

ADDRESS : 27005 *UNASSIGNED
CONTRACTOR : ROYAL OAKS BUILDING GROUP LLC
OWNER : ATKINS VILLAGE LLC
PARCEL : 04-0664- - -0020- -02-
APPL NUMBER: 17-50040932 CP NEW RESIDENTIAL (SFD)
DIRECTIONS : T/S: 03/10/2017 04:16 PM BPETRICH --
ATKINS VILLAGE #1
NORTH ON 401 - RIGHT ONTO RAWLS CHURCH
- RIGHT ONTO ATKINS ROAD - LEFT ONTO
ATKINS VILLAGE COURT
****PREMISE 34377786****

SUBDIV:
PHONE : (919) 233-3886
PHONE :

STRUCTURE: 000 000 45X68 4BD W/GARAGE&DECK CRAWL W/BONUS

FLOOD ZONE : FLOOD ZONE X

BEDROOMS : 4.00

PROPOSED USE : SFD

SEPTIC - EXISTING? : NEW

WATER SUPPLY : COUNTY

PERMIT: CPSF 00 CP * SFD

TYP/SQ	REQUESTED COMPLETED	INSP RESULT	DESCRIPTION RESULTS/COMMENTS
A814 01	4/20/17 4/20/17	SB AP	ADDRESS CONFIRMATION TIME: 17:00 VRU #: 002961399 793 ATKINS RD FUQUAY VARINA 27526 T/S: 04/20/2017 12:21 PM SBENNETT -----
B101 01	4/21/17 <u>4/21/17</u>	TI <u>APBS</u>	R*BLDG FOOTING / TEMP SVC POLE TIME: 17:00 VRU #: 002961365 T/S: 04/19/2017 09:20 AM JBROCK ----- eng letter for footing
B103 01	4/21/17	TI <u>DABS</u>	T/S: 04/19/2017 03:44 PM BPETRICH ----- R*BLDG FOUND & TEMP SVC POLE TIME: 17:00 VRU #: 002961381 T/S: 04/19/2017 09:20 AM JBROCK ----- T/S: 04/19/2017 03:44 PM BPETRICH -----

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



April 19, 2017

Mr. Rick Sargent
Royal Oaks Building Group, LLC
1210 Trinity Road, Suite 102
Raleigh, North Carolina 27607

**Subject: Summary of Foundation Bearing Material Evaluation
Lot No. 149
Atkins Village Subdivision
Fuquay-Varina, North Carolina
Permit Number: N/A
SUMMIT Project Number: 1852-10R (13571-00)
PO No.: 146000149010**

Dear Mr. Sargent:

On April 11, 2017, 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 foundation. The following is a summary of our onsite observations and bearing material evaluation.

We observed the contractor excavate the footings to an approximate depth of 36 inches below the existing ground elevation and to an approximate width of 18 inches.

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 exposed at the bottom of excavations generally consisted of tan, gray and brown, sandy-clay (fill soils). It should be noted that perched water was encountered in the footing excavations. SUMMIT observed that the contractor dug a tail ditch to drain the water from the

footing excavations and **SUMMIT** recommends that a perimeter foundation drain be installed to drain the ground water away from the footings. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or consolidation is desired, **SUMMIT** can provide these services.


SUMMIT tested the four footing corners of the proposed residential foundation and fill soils were encountered to an approximate minimum depth of 3 feet below the residential foundation bearing elevations. Hand auger refusal was encountered at approximately 2 feet below the planned foundation bearing elevation due to rock in fill at the front right exterior wall footing corner. **SUMMIT** assumes that the fill placement was observed and tested to verify that the fill was placed and compacted properly. Based on the results of our DCP testing and the assumption that the fill placed throughout the building pad is similar or better than the fill material encountered in the hand auger borings, 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 up 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.

P. V. Turlapati
4/11/17



Phanikumar Turlapati, P.E.
Project Engineer

Jason B. Coble

Jason B. Coble, P.E.
Raleigh Branch Manager