

-----  
ADDRESS . . : 713 JUNO DR  
CONTRACTOR :  
OWNER . . : THE HARNETT LAND GROUP II LLC  
PARCEL . . : 03-9576-01- -0088- -84-  
APPL NUMBER: 17-50040800 CP NEW RESIDENTIAL (SFD)  
DIRECTIONS : T/S: 02/22/2017 04:00 PM JBROCK ----  
TINGEN POINTE #172 - 713 JUNO DR  
PREMISE #96519276  
-----

**STRUCTURE: 000 000 37X41 5BDR MONO W/ GARAGE**

FLOOD ZONE . . . . : FLOOD ZONE X  
# BEDROOMS . . . . : 5000000.00  
SEPTIC - EXISTING? . . . . : NEW TANK  
PROPOSED USE . . . . . : SFD  
WATER SUPPLY . . . . . : COUNTY

**PERMIT: CPSF 00 CP \* SFD**

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
A814 01	9/14/17 9/14/17	SB AP	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 003024353 713 JUNO DR BROADWAY 27505 T/S: 09/14/2017 09:10 AM SBENNETT -----
B101 01	9/14/17 9/14/17	JH DA	R*BLDG FOOTING / TEMP SVC POLE TIME: 17:00 VRU #: 003024361 T/S: 09/13/2017 07:56 AM JBROCK ----- Dig footings down per engineer letters for each lot and clean out all loose dirt.
B101 02	9/19/17	TA	R*BLDG FOOTING / TEMP SVC POLE TIME: 17:00 VRU #: 003025822 T/S: 09/15/2017 07:37 AM JBROCK -----

*[Handwritten signature]*

----- COMMENTS AND NOTES -----



September 18, 2017

Mr. Mike Sans  
Caviness and Cates  
639 Executive Place, Suite 400  
Fayetteville, North Carolina 28305

**Subject: Summary of Foundation Bearing Material Evaluation  
Lot No. 172  
Tingen Pointe Subdivision  
Lillington, North Carolina  
Building Permit Nos.: 17-50040800  
SUMMIT Project Number: 2662-12R (15474-00)**

Dear Mr. Sans:

On September 14 and 18, 2017, a representative of SUMMIT Engineering, Laboratory and Testing, P.C. (SUMMIT) visited the subject site for the purpose of observing the near surface foundation bearing materials for the proposed residential structure. The following is a summary of our onsite observations and evaluation.

The proposed residential foundations were excavated approximately 18 inches wide and approximately 20 inches deep prior to our site visit.

Our work included testing and bearing grade evaluations of the in-place soil at the bottom of the foundation excavations. Hand auger borings were incrementally advanced by manually twisting a sharpened steel auger into the soil at selected locations along the footing excavation. The soil consistency in the bottom of the excavation and at selected intervals below the bearing grade was evaluated by Dynamic Cone Penetrometer (DCP) testing. The conical point of the DCP was first seated to penetrate any loose cuttings and then driven three additional 1-3/4 inch increments with blows from a 15-pound hammer falling 20 inches. The soil's strength characteristics and foundation support capability was determined based on the average blows per increment (bpi) over the last two increments to achieve this penetration. Additionally, the entire excavated foundation was evaluated by hand probing using a 1/2 inch diameter steel probe rod to check for soft areas at the surface intermediate of our hand auger boring locations.

The materials encountered in our hand auger borings generally consisted of tan-orange, sandy-silt (residual soils). It should be noted that soft soils were encountered at approximate depths ranging from 12 to 24 inches below the planned foundation bearing elevation at the exterior wall foundation corners. The contractor was informed and SUMMIT recommended over-excavating to firm soils in the areas designated in marking paint. SUMMIT returned on September 18,

**ENGINEERING • LABORATORY • TESTING**

120 Penmarc Drive, Suite 108 | Raleigh, NC 27603 | (919) 380-9991 | (919) 380-9993 (Fax)

WWW.SUMMITCOMPANIES.COM

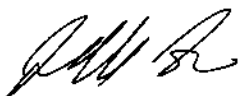
2017 to observe that the recommended over-excavations were performed. We recommend backfilling the over-excavated areas with compacted clean washed stone (NCDOT No. 57 stone) wrapped in a woven geotextile (Mirafi 500x or equivalent) or place full depth concrete. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or to estimate consolidation is desired, **SUMMIT** can provide these services.

Based on the results of our DCP testing, hand probing, and our observed remedial measures, the soils encountered are suitable for support of the proposed residential structure utilizing a net allowable soil bearing pressure of **2,000 pounds-per-square-foot**.

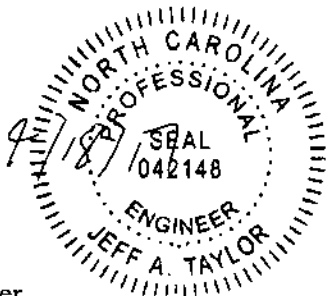
If foundation bearing materials are exposed to inclement weather or adverse construction activities, **SUMMIT** should be contacted to re-evaluate the foundation bearing materials prior to concrete placement. If it is imminent that inclement weather is forecasted prior to concrete placement, then the footings can be over-excavated (deepened) approximately 2 to 4 inches and a mud-mat (lean concrete) can be placed to the foundation bearing elevation to help protect the foundation bearing materials from softening.

**SUMMIT** appreciates the opportunity to provide our professional services to you on this project. If you have any questions concerning the information in this report or if we can be of further service, please contact us.

Sincerely,  
**SUMMIT** Engineering, Laboratory and Testing, P.C.



Jeff A. Taylor, P.E.  
Geotechnical Engineer



Adam D. Perry, E.I.  
Staff Professional