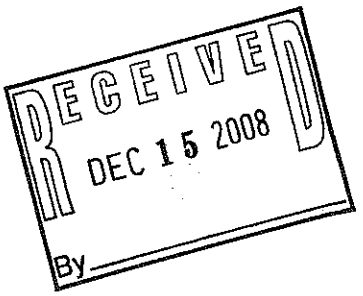
S&ME



December 15, 2008

Iredell County Health Department
610 East Center Avenue
Mooresville, North Carolina 28115

Attention: Ms. Maria Dotson, R.S.

Reference: **Septic System Proposal for a revised Improvement Permit for Lot 14 Josh Acres, 132 Canvasback Road**
Iredell County, N.C.
S&ME, Inc. Project No. 1588-08-115

Dear Ms. Dotson:

S&ME, Inc (S&ME) has provided technical assistance in regard to the soil evaluation and system layout for the proposed, revised septic system for the above referenced property in Iredell County, North Carolina. The evaluation was performed in general accordance with S&ME Proposal No. 1588-08-P163 dated November 19, 2008. Work was done in accordance with the "Laws and Rules for Sewage Treatment and Disposal Systems (15A NCAC 18A .1900)".

BACKGROUND

The referenced property is located in a subdivision located off Canvasback Road. It is our understanding that the North Carolina Department of Transportation (NCDOT) widening project of Brawley School Road will affect the installed 4 bedroom T&J Panel septic system on the lot. The site plans forwarded to S&ME by Mr. Sheldon Bower with the Parker Design Group show the proposed new right of way for Canvasback Road and the temporary construction easement to be used by NCDOT. The Iredell County Health Department (ICHD) issued a letter in December, 2006 stating the lot was unsuitable for a revised septic system due to the proposed NCDOT project.

REVIEW OF SITE AND SYSTEM RECOMMENDATIONS

S&ME visited the lot on December 1, 2008 to review the site. We reviewed the existing house location, used a tile probe to locate the existing drain field, and used a hand auger to describe the soils in the rear yard of the lot. The survey map was used to sketch

possible system options for the lot. Mr. Michael Sullivan, the potential buyer for the lot, was present for part of this evaluation.

We met with you at your office on December 3, 2008 to discuss previous work done by the ICHD and possible permitting scenarios for the 4 bedroom house. Mr. Sullivan made the official application to the ICHD on December 4, 2008.

S&ME visited the lot again on December 9, 2008 to finalize flagging the proposed, revised primary and repair drain field lines for the 4 bedroom T&J Panel system. We also placed two more hand auger borings on the site on December 9th. Mr. Sullivan also reviewed our proposed system locations on December 9th.

On December 10, 2008 you and Mr. Steve Hedrick, R.S., Program Specialist with the ICHD, visited the lot to review our proposal to revise the Improvement Permit for the existing 4 bedroom home. The soils for the existing system had been approved by the ICHD at a Long Term Acceptance Rate of 0.3 gallons per day per square foot (gpd/ft^2). Our three borings were also described as Provisionally Suitable at a 0.3 gpd/ft^2 LTAR.

Based on the location of the existing system and the location of the proposed temporary construction easement on the survey provided to S&ME, approximately 93 feet of the required 267 feet of T&J Panel system will have to be replaced. The attached site plan and flagged system was reviewed in the field by you and Mr. Hedrick. The proposed revised system will have 267 feet of T&J Panel for the primary (174 feet from existing system and 93 feet to be added in new lines) and 267 feet of T&J Panel for the required 100 percent repair area.

Based on our discussion with Mr. Sullivan, NCDOT may not destroy the existing system in the temporary construction easement, so the system may or may not have to be modified in the future, or the modifications may be less than required by this proposal. The existing system could be modified when the appropriate permits have been issued by the ICHD or at a time when necessary due to the NCDOT construction work. The following are items that were discussed with you and Mr. Hedrick and can be conditions for the revised Improvement Permit:

- We are proposing a revised permit be issued for a four bedroom T & J Panel (PPBPS) system. The proposed system will utilize Low Pressure distribution. The 0.3 gpd/ft^2 LTAR will require 267 feet of line.
- The existing pump tank riser should be extended at least 6 inches above final grade and the control box at least 12 inches above final grade.
- A central valve box, accessible to the surface, should be added to the system to set head pressures.
- The existing yard inlet and drain pipe shall be removed. Minor cut and fill (generally 0.2-0.5 feet) between the tanks and primary system and side walk will be necessary to divert surface water to the edge of the sidewalk (see site plan). A dip in the drive will be necessary to allow surface water to exit the lot. Removal of surface water from this relatively flat lot is vital for long term performance of

the septic system. Use of surveying equipment may be necessary to determine where to cut and fill to get the water away from the system area.

- Relocating of utilities (power, phone, etc.) may be necessary if the repair system has to be installed in the future.
- We recommend installing steel "T" posts and silt fencing along the construction easement to ensure NCDOT construction activities stay within the temporary construction easement shown on the attached plan.

The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist the ICHD with the site evaluation. The ICHD must approve each lot and only the ICHD can issue these permits. The Iredell County Health Department should verify all soils and system specifications, and required setbacks before permitting and/or septic system installation. Soil evaluations and system layouts are done based on interpretations of the rules governing wastewater treatment and disposal systems and are not guarantees for site approval or future septic system performance.

Thanks for your time in reviewing this proposal. Please call if you have any questions concerning this proposal.

Sincerely,

S&ME, Inc.

Rob Willcox, L.S.S.
Natural Resources Department Manager

Paul Penninger, L.S.S.
Senior Soil Scientist

Attachments:

1. Site Plan
2. soil notes
3. ICHD Septic Permit for existing system



cc: Mr. Michael Sullivan
Mr. Sheldon Bower

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