

CITY OF MADISON, WISCONSIN

AN ORDINANCE \_\_\_\_\_

PRESENTED  
REFERRED

October 3, 2017  
BPW \_\_\_\_\_

Amending numerous sections of Chapter 37, the Public Stormwater System Including Erosion Control.

Drafted by: Doran Viste

Date: September 25, 2017

SPONSOR: Ald. DeMarb

DRAFTER'S ANALYSIS: This ordinance makes numerous changes to Chapter 37 to update the code requirements. Among these changes are updated and new definitions for development, existing development, new development and redevelopment to clarify how different types of development activity need to comply with this ordinance with regard to storm water management. These definition changes help create more uniformity with the Dane County Storm Water Ordinances. They also allow for an increase in the annual sediment removal city wide from redeveloped sites. This is at the expense of a slight decrease in infiltration from new development sites. This is beneficial as it will aid the city in meeting the EPA municipal storm water permit requirements. Additionally, property owners are being specifically required to install private storm systems in accordance with approved plans, and the City is being given the authority to resolve drainage problems so that a system is functioning properly, including constructing improvements to a private system to bring the system in compliance with the approved plans. Certain street reconstruction projects with land disturbance over one acre will be required to comply with sediment removal and detention requirements. Sediment removal and detention requirements apply if the street reconstruction adds 20,000 sf or more impervious area or the street reconstruction eliminates an existing ditch conveyance system that serves the existing street. Stormwater management annual reports will be required to include a standard stormwater management summary template. Finally, oil and grease control requirements are being clarified for new outdoor parking facilities exceeding a cumulative 40 parking stalls or include exposed drive up windows. These changes will go into effect on January 1, 2018.

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The Common Council of the City of Madison do hereby ordain as follows:

1. Section 37.04 entitled "Definitions" of the Madison General Ordinances is amended by amending therein as follows:

"Development means any of the following activities:

- ~~(a) Structural development, including construction of a new building or other structures;~~
- ~~(b) Expansion or alteration of an existing structure that results in an increase in the surface dimensions of the building or structure;~~
- ~~(c) Land-disturbing activities; or~~
- ~~(d) Creation or expansion of impervious surface.~~
- (a) New development;
- (b) Redevelopment; or,
- (c) Existing development."

Existing Development means buildings and other structures and impervious area existing prior to ordinance adoption October 19, 1982 as it pertains to storm water detention (rate control). Existing

Approved as to form:

Development means buildings and other structures and impervious area existing prior to August 22, 2001 as it pertains to the impervious area threshold, twenty thousand (20,000) square feet, for all other storm water management requirements.

New Development means any of the following activities:

- (a) Structural development, including construction of new building(s) or other structure(s);
- (b) Land disturbing activities not considered redevelopment; or,
- (c) Creation or expansion of impervious surface.

Pre-development refers to the extent and distribution of land cover types present before the initiation of land-development activity, assuming that all land uses prior to land-disturbing activity are in “good” condition as described in the Natural Resources Conservation Service Technical Release 55, “Urban Hydrology for Small Watersheds” (commonly known as TR-55). This term is used to match pre- and post-development stormwater peak flows as required by the ordinance. In a situation where cumulative impervious surface created after ~~the adoption of this ordinance~~ October 19, 1982 exceeds the twenty thousand (20,000) square feet threshold, the pre-development conditions shall be those prior to any land disturbance.

Redevelopment means any of the following activities:

- (a) Construction, alteration or improvement exceeding four thousand (4,000) square feet of land disturbance performed on sites where the existing site is predominantly developed as commercial, industrial, institutional or multifamily residential uses and the proposed development is replacing older development.
- (b) Construction, alteration or improvement exceeding four thousand (4,000) square feet of land disturbance performed on sites where the existing site is predominantly developed as commercial, industrial, institutional or multifamily residential uses and the creation or expansion of impervious surface physically cannot exceed twenty thousand (20,000) square feet beginning August 22, 2001.
- (c) Any combination of (a) and (b) above. Should the site have twenty thousand (20,000) square feet or more of land available for the creation or expansion of impervious surface since August 22, 2001 then the project may include a mix of new development and redevelopment.”

2. Subdivision (b) entitled “Charges, Specifications and Maintenance of the Connection” of Subsection (7) entitled “Connection to the Public Stormwater System” of Section 37.05 entitled “The Public Stormwater System” of the Madison General Ordinances is retitled “Private Site Plan and Treatment System Design, Review, Maintenance and Enforcement.”

3. Paragraph 8. of retitled Subdivision (b) entitled “The Public Stormwater System” of the Madison General Ordinances is retitled “Private Site Plan and Treatment System Design, Review, Maintenance and Enforcement” of Subsection (7) entitled “Connection to the Public Stormwater System” of Section 37.05 entitled “The Public Stormwater System” of the Madison General Ordinances is amended to read as follows:

- “8. The maintenance of the private storm sewer, ~~or~~ building storm sewer, and/or best management practices shall be the responsibility of the property owner on whose property they exist. Every private storm sewer, building storm sewer, and best management practice shall be properly installed in accordance with the plans approved by City Engineering and shall be maintained in good working condition, free from defects, leaks and obstructions, and in accord with the maintenance agreement recorded against the property, if applicable.
  - a. Where existing private storm sewer, building storm sewer, and/or best management practices are in a state of disrepair, not constructed in accord with approved plans, or present an obstruction to the drainage system, and the resulting drainage overflows cause damage to the roadway or adjacent public or private lands, the Administrative Authority is authorized to resolve the drainage ~~obstruction~~ problem such that the system is functioning in accord with the approved designed. Authorized actions include but are not limited to: removal of any drainage obstructions, at existing inlets, at existing ditch lines and the like; regrading of existing ditch lines; ~~and~~ repairing best management practices to allow for positive drainage; and construction of improvements to the system such that they are constructed in

accordance with the approved plans. The Administrative Authority may proceed as follows to complete the work:

- i. Where, in the opinion of the Administrative Authority, a situation exists that could adversely affect the health and safety of the public and/or cause significant damage to public or private property, the Administrative Authority is authorized to enter private property and correct ~~resolve the situation and the~~. ~~The City shall will~~ special charge the full cost of the completed work in accord with Sec. 4.09(13), MGO.
  - ii. Where, in the opinion of the Administrative Authority, the situation affects only the property on which the problem exists, and the needed repair is not to a best management practice that is part of the approved stormwater management plan, the Administrative Authority may proceed to complete the work provided the owner of the affected property signs a completed waiver of Notice and Hearing for imposition of a special charge to pay for the cost of the work.
  - iii. Where, in the opinion of the Administrative Authority, the situation on one (1) property affects the drainage on other properties but does not threaten the health and safety of the public or threaten to cause significant damage to public or private property, or where the required maintenance is on a best management practice that is part of the approved stormwater management plan, the Administrative Authority may proceed in accord with Sec. 27.05, MGO, and order the owner of the property causing the problem to correct the situation.
- b. Any property owner required to have a Best Management Practice or a maintenance agreement on the property shall submit to the City Engineer an annual report reviewing the condition of that practice and the maintenance performed during the past calendar year. This report shall be submitted by June 1 and be sealed by a Professional Engineer currently licensed in the State of Wisconsin.

Where a recorded maintenance agreement exists, which specifies the annual inspection requirements, that agreement shall be the minimum information required. Where a maintenance agreement does not exist, the City Engineer shall make available inspection forms and maintenance guidelines for the most common types of stormwater management BMP's. These will be considered the minimum inspection and maintenance standards acceptable for the specific sites developed prior to maintenance agreements being required. ~~The~~ inspection forms will also be accepted for those properties with maintenance agreements, provided the minimum inspection and maintenance standards match that proscribed in the agreement."

4. Subsection (3) entitled "Land-Disturbing Activities Subject to Stormwater Management" of Section 37.06 entitled "Land-Disturbing Activities Subject to Erosion Control and Stormwater Management" of the Madison General Ordinances is amended to read as follows:

- "(3) Land-Disturbing Activities Subject to Stormwater Management. Unless otherwise exempted by Sec. 37.06(4), a stormwater management permit under Sec. 37.11 shall be required, and the noted stormwater management provisions of Sec. 37.09 shall apply, for the following activities within the City:
- (a) Development. Any development(s) commenced after ~~the adoption date of this ordinance~~ October 19, 1982 that either
    1. Results in the addition of twenty thousand (20,000) square feet of new impervious surface to the site; or,
    2. Arises from the development of a previously developed or partially developed site(s) and results in a new site(s) condition with a total cumulative addition of twenty thousand (20,000) square feet of new impervious surface, since August 4~~22~~, 2001, shall meet all the provisions of Sec. 37.09.
  - (b) Land Subdivision. Any subdivision of land, as defined by Sec. 16.23(2) of the Madison General Ordinances, which requires plat approval or any certified survey for property intended for commercial or industrial use.
  - (c) Redevelopment. Any development that meets the standards for redevelopment, as defined in Sec. 37.04, shall meet the stormwater management performance standards of Sec. 37.09(1), (2), (3)(a) and (b).
  - (d) Other Land-Development Activities. Any development activity, including but not limited to the redevelopment or alteration of existing buildings and other structures, which the

Administrative Authority determines may exceed the safe conveyance capacity of the existing drainage facilities and/or receiving body, significantly increase downstream runoff volumes, flooding, soil erosion, water pollution or property damage, or significantly impact a lake, stream, wetland, or other sensitive area, shall meet all the provisions of Sec. 37.09.

- (e) Site Disturbance/Grading. Any land disturbance equal to or greater than one (1) acre, regardless of the amount of impervious area that is part of the project after construction, shall be subject to Sec. 37.08 ~~and all the provisions of Sec. 37.09~~.
- (f) Street Construction and Reconstruction. Any street construction or reconstruction exceeding twenty thousand (20,000) square feet of ~~new-added~~ impervious area that is not directly associated with a new plat or CSM development ~~and does not result in the removal of a defined ditch section that drained the existing street~~ is subject to Secs. 37.09(1), (2) & (4). Any street reconstruction exceeding 1 acre of land disturbance that is not directly associated with a new plat or CSM development and results in the removal of a defined ditch section that drained the existing street is subject to Secs. 37.09(1), (2) & (3) with regard to total suspended solids (TSS) control (sediment removal) and rate control (detention).
- (g) Resurfacing. A site improvement project that requires zoning approval and has thirty thousand (30,000) square feet or more of parking lot resurfacing as defined in Sec. 37.04 shall meet the stormwater management performance standards of Sec. 37.09(1), (2), (3)(a) and (3)(b)."

5. Subdivision (a) of Subsection (1) entitled "Management Report Required" of Section 37.09 entitled "Stormwater Management Report Requirements" of the Madison General Ordinances is amended to read as follows:

- "(a) Every applicant for a stormwater management permit shall submit a report documenting the system(s) and measures proposed to control stormwater runoff from the site. Included in this report shall be a completed standard stormwater management summary template. This template shall be available at: <http://www.cityofmadison.com/engineering/stormwater/> under the stormwater regulations section. The stormwater management report shall be completed and sealed by a Professional Engineer currently licensed in the State of Wisconsin."

6. Subdivisions (h) through (l) of Subsection (2) entitled "Report Materials" of Section 37.09 entitled "Stormwater Management Report Requirements" of the Madison General Ordinances is amended to read as follows:

- ~~"(h) A description of methods to control oil and grease control or written justification for not providing such control;~~
- ~~(j) If required under Sec. 37.09(3)(a), the plans to provide required sediment (TSS) removal;~~
- ~~(k) If required under Sec. 37.09(3)(f), the plans to provide required infiltration;~~
- (j) A maintenance plan and schedule for all permanent stormwater management practices as recorded on the affidavit required in Sec. 37.11(3);-
- (km) Where the area being developed is in or adjacent to an area prone to flooding (as determined by the Administrative Authority) the applicant shall provide detailed survey and proposed site plan information on the lowest entrance openings to the building (including underground parking). Further, the applicant shall certify to the Administrative Authority that the building has been designed to provide flood protection to an elevation a minimum of one half a foot (0.5') above the regional flood elevation or two (2) feet above the adjacent sidewalk elevation. This shall include permanent flood protection of access to underground parking structures and areas served by on site stormwater systems connected to the public system (where the public system in the opinion of the Administrative Authority is known to be lacking sufficient capacity). Where pumping systems are used, the pumping plans shall be submitted to the Administrative Authority and shall be stamped by a Professional Engineer in the State of Wisconsin. These plans shall provide and document that the pump system can adequately control the anticipated flows that result from a 100-year storm event. Alternatively, the pumping plan may be certified by a Professional Engineer and the pump design and installation plan itself certified by a Master Plumber as defined by Wisconsin Statute;-
- (ln) A completion date for all proposed stormwater management devices to be constructed and in service on the site. Failure to complete the project and bring the devices into service by the approved date shall constitute a violation of this section."

7. Paragraph 1 of Subdivision (a) entitled "Sediment Control" of Subsection (3) entitled "Stormwater Management Performance Standards" of Section 37.09 entitled "Stormwater Management Report Requirements" of the Madison General Ordinances is amended to read as follows:

"1. For new development, by design:

- a. Reduce, to the maximum extent practicable, total suspended solids load leaving the site by eighty percent (80%), based on the average annual rainfall, as compared to no runoff management controls. This shall require the use of a continuous model such as SLAMM, P8 or equivalent, and the use of approved grain size distribution curves and rainfall data. These files are managed and maintained by the Wisconsin Department of Natural Resources and are available on its website.

No person shall be required to exceed an eighty percent (80%) total suspended solids reduction, for the site as a whole, to meet the requirements of this subdivision. The analysis needed for this shall use approved procedures and assume no re-suspension of particles. If the applicant proposes to use treatment devices in series, then the analysis shall require the use of a modeling program which provides for tracking of the particulates trapped by each device used in series. If a program tracking particulate distributions is not used, then the Administrative Authority shall not allow the use of serial redundant devices."

8. Subdivision (b) entitled "Oil and Grease Control" of Subsection (3) entitled "Stormwater Management Performance Standards" of Section 37.09 entitled "Stormwater Management Report Requirements" of the Madison General Ordinances is amended to read as follows:

- "(b) Oil and Grease Control. For all stormwater management measures at commercial or industrial developments and all other uses where the potential for pollution by oil or grease, or both, exists, the first one-half (0.5) inches of runoff will be treated using the best oil and grease removal technology available. Oil and grease control shall be required for all parking facilities exposed to the elements that have a cumulative number of parking stalls greater than or equal to forty (40) with all parking areas constructed since August 22, 2001 receiving treatment. Sites with exposed drive up windows or any other sites deemed high potential for oil and grease deposition by the Administrative Authority shall also receive treatment. The Administrative Authority may waive this requirement only when the applicant can demonstrate that the installation of such practices is not necessary."

9. Subdivision (c) entitled "Runoff Rate Control" of Subsection (3) entitled "Stormwater Management Performance Standards" of Section 37.09 entitled "Stormwater Management Report Requirements" of the Madison General Ordinances is amended to read as follows:

- "(c) Runoff Rate Control. Runoff rate control is required for new development, and redevelopment upon an incremental cumulative increase in new impervious area equal or exceeding twenty thousand (20,000) square feet. Incremental increases over a period of years, such that multiple small incremental increases in new impervious area eventually exceeds the twenty thousand (20,000) square foot criteria, shall be retroactively controlled once the cumulative increase in new impervious area meets or exceeds twenty thousand (20,000) square feet.

Hydrologic calculations for event driven analysis shall be completed according to the methodology described in the Natural Resources Conservation Service's Technical Release 55, "Urban Hydrology for Small Watersheds" (commonly known as TR-55), for analysis requiring average annual results SLAMM or other Technical Standards and Specifications as provided in Sec. 37.10(2). For agricultural land subject to this section, the maximum runoff curve number (RCN) used in such calculations shall be 51 for hydrologic soil group (HSG) A, 68 for HSG B, 79 for HSG C, and 84 for HSG D. The TR-55-specified curve numbers for other land uses shall be used. Heavily disturbed sites will be lowered one permeability class for hydrologic calculations. Lightly disturbed areas require no modification."

10. This ordinance shall become effective on January 1, 2018.