

**Special Use Permit Application SUP-21-02  
Henderson County Zoning Board of Adjustment**

**July 28, 2021**

**Proposed Crab Creek Mini Storage Facility  
547 Crab Creek Road, Hendersonville, NC**

**By**

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## Introduction

Dr. Barrett L. Kays has been commissioned to objectively review the subject special use application and to apply his professional knowledge and expertise to facts relating to the standards of review by the Henderson County Zoning Board of Adjustment. The site plan submitted with the SUP-21-02 is shown as **Exhibit 1**.

The standards of review include the following:

- A. General Requirement #1: The use will not materially endanger the public health, safety or welfare.
- B. The Land Development Code also imposes the following specific requirements.

## Issues with SUP-21-02

***ISSUE #1*** - Dr. Kays will provide testimony that demonstrates that the proposed facility is a High-Density Development, under the Henderson County Development Ordinance. **The High-Density Development is not in harmony with the surrounding area as required by 42-355(H)(I)(2):**

### **County Code #1 - §42-239.3 Determining Project Density Type**

- A. Low-density project: Has no more than two (2) dwelling units per acre or 24 percent built-upon area for all residential and non-residential development; and
- B. The overall density of a project is at or below the relevant low-density threshold (and which may contain areas with a density greater than the overall project density, provided the project meets or exceeds the post construction model practices for low-density projects and, to the maximum extent practicable, locates the higher-density portion in upland areas and away from surface waters and drainageways).

**A high-density project is anything that exceeds the thresholds outlined herein above.**

### **County Code #1 - §42-356 H.1.c. Special Use Permits**

*H. Quasi-judicial Proceeding. The concurring vote of the majority of the members of the ZBA shall be necessary to grant the permit. Vacant seats and disqualified members are not counted in computing the simple majority. Any approval or denial of the request must be in writing and be permanently filed with the office of the ZBA and with the Zoning Administrator as a public record.*

1. *Standards of Review. The ZBA shall not approve a permit unless it makes written findings that the regulations of this Chapter that set forth specific standards for the use have been met. The ZBA may consider the type of use, size of the use, size of the property and other relevant factors in evaluating the permit application. The applicant will not bear the burden of proving that all of the site standards (as listed below) have been met; however, the applicant will be required to produce evidence sufficient to rebut any evidence presented that the site standards would not be met or that a condition is necessary. The applicant may be required, in his/her rebuttal, to show that the proposed use will:*
  - a. *Not materially endanger the public health, safety or welfare;*
  - b. *Not substantially injure the value of property or improvements in the area; and*
  - c. *Be in harmony with the surrounding area.*

**Opinion #1** – *The State and County regulations consider High-Density developments as a potential threat to the infringement of downstream water quality. Essentially all of surrounding neighborhood areas consists of low-density developments. **The subject High Density Development is not in harmony with the surrounding area which is predominately single-family residential.** The Henderson County Zoning Board of Adjustment should not approve high-density developments in rural portions of the County.*

**ISSUE #2 - Dr. Kays will provide testimony that demonstrates that the applicant's proposed stormwater BMP area encroaches into the mandatory 30-foot stream buffer<sup>1</sup> along Mud Creek.**

**County Code #2:** *The Land Development Code of Henderson County, North Carolina:*

*§42-251 Perennial and Intermittent Surface Water Buffers A surface water shall be deemed present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geological Survey (USGS). An exception to this requirement may be allowed when surface waters are not present in accordance with the provisions of 15A NCAC 2B .0233 (3)(a) or similar site-specific determination made using methodology approved by NCDENR Division of Water Quality. All built-upon area shall be at a minimum of:*

- A. 30 feet landward of all perennial and intermittent surface waters; or*
- B. 100 feet landward of any perennial surface waters located within a water supply watershed when using the high-density option.*

*Desirable artificial stream bank or shoreline stabilization is permitted. No new development is allowed in the buffer except for water dependent structures<sup>2</sup>, other structures such as flag poles, signs and security lights which result in only minimal increases in impervious surface area and public projects, such as road crossings and greenways where no practical alternative exists.*

**County Code §42-356 H.1.c. Special Use Permits**

*H. Quasi-judicial Proceeding. The concurring vote of the majority of the members of the ZBA shall be necessary to grant the permit. Vacant seats and disqualified members are not counted in computing the simple majority. Any approval or denial of the request must be in writing and be permanently filed with the office of the ZBA and with the Zoning Administrator as a public record.*

- 2. Standards of Review. The ZBA shall not approve a permit unless it makes written findings that the regulations of this Chapter that set forth specific standards for the use have been met. The ZBA may consider the type of use, size of the use, size of the property and other relevant factors in evaluating the permit application. The applicant will not bear the burden of*

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<sup>1</sup> Henderson County Code 42-251 Perennial and Intermittent Surface Water Buffers

<sup>2</sup> "Water dependent structures" means those structures that require access or proximity to or siting within surface waters to fulfill its purpose, such as boat ramps, boat houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots, and commercial boat storage areas are not water dependent structures.

proving that all of the site standards (as listed below) have been met; however, the applicant will be required to produce evidence sufficient to rebut any evidence presented that the site standards would not be met or that a condition is necessary. The applicant may be required, in his/her rebuttal, to show that the proposed use will:

- a. **Not materially endanger the public health, safety or welfare;**
- b. **Not substantially injure the value of property or improvements in the area; and**
- c. **Be in harmony with the surrounding area.**

Additionally, the applicant may be required, in his/her rebuttal, to show that the proposed use shall be located and developed in such a manner as to: Comply with all applicable local, state and federal statutes, ordinances and regulations;

**Evidence #2:** The proposed SCM in SUP-21-02 encroaches into the minimum 30-foot stream buffer. **Exhibit #2** shows the location of Mud Creek in **BLUE**, the 30-foot setback in **RED**. **Therefore, much of the proposed SCM is within the mandatory stream setback. The term "water dependent structures"<sup>3</sup> does not include stormwater control measures that can be constructed outside of the stream buffer.**

**Opinion #2:** This encroachment is sufficient by its self for the Board to deny the SUP-21-02. It appears that the applicant expanded their buildings and pavement back to the mandatory stream buffer and proposed the stormwater control measure in the stream buffer. **The applicant has violated the Henderson County's stormwater ordinance, and the proposed use endangers the public health and welfare by its encroachment into the mandatory stream buffer. This is a violation of the standard to not materially endanger the public health, safety or welfare.**

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<sup>3</sup> "Water dependent structures" means those structures that require access or proximity to or siting within surface waters to fulfill its purpose, such as boat ramps, boat houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots, and commercial boat storage areas are not water dependent structures.

**ISSUE #3** – Dr. Kays will provide testimony that demonstrates **stormwater design standards, under the Henderson County Development Ordinance Stormwater §42-239.2 B. for High-Density Projects have not been met by the applicant of SUP-21-02.**

**County Code #3 - §42-239.2 B.** Where a Stormwater Management Permit is required for a high-density project as noted in §42-240.5 (Standards for High-Density Projects), stormwater control measures shall be implemented that comply with each of the following standards:

(1) The measures shall control and treat stormwater runoff from the first inch of rain over a 24-hour period. Runoff volume drawdown time shall be a minimum of 48 hours, but not more than 120 hours.

(2) All structural stormwater treatment systems used to meet these requirements shall be designed to have a minimum of 85% average annual removal for Total Suspended Solids (TSS).

(3) General engineering design criteria for all projects shall be in accordance with 15A NCAC 2H .1008(c), as explained in the Stormwater BMP Manual.

No development or redevelopment shall occur except in compliance with the provisions of this Subpart B or unless exempted. No development for which a permit is required pursuant to this April 21, 2021.

**Evidence #3** – NC Stormwater Manual equations yield the following values for the subject project (1) volume below the permanent pool should be a minimum 32,670 cubic feet, (2) volume for 85% TSS settlement should be 91,476 cubic feet plus forebay of 18,295 cubic feet for total volume of 109,771 cubic feet, and (3) the County code requires the stormwater system to safely pass a 10-year 24-hour rainstorm which would further increase the size of the basin.

**Opinion #3** – **The stormwater control basin shall consist of a forebay, a main basin, an outlet structure, and a level spreader. These components and their approximate size are show on Exhibit 3. The applicant's proposed use violates the Henderson County Stormwater Ordinance, violates the standard to not materially endanger the public health, safety or welfare, and violates the County and State stormwater treatment requirements.**

**ISSUE #4** - Dr. Kays will provide evidence that demonstrates that **the applicant's proposed location for an on-site wastewater system does not meet the requirements pursuant to 15A NCAC 18E .0503 through 15E .0510.**

**STATE ADMINISTRATIVE CODE #4 - 15A NCAC 18E .0501**

*SITE EVALUATION 22 (a) Upon receipt of an application, an authorized agent shall investigate each proposed site in accordance with this Section to determine whether the site is suitable or unsuitable for the installation of a wastewater system. The field investigation shall include the evaluation of the following soil<sup>4,5</sup> and site features with written field descriptions including:*

- (1) topography, slope, and landscape position;
- (2) soil morphology:
  - (A) depth of horizons;
  - (B) texture;
  - (C) structure;
  - (D) consistence;
  - (E) color; and
  - (F) organic soils, as applicable;
- (3) SWC;
- (4) soil depth;
- (5) restrictive horizons;
- (6) the suitability for each profile description;
- (7) LTAR; and
- (8) Available space.

*(b) Soil profiles shall be evaluated at the site by borings, pits, or other means of excavation, and described to reflect variations in soil and site characteristics across both initial and repair areas.*

*(c) Soil profiles shall be evaluated and described to the following minimum depths: 6*

- (1) 48 inches from the ground surface; or
- (2) to a LC determined in accordance with this Section.

*The specific soil criteria are contained in **15A NCAC 18E .0502 through 15A NCAC 18E .0509.***

**Evidence #4** – A local soil scientist Mrs. Caroline J. Edwards, NCLSS #1220 has assisted me in conducting a site and soil evaluation pursuant to the above North Carolina regulations.

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<sup>4</sup> "Soil" means the naturally occurring body of unconsolidated mineral and organic materials on the land surface. Soil is composed of sand-, silt-, and clay-sized particles that are mixed with varying amounts of larger fragments and some organic material. Soil contains less than 50 percent of its volume as rock, saprolite, or coarse-earth fraction. The coarse-earth fraction are mineral particles greater than 2.0 millimeters. The upper limit of the soil is the land surface, and its lower limit is rock, saprolite, or other parent materials.

<sup>5</sup> "Naturally occurring soil" means soil formed in place due to natural formation processes that are unaltered by filling, removal, or other artificial modification other than tillage.

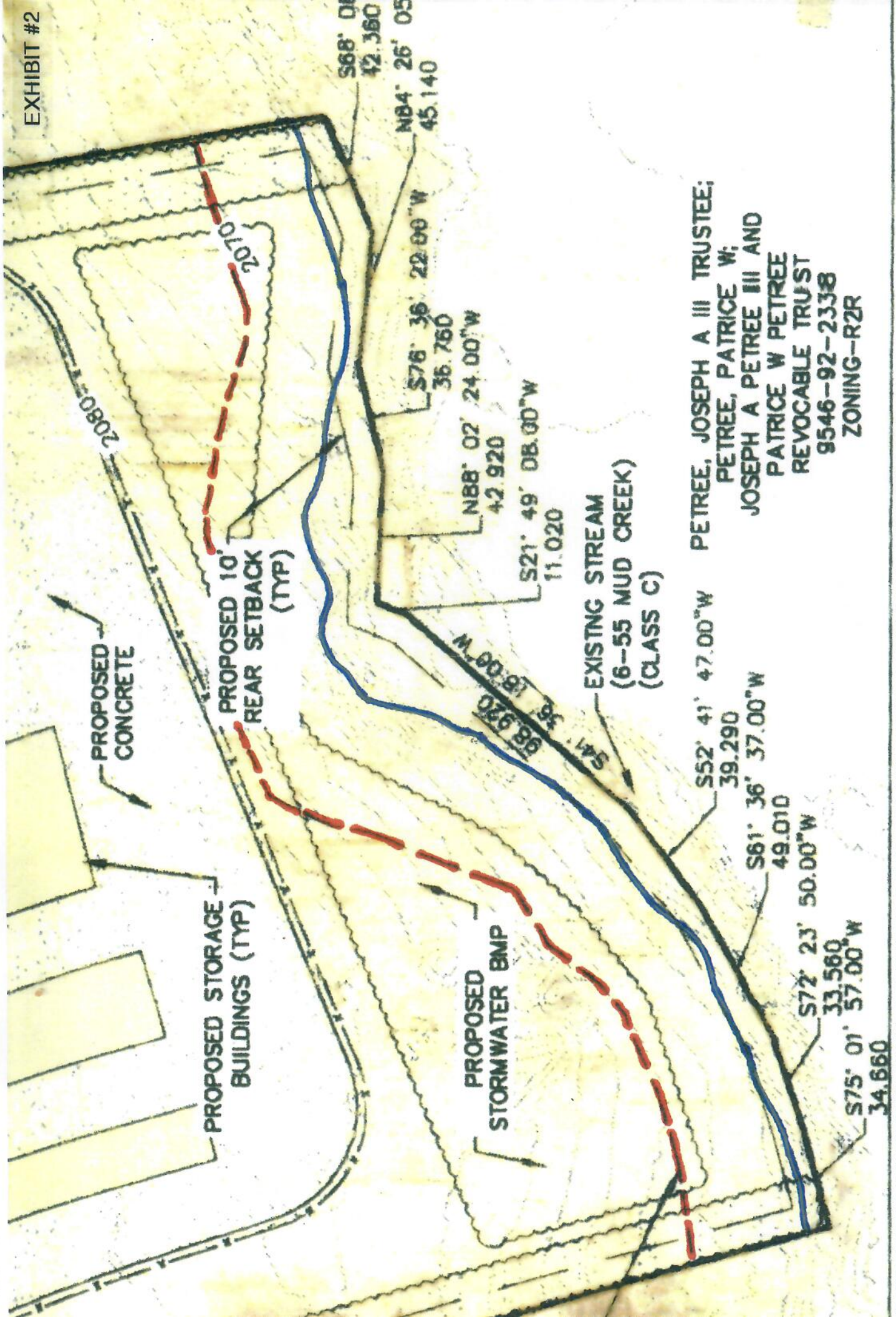
- a. The proposed wastewater site is in the northwest corner of **Exhibit #4** and as shown in the **SUP-21-02**.
- b. Caroline J. Edwards conducted soil investigations on the adjacent property, so as not to trespass onto the subject property. Caroline Edwards' soil profile description is at **Exhibit #5**. The soils adjacent to Crab Creek Road have a seasonally high water table at 18-inches below the ground surface. This area consists of an upper river terrace and is present on the subject property where the soil is "naturally occurring". The seasonally high water table makes the site unsuitable for septic systems.
- c. Caroline J. Edwards also described that some of the subject property has been highly disturbed as noted at **Exhibit #5**. Where the soils are not "naturally occurring" no on-site wastewater system can be allowed.

**Opinion #4** – Construction as proposed by the applicant will violate the State On-Site Wastewater Treatment regulations and will endanger the public health, safety and welfare.



# EXHIBITS





PETREE, JOSEPH A III TRUSTEE;  
 PETREE, PATRICE W;  
 JOSEPH A PETREE III AND  
 PATRICE W PETREE  
 REVOCABLE TRUST  
 9546-92-2338  
 ZONING-R2R





## SOIL PROFILE DESCRIPTION

Landscape Position: Mud Creek Upper Terrace

Location: East of Crab Creek Road

Land Disturbance: A portion of the Subject Property has been highly disturbed and is not considered as “naturally occurring”.

Land Slope: 4-percent

Soil Profile Description of Undisturbed Areas:

A-Horizon; 0 to 7 inches: Very dark grayish brown (2.5 YR 3/2) loam, weak fine granular structure, friable consistency, abrupt boundary.

E-Horizon; 7 to 18 inches: Dark yellowish brown (10 YR 4/4) sandy clay loam, weak fine subangular blocky structure, friable consistency, wavy boundary.

Bg1-Horizon; 18 to 25 inches: Brownish yellow (10 YR 6/6) clay loam, moderate fine subangular blocky structure, non-expansive mineralogy, friable consistency, few fine distinct light gray (10 YR 7/2) redoximorphic depletions, wavy boundary.

Bg2-Horizon; 25 to 30 inches: Yellowish brown (10 YR 5/6) clay loam, moderate fine subangular blocky structure, non-expansive mineralogy, friable consistency, common fine distinct light (10 YR 7/2) redoximorphic depletions, wavy boundary.

Bg3-Horizon; 30 to 42 inches: Gray (10 YR 6/1) clay loam, moderate fine subangular blocky structure, non-expansive mineralogy, friable consistency.

Soil Description By: Caroline J. Edwards, NCLSS #1220

Seasonally High Water Table: 18-inch depth

On-Site Wastewater Classification: Unsuitable for Conventional Septic System

Alternative Septic System: Suitable with Pretreatment System and Drip Irrigation Dispersal at 6-inch depth

Alternative Septic System: Unsuitable areas due to soil disturbance