



Charlotte Storm Water  
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## *Rezoning Petition Review*

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**To:** Keith MacVean, CMPC

**From:** Danée McGee / Doug Lozner / Jeff Hieronymus

**Date of Review:** January 7, 2008

**Rezoning Petition #:** 08-40

**Existing Zoning:** CC

**Proposed Zoning:** CC S.P.A.

**Location of Property:** Approximately 36.60 acres located on the northeast quadrant of the Johnston Road and I-485 Interchange

**Downstream Complaints and analysis:** There are no downstream complaints. This site drains to a stream listed as impaired by the NC Division of Water Quality.

**Source Citation:** A portion of the water quantity and quality comments reference information gained from the "Post-Construction Ordinance Stakeholders' Group Final Report". This report reflects consensus reached during the Council-approved process to include community input on the proposed ordinance language. Other comments, including the environmental permit, stream buffer and some detention requirements reflect existing regulations and ordinances.

### **Recommendations**

**Concerning Storm Water: Include the following notes on the petition.**

Remove Note 14 under General Notes.

Remove Note 5 under Rezoning Notes.

The petitioner acknowledges that other standard development requirements imposed by other city ordinances, standards, policies, and appropriate design manuals will exist. Those criteria, (for example those that regulate streets, sidewalks, trees, storm water, post construction controls, and site development, etc.) will apply to the development site. Conditions set forth in this petition are supplemental requirements imposed on the development in addition to other standards. Where conditions on this plan differ from ordinances, standards, policies, and approaches in existence at the time of formal engineering plan review submission the stricter condition or existing requirements shall apply.

### Storm Water Quantity Control

The petitioner shall tie-in to the existing storm water system(s). The petitioner shall have the receiving drainage system(s) analyzed to ensure that it will not be taken out of standard due to the development. If it is found that development will cause the storm drainage system(s) to be taken out of standard, the petitioner shall provide alternate methods to prevent this from occurring.

The developer may, through an agreement with necessary property owners and/or agencies and entities, utilize and improve the existing pond on the proposed development site for detention and water quality benefits. If the existing pond is to be utilized, the petitioner shall improve/enhance the pond to meet the aforementioned specifications listed above. Improvements and enhancements may include construction of a forebay at the site's storm water discharge, construction of a littoral shelf around the perimeter of the pond, and construction of an outlet control structure to meet all detention requirements as well as drawdown requirements.

The petitioner shall provide necessary engineering calculations to show that the Master Plan storm water run-off management system is sized appropriately to handle the additional run-off from the proposed development. If the engineering calculations indicate that the storm water run-off management system was not designed for the proposed development of this rezoning petition, the petitioner shall take necessary measures to address storm water runoff for detention and/or water quality.

### Storm Water Quality Treatment – *Source: BMP recommendation taken from “Post-Construction Ordinance Stakeholders’ Group Final Report”*

For projects with defined watersheds greater than 24% built-upon area, construct water quality best management practices (BMPs) to achieve 85% Total Suspended Solid (TSS) removal for the entire post-development runoff volume for the runoff generated from the first 1-inch of rainfall. BMPs must be designed and constructed in accordance with the Mecklenburg County BMP Design Manual, July 2007 or North Carolina Division of Water Quality Stormwater Best Management Practices Manual, July 2007. (Design Standards shall be met according to the City of Charlotte Best Management Practices Manual, when available). Use of Low Impact Development (LID) techniques is optional.

### Volume and Peak Control – *Source: Volume Control and Peak Control Downstream Analysis taken from “Post-Construction Ordinance Stakeholders’ Group Final Report”.*

For projects with defined watersheds greater than 24% built-upon area, control the entire volume for the 1-year, 24-hour storm. Runoff volume drawdown time shall be a minimum of 24 hours, but not more than 120 hours.

For residential projects with greater than 24% BUA, control the peak to match the predevelopment runoff rates for the 10-year and 25-year, 6-hour storms or perform a downstream analysis to determine whether peak control is needed, and if so, for what level of storm frequency. “Residential” shall be defined as “A development containing dwelling units with open yards on at least two sides where land is sold with each dwelling unit.”

For commercial projects with greater than 24% BUA, control the peak to match the predevelopment runoff rates for the 10-yr, 6-hr storm and perform a downstream flood analysis to determine whether additional peak control is needed and if so, for what level of storm frequency, or if a downstream analysis is not performed, control the peak for the 10-yr and 25-yr, 6-hour storms.

For commercial projects with less than or equal to 24% BUA, but greater than one acre of disturbed area, control the peak to match the predevelopment runoff rates for the 2 and 10-yr, 6-hr storm.

Additional Notes:

The following agencies must be contacted prior to construction regarding wetland and water quality permits:

Section 401 Permit    NCDEHNR – Raleigh Office    (919) 733-1786  
Section 404 Permit    US Army Corps of Engineers (704) 271-4854