



**MUNICIPAL CODE OF THE CITY OF HOOVER, ALABAMA**  
**APPENDIX II - SUBDIVISION REGULATIONS**  
**APPENDIX A. DESIGN STANDARDS**  
**ARTICLE IX. STORMWATER MANAGEMENT**



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**ARTICLE IX. – STORMWATER MANAGEMENT**

1. *Minimum Design Standards.* All applicable new development and redevelopment in the City of Hoover subject to stormwater management shall meet the minimum design requirements set forth in this section.
2. *Waiver Request.* Certain developments may qualify for a waiver from the stormwater management requirements set forth herein.
  - a. Developments that meet one of the following criteria may request a waiver:
    - i. An existing development that has been constructed or obtained an approved permit prior to February 1, 2020;
    - ii. A development that is part of a larger existing development that has been approved prior to February 1, 2020 and all stormwater management facilities were constructed as part of the larger existing development; or,
    - iii. A redevelopment that reduces the existing impervious area within the redevelopment. Total reduction must meet or exceed 1% of the existing impervious area to qualify for the waiver.
  - b. A development that meets criteria (i) or (ii) may apply for a waiver by completing an Existing Development Post Construction Stormwater Management Waiver Request Form. A development that meets criteria iii may apply for a waiver by completing a Development Post Construction Stormwater Management Impervious Area Waiver Request Form.
  - c. In order for a development to be considered for a waiver, the appropriate waiver request form shall be completed and submitted to the city's engineering department for review and approval. All supporting documentation (i.e., master plan, basin maps, hydrologic and hydraulic calculations, development plan approval, etc.) shall be submitted with the applicable waiver request form.
3. *Water Quality Requirements.*
  - a. A Water Quality Volume (WQ<sub>v</sub>) must be accounted for on each development and BMPs must be utilized to store and treat the WQ<sub>v</sub>. The required WQ<sub>v</sub> is based upon the first 1.1 inches of rainfall that occurs on the development. The WQ<sub>v</sub> can be estimated as described below:

$$WQ_v = 1.1 \text{ inches per acre of additional impervious area}$$



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- b. For example: An existing 12.5-acre site planned for re-development contains 3 acres of existing impervious area. The proposed development will contain 7 acres of impervious area in the post-development condition. The required  $WQ_v$  shall be calculated as follows:

$WQ_v = 1.1 \text{ inches} \times 4 \text{ acres of additional impervious area}$

$WQ_v = 1.1 \text{ inches} \times (1 \text{ foot} / 12 \text{ inches}) \times 4 \text{ acres} \times (43,560 \text{ sq. ft.} / 1 \text{ acre})$

$WQ_v = 15,972 \text{ cubic feet of storage required}$

- c. The  $WQ_v$  that is required for each development may be provided in multiple ways to allow greater flexibility during design. There are a number of post-construction BMPs such as detention ponds, retention ponds, bioretention areas, proprietary stormwater quality treatment devices, etc. that may be utilized by the development to meet the  $WQ_v$  requirements.
4. *Low Impact Development (LID)*. As an option for meeting the stormwater management requirements, the City encourages the use of low impact development (LID) practices in qualifying development and re-development projects. The latest version of the Alabama Low Impact Development Handbook is incorporated herein by reference.

5. *Design Standards and Requirements.*

- a. Acceptable stormwater management facilities may include detention ponds, retention ponds, lakes, underground detention, Green Infrastructure, and LID practices.
- b. Stormwater management facilities cannot be constructed within a floodway.
- c. The calculation methodology shall utilize the National Resource Conservation Resources (NRCS) Urban Hydrology for Small Watersheds Technical Release 55 (TR-55) or equivalent as approved by the city engineer. For the determination of pre-construction and post-construction stormwater runoff hydrology, the 24-hour rainfall depths from National Oceanic and Atmospheric Administration (NOAA) Atlas14, Volume 9, Version 2 shall be used.
- d. All applicable developments shall be responsible for ensuring that post-development hydrology mimics pre-development hydrology for the 2-year, 5-year, 10-year, and 25-year, 24-hour rainfall events. All stormwater management facilities shall be able to convey the peak discharge associated with a 100-year, 24-hour storm event. Installation of stormwater management facilities shall not adversely impact and/or cause flooding of properties located upstream and downstream of the development.







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- e. The principal spillway for a stormwater management facility shall be sized to convey the 25-year, 24-hour discharge without allowing any discharge from the emergency spillway.
  - f. Each stormwater management facility shall provide for an emergency spillway designed to convey the discharge resulting from a 100-year, 24-hour rainfall event.
  - g. Design plans for stormwater management facilities shall show existing contours, proposed contours, details of outlet structure, details of emergency spillway, layout of storm sewer system, details of storm sewer system outlet protection, property lines, drainage boundaries, roads, rights-of-way, streets, easements, and other information as required by the City Engineer.
  - h. H&H studies for stormwater management facilities shall include existing drainage areas, proposed drainage areas, time of concentration, curve number, pre-development peak discharges, post-development peak discharges, outlet structure geometry, emergency spillway geometry, pond stage-area-storage summary, pond discharge summary, inflow and outflow hydrographs, and outlet pipe velocities.
  - i. The city engineer shall make available the city's standard forms associated with the waiver request, design, as-built, and annual inspections.
6. *Requirements for Stormwater Retention (wet), and Detention (dry) Facilities.* Such requirements shall be as follows:
- a. Water depths in pond greater than four (4) feet shall require a Geotechnical Report to specify embankment design requirements
  - b. Maximum side slope steepness – three (3) horizontal to one (1) vertical (3:1);
  - c. Maximum water surface elevation in reservoir -- two (2) feet (or greater) below the lowest floor elevation of adjacent structure(s);
  - d. Provide for low flow ditch in reservoir;
  - e. Sides shall be grassed or paved;
  - f. Overflow sections, such as emergency spillways, shall be designed to accommodate the discharge resulting from a 100-year, 24-hour rainfall event; and,
  - g. Stormwater retention/detention ponds located in residential subdivisions shall be enclosed with a minimum four-foot high black, vinyl coated chain link fence. Locked Gate(s) shall be provided for maintenance access. In areas highly visible from the public right-of-way, the stormwater pond shall be screened from view with





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landscape planting as required by the city landscape architect. (Ord. No. 98-1628, 3-16-98).

7. *Requirements for Permanent Lakes used as Stormwater Management Facilities.* Such requirements shall be as follows:

- a. Maximum water surface elevation shall be two (2) feet (or greater) below lowest floor elevation of adjacent structure(s);
- b. Maximum fluctuation between permanent pond level to maximum pond level shall be three (3) feet;
- c. Stability analysis shall be furnished; and,
- d. Consideration is suggested for safety to small children.

8. *Design Required by Registered Professional Engineer.* Stormwater management facilities in the city shall be designed by an Alabama Registered Professional Engineer who is qualified by education and experience in the design of stormwater management facilities. Hydrologic and hydraulic (H&H) calculations and design plans shall be sealed by the registered professional engineer.

9. *As-Built Certification.*

- a. All stormwater management facilities shall be field surveyed by a registered professional land surveyor to develop an as-built drawing of the stormwater management facility which drawing shall include contours, outlet structure geometry, storm sewer pipes, emergency spillway geometry, outfalls, and other information as required by the City Engineer; and,
- b. A registered professional engineer shall use the as-built field survey information to complete an As-Built Certification Form.

10. *Annual Inspections.*

- a. In order for stormwater management facilities to function in accordance with their original design and installation, the property owner or the owner's designee shall cause an annual inspection of such stormwater management facility to be performed by a registered professional engineer. An Annual Inspection Form shall be completed following this inspection to provide the city with documentation concerning the condition of each stormwater management facility in terms of vegetative cover, erosion that may be occurring, the condition of inlets and outlet, embankment conditions, and any maintenance required and/or performed.







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- b. The Annual Inspection Form shall be submitted to the city's engineering department each year by January 1<sup>st</sup>. The form shall cover the previous fiscal year beginning October 1<sup>st</sup> through September 30<sup>th</sup>.

**11. *Operation and Maintenance Requirements for Stormwater Management Facilities.*** Such requirements shall be as follows:

- a. The property owner(s) or his/their designated representative(s) shall submit a covenant setting forth his/their obligations to maintain the stormwater management facility(ies) located on a property. Such covenant shall be approved by the city engineer and city attorney before being recorded with the appropriate county probate office. A certificate of occupancy shall not be issued by the city until the covenant has been recorded. Such covenant shall run with the land until the stormwater management facility is no longer required thereon. Release of the covenant shall occur only after approval of the city engineer, city attorney, the mayor, and city council.
- b. The building official of the City of Hoover shall enforce the provisions of the maintenance restrictions, and shall have the power and authority to cause the facility to be properly maintained.
- c. A summary of maintenance activities shall be submitted to the city each year by November 1<sup>st</sup> as set forth in Section 10 above. The summary shall cover the previous fiscal year beginning October 1<sup>st</sup> through September 30<sup>th</sup>.

**12. *Variances.*** Variances to these minimum requirements shall be submitted in writing to the city engineer, outlining in detail the reason for the requested variance, and including supporting data. All requested variances shall be reviewed by the planning commission and city council.



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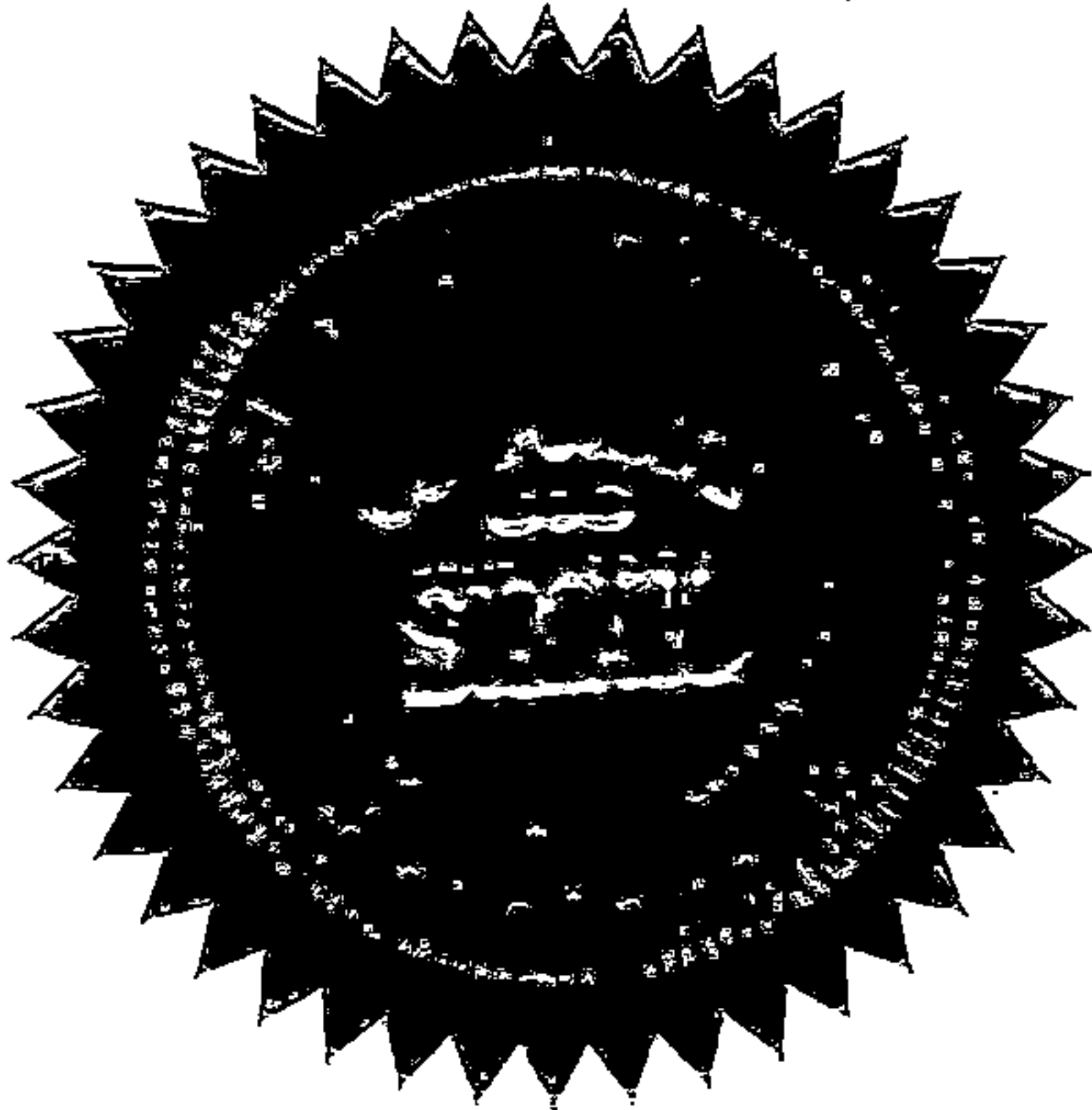


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## CERTIFICATION:

I, Wendy Dickerson, as City Clerk of the City of Hoover, Alabama, hereby certify that the above and foregoing copy of 1 (one) Appendix II – Subdivision Regulations, Appendix A. Design Standards, Article IX. Stormwater Management, is a true and correct copy, as same appears in the official records of said City.

Given under my hand and affixed the official seal of the City of Hoover, Alabama, this the 5<sup>th</sup> day of May, 2025.



Wendy Dickerson  
Wendy Dickerson  
City Clerk