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

Issue Date: 08/19/2025 Expiration Date: 08/18/2026 Permit#25-53181

Property Owner: Frank Signorelli

Mailing Address: [redacted]

Installer: Dallas Pluid License #: 216

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

☐ Replace Drainfield ☐ Replace Tank ☐ Extension

Describe: Installation of new pressure dosed elevated sand mound system for 3 Bedroom House and 3 Bedroom Shop.

Legal: OSPREY VIEW ESTATES, S14, T36 N, R28 W, LOT 16, ACRES 5.42, PM 6386

Property Address: 287 Linda Vista, Rexford, MT 59930 Assessment Code: 53181

DEQ COSA: E.Q.#24-2097 Osprey View Estates Lot 16 Date:11/27/2024

Approved Design Criteria: Installation of new pressure dosed elevated sand mound system for 3 Bedroom House and 3 Bedroom Shop.

# of Bedrooms: 3 House & 3 Shop Septic Tank Size: 1500/1000 & 1000/500 ESM: 88' X 13'

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). Reduction given for chambers. 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, RS

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.

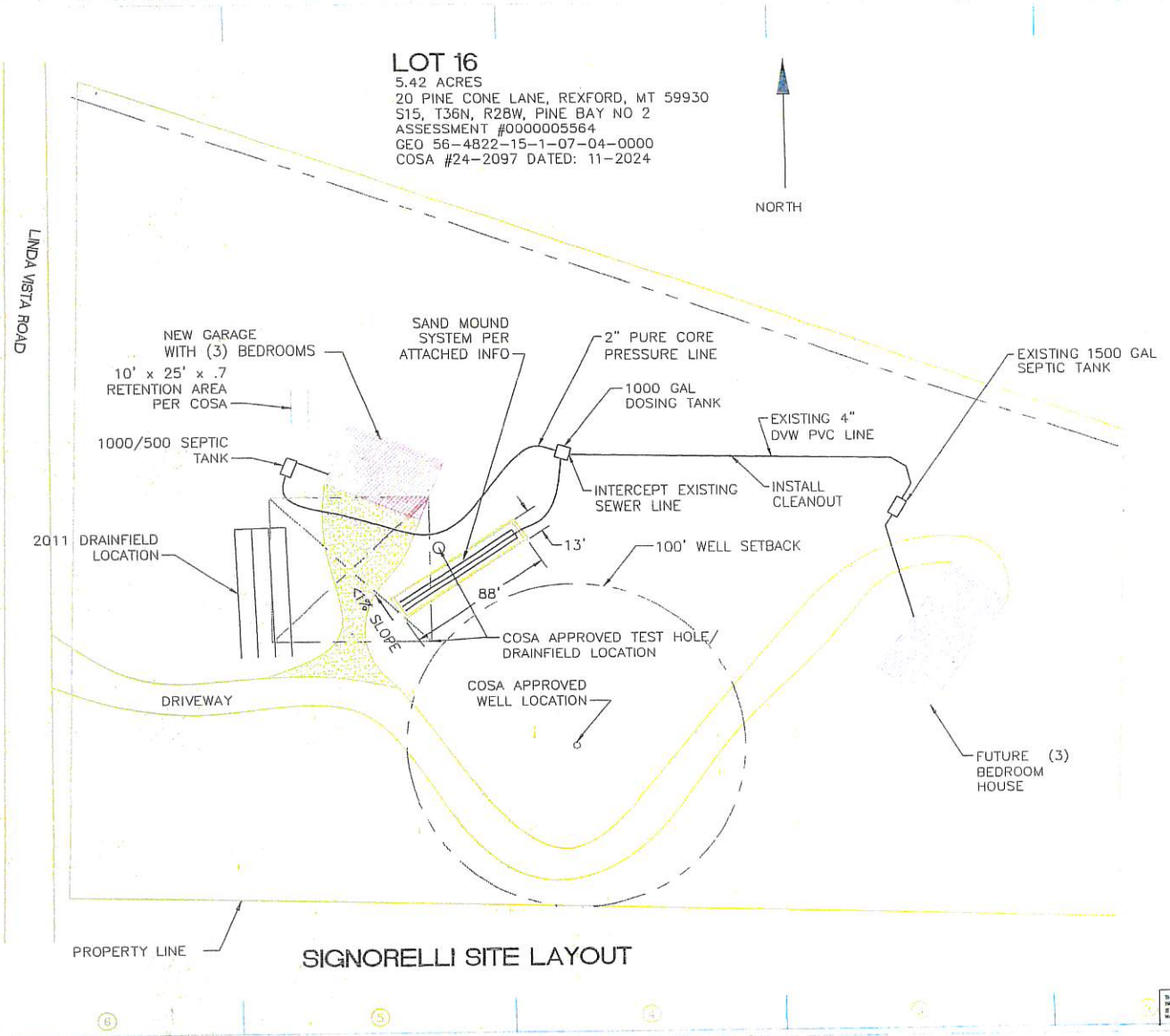
Closure Statement:

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

Signed: Robin Blumberg *Date:* 10/17/25

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.



SIGNORELLI SITE LAYOUT

Elevate Sand Mound Design

Permit # Signorelli — Montana Design Services, Inc.

08/07/25 — Green = You Input Grey = Calculated

Input Parameter	Value	Units	Notes
Soil Texture/Perc Rate	Silty loam		Soil horizon within 12in of surface
Design Flow Rate	600	(gpd)	MCCHD Reg(1)(32)(A)
Sand Loading Rate	0.8	(gal/ft²)	Washed coarse sand 0.8, Medium 0.6 (DEQ 4.)
Basal Loading Rate	0.6	(gal/ft²)	App. rate for soil in contact with sand
Hydraulic Linear Loading Rate	7	(gal/ft)	Clays, Clay/Silt Loams = 3,4,5 Loam, Sands = 7,8,9
Slope Percent	6	%	See Site Map
Down Slope Correction	1		See Table 1 (Wisc. Manual)
Up Slope Correction	1		See Table 1 (Wisc. Manual)
Reduction if Level II	1.00	decimal	None = 1.0 Sands, Loams = 0.5 Clays, Silts = 0.25

Required Mound Design	Value	Units	Notes
Min Absorption Area	750	(ft²)	Calculated Min. (DEQ 4., Wisc. Manual)
Min Basal Area	1000	(ft²)	Calculated, Design Flow/Basal Loading Rate
MAX Absorption Area Width	6.8	(ft)	Calculated Max. (Wisc. Manual)
Min Absorption Area Length	86	(ft)	Calculated Min. (Wisc. Manual)
MAX Number of Laterals	3		Calculated (3" Min) (DEQ 4., Wisc. Manual)

Proposed Mound Design	Value	Units	Notes
(L) Proposed Basal Length	84.0	(ft)	Provided by applicant
(W) Proposed Basal Width	12.0	(ft)	Provided by applicant
(b) Proposed Absorption Area Length	84.0	(ft)	Provided by applicant
(A) Proposed Absorption Area Width	9.0	(ft)	Provided by applicant
(D) Proposed Sand Fill Depth	1.0	(ft)	Provided by applicant (Min 12 inches DEQ 4.)

Minimum Checks	Min	Design	Result	
Basal Sand Area	1000.0	1008.0	OK	
Absorption Area	750.0	756.0	OK	
Absorption Area Length:Width ratio	3	9.3	OK	
Max Width (Wis. Manual)	9.0	9.0	OK	Limited from Linear Loading Rate

Calculate Mound Design	Value	Units	Notes
Additional Sand Bed Width	2.0	(ft)	Required 24 inches (DEQ 4.)
(E) Mound Fill Depth	1.00	(ft)	Calculated from slope
(F) Top Soil Depth	0.75	(ft)	Minimum 3 inches (DEQ 4.)
(G) Cap Depth	0.50	(ft)	Required 6 inches (DEQ 4.)
(H) Cover Depth	1.0	(ft)	Required 12 inches (DEQ 4.)
(I) Down Slope Sand Width	5.3	(ft)	Calculated from slope (Wisc. Manual)
(J) Up Slope Sand Width	5.3	(ft)	Calculated from slope (Wisc. Manual)
(K) End Slope Sand Length	5.3	(ft)	Calculated from 3:1 slope (DEQ 4.)

FINAL MOUND DESIGN	Value	Units	Notes
(A) Absorption Area Width	9.0	(ft)	Proposed, may not meet standards
(B) Absorption Area Length	84.0	(ft)	Proposed, may not meet standards
(I) Down Slope Sand Width	5.3	(ft)	Calculated from Proposed, may not meet standards
(J) Up Slope Sand Width	5.3	(ft)	Calculated from Proposed, may not meet standards
(K) End Slope Sand Length	5.3	(ft)	Calculated from Proposed, may not meet standards
(C) Sand Bed Width	13.0	(ft)	Calculated from Proposed, may not meet standards
(CL) Sand Bed Length	88.0	(ft)	Calculated from Proposed, may not meet standards
(L) Basal Sand Area Length	96.5	(ft)	Calculated from Proposed, may not meet standards
(W) Basal Sand Area Width	23.5	(ft)	Calculated from Proposed, may not meet standards

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REV	REM	COMPANY	SCALE:	MONTANA DESIGN SERVICES, INC.	D & HAULING
		D/H	30:1		SIGNORELLI SITE MAP
		CONTRACT:	DATE:	DRG TOLERANCES:	PRELIM SITE LAYOUT
			8/7/2025		5/21/25
		PLOT FILE: PWL-0001	WEIGHT	FINISH	D. PLUID 5/21/25
					395-001