PREPARED 4/11/17, 14:27:33 INSPECTION TICKET PAGE 31 Harnett County INSPECTOR: IVR DATE 4/12/17 -----ADDRESS . : 42 DOT CT SUBDIV: ATKINS VILLAGE PH 3 CONTRACTOR : ROYAL OAKS BUILDING GROUP LLC PHONE: (919) 233-3886 OWNER . . : ROYAL OAKS BUILDING GROUP PHONE : PARCEL . . : 04-0664- - -0020- -44-APPL NUMBER: 17-50040786 CP NEW RESIDENTIAL (SFD) DIRECTIONS: T/S: 02/22/2017 11:25 AM JBROCK ----ATKINS VILLAGE #42 T/S: 04/11/2017 07:49 AM DJOHNSON --PREMISE NO 40625179 STRUCTURE: 000 000 51X40 4BDR CRAWL W/ GARAGE & DECK FLOOD ZONE . . . : FLOOD ZONE X # BEDROOMS : 4000000.00 SEPTIC - EXISTING? . . . : NEW TANK PROPOSED USE : SFD WATER SUPPLY : COUNTY PERMIT: CPSF 00 CP * SFD REQUESTED INSP DESCRIPTION TYP/SQ COMPLETED RESULT RESULTS/COMMENTS A814 01 4/10/17 SB ADDRESS CONFIRMATION TIME: 17:00 VRU #: 002956902 4/11/17 AP 68 DOT CT FUQUAY VARINA 28326 T/S: 04/11/2017 10:16 AM SBENNETT ------B101 01 4/12/17 B103 01 T/S: 04/11/2017 07:47 AM DJOHNSON ------TSP INCLUDED PLEASE ----- COMMENTS AND NOTES ----open floor



April 11, 2017

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

Subject: Summary of Footing Projection Observations

Lot No. 42 – (Abaco Court) Atkins Village Subdivision Fuquay-Varina, North Carolina

Permit Number: N/A

SUMMIT Project Number: 1852-10R (13470-00)

Dear Mr. Sargent:

On April 10, 2017, SUMMIT Engineering, Laboratory and Testing, P.C. (SUMMIT) visited the subject site for the purpose of performing third party inspections, including inspecting the concrete footing projection for the proposed residential foundation.

Our work included utilizing a ½ inch diameter probe rod to probe adjacent to the existing foundation at 5 foot intervals around the interior and perimeter of the exterior wall foundations of the proposed residential structure. **SUMMIT's** representative advanced the probe rod approximately 2 inches away from the exterior wall of the proposed residential structure and encountered the concrete projection from the existing footing in all of the probed locations.

Based on the results of our testing and observations, we encountered footing projections in the range of 2 to 4 inches at the exterior wall of the existing footing. The exterior wall foundations and interior column foundations were prepared per the structural plans referenced onsite and are in compliance with Chapter 4 of the 2012 North Carolina Residential code.

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,

Jeff A. Taylor, P.E.=

Geotechnical Engineer

SUMMIT Engineering, Laboratory and Testing, P.C.

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

ENGINEERING • LABORATORY • TESTING

120 Penmarc Drive , Suite 108 | Raleigh, NC 27603 | (919) 380 - 9991 | (919) 380 - 9993 (Fax) WWW.SUMMIT-COMPANIES.COM



March 23, 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. 42 – (Abaco Court) Atkins Village Subdivision Fuquay-Varina, North Carolina

Permit Number: N/A

SUMMIT Project Number: 1852-10R (13279-00)

Dear Mr. Sargent:

On March 16, 2017, SUMMIT Engineering, Laboratory and Testing, Inc. (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 20 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 ½ 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 brown, silty-clay (residual soils). It should be noted that we encountered soft soils at the rear right exterior wall footing to a depth of approximately 12 inches below the footing bearing elevation. We informed the contractor and subsequently observed the contractor remove the soft soils. We were

informed that the contractor elects to place full depth concrete at the over-excavated area. If additional testing for the purpose of estimating volumetric change (shrink/swell) potential or consolidation is desired, **SUMMIT** can provide these services.

Based on the results of our DCP testing, hand probing and the observed repairs that were completed, 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, Inc.

Jason B. Coble, P.E.

Raleigh Branch Manager

Jeff A. Taylor, P.E.

Geotechnical Engineer