

# HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

P.O. Box 400, Lillington NC 27546-0400  
Phone (910) 893-8743 / Fax (910) 893-3594  
www.halowensoil.com

---

20 March 2018

Mr. Humberto Morales  
10 High Standard Lane  
Angier, NC 27501

Reference: Soil Investigation and Septic System Design  
Lot 32 Hunters Point Subdivision; NC PIN 0691-48-8267

Dear Mr. Morales,

A site investigation was conducted for the above referenced property, which is located on the western side of High Standards Lane and the southern side of Silas Hayes Road (S.R. 1565) in the Grove Township of Harnett County, North Carolina. The purpose of the investigation was to determine if the repair area for the existing septic system could be modified to allow installation of an outbuilding.

All ratings and determinations were made in accordance with "Laws and Rules for Sewage Treatment and Disposal Systems, 15A NCAC 18A .1900". This report represents my professional opinion but does not guarantee or represent permit approval for any lot by the local Health Department. The permit you receive from the Health Department may contain some modifications or amendments to our submitted design. Please carefully review your permit and adhere to all prescribed requirements.

## EXISTING SYSTEM

Hal Owen & Associates Inc. reviewed the septic permit issued by the Harnett County Department of Public Health and identified the existing septic system at the site. The three-bedroom home does not appear to have a foundation drain, and it utilizes the public water supply. The existing septic system utilizes a 1000 gallon septic tank from which effluent flows by gravity to a distribution box to three 100-foot long accepted status (EZ-flow) drainlines. It appears the three existing drainlines were installed on-contour, and the bottom line utilizes a step-down.

## SOIL INVESTIGATION

The soils were evaluated under moist soil conditions through the advancing of auger borings. This lot was observed to be underlain by soils rated as provisionally suitable for subsurface sewage waste disposal (Figure 1). These provisionally suitable soils were observed to be friable and firm sandy clay loams to greater than 36 inches and will support long term acceptance rates of 0.4 gal/day/sqft.

**SEPTIC SYSTEM DESIGN**

The repair septic system is proposed as a pump to a prefabricated permeable block panel system (T&J Panel). The addition of a 1000 gallon pump tank will be necessary to pump effluent uphill to a distribution box. Effluent will flow from the distribution box to two equal length lines, each 77.5 feet long and comprised of 18 panels. Vertical installation is recommended with trench bottom depths at 28 inches below surface. The drainlines should be installed on contour. These proposed drainlines can be installed without impacting any of the existing buildings or the gravel driveway. Some additional space appears to be available in the corner of the lot, depending on other regulatory compliance. Only very small areas of additional repair area are available on this lot and it is recommended that you make every effort to protect the indicated repair area.

This report and the attached septic system design information have been submitted, on your behalf, to the Harnett County Health Department for review and the permitting process. I appreciate the opportunity to provide this service and hope to be allowed to assist you again in the future. If you have any questions or need additional information, please contact me at your convenience.



Sincerely,

A handwritten signature in cursive script that reads "Hal Owen".

Hal Owen  
Licensed Soil Scientist



# Hal Owen & Associates, Inc.

827 S 8th St, Office D

P.O. Box 400

Lillington, NC 27546

(910) 838-743



<b>Bill To</b>
Mr. Humberto Morales 10 High Standard Lane Angier, NC 27501

<b>Date</b>	<b>Invoice #</b>
3/20/2018	5727
<b>Project</b>	
<b>Lot 32 Hunters Pointe Subd</b>	

Date	Item	Description	Qty	Rate	Amount
3/17/2018	FA 1	Field Assistant I	2	30.00	60.00
3/17/2018	SLSS	Senior Licensed Soil Scientist	2	100.00	200.00
3/19/2018	P ES 1	Project Environmental Scientist I	1	90.00	90.00
3/20/2018	SLSS	Senior Licensed Soil Scientist	0.5	100.00	50.00
<b>Total</b>					\$400.00

Payment in full is due upon receipt of this invoice. A service charge of 1.5% per month will be added to any outstanding balance after thirty (30) days. You may avoid additional charges by forwarding payment in full at your earliest opportunity.

<b>Payments/Credits</b>	-\$400.00
<b>Balance Due</b>	\$0.00