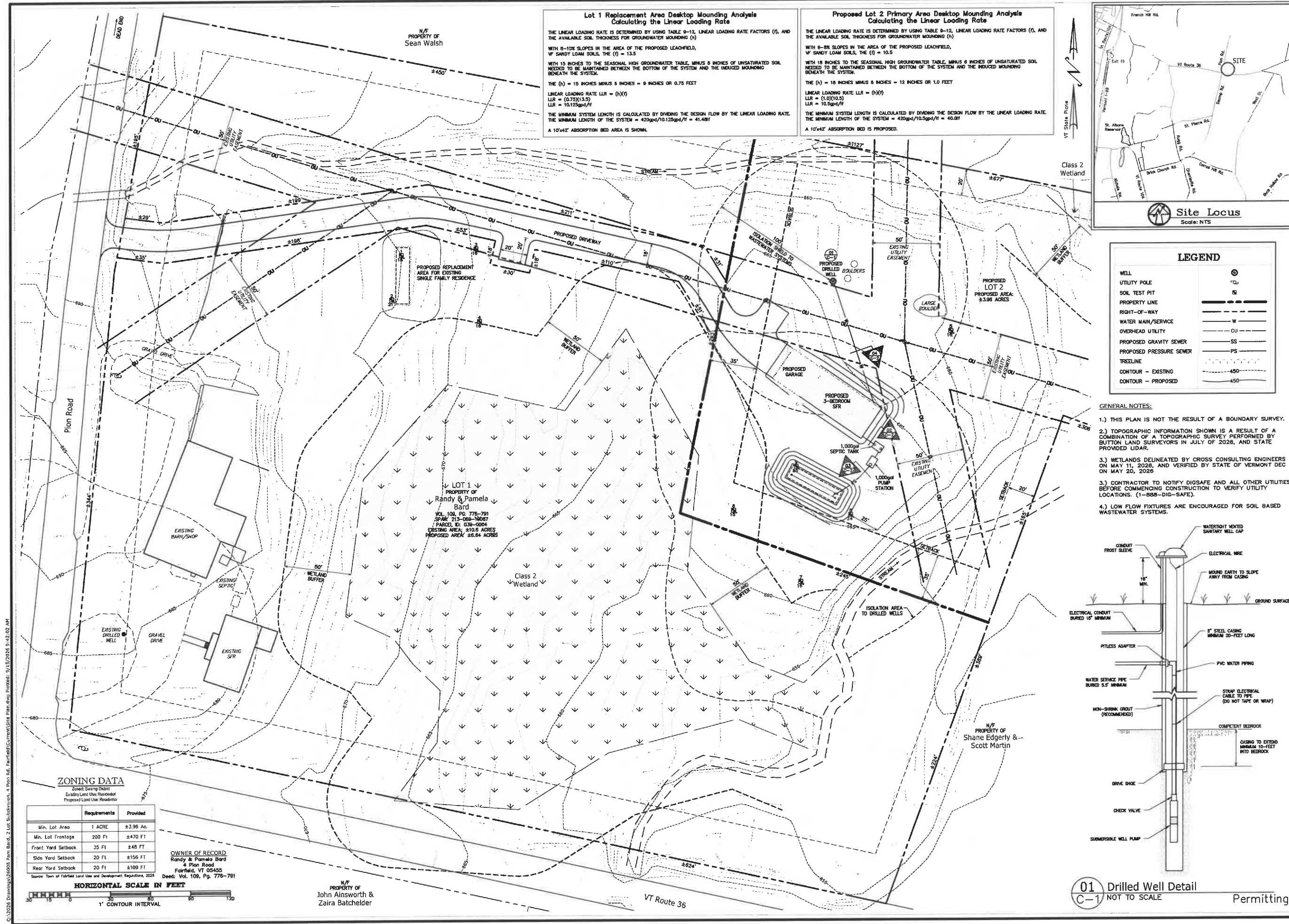


Q:\2026 Drawings\26005 Pam Bard, 2 Lot Subdivision, 4 Pion Rd, Fairfield\Current\Site Plan.dwg Plotted: 9/15/2026 9:42:02 AM



Lot 1 Replacement Area Desktop Mounding Analysis
Calculating the Linear Loading Rate

THE LINEAR LOADING RATE IS DETERMINED BY USING TABLE 9-12, LINEAR LOADING RATE FACTORS (f), AND THE AVAILABLE SOIL THICKNESS FOR GROUNDWATER MOUNDING (h).

WITH 8-10% SLOPES IN THE AREA OF THE PROPOSED LEACHFIELD, VF SANDY LOAM SOILS, THE (f) = 13.5

WITH 15 INCHES TO THE SEASONAL HIGH GROUNDWATER TABLE, MINUS 6 INCHES OF UNSATURATED SOIL NEEDED TO BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND THE INDUCED MOUNDING BENEATH THE SYSTEM.

THE (h) = 15 INCHES MINUS 6 INCHES = 9 INCHES OR 0.75 FEET

LINEAR LOADING RATE LLR = (h)(f)

LLR = (0.75)(13.5)

LLR = 10.125 gpd/ft

THE MINIMUM SYSTEM LENGTH IS CALCULATED BY DIVIDING THE DESIGN FLOW BY THE LINEAR LOADING RATE. THE MINIMUM LENGTH OF THE SYSTEM = 420 gpd / 10.125 gpd/ft = 41.48 FT

A 10'x42' ABSORPTION BED AREA IS SHOWN.

Proposed Lot 2 Primary Area Desktop Mounding Analysis
Calculating the Linear Loading Rate

THE LINEAR LOADING RATE IS DETERMINED BY USING TABLE 9-12, LINEAR LOADING RATE FACTORS (f), AND THE AVAILABLE SOIL THICKNESS FOR GROUNDWATER MOUNDING (h).

WITH 8-10% SLOPES IN THE AREA OF THE PROPOSED LEACHFIELD, VF SANDY LOAM SOILS, THE (f) = 10.5

WITH 18 INCHES TO THE SEASONAL HIGH GROUNDWATER TABLE, MINUS 6 INCHES OF UNSATURATED SOIL NEEDED TO BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND THE INDUCED MOUNDING BENEATH THE SYSTEM.

THE (h) = 18 INCHES MINUS 6 INCHES = 12 INCHES OR 1.0 FEET

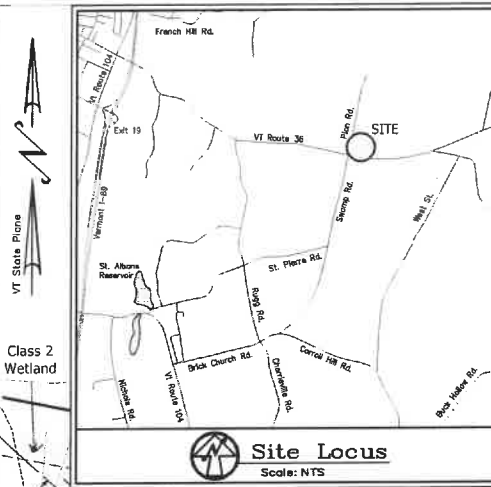
LINEAR LOADING RATE LLR = (h)(f)

LLR = (1.0)(10.5)

LLR = 10.5 gpd/ft

THE MINIMUM SYSTEM LENGTH IS CALCULATED BY DIVIDING THE DESIGN FLOW BY THE LINEAR LOADING RATE. THE MINIMUM LENGTH OF THE SYSTEM = 420 gpd / 10.5 gpd/ft = 40.0 FT

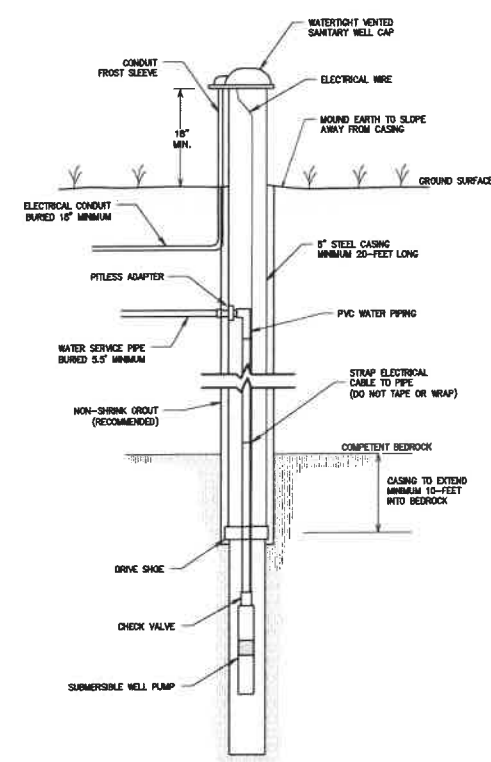
A 10'x42' ABSORPTION BED IS PROPOSED.



LEGEND

WELL	Symbol
UTILITY POLE	Symbol
SOIL TEST PIT	Symbol
PROPERTY LINE	Symbol
RIGHT-OF-WAY	Symbol
WATER MAIN/SERVICE	Symbol
OVERHEAD UTILITY	Symbol
PROPOSED GRAVITY SEWER	Symbol
PROPOSED PRESSURE SEWER	Symbol
TREELINE	Symbol
CONTOUR - EXISTING	Symbol
CONTOUR - PROPOSED	Symbol

- GENERAL NOTES:**
- 1.) THIS PLAN IS NOT THE RESULT OF A BOUNDARY SURVEY.
 - 2.) TOPOGRAPHIC INFORMATION SHOWN IS A RESULT OF A COMBINATION OF A TOPOGRAPHIC SURVEY PERFORMED BY BLUTTON LAND SURVEYORS IN JULY OF 2026, AND STATE PROVIDED LIDAR.
 - 3.) WETLANDS DELINEATED BY CROSS CONSULTING ENGINEERS ON MAY 11, 2026, AND VERIFIED BY STATE OF VERMONT DEC ON MAY 20, 2026
 - 3.) CONTRACTOR TO NOTIFY DIGSAFE AND ALL OTHER UTILITIES BEFORE COMMENCING CONSTRUCTION TO VERIFY UTILITY LOCATIONS. (1-888-DIG-SAFE).
 - 4.) LOW FLOW FIXTURES ARE ENCOURAGED FOR SOIL BASED WASTEWATER SYSTEMS.



01 Drilled Well Detail
NOT TO SCALE

Permitting

ZONING DATA

	Requirements	Provided
Min. Lot Area	1 ACRE	±3.96 Ac.
Min. Lot Frontage	200 Ft	±470 FT
Front Yard Setback	35 Ft	±48 FT
Side Yard Setback	20 Ft	±156 FT
Rear Yard Setback	20 Ft	±109 FT

OWNER OF RECORD
Randy & Pamela Bard
4 Pion Road
Fairfield, VT 05455
Deeds: Vol. 109, Pg. 776-791

HORIZONTAL SCALE IN FEET

1" = 100'

N/F PROPERTY OF
John Ainsworth &
Zaira Batchelder

PROJECT: 26005
DATE: Sept. 15, 2026
DESIGN: RHW
DRAWN: RHW
CHECKED: PJG
APPROVED: PJG

CROSS CONSULTING ENGINEERS, P.C.
103 Fairlee Rd.
St. Albans, Vermont 05478
© COPYRIGHT 2026
Cross Consulting Engineers, P.C.

Site Plan

Randy & Pamela Bard
Fairfield, VT

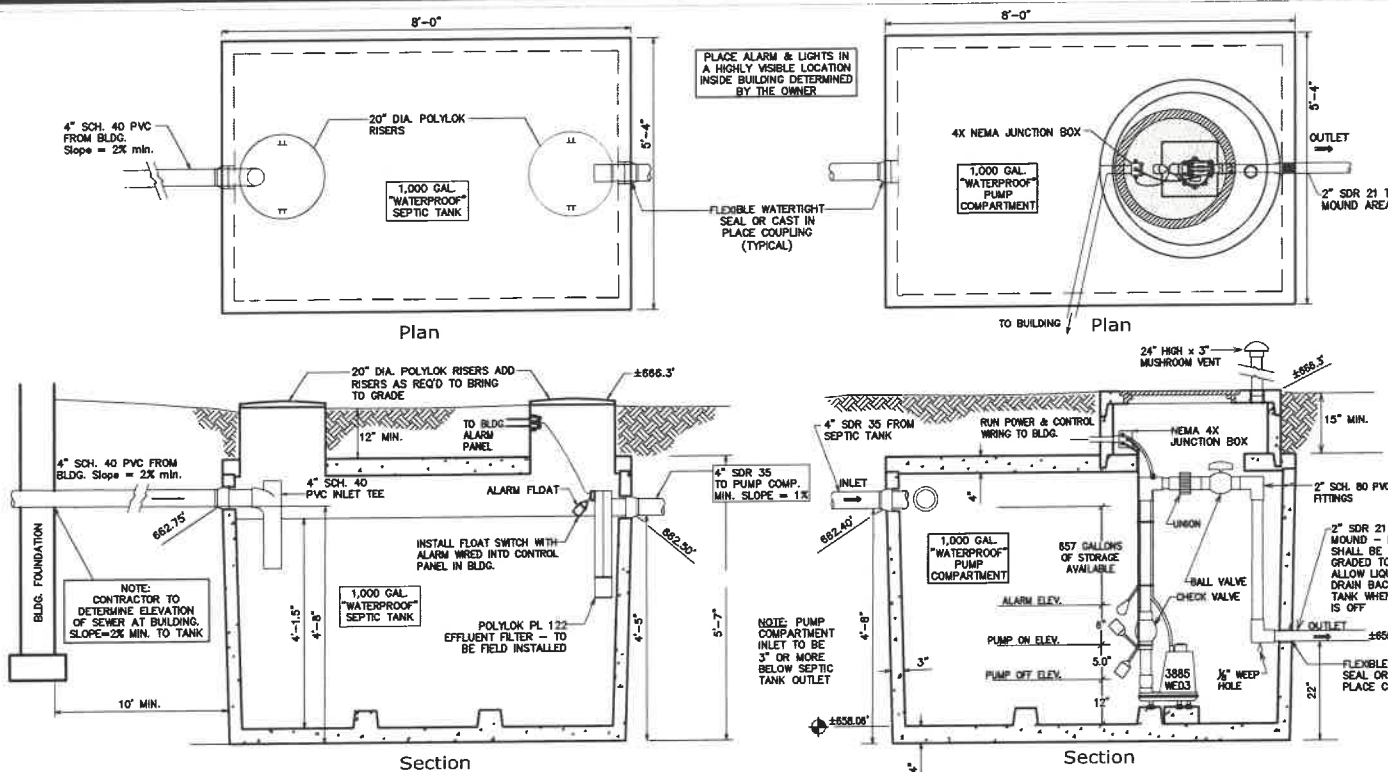
2-Lot Subdivision

4 Pion Road
Fairfield, VT

CIVIL

C-1

SHEET C-1 OF 2



LOT 2 - DESIGN CRITERIA

TYPE OF ESTABLISHMENT: SINGLE FAMILY DWELLING
 NUMBER OF BEDROOMS: 3
 DESIGN FLOW: (140 GAL./BED/DAY)(3 BED) = 420 GAL./DAY

GARBAGE GRINDER: NONE
 SEPTIC TANK PROPOSED: NEW 1000 GALLON
 PUMP STATION PROPOSED: NEW 1000 GALLON

LEACHING AREA: MOUND

PUMP STATION DOSE CALCULATIONS
 DOSE REQUIRED: 420gpd / MIN 4 DOSE/DAY = 105gpd
 8gpd/DOSE DRAIN BACK TO THE PUMP STATION
 TOTAL DOSE: 105gpd + 8gpd = 113gpd/DOSE

TABLE A

Size Number	Percent Permeability	Size Number	Percent Permeability	Size Number	Percent Permeability
10	85-100	4	95-100	10	85-100
40	25-75	8	80-100	40	10-50
60	5-20	16	60-85	200	0-5
100	0-10	20	25-60		
200	0-5	80	10-20		
		100	2-10		

