

Civil Site Planning Environmental Engineering

133 Court Street Portsmouth, NH 03801-4413

Project Narrative

Conditional Use Permit – Inland Wetland Buffer "The Creek Farm" – Carriage House Septic System Tax Map 203, Lot 8 400 Little Harbor Road, Portsmouth, NH Altus Project #3950

The Society for the Protection of New Hampshire Forests (SPNHF) is proposing to replace the existing septic system at the Carriage House building on the Creek Farm off Little Harbor Road. The Carriage House is one of two building components located on the historical 30-acre parcel, the majority of which is in conservation. Bounded to the south by the tidal portion of Sagamore Creek, the property also hosts several sections of freshwater wetland along with woodland and open field.

As SPNHF works to revitalize the site, limitations inherent in the existing facilities have been identified that need to be addressed before the full potential of the Creek Farm can be realized. At the Carriage House, one such shortcoming is the existing septic system. Based on an investigation of the site and anecdotal evidence from the caretakers, it is believed that the building is currently served by an antiquated subsurface disposal system of some kind. Installed well before such systems were regulated, this system does not meet any current code and is in dire need of replacement before any effective reuse of the Carriage House can be made.

As shown on the plans, there is limited area in the vicinity of the Carriage house that can host a replacement and still meet NHDES rules. Restricted by the position of the building, parking areas, driveways, ledge, the NHDES Shoreland Protection Zone and the conservation easement, the proposed septic system has been sited in the one feasible location on the site. Placed in an existing grassed area, part of the system and the temporary construction disturbance associated with it falls within the City's 100' Wetland Buffer. These impacts include the new subsurface septic tank, leachfield and sewer lines, removal of the existing system, and associated grading required to build the system and blend it into the existing lawn. Taken together, these impacts to the buffer total 5,200 sf, only 2,200 sf of which is permanent.

Conditional Use Permit Criteria for Approval

1. The land is reasonably suited to the use, activity or alteration.

Due to the setbacks required under NHDES regulations and other physical site constraints, the land area under consideration is the least restrictive location on the site that can host a subsurface disposal system.

2. There is no alternative location outside the wetland buffer that is feasible and reasonable for the proposed use, activity or alteration.

There are no alternative areas on site that meet the requisite NHDES septic design criteria without a full reconstruction/renovation of the entire facility or an alteration to the conservation easement which encompasses the majority of the Creek Farm.

3. There will be no adverse impact on the wetland functional values of the site or surrounding properties.

The work required to construct the system will not alter the functions and values of the nearest wetland. The construction of a new, appropriately designed septic system will be a substantial improvement over the existing antiquated facility to be removed. Furthermore, no new impervious surfaces are proposed and all disturbed areas will be returned to their existing grassed state.

4. Alteration of the natural vegetative state or managed woodland will occur only to the extent necessary to achieve construction goals.

The proposed septic system has been located as far out of the buffer as possible and areas of construction disturbance have been minimized to the greatest extent feasible. No tree cutting or stump removal is anticipated and all disturbed areas will be within previously developed lawn area.

5. The proposal is the alternative with the least adverse impact to areas and environments under the *jurisdiction of this section*.

The proposed design has been located as far as possible away from jurisdictional areas and as such has the least impact.

6. Any area withing the vegetated buffer strip will be returned to a natural state to the extent feasible.

No new impervious surfaces are proposed and all areas impacted by this project will be graded and stabilized to match the existing lawn.



- 5. Sand fill to be pushed onto prepared surface from the side. Do not allow equipment on the scarified soil surface.
- throughout each layer.

minimum of 9" of fill material beneath tracks of tractor to minimize compaction of natural soil. Each layer shall be spread in uniform thickness prior to placing next layer. Continuous grading and shaping shall be carried out to assure uniform density

and pelle late Rd Wentworth Coolidge Little Harb	ENGINEERING, INC.
arbor Rd	133 COURT STREET PORTSMOUTH, NH 03801 (603) 433-2335 www.ALTUS-ENG.com
out and the second of the seco	
$\frac{\text{LOCATION PLAN}}{\text{SCALE: 1" = 200'±}}$	
ROVIDE A SUBSURFACE SANITARY DISPOSAL SYSTEM FOR TED FIFTY (50) VISITORS PER DAY AT THE RECREATIONAL FACILITY	ISSUED FOR: CONDITIONAL USE PERMIT
) S.F.±) TION OF N.H. FORESTS	ISSUE DATE: FEBRUARY 26, 2020
EEDS BOOK 4363 PAGE 2756, DATED 9/20/04. APPLICABLE. LOT IS GREATER THAN 5 ACRES.	NO. DESCRIPTION BY DATE 0 INITIAL SUBMISSION EDW 02/26/20
AU DESIGN FLOW: 5 GPD/PERSON — RECREATIONAL FACILITY, AU DESIGN FLOW: 10 GPD/PERSON — OFFICE SPACE PD/PERSON = 20 GPD E (ESTIMATE) x 5 GPD/PERSON = 250 GPD + 250 GPD = 270 GPD; USE 300 GPD FOR DESIGN	
NCH IM /100 GPD x 300 GPD = 711 SF REQUIRED (TABLE 1016-1)	
(CONSTRUCT 1 BED, 750 SF (15' \times 50')) THE BED SHALL BE CONSTRUCTED AT 31.67 ELEVATION AND UTOUR (30.0) OF THE DESIGNED BED IS APPROXIMATELY 1.67 FEET	DRAWN BY: FDW
	$\frac{\text{SCALE:}}{22" \times 34" - 1" = 20'}$
ALCULATION	OWNER OF RECORD/APPLICANT:
DURCE REPORT FOR ROCKINGHAM COUNTY RAVELLY FINE SANDY LOAM E- LOT LOADING FACTOR = 1.45 10 ACRE PORTION OF MAP 203, LOT 8)	SOCIETY FOR THE PROTECTION OF N.H. FORESTS 54 PORTSMOUTH ST. CONCORD, NH 03302
0 (gpd/acre)) / FACTOR x 2,000 gpd/acre) / 1.45 = 13,800 GPD ALLOWED DPOSED	
L SYSTEM (CITY OF PORTSMOUTH)	PROPOSED PROPOSED SUBSURFACE DISPOSAL SYSTEM
TED ON THIS PLAN ARE THE RESULTS FIELD SURVEY CONDUCTED IN JAN. 15, NG SERVICES, INC. (FIELD BOOK 118)	AT THE CARRIAGE HOUSE
S ESTABLISHED FROM PORTSMOUTH GIS 5 SHOWN. DATUM IS NAVD88. 9 BY JOSEPH W. NOEL, SOILS/WETLAND	CREEK FARM 400 LITTLE HARBOR ROAD PORTSMOUTH, NH
SHOWN WAS ESTABLISHED USING PLAN ED TO THE NAD83/86 LOCATION OF ISK LOCATION TO BEARINGS ON	TAX MAP 203, LOT 08 <u>TITLE:</u>
SK LOCATION TO BLAKINGS ON	SUBSURFACE DISPOSAL SYSTEM PLAN
	SHEET NUMBER:
P 395	55-1

