



LAND DISTURBANCE PERMIT and SWPPP CHECKLIST

10 N. Bemiston Avenue • Clayton, Missouri 63105 • Phone (314) 290-8540 • Fax (314) 863-0296

Project Name: _____

Project Location: _____
(address & street name)

- Sites Equal to or Greater Than One Acre:** A Land Disturbance Permit is required for all sites with proposed land disturbance activities in an area equal to or greater than 1 acre (43,560 SF). This is a separate permit that is required in addition to any other City permits. Application and information regarding a Land Disturbance Permit can be obtained from the Public Works Department.
- This checklist shall only apply to projects that have an acre or more of land disturbance. Please refer to the checklist for Storm Water Pollution Prevention Plan (SWPPP) Requirements less than one acre.
- Is this site less than one acre but part of a larger common plan that will ultimately disturb one acre or more? No Yes (If yes, a Land Disturbance Permit shall be required.)
- A land disturbance permit (MORA00000) from Missouri Department of Natural Resources is required in addition to the land disturbance permit from the City of Clayton.
- The following is required for the submittal along with the Land Disturbance Permit Application:
 - \$50 non-refundable permit fee, plus \$300 SWPPP Review Fee.
 - Five Copies of the approved SWPPP with the requirements as noted within this document.
 - An anticipated project schedule indicating the length of the project.
 - Performance Bond depending on the area of land disturbance and schedule duration set by the Public Works Department in accordance with Section 430.040.1.a.1 of the City of Clayton Storm Water Control Requirements Code.
 - Certificate of Insurance in accordance with Section 430.040.1.a.2 of the City of Clayton Storm Water Control Requirements Code.
 - Proof of an issued land disturbance permit from Missouri Department of Natural Resources.

Guidelines for Erosion and Sediment Control Design

The following are guidelines that shall be followed in the design and/or must be depicted on the plans:

- a. Grading, erosion control practices, sediment control practices and watercourse crossings shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Department of Public Works.
- b. Cut and fill slopes shall be no greater than three to one (3:1), except as approved by the Department of Public Works to meet other community or environmental objectives.
- c. Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other Chapters of the City Code of Ordinances.
- d. Clearing techniques that retain existing vegetation to the maximum extent practicable shall be used and the time period for disturbed areas to be without vegetative cover shall be minimized to the extent practical to the satisfaction of the Department of Public Works.
- e. Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.



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f. Phasing shall be required on all sites deemed appropriate at plan review and as approved by the Department of Public Works.

g. Erosion control requirements shall include the following:

- (1) Soil stabilization shall be completed within five (5) days of clearing or inactivity in construction.
- (2) If seeding or another vegetative erosion control method is used, it shall become established within two (2) weeks or the Department of Public Works may require the site to be reseeded or a non-vegetative option employed.
- (3) Techniques shall be employed to ensure stabilization on steep slopes and in drainage ways.
- (4) Soil stockpiles must be stabilized or covered at the end of each workday.
- (5) The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
- (6) Techniques shall be employed to prevent the blowing of dust or sediment from the site.
- (7) Techniques shall be employed to divert upland runoff past disturbed slopes.

h. Sediment control requirements shall include:

- (1) Settling basins, sediment traps or tanks and perimeter controls.
- (2) Settling basins shall be provided for each drainage area with ten (10) or more acres disturbed at one time and shall be sized to contain 0.5 inch of sediment from the drainage area and be able to contain a 2-year, 24-hour storm. If the provision of a basin of this size is impractical, other similarly effective BMPs, as evaluated and specified the SWPPP, shall be provided.
- (3) Settling basins shall be designed in a manner that allows adaptation to provide long-term storm water management as required by the Department of Public Works.
- (4) Settling basins shall have stabilized spillways to minimize the potential for erosion of the spillway or basin embankment.
- (5) Protection for adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.

i. Watercourse protection requirements shall include:

- (1) Encroachment into or crossings of active watercourses/riparian areas and wetlands shall be avoided to the maximum extent practicable. Where applicable, all local, State and Federal permits and approvals shall be provided to the Department of Public Works prior to the issuance of a site disturbance permit.
- (2) Stabilization of any watercourse channels before, during and after any in-channel work.
- (3) If a defined watercourse is to be realigned or reconfigured, clearing and grubbing activities within fifty (50) feet of the watercourse shall not begin until all materials and equipment necessary to protect the watercourse and complete the work are on site. Once started, work shall be completed as soon as possible. Areas within fifty (50) feet of the watercourse shall be recontoured and revegetated, seeded or otherwise protected within five (5) working days after grading has ceased.



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- (4) All storm water conveyances shall be designed according to the criteria of the Metropolitan St. Louis Sewer District (MSD) and the necessary MSD permits obtained.
- (5) Stabilization adequate to prevent erosion shall be provided at the outlets of all pipes and paved channels.
- j. Construction site access requirements shall include:
 - (1) A temporary access road provided at all sites including a wash-down area supporting all active sites,
 - (2) Other measures required by Department of Public Works in order to ensure that sediment is not tracked onto public streets by construction vehicles or washed with wash effluent channeled directly into storm drains.
- k. Control requirements for construction materials, construction wastes and other wastes generated on site shall include provisions, satisfactory to the Department of Public Works, for:
 - (1) Spill prevention and control facilities for materials such as paint, solvents, petroleum products, chemicals, toxic or hazardous substances, substances regulated under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and any wastes generated from the use of such materials and substances, including their containers. Any containment systems employed to meet this requirement shall be constructed of materials compatible with the substances contained and shall be adequate to protect both surface and ground water.
 - (2) Collection and disposal of discarded building materials and other construction site wastes, including those listed in Subsection (2)(k)(1) above.
 - (3) Litter control.
 - (4) Control of concrete truck washouts.
 - (5) Assurance that on-site fueling facilities will adhere to applicable Federal and State regulations concerning storage and dispensers.
 - (6) Provision of sufficient temporary toilet facilities to serve the number of workers on site.

Requirements for the Storm Water Pollution Prevention Plan (SWPPP)

- a. The design requirements in Subsection (2) shall be taken into consideration when developing the Storm Water Pollution Prevention Plan. The SWPPP shall be integrated into the required site plan and will be reviewed as part of that submission. The site plan shall include the following:
 - (1) Name, address and telephone number of the site owner and the name, address and telephone number of the individual who will be in overall responsible charge of construction/development activities at the site.
 - (2) Site address or location description.
 - (3) A site map showing the outlines of the total project area, the areas to be disturbed, existing land uses, locations and names of surface water bodies, locations of temporary and permanent BMPs and such other information as the Department of Public Works may require.
 - (4) Existing contours of the site and adjoining strips of off-site property and proposed contours after completion of the proposed grading and development, based on United States Geological Survey datum, with established elevations at buildings, walks, drives, street and roads; and information on necessary clearing and grubbing, removal of existing structures, excavating, filling, spreading and compacting.



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- (5) A natural resources map identifying soils, forest cover and resources protected by the State of Missouri or St. Louis County.
- (6) An estimate of the runoff coefficient of the site prior to disturbance and the runoff coefficient after the construction addressed in the permit application is completed plus current and proposed impervious coverage.
- (7) Estimated grading quantity.
- (8) Details of the site drainage pattern both before and after major grading activities.
- (9) Construction access to site.
- (10) Description of BMPs to be utilized to control erosion and sedimentation during the period of land disturbance.
- (11) Description of BMPs to be utilized to prevent other potential pollutants such as construction wastes, toxic or hazardous substances, petroleum products, pesticides, herbicides, site litter, sanitary wastes and other pollutants from entering the natural drainage ways during the period of construction and land disturbance.
- (12) Description of BMPs that will be installed during land disturbance to control pollutants in storm water discharges that will occur after land disturbance activity has been completed.
- (13) Location of temporary off-street parking and wash down area for related vehicles.
- (14) Sources of off-site borrow material or spoil sites and all information relative to haul routes, trucks and equipment.
- (15) The anticipated sequence of construction and land disturbance activities, including installation of BMPs, removal of temporary BMPs, stripping and clearing; rough grading; construction of utilities, infrastructure and buildings; and final grading and landscaping. Sequencing shall identify the expected date(s) on which clearing will begin, the estimated duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures and establishment of permanent vegetation.
- (16) All erosion and sediment control measures necessary to meet the objectives of this Chapter throughout all phases of construction and after completion of site development. Depending upon the complexity of the project, the drafting of intermediate plans may be required at the close of each season.
- (17) Seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures.
- (18) Provisions for maintenance of control facilities.
- (19) Plans for responding to any loss of contained sediment to include the immediate actions the permittee will take in case of a containment failure. This plan must include a plan for documentation of actions and reporting to the Department of Public Works during the project.
- (20) Schedules and procedures for routine inspections of any structures provided to prevent pollution of storm water or to remove pollutants from storm water and of the site in general to ensure all BMPs are continually implemented and are effective.
- (21) Seal of a registered professional Engineer in the State of Missouri.
- (22) Benchmark information from the site survey.



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(23) Other information as required by the Director of Planning & Development Services or the Director of Public Works.

Grading, erosion control practices, sediment control practices and watercourse crossings shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Department of Public Works.

Place the following as General Notes:

Amendment of SWPPP: The permittee shall amend the Storm Water Pollution Prevention Plan whenever:

- 1) Design, operation or maintenance of BMPs is changed;
- 2) Design of the construction project is changed that could significantly affect the quality of the storm water discharges;
- 3) Site operator's inspections indicate deficiencies in the SWPPP or any BMP;
- 4) Inspections by the City or by the Missouri Department of Natural Resources Indicate deficiencies in the SWPPP or any BMP;
- 5) The SWPPP is determined to be ineffective in significantly minimizing or controlling erosion or excessive sediment deposits in streams or lakes;
- 6) The SWPPP is determined to be ineffective in preventing pollution of waterways from construction wastes, chemicals, fueling facilities, concrete truck washouts, toxic or hazardous materials, site litter or other substances or wastes likely to have an adverse impact on water quality;
- 7) Total settleable solids from a storm water outfall exceeds 0.5 ml/L/hr if the discharge is within the prescribed proximity of a "Valuable Resource Water" as defined by the MDNR;
- 8) Total settleable solids from a storm water outfall exceeds 2.5 ml/L/hr for any other outfall; or
- 9) The City of Clayton or the Missouri Department of Natural Resources determines violations of water Quality Standards may occur or have occurred.

Construction Responsibilities:

- 1) Notify all contractors and other entities (including utility crews, city employees, or their agents) who will perform work at the site, of the existence of the SWPPP and what actions or precautions shall be taken while on site to minimize the potential for erosion and the potential for damaging any BMP;
- 2) Determine the need for and establish training programs to ensure that all site workers have been trained, as a minimum, in erosion control, material handling and storage, and housekeeping; and
- 3) Provide copies of the SWPPP to all parties who are responsible for installation, operation or maintenance of any BMP.



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4) Maintain a current copy of the SWPPP on the site at all times.

Reviewed By: _____

Date: _____