



Charlotte Storm Water
600 East Fourth Street
Charlotte, N C 28202-2844
OFFICE: 704 . 336 . RAIN
FAX: 704 . 336 . 6586

Rezoning Petition Review

To: Keith MacVean, CMPC

From: Doug Lozner / Jeff Hieronymus / Danée McGee

Date of Review: September 13, 2006 *(Revised May 3, 2007)*

Rezoning Petition #: 06-142

Existing Zoning: INST (CD)

Proposed Zoning: INST (CD) SPA

Location of Property: Approximately 19.3 acres located on the south side of Choate Circle west of Moss Road

Downstream Complaints: None

Review Method(s): Review of topographic information, aerial photography, and a site visit.

Recommendations

Concerning Storm Water: The petitioner shall include the following notes on the petition:

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.

Storm Water Quality Treatment

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 N.C. Department of Environment and Natural Resources (NCDENR) Best Management Practices Manual, April 1999, Section 4.0 (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

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.

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.

Recommendations

due to revisions:

Revise the notes under “Storm Water Management” as follows::

1- Storm Water Quality Treatment

For projects with defined watersheds greater than 24% built-upon area and greater than 1 acre of land disturbance activities, 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 for the new built-upon area(s). BMPs must be designed and constructed in accordance with the N.C. Department of Environment and Natural Resources (NCDENR) Best Management Practices Manual, April 1999, Section 4.0 (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. BMPs for water quality, volume and peak control shall be designed for the rainfall draining to the BMP.

2- Volume and Peak Control

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

For commercial projects with greater than 24% BUA and greater than 1 acre of land disturbance activities, control the peak to match the predevelopment runoff rates for the new built-upon area(s) 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 the new built-upon area(s).