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April 7, 2004

Enoch Engineers
1403 NC Hwy. 50 S
Benson, N.C. 27504

Re: Soil/site evaluation for subsurface waste disposal, Proposed Healing Center Ministry's church site, Harnett County, North Carolina

To whom it may concern,

A soil/site evaluation has been conducted on the aforementioned property. The subject site is located on Brickmill road as approximated on the accompanying map. The purpose of the investigation was to determine if soils were acceptable for a subsurface waste disposal system to serve a new church/fellowship hall facility (190 seats). All ratings and determinations were made in accordance with "Laws and Rules for Sanitary Sewage Collection, Treatment, and Disposal, 15A NCAC 18A .1900".

Approximately 0.85 acres was located on the adjoining property (Lot 4) that contained soils that have provisionally suitable properties exceeding 30 inches. The site essentially lies on a linear slope (1 - 3%) landscape. Soil borings conducted in most of this area consisted of 6 or more inches of loamy sand underlain by sandy clay loam extending to 36 or more inches. Soil wetness (colors of chroma 2 or less) was typically observed greater than 30 inches below the soil surface. All other soil characteristics were either suitable or provisionally suitable to at least 30 inches.

Based on soil borings and site conditions, it appears that this site would be designated provisionally suitable for a conventional drainfield to serve the proposed church and fellowship hall using one of two options.

Option 1

190 seats @ 5 gallons per seat (gps) = 950 gallons per day (gpd)
Ltar = 0.3 gpd/sq. ft
Requires pump to pressure manifold with 1056 linear feet of drainline (any system with over 750 linear feet requires pump).

Option 2 (recommended)

Use flow equalization (commonly used on churches). Take the effluent generated over 2 days [Sunday and Wednesday] and spread over 7 days using an equalization timer.

Flow equalization would yield the following daily flow:

190 seats x 5 gpd (flow with fellowship hall) = 950 gpd
2 [uses per week; (Wed., Sun.)] x 950 gpd = 1900 gallons weekly flow
1900 gallons weekly flow divided by 7 days = 271 gpd (using flow equalization)
Requires pump to D-box with 303 liner feet of conventional drainline (3 x 101')

This option is much cheaper because it needs 753 feet less drainline (@ a typical $4.50 per foot).

The site (identified on the enclosed map) appears to contain enough provisionally suitable soil area, as required, to allow for an initial and repair system. A plan showing the approximate location of this site accompanies this report.

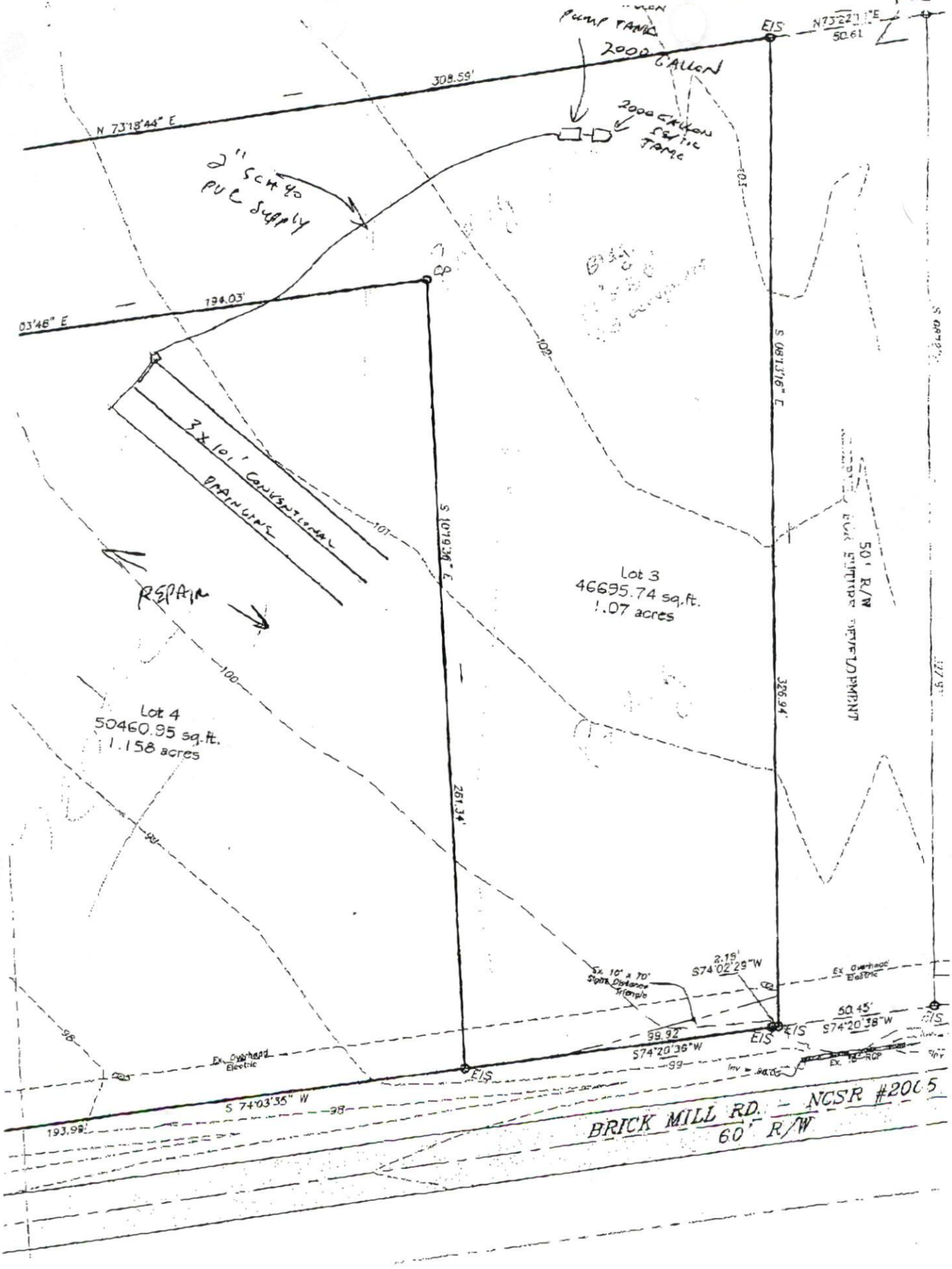
A professional engineer will design appropriate pumps, force mains, equalization timers, etc. prior to health department review.

This report, of course, does not guarantee or represent approval or issuance of permit as issued by the Harnett County Health Department. This report represents my opinion as a licensed soil scientist. Permits will only be granted if health department personnel concur with the findings of this report.

Sincerely,

Mike Eaker
President

LICENSED SOIL SCIENTIST
MICHAEL D. BAKER
7050
STATE OF NORTH CAROLINA


PUMP TANK
2000 GALLON
2000 GALLON SEPTIC TANK
2" SCH 40 PVC SUPPLY
3 X 101' CONVENTIONAL DRAINLINES
REPAIR
Lot 3
46695.74 sq.ft.
1.07 acres
Lot 4
50460.95 sq.ft.
1.158 acres
N 73°18'44" E
308.59'
N 73°22'11" E
50.61'
S 08°13'16" E
326.94'
S 10°19'36" E
261.34'
194.03'
03'46" E
50' R/W
Ex. 10' x 70' Sight Distance Triangle
2.15'
S74°02'29"W
50.45'
S74°20'38"W
99.92'
S74°20'36"W
S 74°03'35" W
193.98'
Ex. Overhead Electric
Ex. 18" RCP
BRICK MILL RD. - NCSR #2005
60' R/W