



MEMORANDUM

Date: May 18, 2009

To: Fred Royal, P.E., Director of Environmental Resources,
Chatham County

From: Mike Sanchez, PE, The John R. McAdams Company MS

Re: Briar Chapel Phase 5 South Preliminary Plat

As you requested, below is a summary of our telephone discussion last Thursday regarding the grading and buffer issues that you noted in regard to the Briar Chapel Phase 5 South A Preliminary Plat plans:

Comments

1. *Grading extends into the buffer just south of the sediment trap near Briar Chapel Parkway on Sheet C-5 of the Briar Chapel Phase 5 South A Preliminary Plat submittal.*

Response:

Section 9.1 of the Compact Community Ordinance (CCO) states the following:

Uses Within the Buffer

No new development is allowed in the buffer area except for the following:

- *Water dependent structures;*
- *Other structures such as flag poles;*
- *Signs and security lights which result in only diminutive increases in impervious area;*
- *Projects such as road crossings and greenways where no practical alternative exists;*
- *Desirable artificial stream bank or shoreline stabilization, as determined by Chatham County.*

These activities should minimize built-upon surface area, direct runoff away from the surface waters (except sheet flow directed into a buffer), and maximize the utilization of stormwater best management practices.

As highlighted above, grading into the buffer is allowable for the purposes of road construction as long as it is minimized to the extent possible. For this situation that you noted near Briar Chapel Parkway, the minimal grading that occurred into the buffer for construction of the existing sediment trap was necessary to provide the needed stream protection for construction of Briar Chapel Parkway.

Furthermore, Section 9.1 of the CCO also states:

To avoid a loss of effectiveness in protecting streams, the stream buffer shall remain in natural undisturbed vegetation, except as provided below.

Clearing, grading or other land disturbing activities that would reduce the effectiveness of the buffer shall be revegetated.

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Therefore, the area of the buffer impacted in this situation will be revegetated with native species as identified in the 1994 Environmental Assessment Report prepared by CH2MHill. According to that report, native species identified at Briar Chapel include: yellow poplar (*Liriodendron tulipifera*), northern red oak (*Quercus rubra*), sweetgum (*Liquidambar styraciflua*), loblolly pine (*Pinus taeda*), white oak (*Quercus alba*), american beech (*Fagus grandifolia*), red maple (*Acer rubrum*), white ash (*Fraxinus americana*), sassafras (*Sassafras albidum*), blackgum (*Nyssa sylvatica*), pignut hickory (*Carya glabra*), mockernut hickory (*Carya tomentosa*), scattered black walnut (*Juglans nigra*), red mulberry (*Morus rubra*), umbrella magnolia (*Magnolia tripetala*), flowering dogwood (*Cornus florida*), persimmon (*Diospyros virginiana*), winged elm (*Ulmus alata*), sourwood (*Oxydendrum arboreum*), musclewood (*Carpinus caroliniana*), loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), yellow poplar (*Liriodendron tulipifera*), shortleaf pine (*Pinus echinata*) and Virginia pine (*Pinus virginiana*).

2. ***A sediment trap, located on the southwest side of the stream that borders the west side of Phase 5 South extends into the buffer as shown on Sheet C-5 of the Briar Chapel Phase 5 South A Preliminary Plat submittal***

Response:

This sediment trap is an existing device within the Duke Power Right-of-Way that was installed to protect a stream just south of an area that was used initially as a borrow area and is to be used for placement of excess topsoil. The attached photograph provides a view from the general area where this sediment trap is located. The scrub vegetation shown in the photograph is characteristic of the Duke Right-of-Way and therefore the grading performed to install this sediment trap did not impact native species. Nevertheless, as noted above, as progress continues at Briar Chapel and approval is obtained from Jim Willis that this sediment trap can be removed, this area will be revegetated with native species.

3. ***An overall buffer exhibit is needed showing that the ephemeral buffer widths of 50-feet and 30-feet are in accordance with the CCO requirements.***

Response:

In regard to the overall buffer exhibit you discussed with Bill Mumford and Lee Bowman at Newland, I have included a copy of that exhibit with this memo. This exhibit was submitted to Chatham County in 2006 as part of the Briar Chapel Phase 4 Preliminary Plat submittal application. The exhibit shows the 50-foot versus 30-foot ephemeral streams at Briar Chapel relative to the drainage acreage as required by the CCO.

With the information provided above and the attached buffer drainage exhibit, I believe this satisfies the concerns you had that held up the Briar Chapel Phase 5 South A Preliminary Plat from being approved by the Planning Board on May 5th. If there are any remaining issues, please let me know as soon as possible so that we can get them resolved in advance of the next Planning Board meeting.

cc: Bill Mumford, P.E., Newland Communities
Lee Bowman, Newland Communities