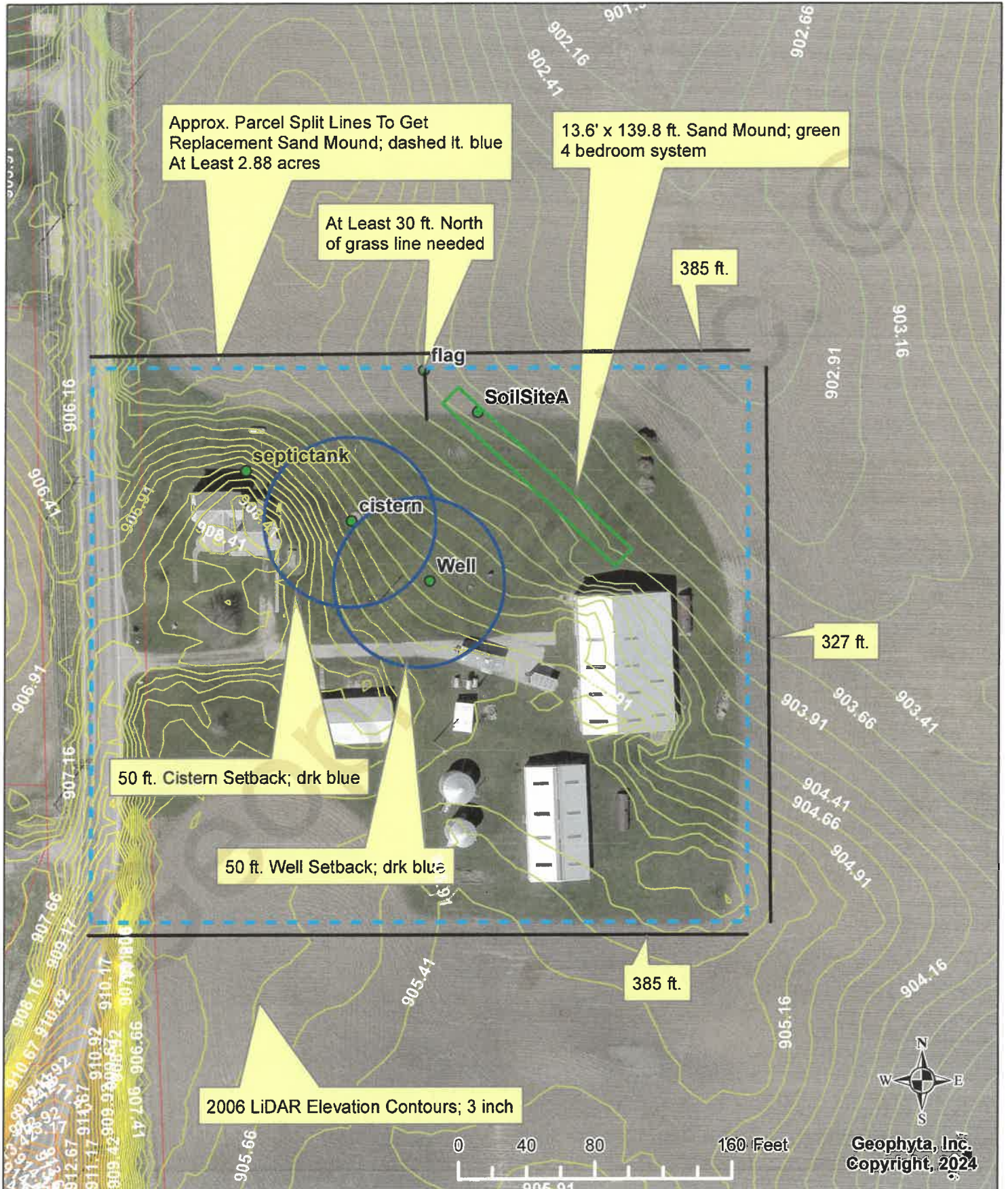


HSTS Soil/Site Evaluation - 2563 Section Line Rd 30 S (Parcels 360010010150000)



Mound Calculations: Gravelless Chambers					
Owner: 2568 Section Line Rd 30 South		Design			
	Min. Design	Actual Design	Comment		
Residence w/4 bedroom					
Water Use (gal/day)(DFR)	480				
Limiting Condition	PSWT				
Depth To Limiting Condition (inches)	10.0				
Total Infiltration Depth (Soil+Sand) (in.)	10.0				
Sand Depth To Add (in.)	0.0				
Most Limiting Soil Texture	SiL				
Site Slope % (Perpendicular To Contour)	0.0				
Tyler Table Values					
Soil Infiltration Loading Rate (gal/day/sq. ft)(BLR)	0.6				
Soil Hydraulic Linear Loading Rate (gal/day/ft)(HLLR)	2.7				
Sand Loading Rate (gal/day/sq. ft)(SLLR)	1.0				
Required Soil Absorption Area (sq. ft.) DFR/BLR	800.0				
Mound Design Requirements					
Sand Absorption Area Width (ft)(A)	2.7	3.70	to use infiltrator domes, 2 x 22 in. W		
Sand Absorption Area Length (ft)(B)	177.8	129.8	Infiltrator domes, 4 ft. L; 27% Length Reduct.		
Sand Distribution Area for Laterals(sq. ft.)	480.0	480.3			
Min. Mound Basal Soil Width (ft)(I+A+J)(HLLR/BLR)	4.5	10.42	Min. needed for 3:1 sand edge slope		
Upslope Sand Depth (in)(D)	0.0				
Downslope Sand Depth (in)(E)	0.0				
Aggregate Depth (in)(F)	8.0		LP Dome Ht.		
Edge Topsoil Cover (in)(G)	6.0				
Peak Topsoil Cover (in)(H)	12.0				
Mound Downslope Width at 3:1 (in)(I)	60.0				
Mound Upslope Width at 3:1 (in)(J)	60.0				
Mound Endslope Width at 3:1 (in)(K)	60.0				
Mound Overall Length (ft)(L)	187.8	139.8	to use infiltrator domes, 4 ft. L		
Mound Overall Width (ft)(W)	10.0	13.6			
Mound Overall Height (ft)	1.7	2.2			

Landforms
Upland*
Terrace
Flood Plain
Lake Plain
Beach Ridge
*Includes glacial till plain and end moraine

Position on Landform
Depression
Flat
Knoll
Crest
Hillslope
Footslope

Shape of Slope
Convex
Concave
Linear
Complex

Horizon Nomenclature		
Master Horizons	Horizon Suffixes	Horizon Modifiers
O Predominantly organic matter (litter & humus)	a Highly decomposed organic matter	Numerical Prefixes: Used to denote lithologic discontinuities.
A Mineral, organic matter (humus) accumulation, loss of Fe, Al, clay	b Buried genetic horizon	
E Mineral, loss of Si, Fe, Al, clay, organic matter	d Dense layer (physically root restrictive)	Numerical Suffixes: Used to denote subdivisions within a master horizon.
B Subsurface accumulation of clay, Fe, Al, Si, humus; sesquioxides; loss of CaCO ₃ ; subsurface soil structure	e Moderately decomposed organic matter	
C Little or no pedogenic alteration, unconsolidated earthy material, soft bedrock	g Strong gley	
R Hard bedrock	i Slightly decomposed organic matter	
	p Plow layer or artificial disturbance	
	r Weathered or soft bedrock	
	t Illuvial accumulation of silicate clay	
	w Weak color or structure within B	
	x Fragipan characteristics	

Soil Texture			
Texture Class Abbreviations		Textural Class Modifiers	
Course Sand	cos	Gravelly	GR
Sand	s	Fine Gravelly	FGR
Fine Sand	fs	Medium Gravelly	MGR
Very Fine Sand	vfs	Coarse Gravelly	CGR
Loamy Coarse Sand	lcos	Very Gravelly	VGR
Loamy Sand	ls	Extremely Gravelly	XGR
Loamy Fine Sand	lfs	Cobbly	CB
Loamy Very Fine Sand	lvfs	Very Cobbly	VCB
Coarse Sandy Loam	cosl	Extremely Cobbly	XCB
Sandy Loam	sl	Stony	ST
Fine Sandy Loam	fsl	Very Stony	VST
Very Fine Sandy Loam	vfsl	Extremely Stony	XST
Loam	l	Bouldery	BY
Silt Loam	sil	Very Bouldery	VBY
Silt	si	Extremely Bouldery	XBY
Sandy Clay Loam	sc	Channery	CN
Clay Loam	cl	Very Channery	VCN
Silty Clay Loam	sicl	Extremely Channery	XCN
Sandy Clay	sc	Flaggy	FL
Silty Clay	sic	Very Flaggy	VFL
Clay	c	Extremely Flaggy	XFL
*Estimate approximate clay percentage within 5 percent			

Soil Structure					
Grade		Size		Type (Shape)	
Structureless	0	Very Fine	vf	Granular	gr
Weak	1	Fine	f	Angular Blocky	abk
Moderate	2	Medium	m	Subangular Blocky	sbk
Strong	3	Coarse	co	Platy	pl
		Very Coarse	vc	Prismatic	pr
		Extr. Coarse	ec	Columnar	cpr
		Very Thin*	vn	Single Grain	sg
		Thin*	tn	Massive	m
		Thick*	tk	Cloddy	CDY
		Very Thick*	vk		
* The sizes Very Thin, Thin, Thick, and Very Thick, are used when describing platy structure only. Substitute thin for fine, and thick for coarse when describing platy structure.					

Moist Consistence	
Loose	l
Very Friable	vfr
Friable	fr
Firm	fi
Very Firm	vfi
Extremely Firm	efi

For a more detailed explanation on describing and sampling soils, please refer to the "Field Book for Describing and Sampling Soils" Schoeneberger, P.J., Wysocki, D.A., Benham, E.C., and Broderson, W.D. (editors) 2002. Field book for describing and sampling soils, version 2.0. Natural Resources Conservation Service, USDA, National Soil Survey Center, Lincoln, NE.

Site/Soil Evaluation For Home Septic Treatment System (HSTS) Suitability By Geophyta, Inc.

This site/soil evaluation, prepared by Geophyta Inc., is for information purposes to be used by a landowner, septic system designer, and your local health department. Geophyta provides technical information to help identify limits for an HSTS on a parcel to be used as a home site. Geophyta serves as a technical advisor for soils/site information.

Geophyta relies on accurate information provided by the landowner and technical data collected by Geophyta. This information includes local soil limits and topography, plus existing and future locations of your home, number of bedrooms, out buildings, driveways, drinking water wells, ponds, existing septic systems, and property lines. Geophyta Inc. relies on this information to make accurate recommendations.

This is not a property boundary survey.

This is not a septic system design. You must use a septic system designer to prepare a complete design to be submitted to your local health department for approval.

This report does not guarantee buildability of a lot or approval of any septic system design. Your county health department is the final authority on approval of any septic system design and most likely will not make a buildability decision without a full design package.

Sincerely,

A handwritten signature in cursive script that reads "Nathan Wright".

Nathan Wright
Geophyta, Inc.