on the approved grading plan, and identified with flags, stakes, signs etc. on the development site before work begins.
3. Inspections of the Storm Water Pollution Control Plan’s Measures. At a minimum, such inspections shall be done weekly by the developer or the developer’s designated representative, and within twenty-four (24) hours after every storm or snow melt event large enough to result in runoff from the site (approximately 0.25 inches or more in twenty-four (24) hours). At a minimum, these inspections shall be done during active construction.
4. Minimum Requirements of the Storm Water Pollution Control Plan. The plan shall contain or consider:
 - A. The name and address of the applicant and the location of the activity.

- B. Project description: the nature and purpose of the land disturbing activity and the amount of grading, utilities, and building construction involved.
 - C. Phasing of construction: time frames and schedules for the project's various aspects.
 - D. A map of the existing site conditions: existing topography, property information, steep and very steep slopes, existing drainage systems/patterns, type of soils, waterways, wetlands, vegetative cover, and one hundred (100) year flood plain boundaries.
 - E. A site construction plan that includes the location of the proposed land disturbing activities, stockpile locations, erosion and sediment control plan, construction schedule, and the plan for the maintenance and inspections of the storm water pollution control measures.
 - F. Adjacent areas: neighboring streams, lakes, residential areas, roads, etc., which might be affected by the land disturbing activity.
 - G. Designate the site's areas that have the potential for serious erosion problems.
 - H. Erosion and sediment control measures: the methods that will be used to control erosion and sedimentation on the site, both during and after the construction process.
 - I. Permanent stabilization: how the site will be stabilized after construction is completed, including specifications, time frames or schedules.
 - J. Calculations: any that were made for the design of such items as sediment basins, wet detention basins, diversions, waterways, infiltration zones and other applicable practices.
5. General Storm Water Pollution Control Plan Criteria. The plan shall address the following:
- A. Stabilizing all exposed soils and soil stockpiles and the related time frame or schedule.
 - B. Establishing permanent vegetation and the related time frame or schedule.
 - C. Preventing sediment damage to adjacent properties and other designated areas such as streams, wetlands, lakes and unique vegetation (Oak groves, rare and endangered species habitats, etc.)
 - D. Scheduling for erosion and sediment control practices.
 - E. Where permanent and temporary sedimentation basins will be located.
 - F. Engineering the construction and stabilization of steep and very steep slopes.
 - G. Measures for controlling the quality and quantity of storm water leaving a site.

- H. Stabilizing all waterways and outlets.
- I. Protecting storm sewers from the entrance of sediment.
- J. What precautions will be taken to contain sediment, when working in or crossing water bodies.
- K. Restabilizing utility construction areas as soon as possible.
- L. Protecting paved roads from sediment and mud brought in from access routes.
- M. The eventual disposing of temporary erosion and sediment control measures.
- N. How the temporary and permanent erosion and sediment controls will be maintained.
- O. The disposal of collected sediment and floating debris.

6. Minimum Storm Water Pollution Control Measures and Related Inspections. These minimum control measures are required where bare soil is exposed. Due to the diversity of individual construction sites, each site will be individually evaluated. Where additional control measures are needed, they will be specified at the discretion of the city engineer. The city will determine what action is necessary.

- A. All grading plans and building site surveys must be reviewed by the city for the effectiveness of erosion control measures in the context of site topography and drainage.
- B. Sediment control measures must be properly installed by the builder before construction activity begins. Such structures may be adjusted during dry weather to accommodate short term activities, such as those allowing the passage of very large vehicles. As soon as this activity is finished or before the next runoff event, the erosion and sediment control structures must be returned to the configuration specified by the city. A sediment control inspection must then be scheduled, and passed before a footing inspection will be done.
- C. Diversion of channeled runoff around disturbed areas, if practical, or the protection of the channel.
- D. Easements. If a storm water management plan involves directing some or all of the site's runoff, the applicant or his designated representative shall obtain from adjacent property owners any necessary easements or other property interests concerning the flowing of such water.
- E. The scheduling of the site's activities to lessen their impact on erosion and sediment creation, so as to minimize the amount of exposed soil.

F. Control runoff as follows (Either 1 and 2 or 1 and 3):

- (1) Unless precluded by moderate or heavy snow cover (Mulching can still occur if a light snow cover is present.), stabilize all exposed inactive disturbed soil areas within two hundred (200) feet of any water of the state, or within two hundred (200) feet of any conveyance (curb, gutter, storm sewer inlet, drainage ditch, etc.) with sod, seed or weed-free mulch. This must be done, if the applicant will not work the area for seven (7) days on slopes greater than three (3) feet horizontal to one (1) foot vertical (3:1), fourteen (14) days on slopes ranging from 3:1 to 10:1 and twenty-one (21) days for slopes flatter than 10:1.
- (2) For disturbed areas greater than five (5) acres construct temporary or permanent sedimentation basins. Sedimentation basins must have a minimum surface area equal of at least 1% of the area draining to basin, and be constructed in accordance with accepted design specifications including access for operations and maintenance. Basin discharge rates must also be controlled to prevent erosion in the discharge channel.
- (3) For disturbed areas less than five (5) acres sedimentation basins are encouraged, but not required, unless required by the city engineer. The applicant shall install erosion and sediment controls at locations directed by the city. Minimum requirements include silt fences, rock check dams, or other equivalent control measures along slopes. Silt fences are required along channel edges to reduce the amount of sediment reaching the channel. Silt fences, rock check dams, etc. must be regularly inspected and maintained. The applicant is also required to obtain a National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) construction storm water permit from the Minnesota Pollution Control Agency for any project that disturbs one (1) acre or more of land. This one acre value also applies to a common plan of development or sale.

G. Sediment basins related to impervious surface area. Where a project's ultimate development replaces surface vegetation with one (1) or more acres of cumulative impervious surface, and all runoff has not been accounted for in a local unit of government's existing storm water management plan or practice, the runoff must be discharged to a wet sedimentation basin prior to entering waters of the state.

- (1) At a minimum the work shall conform with the current version of the Minnesota Pollution Control Agency's publication, "Protecting Water Quality in Urban Areas," and the current requirements found in the same agency's NPDES/SDS permits for storm water associated with construction activities.

- H. Generally, sufficient silt fence shall be required to hold all sheet flow runoff generated at an individual site, until it can either infiltrate or seep through silt fence's pores.
- I. Temporary stockpiling of fifty (50) or more cubic yards of excess soil on any lot or other vacant area shall not be allowed without issuance of a grading permit for the earth moving activity in question.
- J. For soil stockpiles greater than ten (10) cubic yards the toe of the pile must be more than twenty-five (25) feet from a road, drainage channel or storm water inlet. If such stockpiles will be left for more than seven (7) days, they must be stabilized with mulch, vegetation, tarps or other means. If left for less than seven (7) days, erosion from stockpiles must be controlled with silt fences or rock check dams.
- (1) If for any reason a soil or non-soil stockpile of any size is located closer than twenty-five (25) feet from a road, drainage channel or storm water inlet, and will be left for more than seven (7) days, it must be covered with tarps or controlled in some other manner.
 - (2) All non-soil (clean sand, gravel, concrete or bituminous) must at a minimum have a silt fencing or other effective sediment control measures installed.
- K. All sand, gravel or other mining operations taking place on the development site shall apply for a Minnesota Pollution Control Agency National Pollutant Discharge Elimination System General Storm Water permit for industrial activities and all required Minnesota Department of Natural Resources permits.
- L. Temporary rock construction entrances, or equally effective means of preventing vehicles from tracking sediment from the site, may be required wherever vehicles enter and exit a site.
- (1) Vehicle tracking of sediment from the site must be minimized by BMPs such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate.
- M. Parking is prohibited on all bare lots and all temporary construction entrances, except where street parking is not available. Gravel entrances are to be used for deliveries only as per the development contract.
- N. Streets must be cleaned and swept whenever tracking of sediments occurs. Sediment shall not be allowed to remain on the streets if the site is to be left idle for weekends or holidays. A regular sweeping schedule should be established.

- O. Water (impacted by the construction activity) removed from the site by pumping must be treated by temporary sedimentation basins, geotextile filters, grit chambers, sand filters, up-flow chambers, hydro-cyclones, swirl concentrators or other appropriate controls. Such water shall not be discharged in a manner that causes erosion or flooding of the site, receiving channels, adjacent property or a wetland.
- P. All storm drain inlets must be protected during construction until control measures are in place with either silt fence or an equivalent barrier that meets accepted design criteria, standards and specifications as contained in the latest version of the Minnesota Pollution Control Agency's publication, "Protecting Water Quality in Urban Areas."
- Q. Roof drain leaders. All newly constructed and reconstructed buildings shall route roof drain leaders to pervious areas (not natural wetlands) where the runoff can infiltrate whenever practical. The discharge rate shall be controlled so that no erosion occurs in the pervious areas.
- R. Removal from the project's site of more than one (1) acre of topsoil shall not be done, unless written permission is given by the city engineer. Excessive removal of topsoil from the project's site can cause significant current and future soil erosion problems.
- S. Inspection and maintenance. All storm water pollution control management facilities must be designed to minimize the need of maintenance, to provide easy vehicle (typically eight (8) feet or wider) and personnel access for maintenance purposes and be structurally sound. These facilities must have Storm Water Maintenance Agreement that ensures continued effective removal of the pollutants carried in storm water runoff. The owner shall inspect all storm water management facilities during construction, twice during the first year of operation and at least once every year thereafter. The city will keep all inspection records on file for a period of six (6) years.
 - (1) Inspection and maintenance easements. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the storm water management facilities for inspection and maintenance purpose.
- T. Follow-up inspections must be performed by the owner on a regular basis to ensure that erosion and sediment control measures are properly installed and maintained. In all cases the inspectors will attempt to work with the applicant and/or builder to maintain proper erosion and sediment control at all sites.
 - (1) In cases where cooperation is withheld, construction stop orders may be issued by the city, until all erosion and sediment control measures meet specifications. A second erosion and sediment control/grading inspection must then be scheduled and passed before the final inspection will be done.
- U. All infiltration areas must be inspected to ensure that sediment from ongoing construction activities is not reaching infiltration areas, and that these areas are also being protected from soil compaction from the movement of construction equipment.

7. Permanent Storm Water Pollution Controls.

A. The applicant shall install and construct all permanent storm water management facilities necessary to manage increased runoff, so that the discharge rates from storm water treatment basins, such that the predevelopment twenty-four (24) hour two (2) year, ten (10) year, and one hundred (100) year peak storm discharge rates are not increased. These predevelopment rates shall be based on the last ten (10) years of how that land was used. Accelerated channel erosion must not occur as a result of the proposed land disturbing or development activity.

(1) All calculations and information used in determining these peak storm discharge rates shall be submitted along with the storm water pollution control plan.

B. The applicant shall consider reducing the need for permanent storm water management facilities by incorporating the use of natural topography and land cover such as natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of treated (e.g., settled) water without compromising the integrity or quality of the wetland or pond.

C. The following permanent storm water management practices must be investigated in developing the storm water management part of the storm water pollution control plan in the following descending order of preference:

(1) Protect and preserve as much natural or vegetated area on the site as possible, minimizing impervious surfaces. Direct runoff to vegetated areas rather than to adjoining streets, storm sewers and ditches.

(2) Flow attenuation of treated storm water by the use of open vegetated swales and natural depressions.

(3) Storm water ponding facilities (including percolation facilities); and

(4) A combination of successive practices may be used to achieve the applicable minimum control requirements specified in subsection (C) above. The applicant shall provide justification for the method selected.

D. Redevelopment of existing parcels must provide treatment of stormwater from impervious surfaces even if the amount of impervious remains the same or is reduced.

Treatment may be accomplished through the use of ponding areas, infiltration areas, or structural stormwater treatment devices.

The applicant shall submit documentation showing the chosen method will remove in excess of 80% of suspended solids and other pollutants from a 1.5 inch 24 hour storm event.

- E .The applicant shall be required to sign and file a Stormwater Maintenance Agreement that ensures continued effective removal of the pollutants carried in storm water runoff. The Agreement also ensures continued maintenance, cleaning and upkeep of the facility.

8. Minimum Design Standards for Storm Water Wet Detention Facilities. At a minimum these facilities must conform to the most current technology as reflected in the current version of the Minnesota Pollution Control Agency's publication, "Protecting Water Quality in Urban Areas" and the current requirements found in the same agency's NPDES permits for storm water associated with construction activities.

9. Minimum Protection for Natural Wetlands.

A. Runoff must not be discharged directly into wetlands without appropriate quality (e.i., treated) and quantity runoff control, depending on the individual wetland's vegetation sensitivity. See the current version of the Minnesota Pollution Control Agency's publication, "Storm-Water and Wetlands: Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Storm-Water and Snow-Melt Runoff on Wetlands" for guidance.

B. Wetlands must not be drained or filled, wholly or partially, unless replaced by either restoring or creating wetland areas of at least equal public value. Compensation, including the replacement ratio and quality of replacement should be consistent with the requirements outlined in the Board of Water and Soil Resources rules that implement the Minnesota Wetland Conservation Act of 1991 including any and all amendments to it.

C. Work in and around wetlands must be guided by the following principles in descending order of priority:

- (1) Avoid both the direct and indirect impact of the activity that may destroy or diminish the wetland.
- (2) Minimize the impact by limiting the degree or magnitude of the wetland related activity.
- (3) Rectify the impact by repairing, rehabilitating, or restoring the affected wetland environment with one of at least equal public value.
- (4) Reduce or eliminate the adverse impact over time by preservation and maintenance operations during the life of the activity.

10. Models/Methodologies/Computations. Hydrologic models and design methodologies used for the determining runoff characteristics and analyzing storm water management structures must be approved by the city engineer. Plans, specifications and computations for storm water management facilities submitted for review must be sealed and signed by a registered professional engineer. All computations must appear in the plans submitted for review, unless otherwise approved by the city engineer.

208.06 REVIEW

The city engineer shall review the storm water pollution control plan.

1. Permit Required. If the city determines that the storm water pollution control plan meets the requirements of this ordinance, the city shall issue a permit valid for a specified period of time, that authorizes the land disturbance activity contingent on the implementation and completion of the storm water pollution control plan.

2. Permit Denial. If the city determines that the storm water pollution control plan does not meet the requirements of this ordinance, the city shall not issue a permit for the land disturbance activity.

A. All land use and building permits for the site in question must be suspended until the applicant has an approved storm water pollution control plan.

3. Permit Suspension and Revocation If the storm water pollution control plan is not being implemented the city can suspend or revoke the permit authorizing the land disturbance activity.

208.07 MODIFICATION OF PLAN

An approved storm water pollution control plan may be modified on submission of a written application for modification to the city, and after written approval by the city engineer. In reviewing such an application, the city engineer may require additional reports and data.

1. Records Retention. The city shall retain the written records of such modifications for at least three (3) years.

208.08 FINANCIAL SECURITIES

The applicant shall provide a financial security for the performance of the work, in conjunction with a building permit or land alteration permit, described and delineated on the approved grading plan involving the storm water pollution control plan and any storm water and pollution control plan related remedial work in, at a rate of three thousand dollars (\$3,000) per acre for the maximum acreage of soil that will be simultaneously exposed to erosion during the project's construction. (See the definitions of "exposed soil area" and "final stabilization" for clarification.) This security must be available prior to commencing the project. The form of the security must be:

A. By cash security deposited to the city for thirty percent (30%) of the total financial security when less than five (5) acres of soil will be simultaneously exposed. When over five (5) acres of soil will be simultaneously exposed to erosion, then the cash security increases to the first five thousand dollars (\$5,000) or ten percent (10%) of the total financial security, whichever is greater.

- B. The remainder of the financial security shall be placed either with the city, a responsible escrow agent, or trust company, at the option of the city, money, an irrevocable letter of credit, negotiable bonds of the kind approved for securing deposits of public money or other instruments of credit from one or more financial institutions, subject to regulation by the state and federal government wherein said financial institution pledges that the funds are on deposit and guaranteed for payment. This security shall save the city free and harmless from all suits or claims for damages resulting from the negligent grading, removal, placement or storage of rock, sand, gravel, soil or other like material within the city. The type of security must be of a type acceptable to the city.
- C. The city may request a greater financial security, if the city considers that the development site is especially prone to erosion, or the resource to be protected is especially valuable.
- D. If more soil is simultaneously exposed to erosion than originally planned, the amount of the security shall increase in relation to this additional exposure.

1. MAINTAINING THE FINANCIAL SECURITY

If at anytime during the course of the work this amount falls below 50% of the required deposit, the applicant shall make another deposit in the amount necessary to restore the deposit to the required amount within five (5) days. Otherwise the city may:

- A. Withhold the scheduling of inspections and/or the issuance of a Certificate of Occupancy.
- B. Revoke any permit issued by the city to the applicant for the site in question and any other of the applicant's sites within the city's jurisdiction.

2. PROPORTIONAL REDUCTION OF THE FINANCIAL SECURITY

When more than one-third of the applicant's maximum exposed soil area achieves final stabilization, the city can reduce the total required amount of the financial security by one-third, if recommended in writing by the city engineer. When more than two-thirds of the applicant's maximum exposed soil area achieves final stabilization, the city can reduce the total required amount of the financial security by two-thirds of the initial amount, if recommended in writing by the city engineer.

3. ACTION AGAINST THE FINANCIAL SECURITY

The city may act against the financial security, if any of the conditions listed below exist. The city shall use funds from this security to finance any corrective or remedial work undertaken by the city or a contractor under contract to the city and to reimburse the city for all direct cost incurred in the process of remedial work including, but not limited to, staff time and attorney's fees.

- A. The applicant ceases land disturbing activities and/or filling and abandons the work site prior to completion of the city approved grading plan.
- B. The applicant fails to conform to any city approved grading plan and/or the storm water pollution control plan as approved by the city, or related supplementary instructions.
- C. The techniques utilized under the storm water pollution control plan fail within one (1) year of installation.
- D. The applicant fails to reimburse the city for corrective action taken under 208.09.
- E. Emergency action under either 208.08.4 (below) or any part of 208.09.

4. EMERGENCY ACTION

If circumstances exist such that noncompliance with this ordinance poses an immediate danger to the public health, safety and welfare, as determined by the city engineer, the city may take emergency preventative action. The city shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the city may be recovered from the applicant's financial security.

5. RETURNING THE FINANCIAL SECURITY

Any unspent amount of the financial security deposited with the city for faithful performance of the storm water pollution control plan and any storm water and pollution control plan related remedial work must be released not more than one (1) full year after the completion of the installation of all such measures and the establishment of final stabilization.

208.09 NOTIFICATION OF FAILURE OF THE STORM WATER POLLUTION CONTROL PLAN

The city shall notify the applicant, when the city is going to act on the financial securities part of this ordinance.

1. NOTIFICATION BY THE CITY

The initial contact will be to the party or parties listed on the application and/or the storm water pollution control plan as contacts. Except during an emergency action under 208.08.4, forty-eight (48) hours after notification by the city or seventy-two (72) hours after the failure of erosion control measures, whichever is less, the city at its discretion, may begin corrective work. Such notification should be in writing, but if it is verbal, a written notification should follow as quickly as practical. If after making a good faith effort to notify the responsible party or parties, the city has been unable to establish contact, the city may proceed with the corrective work.

- A. There are conditions when time is of the essence in controlling erosion. During such a condition the city may take immediate action, and then notify the applicant as soon as possible.

2. EROSION OFF-SITE

If erosion breaches the perimeter of the site, the applicant shall immediately develop a cleanup and restoration plan, obtain the right-of-entry from the adjoining property owner, and implement the cleanup and restoration plan within forty-eight (48) hours of obtaining the adjoining property owner's permission. In no case, unless written approval is received from the city, shall more than seven (7) calendar days go by without corrective action being taken. If in the discretion of the city, the applicant does not repair the damage caused by the erosion, the city may do the remedial work required and charge the cost to the applicant.

3. EROSION INTO STREETS, WETLANDS OR WATER BODIES

If eroded soils (including tracked soils from construction activities) enter or appear likely to enter streets, wetlands, or other water bodies, prevention strategies, cleanup and repair must be immediate. The applicant shall provide all traffic control and flagging required to protect the traveling public during the cleanup operations.

4. FAILURE TO DO CORRECTIVE WORK

When an applicant fails to conform to any provision of 208.08 or 208.09 within the time stipulated, the city may take the following actions:

- A. Withhold the scheduling of inspections and/or the issuance of a Certificate of Occupancy.
- B. Suspend or revoke any permit issued by the city to the applicant for the site in question or any other of the applicant's sites within the city's jurisdiction.
- C. Direct the correction of the deficiency by city forces or by a separate contract. The issuance of a permit for land disturbance activity constitutes a right-of-entry for the city or its contractor to enter upon the construction site for the purpose of correcting erosion control deficiencies.
- D. All costs incurred by the city in correcting storm water pollution control deficiencies must be reimbursed by the applicant. If payment is not made within thirty (30) days after costs are incurred by the city, payment will be made from the applicant's financial securities as described in 208.08.

- E. If there is an insufficient financial amount in the applicant's financial securities as described in 208.08, to cover the costs incurred by the city, then the city may assess the remaining amount against the property. As a condition of the permit for land disturbance activities, the owner shall waive notice of any assessment hearing to be conducted by the city, concur that the benefit to the property exceeds the amount of the proposed assessment, and waive all rights by virtue of Minnesota Statute 429.081 to challenge the amount or validity of the assessment.

208.10 VARIANCE

In any case where, upon application of the responsible person or persons, the city finds that by reason of exceptional circumstances, strict conformity with this ordinance would be unreasonable, impractical, or not feasible under the circumstances; the city in its discretion may grant a variance therefrom upon such conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purposes of this ordinance. The public shall be given the opportunity for comment.

1. Variance Request. The variance request must be in writing in a form acceptable to the city.
2. Variance Public Notice. The variance request shall be public noticed in the normal manner used for city council meeting items, to allow the public an opportunity for comment.
3. Variance Determination. After the public has been given the right to comment, the variance shall either be approved or disapproved by a vote of the city council.
4. Variance Response. The variance response must be in writing, and include the justification for either granting or denying the requested variance. A favorable response shall also include any special conditions imposed by the city.
5. Time Limit. If the variance is not acted upon within one (1) year of being granted, the variance shall become void.
6. Revocation. If any of the variance's conditions are violated, the city may revoke the variance.

208.11 ENFORCEMENT

The city shall be responsible enforcing this ordinance.

1. Penalties. Any person, firm, or corporation failing to comply with or violating any of these regulations, shall be deemed guilty of a misdemeanor and be subject to a fine or imprisonment or both as defined in Chapter 901. All land use and building permits shall be suspended until the applicant has corrected the violation. Each day that a separate violation exists shall constitute a separate offense.

208.012 RIGHT OF ENTRY AND INSPECTION

1. Powers. The applicant shall promptly allow the city and their authorized representatives, upon presentation of credentials to:

- A. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys.
- B. Bring such equipment upon the permitted site as is necessary to conduct such surveys and investigations.
- C. Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site.
- D. Inspect the storm water pollution control measures.
- E. Sample and monitor any items or activities pertaining to storm water pollution control measures.
- F. Any temporary or permanent obstruction to the safe and easy access of such an inspection shall be promptly removed upon the inspector's request. The cost of providing such access shall be born by the applicant.

208.13 ABROGATION AND GREATER RESTRICTIONS

It is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance imposes greater restrictions, the provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

208.14 SEVERABILITY

The provisions of this ordinance are severable, and if any provisions of this ordinance, or application of any provision of this ordinance to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this ordinance must not be affected thereby.