

PaD: Palatine silt loam, 15 to 25 percent slopes

The Palatine component makes up 85 percent of the map unit. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. This component is on hills on glaciated uplands. The parent material consists of coarse-loamy till. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 40 inches.

Important farmland classification: NPSL	Land capability: 4 e	Vermont Agricultural Value Group: 8
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Vermont Residential Onsite Waste Disposal Group and Subgroup: IId

This unit is moderately suited as a site for soil-based residential wastewater disposal systems, based on a review by the Natural Resources Conservation Service of criteria set forth in the Vermont 2007 Environmental Protection Rules. The depth to bedrock and slopes greater than 20 percent in some areas are the primary concerns. A significant percentage of this map unit has sufficient soil depth over bedrock to accept a range of designs. On-site investigations can help avoid areas with limited depth to bedrock. Additional fill material may be needed in some areas in order to meet the separation distance requirement between the bottom of the leachfield and bedrock. There may be less-sloping areas within the unit that are suitable for siting a septic system, or, if feasible, cut and fill site modifications may produce an acceptable area within the unit. An erosion prevention and sediment control plan is required by the State for construction on sites over 20 percent slope.

PHYSICAL and CHEMICAL PROPERTIES							EROSION FACTORS		
Soil name	Depth (In)	Typical texture	Clay (Pct)	Soil reaction (pH)	Permeability (In/Hr)	Organic matter (Pct)	Kw	Kf	T
Palatine	0-5	SIL	5-18	6.1 - 7.8	0.6-2	4.0-8.0	.32	.32	3
	5-17	CN-SIL	5-18	6.1 - 7.8	0.6-2	0.0-1.0	.24	.49	
	17-25	CNV-SIL	5-18	7.4 - 8.4	0.6-2	0.0-1.0	.20	.64	
	25-35	UWB	---	---	0-0.6	---	---	---	

WATER FEATURES						SOIL FEATURES		
Soil name	Hydrologic group	Depth to seasonal high water table (Feet)	Flooding		Ponding		Hydric soil?	Depth to bedrock (range in inches)
			Frequency	Duration	Frequency	Duration		
Palatine	C	---	None		None		No	20-40

LAND USE LIMITATIONS				AGRICULTURAL YIELD DATA	
Soil name	Land use	Rating	Reason **	Crop name	Yield / acre
Palatine	Dwellings with basements:	Very limited	Slope	Pasture	6.5 AUM
Palatine	Pond reservoir areas:	Very limited	Slope	Grass-legume hay	3.5 Tons

WOODLAND MANAGEMENT				
Soil name	Management concern	Rating	Reason	Vermont natural communities
Palatine	Harvest equip operability:	Moderately suited	Slope	Mesic Maple-Ash-Hickory-Oak Forest,Northern Hardwood Limestone Forest Variant,Transition Hardwoods Limestone Forest Variant, Rich Northern Hardwood Forest, Sugar Maple-White Ash Northern Hardwood Forest Variant
Palatine	Road suitability:	Poorly suited	Slope	
Palatine	Erosion hazard (off-road):	Moderate	Slope/erodibility	