Public Health
HEALTH AND HUMAN SERVICES

RICHARD O. BRAJER
Secretary

DANIEL STALEY
Director, Division of Public Health

Onsite Water Protection Branch
September 30, 2016

Raymond Yost
114 Ridge Brook Drive
Mooresville, NC 28117

Re: Approval No. JMB922
Private Well Located Less than 25' from Building Perimeter [Rule 15A NCAC 2C .0107(a)(2)(M)]

Property location:
114 Ridge Brook Drive
Mooresville, NC 28117

Dear Mr. Yost:

On September 29, 2016 the On-site Water Protection Branch received your request for a variance from the Well Construction standards, Title 15A North Carolina Administrative Code Subchapter 2C .0100. The request for the variance concerns a water supply well on the referenced property that is proposed to serve a single family dwelling. Part a structure planned for the property will be within twenty-five feet of the well.

Specifically, the variance request grants you permission to use a water supply well at a distance closer than the twenty five foot setback to a building perimeter. Achieving the twenty five foot setback would be difficult given the challenges of the property.

Based upon information provided by you, the Iredell County Health Department, it is my finding that based upon current conditions as the site exist today (as well as the current proposal for use of the structure) you meet the conditions necessary for approval of a variance as specified by 15A NCAC .0118 (a) (1) and (2). On that basis and if the following conditions are met, the requested variance is approved:

1) The well/wellhead shall meet all current 2C. 0100 standards, including but not limited to being **properly grouted**, terminated at least 12" above land surface, properly sealed, having a thread-less sample tap etc.
2) The well shall be sampled for the same parameters required of a newly constructed well. If samples indicate contamination, further repairs or treatment will be necessary.
3) No potential sources of groundwater contamination shall be stored near the well-head.
4) No termite treatment shall be applied within twenty five feet of the well, unless alternative methods are approved by the Iredell County Health Department.

The granting of this variance is for the well location only. It in no way relieves the owner or agent from other requirements of the North Carolina Well Construction Standards including, but not limited to the requirements in 15A NCAC 2C .0113(b) to repair or to abandon any well which acts as a source or channel for the migration of contamination. This approval does not imply sufficient water quality. Further, the approval does not relieve your responsibility to comply with any other applicable Federal, State, or local laws or regulations.

If you have any questions regarding this variance, please contact me at (828) 713-3335.

Sincerely,

John Brooks

John M. Brooks R.E.H.S, MS

NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

VARIANCE APPLICATION FOR 2C .0100 WELL CONSTRUCTION STANDARDS:

PRIVATE DRINKING WATER WELLS UNDER 15A NCAC 02C .0300

WATER SUPPLY WELLS UNDER 15A NCAC 02C .0107
All water supply wells not considered "Private Drinking Water Wells" and including irrigation, industrial, and commercial wells.

WELLS OTHER THAN WATER SUPPLY UNDER 15A NCAC 02C .0108
Including monitoring and recovery wells.

Print clearly or type information. Illegible submittals will be returned as incomplete.

DATE: August 1st, 2016 PERMIT NO.: _ _ _ _ _ (to be completed by DWQ/DPH)

A. **WELL OWNER** – For single family residences list the property owner(s). For all others, list name of the business, organization, or government agency and person delegated signature authority:

Raymond Yost

Mailing Address: 114 Ridge Brook Drive

City: Mooresville State: NC Zip Code: 28117 County: Iredell

Day Tele No.: 704-658-8960 Cell No.: 7046588960

EMAIL Address: Raymond Yost 102@gmail.com Fax No.:

B. **PHYSICAL LOCATION OF WELL SITE**

(1) Parcel Identification Number (PIN) of well site:

County: Iredell

(2) Physical Address (if different than mailing address):

City: State: NC Zip Code:

C. **WELL DRILLER INFORMATION** (if known)

Well Drilling Contractor's Name: (Unknown)

NC Well Drilling Contractor Certification No.:

Company Name: Contact Person:

City: State: _ Zip Code: County:

Day Tele No.: Cell No.:

EMAIL Address: Fax No.:

D. **REASON FOR VARIANCE REQUEST** – Include type of well(s) to be constructed; rule for which the variance is being requested; description of how the alternate construction will not endanger human health and welfare and the environment; and reason why construction and/or operation in accordance with the standards is not technically feasible and/or provides equal or better protection of the groundwater.

Do to Set BACKS Set BY the County. THIS IS the ONLY Place A garage will Fit on the Property.

E. **ATTACHMENTS** – Provide the following information as attachments to this application:

(1) A map showing general location of the property (including road names, NC State Route Number, distances, any key landmarks, etc.) sufficient for finding the well location.
(2) Detailed site map with scale showing location of proposed well relevant to septic system(s), building foundations, property lines, water bodies, potential sources of contamination, other wells, etc.
(3) Submit a copy of the local well permit application and site evaluation map (if applicable).
(4) Any other information relevant to the variance request such as a well construction diagram showing proposed well liner or atypical construction materials/methods.

F. **OTHER MINIMUM CONSTRUCTION REQUIREMENTS**

For water supply wells, approval of a variance will require that additional construction requirements beyond those specified in 15A NCAC 02C .0107 be met. Minimum additional construction requirements for Coastal Plain and Piedmont and Mountain region wells are referenced on Attachments A and B on pages 4 and 5 of this application. Approval of a variance will not be considered in cases where the specified minimum additional construction requirements cannot be met.

G. **SIGNATURES**

N-A

Signature of Person Responsible for Well Construction (typically the well driller)

N-A

Print or Type Full Name of Person Responsible for Well Construction (typically the well driller)

Signature of County Environmental Health Specialist

BEN ALDRIDGE

Print or Type Full Name of County Environmental Health Specialist

Per 15A NCAC 02C .0118 the Secretary of the Division of Water Quality or the Division of Public Health may require submittal of information deemed necessary to make a decision on the variance, may impose conditions as part of the decision, and shall respond in writing to the request within 30 days of receipt of the variance request. A variance applicant who is dissatisfied with the decision of the Director may commence a contested case by filing a petition as described in G.S. 150B-23 within 60 days after receipt of the decision.

H. SUBMITTAL INSTRUCTIONS

(1) For the following types of water supply wells only:

(a) Private Drinking Water Wells under 15A NCAC 02C .0300
(b) Irrigation Wells under15A NCAC .02C .0107 with a designed capacity of less than 100,000 gallons per day and located on the same property as an on-site wastewater system permitted by a local health department.

Prior to submittal of the variance for these types of wells, please contact your regional environmental health specialist by visiting: http://ehs.ncpublichealth.com/contacts.htm

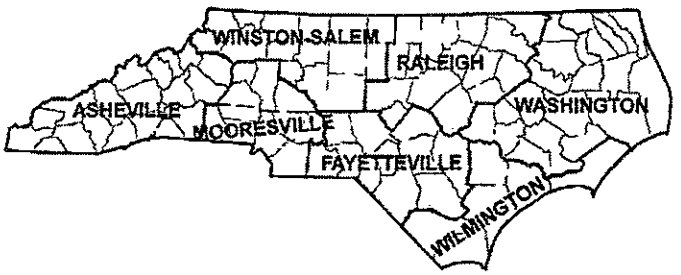
Submit one copy of the completed variance application to:

North Carolina Department of Health and Human Services
Division of Public Health – Environmental Health Section
On-Site Water Protection Branch
1632 Mail Service Center
Raleigh, North Carolina 27699-1632

(2) For the following types of wells only:

(a) All Water Supply Wells under 15A NCAC 02C .0107 other than the ones listed under (1) above
(b) Wells Other than Water Supply under 15A NCAC 02C .0108. If these wells are to be constructed on property not owned by the well owner or applicant, please also attach and submit a completed Application to Construct a Monitoring or Recovery Well System (GW-22MR) found on our website at: http://portal.ncdenr.org/web/wq/aps/gwpro/permit-applications

Submit one copy of the completed variance application to the Division of Water Quality Regional Office serving the area in which the well will be located:



Asheville Regional Office
2090 U.S. Highway 70
Swannanoa, NC 28778
Telephone: (828) 296-4500
Fax: (828) 299-7043

Fayetteville Regional Office
225 Green Street, Suite 714
Fayetteville, NC 28301-5043
Telephone. (910) 433-3300
Fax: (910) 486-0707

Mooresville Regional Office
610 East Center Avenue,
Suite 301
Mooresville, NC 28115
Telephone: (704) 663-1699
Fax: (704) 663-6040

Raleigh Regional Office
1628 Mail Service Center
Raleigh, NC 27699-1628
Telephone: (919) 791-4200
Fax: (919) 571-4718

Washington Regional Office
943 Washington Square Mall
Washington, NC 27889
Telephone: (252) 946-6481
Fax: (252) 975-3716

Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, NC 28405
Telephone: (910) 796-7215
Fax: (910) 350-2004

Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, NC 27107-2241
Phone: (336) 771-5000
Fax: (336) 771-4631

COASTAL PLAIN

Minimum Additional Construction Requirements for Wells Requiring a Variance or a Permit to the Separation Distances in 15A NCAC 2C .0107(a)(2) and .0107(a)(3) - Applicable to areas that are Underlain by Unconsolidated Sediments and Sedimentary Rocks

POTENTIAL POLLUTION SOURCE	MINIMUM SEPARATION DISTANCE (ft)			MINIMUM ADDITIONAL REQUIREMENTS		
	Standard	Single Family	Variance	Casing Type	Casing Depth	Grout Depth
septic tank and drainfield	100	50	50	PVC	>20 feet below land surface or as specified by the Director	To the first significant clay greater than 20 feet below land surface or to the source aquifer
other subsurface ground absorption waste disposal system	100	100				
other sewage and liquid-waste collection or transfer facility	100	100				
cesspools and privies	100	50				
animal feedlots or manure piles	100	100				
Surface water (GW recharge), ponds, lake	50	50	SITE SPECIFIC			
other surface water bodies...creeks, river	25	25				
water tight sewage or liquid-waste collection or transfer facility	50	25	SITE SPECIFIC	PVC*		
animal barns	100	50				
building foundations(excluding well house)	25	25				
fertilizer, pesticide, herbicide or other chemical storage areas	100	100	SITE/SOURCE SPECIFIC	SITE/SOURCE SPECIFIC		
other non-hazardous solid waste landfill	100	100				
non-hazardous waste storage, treatment or disposal lagoons	100	100				
industrial/municipal sludge-spreading or wastewater-irrigation site	100	100				
aboveground or underground heating oil storage tanks	50	50				
all other potential sources of groundwater contamination	50	50				
sanitary landfills	600	600	DO NOT ISSUE			
chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment	50	50				
chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N w/o secondary containment	100	100				

*Double cased PVC may be required

Attachment A (Form GW-22V)

15A NCAC 2C .0107(d)(4)(B), .0107(e)(1)(A), and 2C .0116 provide for the ability to construct a well to a depth of less than 20 feet where the best source of water exists between a depth of ten and twenty feet below the surface of the land. Because additional minimum construction requirements necessitate that: 1) casing extend to a depth greater than 20 feet below land surface; and 2) grout extend to the first significant clay layer greater than 20 feet below land surface or to the source aquifer, a variance to horizontal separation distances for shallow wells cased to less than 20 feet is not feasible. Well construction information should be provided with the Application for Permit for Variance detailing how minimum additional construction requirements will be satisfied.

PIEDMONT AND MOUNTAINS

Minimum Additional Construction Requirements for Wells Requiring a Variance or a Permit to the Separation Distances in 15A NCAC 2C .0107(a)(2) and .0107(a)(3) - Applicable to areas that are Underlain by Crystalline Bedrock

POTENTIAL POLLUTION SOURCE	MINIMUM SEPARATION DISTANCE (ft)			MINIMUM ADDITIONAL REQUIREMENTS		
	Standard	Single Family	Variance	Casing Type	Casing Depth	Grout Depth
septic tank and drainfield	100	50	50	GALVANIZED STEEL	If Bedrock depth is <30 feet: the greater of 15 feet into bedrock or 40 feet below land surface If bedrock depth is 30-100 feet: 10 feet into bedrock If bedrock depth is >100 feet: 5 feet into bedrock	full length of casing[1]
other subsurface ground absorption waste disposal system	100	100				
other sewage and liquid-waste collection or transfer facility	100	100				
cesspools and privies	100	50				
animal feedlots or manure piles	100	100				
Surface water(GW recharge)...ponds, lake	50	50	SITE SPECIFIC			
other surface water bodies...creeks, river	25	25				
water tight sewage or liquid-waste collection or transfer facility	50	25	SITE SPECIFIC	PVC or GALVANIZED STEEL	The greater of 40 feet below land surface or 6 feet into bedrock	full length of casing[1]
animal barns	100	50				
building foundations(excluding well house)	25	25				
fertilizer, pesticide, herbicide or other chemical storage areas	100	100	SITE/SOURCE SPECIFIC	SITE/SOURCE SPECIFIC		
other non-hazardous solid waste landfill	100	100				
non-hazardous waste storage, treatment or disposal lagoons	100	100				
industrial/municipal sludge-spreading or wastewater-irrigation site	100	100				
aboveground or underground heating oil storage tanks	50	50				
all other potential sources of groundwater contamination	50	50				
sanitary landfills	500	500	DO NOT ISSUE			
chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N with secondary containment	50	50				
chemical or petroleum fuel underground storage tanks regulated under 15A NCAC 2N w/o secondary containment	100	100				

[1] A drill bit with a diameter that is at least 1/3 greater than the diameter of the casing must be used to drill the cased portion of the well. Grout should be installed under pressure installation using a tremmie pipe is acceptable if the space to be grouted is free of obstructio

Attachment B (Form GW-22V)