

STORMWATER ENGINEERING DESIGN CHECKLIST
 (To Be Completed & Submitted along with Civil/LDP Application)

LDP # _____			
Review No.	1st _____	2nd _____	3rd _____
Project Name	_____		
Project Location	_____		
Reviewer	Jill Bazinet	Email	jbazinet@alpharetta.ga.us
Design Firm	_____		
Phone	_____	Contact	_____
		Email	_____
		Fax	_____

STANDARD SUBMISSION REQUIREMENTS

Provide this completed checklist signed, dated, sealed and certified by a Professional Engineer in the State of Georgia. Community Development will forward this checklist to the Community Development Department.

- C Denotes no action required
- X Or underline denotes action required
- ? Unable to locate location on plan. Clarify.
- N/A Denotes not applicable to this project

SUBMITTAL MUST INCLUDE A CHECKLIST THAT HAS BEEN MARKED UP BY THE ENGINEER OF RECORD SHOWING HOW AND WHERE EACH ITEM LISTED IS ADDRESSED. (For example, notes should be labeled with plan sheet and note number, other items should be labeled with plan sheet number and location on the sheet, etc. Written comment responses that do require plan revisions are to be included hereon). PLANS WILL NOT BE REVIEWED WITHOUT THIS STEP COMPLETED.

I, the undersigned, hereby certify that I am a Professional Engineer in the State of Georgia and that each element of this checklist was considered and addressed in accordance with all applicable regulations, codes, standards, guidelines, ordinances, and policies.

 Applicant Signature & Date

Applicant Seal

Submission of this checklist does not relieve the applicant from his/her responsibility to comply with all applicable regulations, codes, standards, guidelines, ordinances, and policies.

The Department of Community Development reserves the right to revise this checklist periodically as the need arises.

STORMWATER AND DRAINAGE DESIGN REPORT CHECKLIST
PROPERLY ANNOTATED CHECKLIST SUBMITTAL REQUIRED PRIOR TO REVIEW

Cover Sheet

- A. _____ Ensure Stormwater Management Report/Hydrology Study bears signature and seal of professional engineer.
[Will check at final sign off](#)
- B. _____ Narrative
1. _____ Site location, acreage, and current and proposed land use.
 2. _____ Off-site area(s) (basis of delineation and incorporation in the site design).
 3. _____ Natural detention/retention features incorporated in the drainage calculations.
 4. _____ Compliance with the Quantity Control Criteria including summary table of pre- and post-development peak flows for all storm events.
 5. _____ Compliance with Runoff Reduction and/or Water Quality Criteria.
 6. _____ Inspection and maintenance guidelines for the SWM facility proposed. Specify whose responsibility it will be to inspect and perform required maintenance and or repairs of the stormwater management practices.
 - [Include a draft BMP Covenant link below:](#)
https://www.alpharetta.ga.us/docs/default-source/planning-zoning/stormwater-streams/stormwater-management-facilities-and-practices-covenant.pdf?sfvrsn=251bccab_4
 - BMP Covenant to include a location exhibit and maintenance requirements.
 - BMP Covenant will be recorded prior to CO.
 7. _____ Evaluation of downstream impacts per the City of Alpharetta Stormwater Design Manual (latest edition)
 - [Downstream analysis must analyse and describe the "choke points" as noted in ASPH Section 4.3. Provide photos and a statement of stability/capacity under current/prosed hydrologic conditions.](#)

- C. _____ Pre-Development Drainage Map (Maximum Scale 1"=100')
- 1 _____ Points of analysis.
 - 2 _____ Delineation of drainage areas including off-site area(s).
 - 3 _____ Tc flow paths with data (flow type, length, slope, and 'n') specified.
 - 4 _____ Identification of, in accordance with acceptable computations, area(s) (acres), CN and Tc for all drainage areas.
 - 5 _____ Pre-development contours (at 1-foot intervals for ground slopes < 2% and 2- foot intervals for slopes > 2%). Shall extend a minimum of 50' beyond the property line.

- D. _____ Post-Development Drainage Map (Maximum Scale 1"=100')
- 1 _____ Points of analysis.
 - 2 _____ Delineation of drainage areas including off-site area(s).
 - 3 _____ Tc flow paths with data (flow type, length, slope, and 'n') specified.
 - 4 _____ Identification of, in accordance with acceptable computations, area(s) (acres), CN and Tc for all drainage areas.
 - 5 _____ Pre-development contours (at 1-foot intervals for ground slopes < 2% and 2- foot intervals for slopes > 2%). Shall extend a minimum of 50' beyond the property line.
 - 6 _____ Post-Development Contours and spot elevations (1-foot intervals for ground slopes < 2% and 2-foot intervals for slopes > 2%). Label Contours.
 - 7 _____ Show how off-site areas are collected and directed through/around the site.
 - 8 _____ Show how peripheral areas, not to be collected are drained.

- 9 _____ Label cross sections used for analysis to define limits of flooding.
- 10 _____ Show proposed storm sewer with all inlets, junction boxes, and outlets.
- 11 _____ Show all stormwater management practices.
- 12 _____ Demonstrate that the 100 year storm event can be conveyed to the SWM facility or site without impacting structures and within all easements.

E. _____ Calculations

- 1 _____ Estimations of CN for Pre- and Post- Development conditions
- 2 _____ Tc Calculations for Pre- and Post- Development conditions
- 3 _____ Peak discharge calculations for Pre- and Post- Development conditions for design storms (1, 2, 5, 10, 25, 50, and 100, yr storm frequencies). Include model diagram, input file and summary sheet for final results.
- 4 _____ Compliance with the Runoff Reduction and/or Water Quality Criteria
 - a. _____ Provide copy/cd of TSS Stormwater Site Design Tool (Excel spreadsheet). Note that undisturbed areas and stream buffers cannot be considered Natural Conservation Areas unless it is a properly recorded conservation easement.

- The areas on the spreadsheet need to be consistent with the post-developed drainage areas.
 - b. _____ Provide TSS Area Map including bypass area analysis.
 - c. _____ Runoff volume generated by the first 1.0" of rainfall shall be retained onsite through the use of green infrastructure practices.

- d. _____ If Runoff Reduction Standard cannot be achieved, must demonstrate that one or more of the criteria listed in the Alpharetta SWMM have been met.
- If the Summary sheet RRV does not show a green yes then complete and submit a RRV infeasibility request. ASPH Section 7, Appendix H. Be sure to include a memo explaining the hardships specific to the site and include any backup data for this hardship including soils test results, surveys, etc.

- 5 _____ Location of soil borings and descriptive bore log.
- Show the locations and a summary table of the infiltration testing performed onsite. Summary can be a table but needs to include the infiltration rate, depth to groundwater and/or bedrock if encountered.
- Include soils report as an appendix.

- 6 _____ Water surface profiles for establishing limits of flooding.

- a. _____ Calculations for peak discharge (provide and justify all input data).
- b. _____ Cross sectional data locations.
- c. _____ Water surface elevations (by a method approved by the department).

- D. _____ Additional comments