Shaffer Soil Services
685 Sanford Road
Pittsboro, NC 27312

June 8, 2005

Mr. Steve Christopher
Christopher Homes, Inc.
1000 Sturbridge Drive
Durham, NC 27713

Subject: Soils report for development proposal
Parcel No. 2380
Scarlet Oak Subdivision
Polks Landing Road Road (SR 1530)
Chatham County, NC

Dear Steve:

This letter serves to supply the site evaluation information I have obtained on the subject tract for purposes of pursuing preliminary project approval through the Chatham County Planning Department.

The purpose of the site evaluation was to evaluate the soils for potential for subsurface wastewater treatment systems (septic systems) for each of the proposed lots. The evaluation was performed by examining the soils with soil auger borings, and the site with respect to slope, topography, and landscape features to determine the potential of the site to meet county and state rules and guidelines for subsurface wastewater treatment systems.

This report is based on the most recent site sketch plan that was provided to me by your company. This site plan is dated March 3, 2005 and is at a scale of 1 inch equals 60 feet. I have superimposed the location of each proposed septic system onto this site plan and it is attached with this letter.

Each of the 7 proposed lots possesses soils that are suitable or provisionally suitable for a septic system. The typical soil types encountered are in the Appling and Wedowee soil series, with some minor variants of these types. These soils are well drained, deep to moderately deep to weathered bedrock (saprolite), and have a clay subsoil that is moderately permeable. These areas will accommodate a conventional or shallow conventional septic system, or should the home be located lower in elevation than the suitable soils, a pump to conventional or shallow conventional system. In all cases, innovative trench technologies may be employed to reduce the area of the septic drainfield needed. Typically, these technologies allow a 25% space reduction. Typical loading rates given to these soils is 0.25 to 0.30 gallons per day per square foot (this rate is referred to as the LTAR by the county health department). Sufficient area exists on each septic site to accommodate

a 4-bedroom home on the lot. In some cases, the innovative trench technology referred to above may be needed to fit the septic system within the defined space.

The corner of each septic system is flagged on the site with blue-white striped flagging. All sites are such that they meet required setbacks from any proposed wells and all proposed property lines. No jurisdictional wetlands will be impacted with the siting of these septic systems.

This report represents my professional opinion. The recommendations given in this report will not insure that permits would be either issued or denied for any particular part of the tract or any given number of lots, and likewise will not insure that a specific type and size of wastewater system will be allowed. These decisions will be made by the staff of the local health department. Also, this report does not indicate any guarantee that an installed system will function properly for a specified amount of time. Proper function of wastewater systems is dependent on installation procedures as well as owner maintenance. In a clayey soil such as exists on this property, installation should take place under relatively dry conditions to minimize the effect of soil clogging and smearing which would reduce the soil permeability.

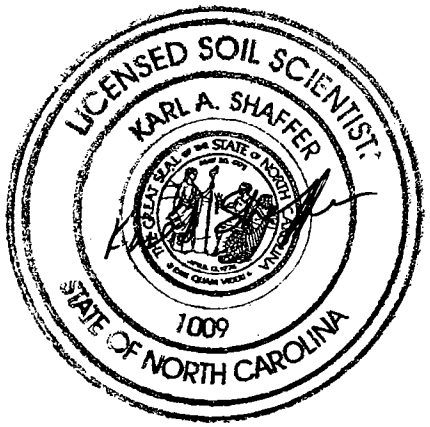
If you have any questions concerning this report or require further assistance, please do not hesitate to contact me. Thank you for the opportunity to perform this service for you.

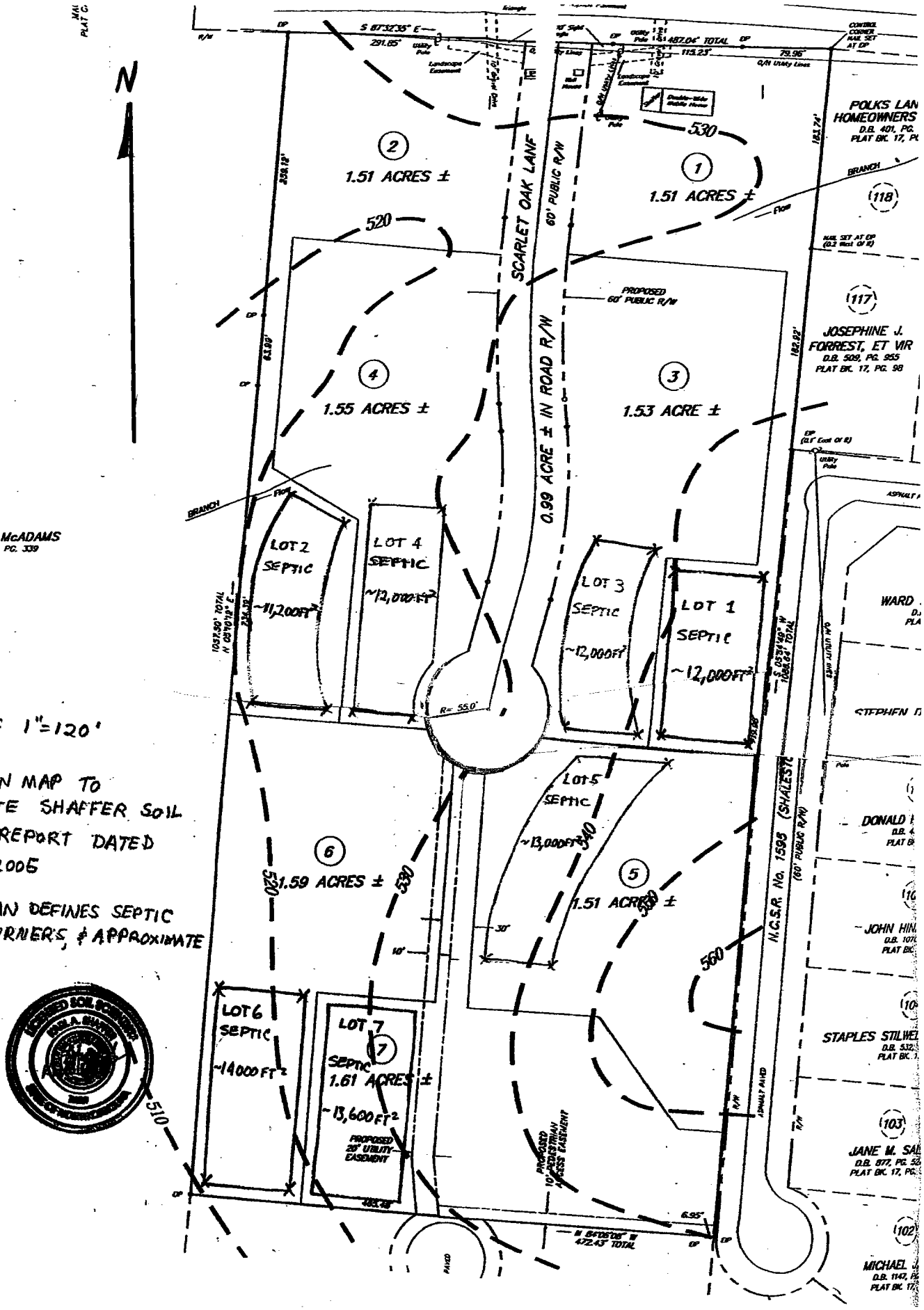
Sincerely,

Karl A. Shaffer

Karl A. Shaffer
NC Licensed Soil Scientist
Certificate No. 1009

Attachment: Site plan with proposed septic systems





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