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Sent: Tuesday, May 19, 2009 9:10 AM

To: zzDept. Mail - Town Clerk; zzDept. Mail - Town Manager; Jeff Kleaveland

Cc: mark_chilton@hotmail.com; Jacquelyn Gist; brounsj@mindspring.com; lydia@lydialavelle.com; John Herrera (Forward to External); Randee Haven-O'Donnell; dan-coleman@nc.rr.com

Subject: Comments for the 5/19/09 Public Hearing on the Colleton Crossings Subdivision

Dear Mr. Stewart, Mr. Kleaveland, and Aldermen Broun, Chilton, Coleman, Haven-O'Donnell, Herrera, Gist, and Lavelle,

Thank you for the opportunities to provide comment on the proposed Colleton Crossing Subdivision (yet again). I have read skimmed through the documents posted after the January Public Hearing. As not much has changed (yet again), I am sending my recommendations from the January Public Hearing. Two points I want to pull out:

1. I am encouraged to see that the developer is considering using an arched culvert to span the floodplain and stream before connecting to Reynard Road. However, I still strongly recommend that you make the use of a bottomless arch culvert a condition of the Colleton Crossing Subdivision's rather than a maybe if the bedrock situation (i.e. the cost) is to the developer's liking. Since box culverts constrict the floodplain they are notorious for clogging with debris and sediment. Given the existing upstream flooding issues and septic systems, it is essential that the stream crossing to Reynard Road be as close to a natural crossing as possible (ideally a bridge that spans the flood plain but at a minimum a bottomless arch culvert).

2. I'm also curious as to whether Melville Builders have provided a 3D visuals of the proposed stormwater detention pond, discussed how it will alter the existing stream buffer, or described what the cascading failure scenario of the stormwater detention pond will be (i.e. what happens when the pond exceeds its storage capacity). I still recommend that you make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer keep all home sites and stormwater best management practices and their associated grading outside of regulated stream buffers (per recently approved Jordan Lake Rules).

Finally, despite multiple reviews and recommendations from the public and the Environmental Advisory Board, I am disappointed to see that the current plan proposed by Melville Builders for the Colleton Crossings Subdivision will have a more negative environmental impact than what was originally proposed over two years ago. I urge you to deny the Colleton Crossing Subdivisions conditional use permit, or at a minimum to read through and require the recommendations listed below.

Thank you again for your consideration,

Carolyn Buckner, P.E.

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Fox Meadow Neighborhood in Carrboro

Recommendations:

1. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer use a bridge or a bottomless arch culvert that spans the existing floodplain when crossing the stream to connect to Reynard Road (i.e. NOT box culverts). Put some teeth into the Environmental Planner and the Environmental Advisory Board's recommendations that the developer use a bridge or a bottomless arch culvert that spans the existing floodplain to cross the Bolin Creek tributary to connect to Reynard Road. Staff has provided pictures of the various options in your packets. These types of stream crossings are preferable to box culverts for a number of reasons, including reduced to no restriction of the floodplain, reduced erosion both up and downstream, more efficient sediment transport and natural debris transport, and easier movement of fish and invertebrates. They also provide wildlife with a non-vehicular transportation corridor if sized adequately. I was told by Jeff Kleaveland today that the developer did run HEC/RAS studies on a bottomless arch culvert that showed no rise in the 100yr floodplain. I don't know if the arch culvert spans the existing floodplain. That would be the ideal.

2. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer keep all home sites and stormwater best management practices and their associated grading outside of regulated stream buffers. One third to one half of the stormwater detention pond and its associated grading as well as several bio-retention areas and/or their associated grading are still located in the stream buffer. Please keep in mind that the stream buffers will also be disturbed for road crossings, sewer and power easements (i.e. keep in mind the cumulative effect). The stream buffer is protected because it provides water quality treatment, stream stabilization, shade and habitat. Any clearing and/or compaction negates these benefits. Not to mention the large flux of nitrogen to a stream after trees are cleared in its watershed (the more trees cleared, the more nitrogen is released into the stream).

3. Ask to see 3D visuals of the proposed stormwater detention pond and how it will alter the existing stream buffer prior to approving it. Also ask the developer to describe what the cascading failure scenario of the stormwater detention pond will be (i.e. what happens when the pond exceeds its storage capacity) prior to approving it. The level of disturbance of the stormwater pond and its associated grading is significant. Assuming the scale provided on the site plans is correct, the pond and its clearing and grading will extend 80 feet outwards into the stream buffer for a linear distance of 320 feet. In addition, it will have a 20-30 foot high 3:1 or 33.3% sloped hill from the top of its dam down to the OWASA Sewer Easement/Dedication for North South Greenway, which still sits well above the Bolin Creek tributary. So essentially the stormwater pond creates a primary conservation constraint (an 80 foot wide, 320 foot long, STEEP slope) within another primary conservation constraint (the existing regulated stream buffer). The 3:1 or 33.3% slope is the maximum slope allowed by the NCDWQ. Does it belong in a stream buffer? Also, the issue with sediment is not only will the slope surrounding the pond erode or not. It's also what happens to the sediment and nutrients in the pond when the pond exceeds capacity. How much intact buffer is left to act as a backup treatment system before the runoff hits the stream?

4. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer remove or relocate Lot 39 and shrink the cleared and built upon footprint. Despite multiple requests from the Planning Board and the Environmental Advisory Board that the developer reduce the built upon footprint the current site plan is worse rather than better than what was originally proposed. In the very first plan presented by Melville Builders, all lots were clustered on the northeast portion of the plot (I still have a hard copy of this plan). Lot 39 is now located on the west side of the Bolin Creek tributary and unnecessarily fragments open space. In addition, the developer has not provided any written records of having truly investigated the use of alternate forms of housing on this site that would result in a smaller physical and environmental footprint (see Environmental Advisory Board's most current comments).

5. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer use a temporary road that crosses the power line easement as the primary construction entrance. From past experience monitoring at Winmore, I can tell you that the intended use of the Reynard Road stream crossing as the primary construction entrance (the sole construction entrance once silt fences, etc. are up) is far from ideal. Allowing the use of the temporary road that crosses the power line easement as the primary construction entrance would provide better stream protection as well as reduce the miles traveled by construction vehicles by 3 miles per trip. If I read the staff reports correctly, it is a legally viable alternative.

6. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer provide pedestrian and bicycle accessible greenways along Bolin Creek, along its tributary, and connecting to surrounding neighborhoods. (In accordance with Town Staff and the Environmental Advisory Board's recommendations and the Town of Carrboro's Recreation and Parks Master Plan.)

7. Make it a condition of the Colleton Crossing Subdivision's conditional use permit that the developer use Dark Sky lights. We enjoy our night sky and barred owls and hope they both will be back after construction for all to enjoy!

Some Remaining Concerns:

1. While the intention is to save the 40" hardwood tree on lot 17, what specifically is being done? Will grading and/or compaction be prohibited around the entire reach of its roots? If not, what are the statistical chances that it will survive?

2. I am still concerned about the impact of the development on existing low-lying septic fields to the north as well as well water recharge throughout Fox Meadow. If either is adversely affected by this development, who will be financially responsible for constructing new septic systems or digging deeper wells?