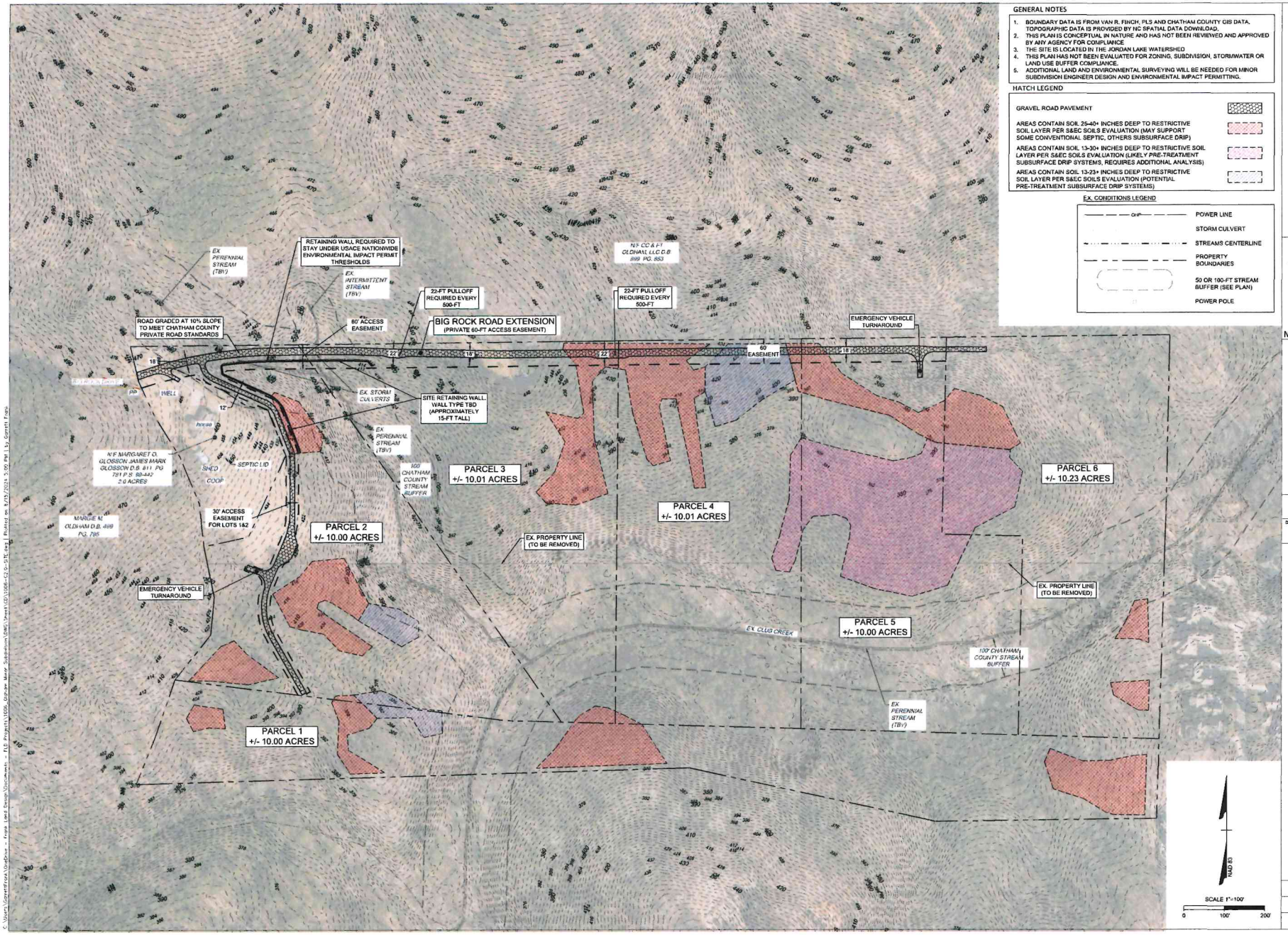

GENERAL NOTES

1. BOUNDARY DATA IS FROM VAN R. FINCH, PLS AND CHATHAM COUNTY GIS DATA. TOPOGRAPHIC DATA IS PROVIDED BY NC SPATIAL DATA DOWNLOAD.
2. THIS PLAN IS CONCEPTUAL IN NATURE AND HAS NOT BEEN REVIEWED AND APPROVED BY ANY AGENCY FOR COMPLIANCE
3. THE SITE IS LOCATED IN THE JORDAN LAKE WATERSHED
4. THIS PLAN HAS NOT BEEN EVALUATED FOR ZONING, SUBDIVISION, STORMWATER OR LAND USE BUFFER COMPLIANCE.
5. ADDITIONAL LAND AND ENVIRONMENTAL SURVEYING WILL BE NEEDED FOR MINOR SUBDIVISION ENGINEER DESIGN AND ENVIRONMENTAL IMPACT PERMITTING.

HATCH LEGEND

- GRAVEL ROAD PAVEMENT
- AREAS CONTAIN SOIL 25-40+ INCHES DEEP TO RESTRICTIVE SOIL LAYER PER S&EC SOILS EVALUATION (MAY SUPPORT SOME CONVENTIONAL SEPTIC, OTHERS SUBSURFACE DRIP)
- AREAS CONTAIN SOIL 13-30+ INCHES DEEP TO RESTRICTIVE SOIL LAYER PER S&EC SOILS EVALUATION (LIKELY PRE-TREATMENT SUBSURFACE DRIP SYSTEMS, REQUIRES ADDITIONAL ANALYSIS)
- AREAS CONTAIN SOIL 13-23+ INCHES DEEP TO RESTRICTIVE SOIL LAYER PER S&EC SOILS EVALUATION (POTENTIAL PRE-TREATMENT SUBSURFACE DRIP SYSTEMS)

EX. CONDITIONS LEGEND

- POWER LINE
- STORM CULVERT
- STREAMS CENTERLINE
- PROPERTY BOUNDARIES
- 50 OR 100-FT STREAM BUFFER (SEE PLAN)
- POWER POLE

FRANK LAND DESIGN, PC
LANDSCAPE ARCHITECTURE | CIVIL ENGINEERING
128 MESAC BLVD, SUITE 350-17, PITTSBORO, NC 27312 | LIC/NC #C-3114 | WWW.FRANKLANDDESIGN.COM

PRELIMINARY

NOT FOR CONSTRUCTION

REVISIONS:	
CHECKED BY:	DATE:
G.FRANK	08.15.2024
DESIGN / DRAWN BY:	SCALE:
G.FRANK	AS SHOWN

OLDHAM EXEMPT SUBDIVISION

448 OLD LYSTRA ROAD, CHAPEL HILL, NC | CHATHAM COUNTY PLANNING JURISDICTION

CONCEPTUAL EXEMPT SUBDIVISION PLAN

ISSUED FOR:	EXHIBIT
JOB NO.	1006
SHEET NO.	CONCEPT

CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

P.O. Box 548
Pittsboro, NC 27312
PHONE: (984) 214-1456

• E-mail: drew.blake@chathamcountync.gov • Website: www.chathamcountync.gov

September 27, 2024

AJ Kamal
Soil & Environmental Consultants, Inc.
8412 Falls of Neuse Road Ste. 104
Raleigh, NC 27615

Project Name: Parcels # 76374 & 76369

Location: Old Lystra Road

Project Number WP-24-483

Subject Features: Three (3) intermittent streams, one (1) perennial stream, and five (5) potential wetlands

Dear Mr. Kamal,

Based on information which you provided on the Riparian Buffer Review Application, submitted on October 29, 2024, staff within the Watershed Protection Department completed a Riparian Buffer Review in accordance with Chatham County Watershed Protection Ordinance Section 304(B) Field Delineations. This Riparian Buffer Review was completed for a portion of properties that are identified as Parcel # 76374 and 76369 and is located within the Upper New Hope Arm of the Jordan Lake watershed.

Summary of Findings
A site visit was completed on August 19, 2024, by staff of Soil & Environmental Consultants, Inc. (S&EC). S&EC personnel identified three (3) intermittent streams, one (1) perennial stream, and five (5) potential wetlands within the review area.

Required Buffers
The required riparian buffers provided below are in accordance with Section 304(D) of the Chatham County Watershed Protection Ordinance.

Section 304(D)(1) – Perennial Streams
The riparian buffer shall be one hundred (100') feet landward, measured horizontally on a line perpendicular from top of bank; this distance shall be measured on all sides of perennial streams, or shall be the full horizontal extent of the Area of Special Flood Hazard as most recently mapped by the North Carolina Floodplain Mapping Program, NC Division of Emergency Management, whichever is the greater horizontal distance.

Section 304(D)(2) – Intermittent Streams
The riparian buffer shall be fifty (50') feet landward, measured horizontally on a line perpendicular from top of bank; this distance shall be measured on all sides of intermittent streams.

Section 304(D)(4) – Jurisdictional and Non-Jurisdictional Wetlands
The riparian buffer shall be fifty (50') feet landward, measured horizontally on a line perpendicular from the delineated boundary, surrounding all features classified as wetlands and linear wetlands.

CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

P.O. Box 548
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• E-mail: drew.blake@chathamcountync.gov • Website: www.chathamcountync.gov

The following documents attached herein are provided for your records. If surface water features were observed during the site review and were described above, exhibit 2 must be provided to the surveyor on record and all features and required buffers described above must be indicated on the property survey which should be provided to Paula Phillips (Land Use Administrator I) for review.

Impacts to Riparian Buffers:
Impacts to the riparian buffers may require a No Practical Alternatives Authorization depending on the size and scope of the impacts. If your project is located **inside** of the Jordan Lake Watershed and is proposing impacts within riparian buffers, please refer to Section 304 (J)(3) of the Chatham County Watershed Protection Ordinance to determine if your impacts will require a Riparian Buffer Authorization. If your project is located **outside** of the Jordan Lake Watershed and is proposing impacts within riparian buffers, please refer to Section 304 (F) of the Chatham County Watershed Protection Ordinance for a list of allowed structures and uses in the riparian buffer for areas outside of the Jordan Lake Watershed. If you determine that a Riparian Buffer Authorization is required, please contact Drew Blake to receive the required application and submittal instructions.

Expirations of Determinations:
This on-site determination shall expire five (5) years from the date of this letter.

Appeals of Determinations:
Landowners or affected parties that dispute a determination made by Chatham County, on parcels **outside** of the Jordan Lake watershed, may submit a request for appeal in writing to the Watershed Review Board. A request for a determination by the Watershed Review Board shall be made in accordance with Section 304 of the Chatham County Watershed Protection Ordinance. Landowners or affected parties that dispute a determination made by Chatham County, on parcels **inside** the Jordan Lake watershed, shall submit a request for appeal in writing to NC DWR, 401 & Buffer Permitting Unit, 1650 Mail Service Center, Raleigh, NC 27669-1650 attention of the Director of the NC Division of Water Quality.

Identification of Potential Wetlands:
Any identifications of potential wetlands within the reviewed area are intended to be advisory in nature and are not intended to be used for the completion of Section 401/404 permitting process. Only the appropriate Regional Office of the US Army Corps of Engineers can make wetland determinations related to any wetland impacts or permitting. Additionally, Chatham County makes no guarantees that all wetlands were identified. Wetland identifications completed by Chatham County are only associated with the implementation of riparian buffers as defined in Section 304 of the Chatham County Watershed Protection Ordinance.

Conclusion:
Should this project result in any direct impacts to surface water features (i.e., crossing and/or filling streams or wetlands) additional reviews may be necessary. Additionally, a Section 401/404 Permit may be required. Any inquiries regarding Section 401/404 permitting should be directed to the Division of Water Resources (Raleigh Regional Office) at (919)-791-4200 and the US Army Corp of Engineers (Raleigh Regulatory Field Office) at (919)-554-4884.

CHATHAM COUNTY
NORTH CAROLINA

WATERSHED PROTECTION DEPARTMENT

P.O. Box 548
Pittsboro, NC 27312
PHONE: (984) 214-1456

• E-mail: drew.blake@chathamcountync.gov • Website: www.chathamcountync.gov

Respectfully,

Drew Blake

Drew Blake
Assistant Director
Chatham County Watershed Protection Department

Table of Contents

For additional questions regarding the Watershed Protection Ordinance or Riparian Buffers please contact:

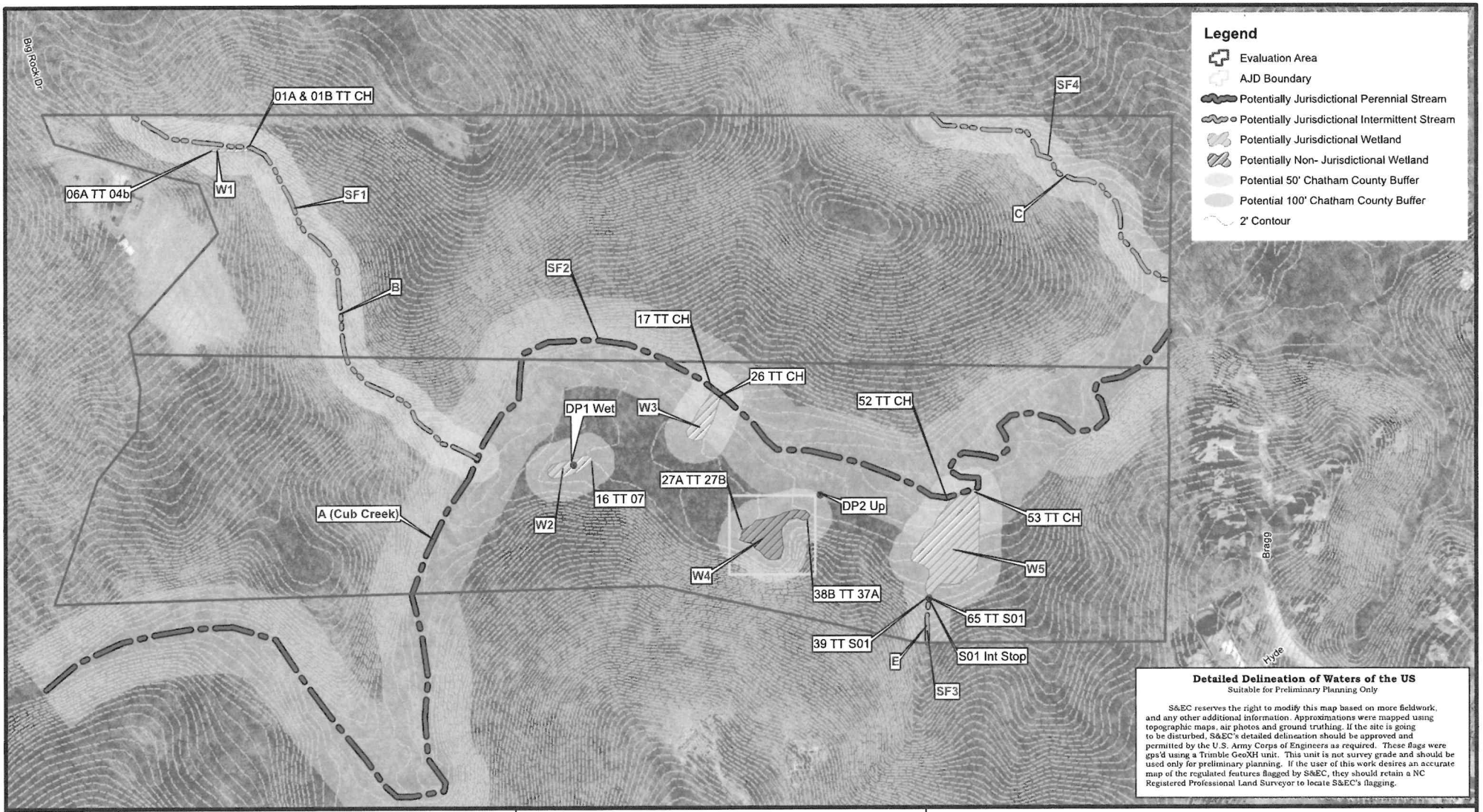
Drew Blake – Watershed Protection Assistant Director
Chatham County Watershed Protection Department
P.O. Box 548
Pittsboro, NC 27312
Phone: (919) 545-8343
Email: drew.blake@chathamcountync.gov

For additional questions regarding the Minor Subdivision process please contact:

Ms. Paula Phillips – Land Use Administrator I
Chatham County Planning Department
P.O. Box 54
Pittsboro, NC 27312
Phone: (919) 542-8276
Email: paula.phillips@chathamcountync.gov

For additional questions regarding soils and sanitary/septic systems please contact:

Mr. James Tiger
Chatham County Environmental Health Department
P.O. Box 130
Pittsboro, NC 27312
Phone: (919) 545-8316
Email: james.tiger@chathamcountync.gov



Project No. 16181.W1	N W E S	**Wetland Sketch Map**	S&EC Soil & Environmental Consultants, Inc.
Project Mgr.: SB	0 200 400 800 Feet	Big Rock Dr Site (Oldham) Chatham County, NC	8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone (919) 846-5900 • Fax (919) 846-9467 sandec.com
Scale: 1" = 200'		**Source:** Aerials from NC OneMap	
08/20/2024			

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

SF 1

NC DWQ Stream Identification Form Version 4.11

Date: 8/19/2024	**Project/Site:** Big Rock Dr Site (Oldham)	**Latitude:** 35.846642
Evaluator: AJ Kamal	**County:** Chatham	**Longitude:** -79.070277
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 28	**Stream Determination (circle one)** Ephemeral **Intermittent** Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 16)	Absent	Weak	Moderate	Strong
1[a]. Continuity of channel bed and bank	0	1	2	(3)
2. Sinuosity of channel along thalweg	0	1	(2)	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	(3)
4. Particle size of stream substrate	0	1	(2)	3
5. Active/relict floodplain	(0)	1	2	3
6. Depositional bars or benches	0	(1)	2	3
7. Recent alluvial deposits	0	1	(2)	3
8. Headcuts	(0)	1	2	3
9. Grade control	0	0.5	1	(1.5)
10. Natural valley	0	0.5	1	(1.5)
11. Second or greater order channel	No =(0)		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 6)				
12. Presence of Baseflow	0	1	2	(3)
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	(1.5)	1	0.5	0
15. Sediment on plants or debris	0	(0.5)	1	1.5
16. Organic debris lines or piles	0	0.5	(1)	1.5
17. Soil-based evidence of high water table?	No =(0)		Yes = 3	

C. Biology (Subtotal = 6)				
18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	(3)	2	1	0
20. Macrobenthos (note diversity and abundance)	(0)	1	2	3
21. Aquatic Mollusks	(0)	1	2	3
22. Fish	(0)	0.5	1	1.5
23. Crayfish	(0)	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	(0)	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other =(0)			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

JH

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

SF 2

NC DWQ Stream Identification Form Version 4.11

Date: 8/19/2024	**Project/Site:** Big Rock Dr Site	**Latitude:** 35.845821
Evaluator: AJ Kamal	**County:** Chatham	**Longitude:** -79.067949
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 33.5	**Stream Determination (circle one)** Ephemeral Intermittent **Perennial**	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 17)	Absent	Weak	Moderate	Strong
1[a]. Continuity of channel bed and bank	0	1	2	(3)
2. Sinuosity of channel along thalweg	0	1	(2)	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	(2)	3
4. Particle size of stream substrate	0	1	(2)	3
5. Active/relict floodplain	0	(1)	2	3
6. Depositional bars or benches	0	1	(2)	3
7. Recent alluvial deposits	0	(1)	2	3
8. Headcuts	(0)	1	2	3
9. Grade control	(0)	0.5	1	1.5
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	No = 0		Yes = (3)	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 6.5)				
12. Presence of Baseflow	0	1	2	(3)
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	(1.5)	1	0.5	0
15. Sediment on plants or debris	0	0.5	(1)	1.5
16. Organic debris lines or piles	0	0.5	(1)	1.5
17. Soil-based evidence of high water table?	No = (0)		Yes = 3	

C. Biology (Subtotal = 10)				
18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	(3)	2	1	0
20. Macrobenthos (note diversity and abundance)	0	1	(2)	3
21. Aquatic Mollusks	(0)	1	2	3
22. Fish	0	0.5	1	(1.5)
23. Crayfish	(0)	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	0	(0.5)	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = (0)			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

SF 3

NC DWQ Stream Identification Form Version 4.11

Date: 8/19/2024	**Project/Site:** Big Rock Dr Site	**Latitude:** 35.844014
Evaluator: AJ Kamal	**County:** Chatham	**Longitude:** -79.065449
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 19.5	**Stream Determination (circle one)** Ephemeral **Intermittent** Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 9.5)	Absent	Weak	Moderate	Strong
1[a]. Continuity of channel bed and bank	0	1	(2)	3
2. Sinuosity of channel along thalweg	0	(1)	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	(1)	2	3
4. Particle size of stream substrate	0	(1)	2	3
5. Active/relict floodplain	(0)	1	2	3
6. Depositional bars or benches	0	(1)	2	3
7. Recent alluvial deposits	0	1	(2)	3
8. Headcuts	(0)	1	2	3
9. Grade control	(0)	0.5	1	1.5
10. Natural valley	0	0.5	1	(1.5)
11. Second or greater order channel	No =(0)		Yes = 3	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 4)				
12. Presence of Baseflow	0	1	(2)	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	(1)	0.5	0
15. Sediment on plants or debris	0	(0.5)	1	1.5
16. Organic debris lines or piles	0	(0.5)	1	1.5
17. Soil-based evidence of high water table?	No =(0)		Yes = 3	

C. Biology (Subtotal = 6)				
18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	(3)	2	1	0
20. Macrobenthos (note diversity and abundance)	(0)	1	2	3
21. Aquatic Mollusks	(0)	1	2	3
22. Fish	(0)	0.5	1	1.5
23. Crayfish	(0)	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	(0)	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other =(0)			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

SF 4

NC DWQ Stream Identification Form Version 4.11

Date: 8/19/2024	**Project/Site:** Big Rock Dr Site	**Latitude:** 35.846945
Evaluator: AJ Kamal	**County:** Chatham	**Longitude:** -79.064526
Total Points: *Stream is at least intermittent if ≥ 19 or perennial if ≥ 30** 27.5	**Stream Determination (circle one)** Ephemeral **Intermittent** Perennial	**Other** *e.g. Quad Name:*

A. Geomorphology (Subtotal = 17.5)	Absent	Weak	Moderate	Strong
1[a]. Continuity of channel bed and bank	0	1	2	(3)
2. Sinuosity of channel along thalweg	0	1	2	(3)
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	(1)	2	3
4. Particle size of stream substrate	0	1	(2)	3
5. Active/relict floodplain	(0)	1	2	3
6. Depositional bars or benches	0	1	(2)	3
7. Recent alluvial deposits	0	1	(2)	3
8. Headcuts	(0)	1	2	3
9. Grade control	(0)	0.5	1	1.5
10. Natural valley	0	0.5	1	(1.5)
11. Second or greater order channel	No = 0		Yes = (3)	

[a] artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 4)				
12. Presence of Baseflow	0	1	(2)	3
13. Iron oxidizing bacteria	(0)	1	2	3
14. Leaf litter	1.5	(1)	0.5	0
15. Sediment on plants or debris	0	(0.5)	1	1.5
16. Organic debris lines or piles	0	(0.5)	1	1.5
17. Soil-based evidence of high water table?	No = (0)		Yes = 3	

C. Biology (Subtotal = 6)				
18. Fibrous roots in streambed	(3)	2	1	0
19. Rooted upland plants in streambed	(3)	2	1	0
20. Macrobenthos (note diversity and abundance)	(0)	1	2	3
21. Aquatic Mollusks	(0)	1	2	3
22. Fish	(0)	0.5	1	1.5
23. Crayfish	(0)	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	(0)	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = (0)			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Eastern Mountains and Piedmont Region
See ERDC/EL TR-07-24; the proponent agency is CECW-CO-R

OMB Control #: 0710-xxxx, Exp: Pending Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Big Rock Dr Site (Oldham) City/County: Chatham Sampling Date: 8/19/2024

Applicant/Owner: *See Property Owner Information Sheet State: NC Sampling Point: DP2 Up

Investigator(s): S&EC - Garrett Nelson & A.J. Kamal Section, Township, Range: Chapel Hill

Landform (hillside, terrace, etc.): floodplain Local relief (concave, convex, none): none Slope (%): 0-2

Subregion (LRR or MLRA): LRR N, MLRA 126 Lat: 35.844865 Long: -79.066256 Datum: NAD 83

Soil Map Unit Name: WeE NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Sparsely Vegetated Concave Surface (B8)
- x Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: DP2 Up

Tree Stratum (Plot size: 30' x 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Liriodendron tulipifera*	20	Yes	FACU
2. *Pinus taeda*	10	Yes	FAC
3. *Carpinus caroliniana*	20	Yes	FAC
4.			
5.			
6.			
7.			
	50	=Total Cover	
50% of total cover: 25		20% of total cover:	10
Sapling/Shrub Stratum (Plot size: 15' x 15')			
1. *Liquidambar styraciflua*	5	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
	5	=Total Cover	
50% of total cover: 3		20% of total cover:	1
Herb Stratum (Plot size: 5' x 5')			
1. *Polystichum acrostichoides*	10	Yes	FACU
2. *Arisaema triphyllum*	5	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3
Woody Vine Stratum (Plot size: 30' x 30')			
1. *Smilax rotundifolia*	10	Yes	FAC
2. *Vitis rotundifolia*	5	Yes	FAC
3.			
4.			
5.			
	15	=Total Cover	
50% of total cover: 8		20% of total cover:	3

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	50	x 3 =	150
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	85 (A)		280 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody Vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

VEGETATION (Five Strata) – Use scientific names of plants.

Sampling Point: DP2 Up

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Sapling Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Herb Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	=Total Cover		
50% of total cover:	20% of total cover:		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
50% of total cover:	20% of total cover:		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Five Vegetation Strata:

Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).

Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.

Shrub - Woody Plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.

Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.

Woody Vine – All woody vines, regardless of height.

Hydrophytic Vegetation Present? **Yes** ____ **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: DP2 Up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/4	100					Loamy/Clayey	
6-13	10YR 6/3	70	10YR 5/8	30	C	M	Loamy/Clayey	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10) **(LRR N)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Polyvalue Below Surface (S8) **(MLRA 147, 148)**
- ___ Thin Dark Surface (S9) **(MLRA 147, 148)**
- ___ Loamy Mucky Mineral (F1) **(MLRA 136)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Iron-Manganese Masses (F12) **(LRR N, MLRA 136)**
- ___ Umbric Surface (F13) **(MLRA 122, 136)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 148)**
- ___ Red Parent Material (F21) **(MLRA 127, 147, 148)**

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(MLRA 147)**
- ___ Coast Prairie Redox (A16) **(MLRA 147, 148)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 136, 147)**
- ___ Red Parent Material (F21) **(outside MLRA 127, 147, 148)**
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

County of Chatham, NC

October 29, 2024

WP-24-483

On-site Riparian Buffer Review

Status: Active

Submitted On: 9/24/2024

Primary Location

448 Big Rock Dr
Chapel Hill, North Carolina 27517

Owner

GLOSSON MARGARET O
GLOSSON JAMES MARK
446 OLD LYSTRA RD CHAPEL HILL , NC 27517-6333

Applicant

AJ Kamal
+1 828-320-1959
ajkamal@sandec.com
8412 Falls of Neuse Road
Ste. 104
Raleigh, NC 27615

Project Information

Review Type*

Minor Subdivision

If you have not done so already, please contact Paula Phillips of the Planning Department, prior to completing this application. (919) 542-8276 paula.phillips@chathamcountync.gov. If the Planning Department has approved this subdivision, please proceed with this application.

Has this review been completed by an environmental consultant prior to submittal to the county?*

Yes

Number of Features Found*

9

Date Field Work Was Completed*

08/20/2024

A Minor Subdivision is the creation of 5 or less new lots. If the original tract is over 10 acres and the subdivision results in the total of that tract becoming less than 10 acres then two lots have been created by default.

Number of Lots Being Created*

5

Parcel Information

Parcel Number (s)*

0076369

Watershed District

Jordan Lake - New Hope River / 03030002

Is the property within the Jordan Lake Watershed*

Yes

Property Owner Name*

Margaret O. Glosson & James Mark Glosson

Location of Tract (address if applicable)*

Big Rock Drive, Chapel Hill, NC 27514

Driving Directions from Pittsboro*

US HWY 15 North, East on Old Lystra Road, East on Big Rock Drive

Subdivision Name (if applicable)

N/A

Please describe access issues (provide gate codes, or information for scheduling site visit)*

N/A

Parcel Number (s)*

0076374

Watershed District

Jordan Lake - New Hope River / 03030002

Is the property within the Jordan Lake Watershed*

Yes

Property Owner Name*

Ella S. Oldham & John S. Oldham

Location of Tract (address if applicable)*

Big Rock Drive, Chapel Hill, NC 27514

Driving Directions from Pittsboro*

US HWY 15 North, East on Old Lystra Road, East on Big Rock Drive

Subdivision Name (if applicable)

N/A

Please describe access issues (provide gate codes, or information for scheduling site visit)*

N/A

Applicants Information

Are you the Landowner or an Agent*

Agent

Full Name*

AJ Kamal

Primary Phone Number*

8283201959

Primary Email*

ajkamal@sandec.com

Mailing Address*

8412 Falls of Neuse Road

City/State*

Raleigh

Zip Code*

27615

How would you like to receive the completed review letter?

I would like to pick up the completed Riparian Buffer Review at the County Office

☐

I would like the completed Riparian Buffer Review mailed to me

☐

I would like the completed Riparian Buffer Review e-mailed to me.

☑

Statement of Understanding

I have read and understand the regulations of the Watershed Protection Ordinance, Section 304, and I agree to adhere to these associated policies and guidelines.

Name*

AJ Kamal

New Field*

09/24/2024

Attachments

Review Area Map REQUIRED
Figure 3 - Aerial Map (Avenza).pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:38 PM

Signed Right to Enter Property Form REQUIRED
chatham auth to enter 2.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:43 PM
2 Versions

Signed Owner's Agent Designation Form
chatham agent form 2.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:43 PM
2 Versions

Consultant Findings Report REQUIRED
Form2.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:40 PM

Consultants Findings Map REQUIRED
Wetland Sketch Map - Big Rock Dr Site.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:39 PM

NCDWQ Stream Identification Forms & Wetland Data Forms REQUIRED
DP2 Up.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:53 PM
2 Versions

USGS Topographic Map REQUIRED
Figure 1 - USGS Map.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:38 PM

Figure 2 - Soil Survey Map.pdf
Figure 2 - Soil Survey Map.pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:39 PM

Figure 4 - LiDAR Map (Avenza).pdf
Figure 4 - LiDAR Map (Avenza).pdf
Uploaded by AJ Kamal on Sep 24, 2024 at 2:39 PM

SF1.pdf
SF1.pdf
Uploaded by AJ Kamal on Sep 25, 2024 at 2:30 PM

SF2.pdf
SF2.pdf
Uploaded by AJ Kamal on Sep 25, 2024 at 2:30 PM

SF3.pdf
SF3.pdf
Uploaded by AJ Kamal on Sep 25, 2024 at 2:31 PM

SF4.pdf
SF4.pdf
Uploaded by AJ Kamal on Sep 25, 2024 at 2:31 PM

History

Date	Activity
10/29/2024, 12:44:18 PM	Paula Phillips changed the deadline to Oct 31, 2024 on approval step Planning Department Intake Approval on Record WP-24-483
10/29/2024, 12:44:16 PM	Taylor Burton assigned approval step Field Review from Taylor Burton to Drew Blake on Record WP-24-483
9/30/2024, 11:56:21 AM	Taylor Burton changed the deadline to Oct 17, 2024 on approval step Field Review on Record WP-24-483
9/27/2024, 10:52:39 AM	OpenGov system changed the deadline to Oct 11, 2024 on approval step Field Review on Record WP-24-483
9/27/2024, 10:52:38 AM	OpenGov system assigned approval step Field Review from to Taylor Burton on Record WP-24-483

Date	Activity
9/27/2024, 10:52:38 AM	OpenGov system altered approval step Field Review, changed status from Inactive to Active on Record WP-24-483
9/27/2024, 10:52:38 AM	Drew Blake waived payment step Minor Subdivision Buffer Review Fee on Record WP-24-483
9/27/2024, 10:52:26 AM	OpenGov system altered payment step Minor Subdivision Buffer Review Fee, changed status from Inactive to Active on Record WP-24-483
9/27/2024, 10:52:25 AM	Drew Blake approved approval step Watershed Minor Subdivision Intake Approval on Record WP-24-483
9/26/2024, 4:00:31 PM	OpenGov system assigned approval step Watershed Minor Subdivision Intake Approval from to Hollie Squires on Record WP-24-483
9/26/2024, 4:00:31 PM	OpenGov system altered approval step Watershed Minor Subdivision Intake Approval, changed status from Inactive to Active on Record WP-24-483
9/26/2024, 4:00:29 PM	Paula Phillips approved approval step Planning Department Intake Approval on Record WP-24-483
9/25/2024, 2:31:46 PM	AJ Kamal added file SF4.pdf to Record WP-24-483
9/25/2024, 2:31:29 PM	AJ Kamal added file SF3.pdf to Record WP-24-483
9/25/2024, 2:30:51 PM	AJ Kamal added file SF2.pdf to Record WP-24-483
9/25/2024, 2:30:32 PM	AJ Kamal added file SF1.pdf to Record WP-24-483
9/24/2024, 3:25:06 PM	Paula Phillips added a guest: sball@sandec.com to Record WP-24-483
9/24/2024, 2:54:06 PM	OpenGov system assigned approval step Planning Department Intake Approval from to Paula Phillips on Record WP-24-483
9/24/2024, 2:54:06 PM	OpenGov system altered approval step Planning Department Intake Approval, changed status from Inactive to Active on Record WP-24-483
9/24/2024, 2:54:06 PM	AJ Kamal submitted Record WP-24-483
9/24/2024, 2:53:43 PM	AJ Kamal added file DP2 Up.pdf
9/24/2024, 2:53:37 PM	AJ Kamal added file DP1 Wet.pdf

Date	Activity
9/24/2024, 2:43:29 PM	AJ Kamal added file chatham auth to enter 2.pdf
9/24/2024, 2:43:13 PM	AJ Kamal added file chatham agent form 2.pdf
9/24/2024, 2:42:06 PM	AJ Kamal added file chatham right to enter.pdf
9/24/2024, 2:42:01 PM	AJ Kamal added file Chatham auth agent form.pdf
9/24/2024, 2:40:19 PM	AJ Kamal added file Form2.pdf
9/24/2024, 2:39:48 PM	AJ Kamal added file Wetland Sketch Map - Big Rock Dr Site.pdf
9/24/2024, 2:39:29 PM	AJ Kamal added file Figure 4 - LiDAR Map (Avenza).pdf
9/24/2024, 2:39:11 PM	AJ Kamal added file Figure 2 - Soil Survey Map.pdf
9/24/2024, 2:38:48 PM	AJ Kamal added file Figure 1 - USGS Map.pdf
9/24/2024, 2:38:19 PM	AJ Kamal added file Figure 3 - Aerial Map (Avenza).pdf
9/24/2024, 2:16:19 PM	AJ Kamal started a draft Record

Timeline

Label	Activated	Completed	Assignee	Due Date	Status
✔ Planning Department Intake Approval	9/24/2024, 2:54:06 PM	9/26/2024, 4:00:29 PM	Paula Phillips	10/30/2024	Completed
✔ Watershed Minor Subdivision Intake Approval	9/26/2024, 4:00:30 PM	9/27/2024, 10:52:25 AM	Hollie Squires	-	Completed

Label	Activated	Completed	Assignee	Due Date	Status
Minor Subdivision Buffer Review Fee	9/27/2024, 10:52:26 AM	9/27/2024, 10:52:38 AM	AJ Kamal	-	Skipped
Field Review	9/27/2024, 10:52:38 AM	-	Drew Blake	10/17/2024	Active
Minor Subdivision Riparian Buffer Report	-	-	-	-	Inactive

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PARCEL ID (PIN) 0076374 PARCEL SIZE 31.132 acres

STREET ADDRESS: Big Rock Drive off Old Lystra Road, Chapel Hill, NC 37524

Please print:
Property Owner: Ella S, Oldham

Property Owner: John S. Oldham

The undersigned owner(s) of the above described property, do hereby authorize

Steven Ball, of Soil and Environmental Consultants, Inc.
(Contractor / Agent) (Name of consulting firm if applicable)

to act on my/our behalf and take all actions. I/we could have taken if present, necessary for the processing, issuance and acceptance of reviews, inspections, or permits and any and all standard and special conditions attached to these approvals. The activities authorized include the following (**Check all that apply**):

☐ **Check here for all of the below options.**

☐ Building Permit
☐ Zoning Compliance Permits
☐ Floodplain Determination
☐ Soil Erosion & Sedimentation Control Permit
☐ Permits to install, repair, evaluate, or expand onsite wastewater system(s)
☐ Evaluation/inspection/permitting of a private drinking water well(s).
☒ Riparian Buffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance.
☐ Other: _____

Property Owner's Address (if different than property above):
1415 Admiral Way, Wilmington, NC 28412

Telephone: (910) 859-3811 E-mail: johnsoldham2013@gmail.com

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

Owner Authorized Signature
Date: 09/09/2024

Agent Authorized Signature
Date: _____

S&EC
Soil & Environmental Consultants, Inc.
8412 Falls of Neuse Road, Suite 104, Raleigh, NC 27615 • Phone (919) 846-5900 • Fax (919) 846-9467
sandec.com

PROPERTY OWNER CERTIFICATION / AGENT AUTHORIZATION

Project Name/Description: Parcel 0076374 S&EC Project # 16181

Date: _____

The Department of the Army
U.S. Army Corps of Engineers, Wilmington District
69 Darlington Avenue
Wilmington, NC 28403

Attn: _____ Field Office: _____

I, the undersigned, a duly authorized owner of record of the property/properties identified herein, do authorize representatives of the Wilmington District, U.S. Army Corps of Engineers (Corps) and Soil & Environmental Consultants, Inc. (S&EC) staff (as my agent) to enter upon the property herein described for the purpose of conducting on-site investigations and issuing a determination associated with Waters of the U.S. subject to Federal jurisdiction under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899. This document also authorizes S&EC (as my agent) to act on my behalf and take all actions necessary for the processing, issuance and acceptance of a permit or certification and any and all associated standard and special conditions.This notification supersedes any previous correspondence concerning the agent for this project.

NOTICE: This authorization, for liability and professional courtesy reasons, is valid only for government officials to enter the property when accompanied by S&EC staff. You should call S&EC to arrange a site meeting prior to visiting the site.

PARCEL INFORMATION:
Parcel Index Number(s) (PIN): 0076374
Site Address: Big Rock Drive off Old Lystra Road
City, County, State: Chapel Hill, Chatham County, NC

PROPERTY OWNER INFORMATION:
Name: John S. Oldham
Address: 1415 Admiral Way, Wilmington, NC 28412
Phone No.: ( ) Fax No.: ( ) Mobile No.: (910) 859-3811
Email: johnsoldham2013@gmail.com

John S. Oldham
Property Owner (please print)

09/09/2024
Date

Property Owner Signature

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

CHATHAM COUNTY

AUTHORIZED AGENT FOR FORM

PROPERTY LEGAL DESCRIPTION:

LOT NO. _____ PARCEL ID (PIN) 0076374 PARCEL SIZE 31.132 acres

STREET ADDRESS: Big Rock Drive off Old Lystra Road, Chapel Hill, NC 37524

Please print:
Property Owner: Ella S, Oldham

Property Owner: John S. Oldham

The undersigned owner(s) of the above described property, do hereby authorize

Steven Ball (Contractor / Agent), of Soil and Environmental Consultants, Inc. (Name of consulting firm if applicable)

to act on my/our behalf and take all actions. I/we could have taken if present, necessary for the processing, issuance and acceptance of reviews, inspections, or permits and any and all standard and special conditions attached to these approvals. The activities authorized include the following (**Check all that apply**):

☐ **Check here for all of the below options.**

☐ Building Permit
☐ Zoning Compliance Permits
☐ Floodplain Determination
☐ Soil Erosion & Sedimentation Control Permit
☐ Permits to install, repair, evaluate, or expand onsite wastewater system(s)
☐ Evaluation/inspection/permitting of a private drinking water well(s).
☒ Riparian Buffer Review pursuant to §304 of the Chatham Co. Watershed Protection Ordinance.
☐ Other: _____

Property Owner's Address (if different than property above):
1415 Admiral Way, Wilmington, NC 28412

Telephone: (910) 859-3811 E-mail: johnsoldham2013@gmail.com

We hereby certify the above information submitted in this application is true and accurate to the best of our knowledge.

_____
Owner Authorized Signature
Date: 09/09/2024

_____
Agent Authorized Signature
Date: _____

CHATHAM COUNTY
NORTH CAROLINA

Watershed Protection Department

P.O. Box 54[illegible]
Pittsboro, NC 27312

Website: www.chathamnc.org

Authorization to Enter Property Form

Date: _____

PARCEL No. (AKPAR) 0076374

I, (print name) John S. Oldham, as owner of the property described above, or as a representative of the owner(s) do hereby convey permission to Chatham County staff to enter the property at their convenience to conduct a surface water identification (SWID) necessary to determine whether or not water features on my property are subject to the riparian buffer regulations described in Section 304 of the Chatham County Watershed Protection Ordinance. The SWID will be public record and on file at the Planning and Watershed Protection Departments, and may be requested in the future for review by interested parties.

I understand that stream delineations for the property listed above will be made by County staff only once and that if future subdivisions are proposed within this property boundary, it will require a surface water identification by a private consultant at the property owner's expense.

John S. Oldham
(Print Owner's Name)

John S Oldham
(Signature of Owner)
(Date) 09/09/2024

(Print Authorized Agent Name)

(Signature of Authorized Agent)
(Date)