

UNIFIED DEVELOPMENT CODE  
(STORM WATER MANAGEMENT SYSTEMS)

AN ORDINANCE TO AMEND SUBSECTIONS 5.22.2 AND 5.22.3 OF SECTION 5.22 OF CHAPTER 55 (UNIFIED DEVELOPMENT CODE) OF TITLE V OF THE CODE OF THE CITY OF ANN ARBOR

The City of Ann Arbor ordains:

Section 1. That Subsections 5.22.2 and 5.22.3 of Section 5.22 of Chapter 55 (Unified Development Code) of Title V of the Code of the City of Ann Arbor be amended as follows:

**5.22.2 ~~Single or Two-Family Residential~~ Storm Water Management Compliance**

A Storm Water Management System meeting the criteria of Section 5.22.3 is required for:

A. Any form of construction or removal or disturbance of any Natural Features that requires approval for any site plan, final preliminary plat, or PUD site plan.

B. When a Grading Permit is required but not a site plan, final preliminary plat, or PUD site plan, except Grading Permits solely for vegetation clearing, Building demolition, removal of Impervious Surfaces, or other activities approved by the PSA Administrator.;

A Site with one Single or Two-Family residential dwelling, with or without accessory Structure(s), that adds 200 square feet or more of Impervious Surface, on-site Storm Water Management Systems shall be required and shall meet the following requirements:

A. Retention/infiltration of the first flush storm events for the net increase in Impervious Surface, in compliance with the Rules of the WCWRC.

B. Redirection of all downspouts to vegetated areas or other approved point, but not to Impervious Surfaces, as is required by the "Drainage Nuisances and Complaints" Section of Chapter 100 of City Code.

C.A. On-site storm water control is not required for new homes in a site planned Development for which a development-wide system that complies with the storm water management requirements of this chapter has been installed and accepted.

Commented [DA1]: Moved to compliance and table 5.22-1

Commented [DA2]: Moved to table 5.22-1

Commented [DA3]: Moved to table 5.22-1

Commented [DA4]: Moved to table 5.22-1

**5.1.2 Storm Water Management Systems**

Compliance with the Storm Water Management System criteria of this Section 5.22 is required for any form of construction or removal or disturbance of any Natural Features that requires approval for any site plan, final preliminary plat, or PUD site plan, for Grading Permits that do not require site plan, final preliminary plat, or PUD site plan approval.

Commented [DA5]: Moved to compliance

Site plans for Planning Manager that do not increase the total impervious area of the Site and are not within the jurisdiction of the WCWRC shall be exempt from the Storm Water Management System requirements of this Section 5.22.

Commented [DA6]: Moved to table 5.22-1

#### A. Jurisdiction

Commented [DA7]: Heading for clarity

##### 1. WCWRC

Commented [DA8]: Heading for clarity

The following sites are within ~~For Sites~~ within the jurisdiction of the WCWRC: ~~or~~ Sites with existing or proposed Storm Water Management Systems under multiple ownership or for multiple parcels, including but not limited to site condominiums; or residential developments containing greater than four Dwelling Units within two or more detached Structures; or Sites with Storm Water Management Systems serving more than one parcel; ~~the Storm Water Management System shall be reviewed and receive preliminary plan approval from the WCWRC prior to site plan, final preliminary plat, or PUD site plan approval by the City. For Sites that require review by the WCWRC, a permit or letter of final plan approval from the WCWRC Office shall be obtained prior to issuance of a Grading Permit by the City. Any exceptions to the Rules of the WCWRC listed in this Section 5.22 are not applicable to reviews performed by the WCWRC.~~

Commented [DA9]: Moved to Approval

Commented [DA10]: Moved to table 5.22-1

##### 2. City of Ann Arbor

Commented [DA11]: Heading for clarity

Any site that is not in the jurisdiction of the WCWRC is in the jurisdiction of the City of Ann Arbor for storm water management purposes. ~~For Sites other than described in Section 5.22.2 and 5.22.3A, on-site Storm Water Management Systems shall be required for any Site that is the subject of a site plan, final preliminary plat, or PUD site plan or Grading Permit. The Storm Water Management System shall be reviewed and receive approval from the PSA Administrator and meet the design criteria stated in the Rules of the WCWRC, with the following exceptions:~~

Commented [DA12]: Moved to compliance

Commented [DA13]: Moved to Approval

**B. Requirements**

Commented [DA14]: Heading for clarity

**Table 5.22-1 Storm Water Management Requirements**

Commented [DA15]: Table for clarity

Site Type	Jurisdiction	Site Area	Impervious Area Impact	Storm Water Management System	Exceptions or Alternatives
Single and Two-Family Residential	WCWRC and City of Ann Arbor	Any Size	Adding 200 square feet or more of impervious area	First Flush for total net increase of Impervious Surface, and all downspouts directed to vegetated areas or other approved point in compliance with Chapter 100 of City Code "Drainage Nuisances and Complaints" section.	Not required for new homes in a site planned development with compliant development-wide system
All Other	WCWRC	Any size	Any increase in impervious area	As required by Rules of WCWRC	None
	City of Ann Arbor	Over 1 acre	Any increase in impervious area	As required by Rules of WCWRC	See 5.22.3.E
		1 acre or less	No net increase in impervious area	No changes to any existing storm water management system required	Not applicable
			Any increase in impervious area	As required by Rules of WCWRC	See 5.22.3.E

**C. Standards and Procedures**

Commented [DA16]: Heading for clarity

Storm Water Management Systems shall meet the design criteria stated in the Rules of the WCWRC unless an alternative as provided in Paragraph D below is approved.

Commented [DA17]: Added for clarity

For Sites that contain existing Impervious Surfaces, adding or removing and replacing Impervious Surfaces solely for the purpose of compliance with the Americans with Disabilities Act, or compliance with the State of Michigan Barrier Free Design Rules (Public Act 1 of 1966, as amended) shall be exempt from the Storm Water Management System requirements of this chapter.

Commented [DA18]: Deleted per amendment

1. Sites within the City of Ann Arbor jurisdiction that are required to comply with this section shall provide a storm water management system meeting the design criteria stated in the Rules of the WCWRC for the following storm events as provided in Table 5.22-2, proposed to contain:

Commented [DA19]: Added for clarity

**Table 5.22-2: Storm Water Management within City of Ann Arbor Jurisdiction**

Impervious Area	Storm Event
Less than 10,000 square feet	Retention/infiltration of first flush storm event
10,000 square feet or more and less than 15,000 square feet	Retention/infiltration only of first flush and detention only of bankfull storm events.
15,000 square feet and greater	Retention/infiltration of the first flush, and detention of bankfull, and 100-year storm event. Detention facilities designed for the 100-year storm event shall include a sediment forebay.

Commented [DA20]: Table for clarity

1-2.

- a. Impervious Surfaces less than 10,000 square feet require retention/infiltration only of the first flush storm events.
- b. Impervious Surfaces equal to or greater than 10,000 square feet and less than 15,000 square feet require retention/infiltration only of the first flush and detention only of bankfull storm events.
- c. Impervious Surfaces equal to or greater than 15,000 square feet require retention/infiltration of the first flush, and detention of bankfull, and 100 year storm event. Detention facilities designed for the 100 year storm event shall include a Sediment forebay.

Commented [DA21]: Moved to table 5.22-2

2. Public Sidewalks are not required to be included in the storm water management calculations.

Commented [DA22]: Deleted per amendments

3. If the Site is located in an historic district designated by the City, then the Roof area of the historic Building(s) is not required to be included in the storm water management calculations. This exemption does not apply to noncontributing Structures within the historic district.

Commented [DA23]: Deleted per amendments

4-3. Grading Permits, solely for vegetation clearing, Building demolition, removal of Impervious Surfaces, or other activities approved by the PSA Administrator, shall be exempt from the Storm Water Management Systems requirements of this chapter.

Commented [DA24]: Moved to 5.22.2 Compliance

5-4. On a Site that requires the installation of a Storm Water Management System the detention facility shall be installed and stabilized prior to the issuance of building permits. The PSA Administrator may deem it

necessary to modify the timing of installation of the detention facility when conditions, such as a detention facility that is integral to the Structure of a new Building, prevent installation prior to building permits. As-built verification from an Architect or Professional Engineer shall be submitted to the PSA Administrator for approval prior to issuance of any certificate of occupancy. The as-built verification shall include: elevations and volumes, outlet sizes and elevations, Stabilization information, and signature and seal of an Architect or Professional Engineer.

- 6-5. Existing Wetlands shall not be modified for the purposes of Storm Water Management Systems unless it is determined that the existing Wetland is not regulated by Sections 5.29.3 and 5.29.4. Where modifications to Wetland areas are allowed, the existing storage shall be maintained and shall not count toward meeting the requirements of this section.
- 7-6. When residential Lots or units are proposed to be created, the runoff coefficients shall take into account the future Impervious Surfaces of these building Sites within the storm water management calculations.
- 8-7. Storm Water Management System facilities shall be designed so that any discharge of storm water from the facility, which does not empty directly into a drain, shall be converted to sheet flow over the ground through the use of an energy dissipater, in a manner which will preclude Erosion, or other approved method as determined by the PSA Administrator.
- 9-8. Prior to the issuance of a Grading Permit, the developer of the Storm Water Management System shall provide the City with an agreement, satisfactory to the City Attorney, that if maintenance is not performed to the reasonable satisfaction of the PSA Administrator, the City may, after posting reasonable notice on the Site, perform the maintenance activities and charge all costs to the benefited properties. If the costs remain unpaid for 60 days, the City may assess those costs to the benefited properties as a single Lot assessment under City Code Section 1:292.

**D. Approval**

**1. WCWRC Jurisdiction**

Sites in the jurisdiction of the WCWRC shall be reviewed and receive preliminary plan approval from the WCWRC prior to site plan, final preliminary plat, or PUD site plan approval by the City, and a permit or letter of final plan approval from the WCWRC shall be obtained prior to issuance of a grading permit by the City.

**2. City of Ann Arbor Jurisdiction**

Sites in the jurisdiction of the City of Ann Arbor shall be reviewed and receive approval from the PSA Administrator.

**A.E. Alternatives**

Within the D1 and D2 zoning districts, or Sites outside the D1 and D2 zoning districts that contain existing Impervious Surfaces, alternative methods of storm

Commented [DA25]: Heading for clarity

Commented [DA26]: Heading for clarity

water detention may be allowed by the approving body if each of the following conditions are met. When site constraints make it infeasible to meet the full detention volume requirement, the PSA Administrator may approve a lower detention volume if each of the following conditions are met:

Commented [DA27]: amendment

1. Control of the first flush storm event has been provided.
2. A determination is provided by ~~an Architect~~ or Professional Engineer that Storm Water Management Systems have been provided on-site to the maximum extent feasible and that it is not feasible to provide any additional detention volume due to Site constraints including but not limited to existing Buildings, ~~loss of existing parking below that required Section 5.19~~ or protection of Natural Features.
3. The alternative method of storm water detention is consistent with the intent of this Section 5.22 and the goals of the Rules of the WCWRC, as determined by the PSA Administrator.
4. The ~~alternative proposed~~ method of storm water detention ~~and reason for not meeting the full detention volume~~ is ~~specifically approved~~ documented on a Grading Permit, site plan, final preliminary plat, or PUD site plan ~~in a separate action by the approving body~~.
- ~~5. The alternative method of storm water detention provides an equal or greater amount of resources, in the form of money or land or both, to the City that are at least as beneficial as the required volume of storm water detention that is not being provided on-site. The resources required shall be computed for residential sites at \$2.00 per square foot and commercial sites at \$2.50 per square foot of Impervious Surface not served by a detention facility meeting the design criteria of this section.~~
- ~~6. The alternative method of storm water detention is provided through one or both of the following methods:~~
  - ~~a. The Applicant donates money to the City for the express purpose of improving Storm Water Management Systems within the same watershed such as, but not limited to, regional detention, regional water quality improvements facilities, or increasing Floodplain storage capacity. The money may not be used for maintenance of existing public facilities.~~
  - ~~b.a. The Applicant donates land to the City for the express purpose of improving Storm Water Management Systems within the same watershed. The donation of land is subject to acceptance by City Council. The donated land shall be suitable to be effectively used for improvements of the storm water system within the same watershed and pass Phase I and II Environmental Site Assessments prior to acceptance by City Council. The value of the land shall be determined by an appraisal prepared by an independent appraiser acceptable to the City Administrator. The appraisal will be submitted to the City Administrator who may use an independent review appraiser to assist with review.~~

Commented [DA28]: Deleted per amendment

Commented [DA29]: Deleted per amendment

- ~~B. On a Site that requires the installation of a Storm Water Management System the detention facility shall be installed and stabilized prior to the issuance of building permits. The PSA Administrator may deem it necessary to modify the timing of installation of the detention facility when conditions, such as a detention facility that is integral to the Structure of a new Building, prevent installation prior to building permits. As-built verification from an Architect or Professional Engineer shall be submitted to the PSA Administrator for approval prior to issuance of any certificate of occupancy. The as-built verification shall include: elevations and volumes, outlet sizes and elevations, Stabilization information, and signature and seal of an Architect or Professional Engineer.~~
- ~~C. Existing Wetlands shall not be modified for the purposes of Storm Water Management Systems unless it is determined that the existing Wetland is not regulated by Sections 5.29 and 5.29.1. Where modifications to Wetland areas are allowed, the existing storage shall be maintained and shall not count toward meeting the requirements of this section.~~
- ~~D. When residential Lots or units are proposed to be created, the runoff coefficients shall take into account the future Impervious Surfaces of these building Sites within the storm water management calculations.~~
- ~~E. Storm Water Management System facilities shall be designed so that any discharge of storm water from the facility, which does not empty directly into a drain, shall be converted to sheet flow over the ground through the use of an energy dissipater, in a manner which will preclude Erosion, or other approved method as determined by the PSA Administrator.~~
- ~~F. Prior to the issuance of a Grading Permit, the developer of the Storm Water Management System shall provide the City with an agreement, satisfactory to the City Attorney, that if maintenance is not performed to the reasonable satisfaction of the PSA Administrator, the City may, after posting reasonable notice on the Site, perform the maintenance activities and charge all costs to the benefited properties. If the costs remain unpaid for 60 days, the City may assess those costs to the benefited properties as a single Lot assessment under City Code Section 1.202.~~

Commented [DA30]: Moved to Standards

Commented [DA31]: Moved to standards

Commented [DA32]: Moved to standards

Commented [DA33]: Moved to standards

Commented [DA34]: Moved to standards

Section 2. This ordinance shall take effect and be in force on and after ten days from legal publication.