LINCOLN COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH
WASTEWATER TREATMENT AND DISPOSAL SYSTEM PERMIT

Issue Date: 09/09/2025 Expiration Date: 09/08/2026 Permit#25-53228

Property Owner: Carl Petrick

Mailing Address: [redacted]

Installer: Cory Persson License #: 197

Approved Work: (Check One) ☐ New Installation ☒ Existing System

☒ Replace Drainfield ☒ Replace Tank ☐ Extension

Describe: Installation of new elevated sand mound system to replace failing system for 2 Bedroom House.

Parcel Description:

Legal: WHITETAIL RUN, S06, T35 N, R27 W, LOT 3, ACRES 6.818, PM 5442

Property Address: 230 Sutton Ridge Road, Rexford, MT 59930 Assessment Code: 53228

DEQ COSA: EQ#01-1021 Whitetail Run Lot 3 Rewrite Date: 7/10/2000

Approved Design Criteria: Installation of new elevated sand mound system to replace failing system for 2 Bedroom House.

# of Bedrooms: 2 Septic Tank Size: 1000/500 gallons

# of Laterals: 3 ESM: 24.2' X 57.8'

SYSTEM MUST INCLUDE INSTALLATION OF EFFLUENT FILTER AT SEPTIC TANK OUTLET!!

Special Instructions: Install system according to the lot layout, the Lincoln County Wastewater Treatment and Disposal Regulation, Circular DEQ-4, and COSA(If Applies). It is the installer's responsibility to ensure that all required horizontal setbacks are met. CHANGES MUST BE PRE-AUTHORIZED BY THE DEPARTMENT.

Issued By: Robin Blumberg, R.S.

NOTICE: The Department must be notified at least 3 business days (72 hours) prior to backfilling the system. Call 406-283-2442. Any system not inspected by the Department or its designated representative prior to closure is an illegal installation in violation of Lincoln County Health Board Regulation Ch. 3. Illegal installations may result in fines and/or requirements to remove or reconstruct the system.

Closure Statement:

This system is in compliance with the approved design criteria and Lincoln County's Wastewater Treatment and Disposal Regulation.

Signed: Robin Blumberg *Date:* 10/7/25

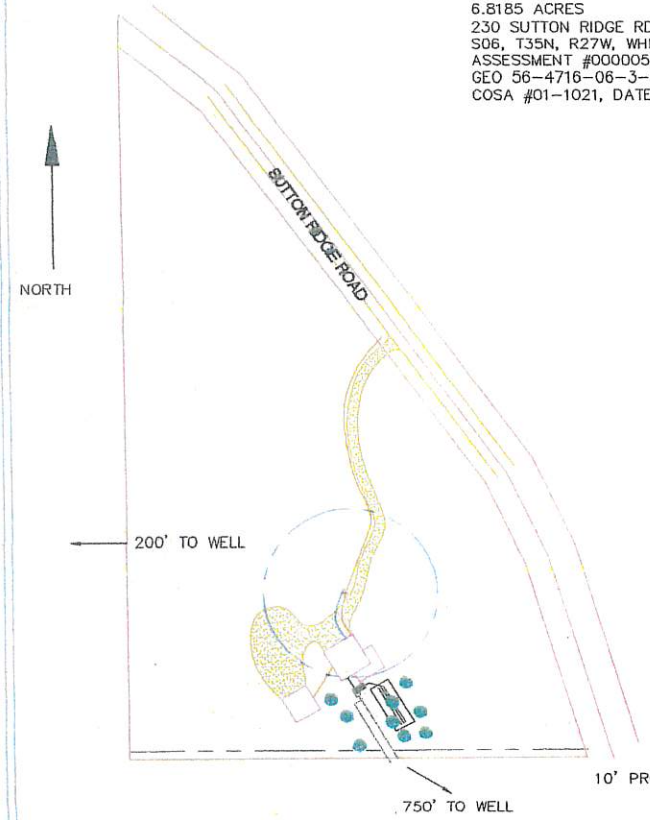
This permit is not finalized until the system is inspected and the closure statement is signed.

This permit is not a guarantee that the system will function properly for a prescribed period of time.

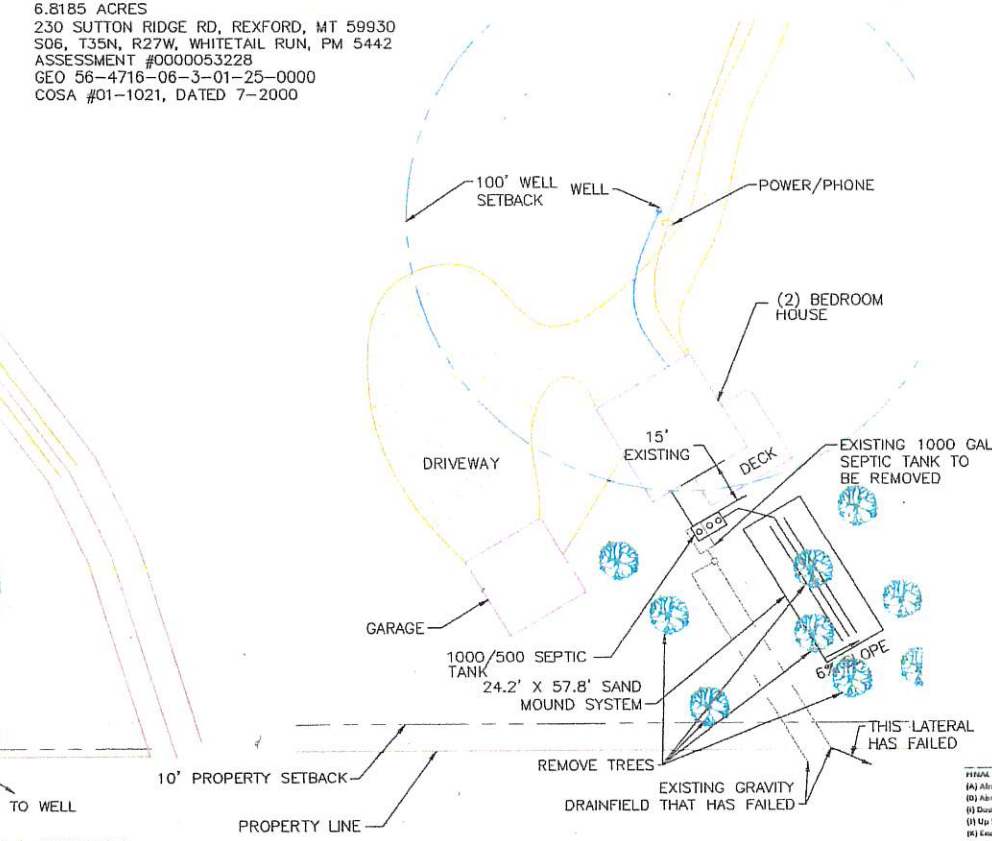
SV

LOT 3

6.8185 ACRES
230 SUTTON RIDGE RD, REXFORD, MT 59930
S06, T35N, R27W, WHITETAIL RUN, PM 5442
ASSESSMENT #0000053228
GEO 56-4716-06-3-01-25-0000
COSA #01-1021, DATED 7-2000



PETRICK SITE LAYOUT



PETRICK SYSTEM LAYOUT

APP RATE DETERMINATION

80 LINEAR FEET PER BEDROOM PER COSA
80 LF X 2 BEDROOMS= 160 LF
X SQ FT/2' CHAMBERS= 160 LF
X SQ FT= 2' CHAMBERS X 160 LF= 320 SQFT

(2) BEDROOM= 225 GPD
225 GPD/ X APP= 320 SQFT
225 GPD/ X APP= 320 SQFT
225 GPD= X APP X 320 SQFT
X APP= 225 GPD/320 SQFT= 0.7 APP RATE

THE APP RATE APPEARS TO BE INCORRECT BASED UPON SOILS OBSERVED ON SITE, USING 0.5 APP RATE FOR SAND MOUND SIZING.

LOTS OF ROCK & OUT CROPPINGS IN AREA

Elevate Sand Mound Design

Permit # Petrick — **Montana Design Services, Inc.**
08/13/25

Input Parameter	Value	Units	Notes
Soil Texture/Perc Rate	Silty loam		Soil texture within 12 in of surface
Design Flow Rate	225	(gpd)	ASSUMED for (2) 3 BHM
Sand Loading Rate	0.5	(gal/ft²)	Washed sand w/ sand 0.2; Medium 0.5 (pg 42 4.)
Basal Loading Rate	0.5	(gal/ft²)	App rate for soil in contact with sand
Trench Bottom Loading Rate	0	(gal/ft)	Clays, Clay Loams = 14.5 (Comm. Tech) = 7.25
Slope Percent	6	%	Soil Site Map
Down Slope Correction	1.21		See Table 2 (Mont. Manual)
Up Slope Correction	0.25		See Table 3 (Mont. Manual)
Surface Area Correction	1.00	decimal	None = 1.0 Upwards Lowers = 0.5 Above Lines = 0.25

Required Mound Design	Value	Units	Notes
Min Absorption Area	281.25	(ft²)	Calculated from (pg 42 4, Mont. Manual)
Min Basal Area	562	(ft²)	Calculated from Design Flow, Basal Loading Rate
Min Absorption Area Width	6.5	(ft)	Calculated from (Mont. Manual)
Min Absorption Area Length	43	(ft)	Calculated from (Mont. Manual)
Min Number of Laterals	3		Calculated (4' Max) (pg 42 4, Mont. Manual)

Proposed Mound Design	Value	Units	Notes
(L) Proposed Basal Area Length	42.0	(ft)	Provided by applicant
(W) Proposed Basal Width	11.0	(ft)	Provided by applicant
(B) Proposed Absorption Area Length	41.0	(ft)	Provided by applicant
(w) Proposed Absorption Area Width	7.0	(ft)	Provided by applicant
(s) Proposed Lateral Length	1.0	(ft)	Provided by applicant (Min 12 inches (pg 42 4.)

Minimum Checks	Min	Design	Result
Basal Bed Area	450.0	462.0	OK
Absorption Area	281.3	287.0	OK
Absorption Area Length/Width ratio	3	5.9	OK
Max Width (Wc Manual)	7.0	7.0	OK Limited from Linear Loading Rate

Calculate Mound Design	Value	Units	Notes
Additional Sand Bed Width	2.0	(ft)	Required 24inches (pg 42 4.)
(L) Mound Full Length	1.25	(ft)	Calculated from slope
(F) Aggregate Depth	0.75	(ft)	Minimum 9 inches (pg 42 4.)
(H) Top Depth	0.50	(ft)	Required 6 inches (pg 42 4.)
(H) Cover Depth	1.0	(ft)	Required 12 inches (pg 42 4.)
(L) Down Slope Sand Width	7.5	(ft)	Calculated from slope (Mont. Manual)
(L) Up Slope Sand Width	5.4	(ft)	Calculated from slope (Mont. Manual)
(K) End Slope Sand Length	6.4	(ft)	Calculated from 3:1 slope (pg 42 4.)

FINAL MOUND DESIGN	Value	Units	Notes
(A) Absorption Area Width	7.0	(ft)	Proposed, may not meet standards
(B) Absorption Area Length	41.0	(ft)	Proposed, may not meet standards
(L) Down Slope Sand Width	7.5	(ft)	Calculated from Proposed, may not meet standards
(L) Up Slope Sand Width	5.4	(ft)	Calculated from Proposed, may not meet standards
(K) End Slope Sand Length	6.4	(ft)	Calculated from Proposed, may not meet standards
(C) Sand Bed Width	11.0	(ft)	Calculated from Proposed, may not meet standards
(C) Sand Bed Length	45.0	(ft)	Calculated from Proposed, may not meet standards
(L) Basal Sand Area Length	57.8	(ft)	Calculated from Proposed, may not meet standards
(W) Basal Sand Area Width	24.2	(ft)	Calculated from Proposed, may not meet standards

REV	DATE	COMPANY	SCALE	CONTRACTOR	BUBBA'S EXCAVATION PETRICK SEPTIC
		MDS	1/10 & NONE		SITE LAYOUT
		CONTRACT	DATE: 8/13/25	DRAWN BY: J. JONES	DATE: 8/13/25
		VERBAL		CHECKED BY: B. PERSON	DATE: 8/13/25
		PLOT FILE: PME-0001	WEIGHT	SHEET SIZE: ANSI B	DRAWING NO: 1 OF 1

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