

November 29, 2022

Chatham County Planning Board
P.O. Box 54
Pittsboro, NC 27312

Project Name: Morgan Ridge Phase 2
Comparison of old vs new conservation subdivision guidelines

Dear Mr. Chairman and Planning Board members:

I am writing you this letter to provide a summary of the difference in the previous conservation subdivision regulations and the current conservation subdivision guidelines as it pertains to Morgan Ridge Phase 2. Morgan Ridge Phase 2 was approved prior to the conservation subdivision regulations being revised earlier this year in January 2022. The Morgan Ridge Phase 2 design measures up very well when evaluated against the newer guidelines. First, Morgan Ridge Phase 2 is dedicating over 50% of the total subdivision land (GLA) to Conservation Space and the minimum requirement then and now is 40%. Not only that, that additional land is being dedicated as Natural Space – not Open Space. One change in the regulations is that riparian buffers and floodplains are not allowed to be counted towards the Natural Space requirement (32% minimum GLA). Morgan Ridge Phase 2 is dedicating 43.95% GLA to Natural Space so that change does not affect the approved layout. The total riparian buffer area in the subdivision is approximately 4.9 acres. If we remove that area from the total proposed Natural Space, Morgan Ridge ph2 will still have $(35.27\text{ac} - 4.90\text{ac}) = 30.37\text{ac}$ or 37.8% Natural Space. This is well over the 32% required Natural Space.

Another requirement today that was not in the previous conservation guidelines is that the NC Natural Heritage Program (NCNHP) must be contacted to evaluate the site features/areas for Natural Space selection. For the Morgan Ridge Phase 2 Natural Space selection process, NCNHP was not initially contacted by the developer to evaluate the site. However, during the initial Planning Board meeting, Board member Weakley suggested I contact Mike Schafale of NCNHP to perform this evaluation. Mr. Schafale did visit the site on September 11, 2019 and prepared a report with his findings (attached). He determined that the most significant area on the property was the 'Dry Basic Oak Hickory Forest' in the center of the property. Mr. Schafale writes in his report "SIGNIFICANCE OF SITE: High significance (R3 C4). The most significant element is the Dry Basic Oak—Hickory Forest but the Upland Depression Swamp Forest is also highly significant". Upon receiving his evaluation and site survey report, I revised the layout to preserve that area. The original First Plat layout did preserve some of that area which included the upland pool/wetland. After receiving Mr. Schafale's report, I realigned both roads and the lots so the boundary of the Dry Basic Oak Hickory Forest would be located inside of the enlarged Natural Space Boundary. Furthermore, additional land to the west of the Dry Basic Oak Hickory Forest was added to the Natural Space for additional protection of the drainage area to the upland pool.

One final change to the conservation guidelines that affects Morgan Ridge ph2 is the new requirement of a 50-foot undisturbed perimeter buffer. Most of the land along the perimeter of the subdivision is already being dedicated as conservation space (over 75% of the boundary). The remaining land will have septic system drainfields which act as a buffer. If Morgan Ridge ph2 were being designed today, the current layout would not be significantly affected by the 50-foot perimeter buffer. Some septic fields would be affected and a reduction of the number of lots is possible. It is my belief that whether Morgan Ridge ph2 were proposed by another developer originally or today => that developer would have chosen a conventional subdivision layout. The reason why I say this is because there are not many environmental features that limit development on this property. The conservation subdivision layout did not result in additional lots because the lot yield was determined by the available septic systems. The property allows 58 lots to be created and only 36 lots were proposed/approved. The conservation subdivision layout did not allow additional lots to be created versus a conventional layout design.

Morgan Ridge Phase 2 is dedicating 51.75% Conservation Space. There will be more land dedicated in Conservation Space than the total area in lots and roadway. If Morgan Ridge Phase 2 were developed today using the current Conservation Subdivision Guidelines, it would look the same with a minor modification to accommodate the 50-foot perimeter buffer.

Please feel free to contact me at 919-593-1916 or warrendmitchellpe@gmail.com if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Warren D. Mitchell", with a stylized flourish extending to the right.

Warren D. Mitchell, PE

Cc: Kim Tyson, Chatham County Planning Department