

STATE OF GEORGIA
COUNTY OF FULTON

**AN ORDINANCE TO AMEND LAND DEVELOPMENT REGULATIONS, CHAPTER
103 DEVELOPMENT REGULATIONS SECTION 103.110 RELATED TO
STORMWATER MANAGEMENT**

WHEREAS, the Mayor and City Council of the City of Sandy Springs find that from time to time it is necessary to amend sections of the Land Development Regulations to correct, clarify, and update the provisions of the Ordinance; and

WHEREAS, the Mayor and City Council of Sandy Springs have determined that an update to the stormwater provisions is required for use of the ordinance by staff, citizens, and the development community; and

NOW, THEREFORE, to accomplish the foregoing, the City Council of the City of Sandy Springs, Georgia, pursuant to their authority, do hereby adopt the following Ordinance:

1.

Article XIII, *Development Regulations*, Section 103.110., *Stormwater Management*, of the City of Sandy Springs Land Development Regulations, is hereby amended by its repeal in its entirety and replacement by the following inserted therefor:

Sec. 103-110. - Stormwater management.

(a) *Design criteria—General.*

- (1) All design related to the stormwater facilities shall be in accordance with the Georgia Stormwater Management Manual 2016 edition as adopted or amended.
- (2) Installation of properly functioning stormwater facilities, including outflow control devices shall be the responsibility of the owner. If any facilities are damaged or destroyed during grading or construction activities, all processes shall cease until such devices are restored to their functional capacity. The owner, through application for a land disturbance permit, agrees to accept this responsibility.

(b) *Stormwater management report required.* A stormwater management report shall be provided for every project as required by the city's stormwater management ordinance. The purpose of this report shall be to formulate a plan to manage stormwater runoff so that stormwater runoff hazards are not created and existing runoff related problems are not exacerbated, either upstream or downstream from or within the boundaries of the property being developed. The design professional shall be responsible for obtaining all information necessary for the report. Hydrologic analysis and detention pond hydraulics, pipe and open channel hydraulics, culvert hydraulics and water quality best management practices shall be certified by a design professional registered in the State of Georgia.

(c) *Stormwater detention.*

- (1) Whenever a stormwater management report indicates that an adverse impact from stormwater runoff is expected to result from the development of a property, that project shall be provided

with stormwater detention facilities. The meaning of adverse impact shall apply to situations where the post developed discharge velocities and/or flows, up to and including the 100-year storm event, exceed those determined for the pre-developed conditions or where the downstream conditions indicated that the design flow exceeds the conveyance capacity of the receiving facility or potentially creates flooding conditions in downstream structures.

- (2) Stormwater detention facilities shall be designed so that their peak release rates, when combined with those of all detention bypass areas in the same basin, produce peak flow rates and flow velocities at the site's boundary line no greater than those which occurred at the same location under pre-developed conditions.
- (3) Peak flow rate and velocity control shall normally be provided only for the two-year, five-year, ten-year, and 25-year frequency storm events. However, under certain conditions, the 100-year event must also be detained to the pre-developed rate. Such control of the 100-year event shall be provided when failure to do so would result in flooding of other habitable dwellings, property damage, or public access and/or utility interruption.
- (4) Stormwater detention facilities shall be provided, unless the registered design professional provides certified documentation supporting the conclusion to the director that at least one of the following is true and correct as applicable:
 - a. The undetained flow will pass through downstream properties, in drainage easements obtained by the developer, to an existing detention facility which has been designed to manage the upstream property's runoff or to the point in the downstream analysis which shows that detention is not required; or,
 - b. Where the site runoff will flow directly into a stream or lake without crossing off-site properties and the following conditions are met:
 1. Conveyance systems on the project site are adequately designed or sufficient in their existing conditions to transport the undetained flows without further degradation; and,
 2. The downstream analysis, using timing of the hydrographs, shows no adverse impacts from the exit of the site to the point in the drainage basin where the project area is ten percent of the total drainage basin area.
- (5) Should the authorized registered professional conclude that stormwater detention may not be necessary, rigid compliance with all of the following criteria is mandatory:
 - a. A stormwater management report shall always be required whether or not stormwater detention is required.
 - b. If the applicant proposes to show that the detention requirement may be eliminated for all or a portion of a project, then a pre-submittal conference with the department staff is required prior to preparation and submittal of construction plans for the project.
 - c. At the pre-submittal conference with the staff, the design professional shall be prepared to discuss the downstream analysis findings as follows:
 1. The affected stream must be analyzed downstream from the project to a point where the project area is ten percent of the total drainage basin. The analysis must include all culverts, obstructions, existing and potential erosion problems, elevations of existing improvements, and any other existing modifications to natural conditions; and,
 2. If the existing downstream conditions are overburdened by the pre-developed flows in the stream, then detention shall be required unless the developer elects to eliminate the downstream overburdened conditions at his or her expense when the development occurs; and,

3. If there are any existing drainage complaints downstream, then detention shall be required unless the developer elects to minimize the conditions causing the complaint at his or her expense when the development occurs.
- (6) Where it is determined by the analysis required by this section that stormwater detention is not required it should not be interpreted as a waiver of channel protection and water quality requirements.
- (7) All stormwater detention/retention structures (both above and below ground) shall be located outside of building setbacks and zoning buffers.
- (d) *Extended detention.* Extended detention shall normally be provided in accordance with the requirements of the city stormwater ordinance.
- (e) *Water quality.* Water quality measures shall be installed in accordance with the city stormwater ordinance.
- (f) *Upstream conditions.*
 - (1) All culverts, pipe systems and open channel flow systems shall be sized based on all on-site upstream areas being developed in accordance with the development plans and the off-site upstream areas being fully developed in accordance with the land use plan with no detention. Upstream detention may be included when determining flows, provided the engineer calculates the reduced flow by routing the developed flows through any stormwater facility included in the analysis rather than assuming that a reduction will occur. The design professional shall show that detention facilities used in the analysis will remain, be properly maintained and the storage volume and outlet structure configuration is based on current conditions.
 - (2) Detention facilities shall be designed using pre-developed flows based on existing conditions for all upstream areas including existing on-site lakes, ponds and detention facilities. Post developed flows shall be based on the upstream basin areas being developed as shown on the approved development plans and existing conditions for off-site upstream areas. Upstream detention may be included if it meets the conditions as described for culverts, pipe systems and open channel flow systems.
- (g) *Existing conditions (pre-development).* Existing or pre-development conditions shall be defined as the conditions of the site at the time the development permit is applied for. The existing condition shall include all on-site lakes, ponds, or detention facilities. Predeveloped flows shall be determined by routing the flows through these stormwater facilities.

If it is determined by the director that the existing conditions downstream of the project site warrant further protection the director may require the existing conditions analysis to assume that the site is in its natural, undisturbed state.
- (h) *Hydrology report requirements.* The stormwater management report shall comply with the city's stormwater management ordinance and shall include the following information when applicable:
 - (1) Cover sheet signed and sealed in accordance with the stormwater management ordinance;
 - (2) Table of contents;
 - (3) Narrative summary;
 - (4) Numerical summary;
 - (5) Basin delineation maps (pre and post, tc flow paths, sub-basin CN);
 - (6) Hydrograph input and output;
 - (7) Routing input and output;

- (8) Stage-storage/outflow relationships;
 - (9) Outlet control details;
 - (10) Ten percent downstream analysis;
 - (11) Channel/ditch calculations;
 - (12) Pipe chart (shown on plans also);
 - (13) Gutter spread calculations;
 - (14) Downstream sediment analysis.
- (i) *Side slope and fencing requirements.* All stormwater facilities shall be constructed with maximum 2:1 side slopes or fenced when the facility contains a permanent pool deeper than 18 inches or the 25-year maximum flood depth exceeds 18 inches (use a 24-hour duration for facilities designed using SCS methodology). The fence shall be a minimum of six feet high and made of a durable material with a ten-foot wide access gate. The fence shall comply with all applicable zoning requirements.
 - (j) *Temporary facilities.* Stormwater detention facilities shall be constructed in accordance with the approved plans and shall be in place and inspected prior to the initiation of other improvements. If the detention facility is planned to be a lake, micro pool or constructed wetland, temporary detention facilities shall be provided and shall remain in place until the feature has become a functional stormwater management facility.
 - (k) *Redevelopment and the use of existing stormwater facilities.*
 - (1) When a development uses an existing facility where the last approved certification and record drawing of the facility was over 18 months prior to the new development's submittal, the design professional shall provide one of the following:
 - a. A new survey, drawing and certification showing that the outlet structure is constructed as approved and the flood storage and water quality volume of the facility is equal to or greater than the volume required when the facility was approved; or,
 - b. Construction plans and calculations showing that the outlet structure will function as designed and the flood storage and water quality volume of the facility will be equal to or greater than the volume required when the facility was approved once the proposed maintenance has been performed; or,
 - c. A new record survey, drawing, study and certification showing that the facility meets the development requirements when the facility was approved.
 - (2) When the development is part of a redevelopment strategy or the proposed development intends to use a master facility that does not meet current stormwater standards as established in the stormwater management ordinance, the following shall apply:
 - a. When 5,000 square feet or more of impervious surface is created, added, or replaced, or one acre or more of a developed project site is disturbed for redevelopment, and the disturbed area is more than 50 percent of the property, the water quality requirements of this section must be met for the entire site.
 - b. When less than 1,000 square feet of impervious surface area is created, added, or replaced, or less than 5,000 square feet of land of a developed project site is disturbed for redevelopment, the project is exempt from having to provide the water quality requirements of this section for the project or for the rest of the site.
 - c. When 1,000 square feet or more of impervious surface area is created, added, or replaced, or 5,000 square feet or more of a developed project site is disturbed for redevelopment, and the

disturbed area is less than 50 percent of the property, the project shall provide water quality treatment for just the improvements on the site.

- d. Where water quality treatment for a proposed development is to be provided in an existing detention basin then treatment must be provided for the entire original project basin. A modification to the 25-year detention requirement may be granted for the purpose of retrofitting the detention pond to meet current water quality regulations. Granting of a modification will meet the intent and purpose of this chapter when:
 1. The detention requirements of the current regulations are provided in the facility for the one-year, two-year, five-year and ten-year and 25-year storm. For a retrofitted basin, the volume of the one-year storm shall be based on the original project area being detained instead of the total area draining to the basin; and,
 2. The water quality requirements of the current ordinance are provided for the original project area in the facility; and,
 3. The ponding limits create a hardship if no modification is granted; and, the outlet structure meets the requirements of the current chapter.
- (l) *Evidence of acquisition of applicable nonlocal permits.* The applicant may be required to provide documentation that all other applicable environmental permits have been acquired for the site prior to approval of the stormwater management report.
- (m) *Stormwater facility location criteria.*
 - (1) For purposes of this chapter, a stormwater facility shall be deemed to consist of the area within the maximum design ponding limits, the dam (if one) including all embankment slopes and wall footings (if applicable), primary and emergency outlet works, any drainage and access easements, and any forebay or energy dissipation devices.

The intent of this chapter is to ensure that the extent of the facility is defined to allow flooding, access and maintenance. Granting of a modification will not nullify this chapter when the facility is a wet pond or lake, the area within the maximum design ponding limits is reduced to a few feet inside the normal pool elevation, and easements are provided on the perimeter properties to allow for flooding, access and maintenance around the lake. In addition, granting of the modification shall only be considered when the wet pond is an amenity and under no circumstances shall the dam and outlet structure lie on private property that is not in some form of common ownership.
 - (2) Detention facilities, to the greatest extent feasible, shall be located so as to minimize the amount of flow generated on the project site that by-passes the facility.
 - (3) No portion of any stormwater facility shall disturb any required buffer, landscape strip, or tree protection area.
 - (4) The 100-year ponding limits of a stormwater facility shall not encroach upon a public right-of-way.
 - (5) Stormwater facilities may be located within or encroach upon utility easements or utility rights-of-way upon receipt by the department of written permission from both the property and utility owners.
 - (6) Stormwater facilities may be constructed within recreation areas if the following criteria are met:
 - a. Ownership of the area will be held by a qualified property owner's association, homeowner's association, or other private parties.

- b. Permanent structures, such as buildings and swimming pools, will not be constructed within the boundaries of the stormwater facility.
 - c. Stormwater facilities within active recreation areas will be approved only if the design of the area includes recreation amenities such as ball fields, tennis courts, grassed open areas or other similar improvements. The intent is to provide recreation facilities with detention as a secondary feature.
 - d. Permanent stormwater features shall not interfere with the intended use of the recreation amenity, (i.e., a ditch or large swale shall not traverse a ball field, an inlet structure shall not be in a tennis court, etc.).
- (7) A residential subdivision of more than three lots that is required by this chapter or the stormwater management ordinance to provide stormwater management facilities shall locate those facilities on an individual lot of record within the development. Lots created within a development project to accommodate detention and retention facilities which are incidental, related, appropriate, and clearly subordinate to the main use in the project are exempt from the minimum lot size requirements in all zoning districts. No other construction/building is permitted on this lot and the lot shall be owned by the homeowners association or the owners of the lots of record being served by this facility. The lot shall have a minimum of 20 feet of public road frontage. Access to the facility shall be located on this lot and shall be provided in a manner which allows for access and maintenance of the facility. If the project is provided with an off-site detention facility, a mandatory property owners' association shall be established for its maintenance. The association bylaws shall be recorded concurrently with the recording of a final subdivision plat.
- (8) A nonresidential subdivision is not required to locate an on-site stormwater facility on a separate lot. The property owners served by a stormwater facility that provides detention and/or water quality for more than one property owner or is located off-site shall enter into a maintenance agreement acceptable to the city for the facility's maintenance. However, if desired by the developer, the facility may be located on a separate lot if it is owned and maintained by a mandatory property owners' association.
- (n) *Stormwater facility access requirements.*
- (1) In both residential and nonresidential projects, an easement at least 20 feet in width shall be required so as to provide access to all detention facilities from a public street. The easement shall conform to the following requirements:
- a. The access easement shall be cleared, grubbed and graded so that it can be utilized by rubber-tired construction vehicles.
 - b. The minimum drive surface width shall be 15 feet.
 - c. The drive shall be grassed or paved.
 - d. The maximum slope shall be 30 percent.
 - e. Access easements may be combined with drainage easements containing an open channel; however, the combined easement shall be a minimum of 30 feet in width and shall be wide enough for the drainage channel and the drive.
 - f. A drive to the bottom of the pond shall be provided when the facility is over ten feet deep from the bench elevation or the facility is wider than 50 feet as measured from bench to bench.
 - g. Where the facility is completely enclosed by walls, stairs shall be provided into the facility to allow for inspection and maintenance activities.

- (2) When not located on an individual lot of record, every normally-dry stormwater basin, lake, or parking lot detention facility shall be completely enclosed within a drainage easement. The drainage easement shall extend at least ten feet beyond the 100-year flooding limits of the stormwater facility and shall encompass any dam, outlet structure and energy dissipation devices.

(o) *Stormwater facility maintenance.*

- (1) The storage capacity or function of any stormwater basin, pond or other impoundment, whether natural or manmade, shall not be removed or diminished without the express approval of the department.
- (2) In a residential subdivision, it shall be the responsibility of the mandatory property owner's association to maintain the operational characteristics of any facility constructed on their property for stormwater management pursuant to city requirements, to keep the access drive free of obstructions, and to maintain the facility free of obstruction, silt or debris.
- (3) In a nonresidential project with an on-site stormwater facility which serves only that project, the property owner shall be responsible to maintain the operational characteristics of the facility pursuant to city requirements, to keep the access drive free of obstructions, and to maintain the facility free of obstruction, silt or debris.
- (4) Where no maintenance covenant has been recorded, it shall be the responsibility of the property owner to maintain the operational characteristics of any facility constructed on their property for stormwater management pursuant to county requirements, to keep the access drive free of obstructions, and to maintain the facility free of obstruction, silt or debris.
- (5) Prior to the issuance of a development permit, the owner shall submit a detailed schedule of long-term maintenance and inspection activities. This schedule of activities shall be incorporated into a maintenance covenant signed by the property owner. The schedule shall describe all maintenance and inspection activities and the parties responsible. The maintenance covenant shall be in a form acceptable to the city and shall be recorded in the deed records of the clerk of superior court.

(p) *Stormwater facility certification and as-built drawings.*

- (1) When a new facility is constructed in a development, a certified as-built drawing of each stormwater facility shall be prepared by a land surveyor currently registered in the State of Georgia.
- (2) Based on the actual parameters established on the as-built drawing, an addendum to the stormwater management report shall be prepared which demonstrates that the facility, as constructed, complies with the requirements of this chapter. The amended or as-built stormwater management report shall be certified by the authorized registered professional. Any deviations from the original design shall be clearly noted as well as any impact, if any, these deficiencies may have on the operational characteristics of the facility.
- (3) The survey shall be performed after substantial completion and stabilization of the project has occurred. The as-built drawing and addendum to the stormwater management report shall be submitted to the city at least one week prior to the issuance of a certificate of occupancy or final plat approval (as appropriate to the project).
- (4) The as-built drawing shall show the following information. Where elevations or dimensions are shown on the as-built, the original design data should be shown and struck through with the actual as-built data indicated next to that:
 - a. Horizontal and vertical alignment;
 - b. Locations of all manholes, catch basins and junction boxes;

- c. Detention, retention, water quality facilities;
- d. Storm system outfalls;
- e. Creeks and drainage swales or ditches;
- f. Piping materials;
- g. Location and extent of easements;
- h. Property lines.

This information shall be provided in the form of plans, profiles, details, sections and plats and when possible provided to the city in an electronic format compatible with the city database.

(q) *Parking lot detention facilities.*

- (1) Parking lot detention facilities shall generally be of one of the two following types:
 - a. Depressed areas of pavement at drop inlet locations; and
 - b. Ponding areas along sections of raised curbing. The curbing in these areas is usually higher than a standard curbed section.
- (2) Parking lot detention areas shall be located so as to restrict ponding to areas other than parking spaces near buildings, and to not encroach upon entrance drives.
- (3) The maximum depth of detention ponding in a parking lot, except at a flow control structure, shall be six inches for a ten-year storm, and nine inches for a 100-year storm. The maximum depth of ponding at a flow control structure shall be 12 inches for a 100-year storm.
- (4) In truck parking areas, the maximum depth of ponding shall be 12 inches for the ten-year storm.
- (5) Detention ponding areas are to be drained within 30 minutes after the peak inflow occurs.
- (6) Parking lot detention areas shall have a minimum surface slope of one percent, and a maximum slope of five percent.

(r) *Underground and rooftop detention facilities.* The design of underground or rooftop detention facilities shall be in accordance with current engineering standard practice, and shall conform to the requirements of this article. In the case of rooftop detention, permissible structural loads and weatherproofing shall be governed by the Georgia State Building Code as may be amended by the city.

(s) *Sediment basins.*

- (1) Stormwater management and sediment trapping functions should be separated whenever possible. Every erosion control design should seek to: First, prevent erosion from occurring; second, trap sediments as close to their sources as possible, and third, provide a second-tier or backup line of defense against sediments leaving the project site. This backup defense will usually consist of check dams/and or sediment basins.
- (2) Whenever a sediment basin and a detention facility are both required on the same watercourse, the sediment basin should be located immediately upstream of the detention facility.
- (3) In cases where a normally-dry detention basin is planned to be used to trap sediment as well as provide stormwater control, under cutting of the basin will not be permitted.
- (4) The design of sediment basins shall be in accordance with Appendix C of the "Manual for Erosion and Sediment Control in Georgia."

- (5) Trapping of sediment in state waters shall not be allowed.
- (t) *Ponds and lakes not used for detention.* In such cases where a pond or lake is provided as part of a development, but is not planned to function as a stormwater detention facility, the same general and specific criteria contained in this chapter shall apply, but may be modified in instances where a specific requirement is clearly detention oriented rather than safety-based.
- (Ord. No. 2008-09-48, § 1, 9-16-2008)

2.

All ordinances, parts of ordinances, or regulations in conflict herewith are repealed.

3.

Severability. Should any court of competent jurisdiction declare any section of this Ordinance invalid or unconstitutional, such declaration shall not affect the validity of the Ordinance as a whole or any part thereof, which is not specifically declared to be invalid or unconstitutional.

4.

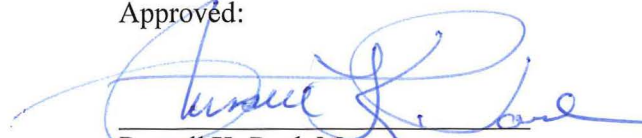
Repeal of Conflicting Provisions. It is the intention of the Mayor and Council, and it is hereby ordained that the provisions of this Ordinance shall become and be made a part of the Code of Ordinances, City of Sandy Springs, Georgia and the sections of this Ordinance may be renumbered to accomplish such intention.

5.

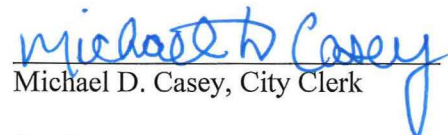
This Ordinance is effective December 1, 2016; and

APPROVED AND ADOPTED this the 18th day of October, 2016.

Approved:


Russell K. Paul, Mayor

Attest:


Michael D. Casey, City Clerk

(Seal)

