

**LETTER(S) IN FAVOR**

**CONDITIONAL USE**

**RICHARD BERGER AND  
KEITH & CHRISTINE  
BRIDENHAGEN TRUST  
(BIERMAN)**

**Riemer, Linda**

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**From:** Aqualand Campground <aqualandcampground@gmail.com>  
**Sent:** Saturday, July 11, 2020 6:15 PM  
**To:** northerndoorstorage@gmail.com

Hi Rich,

Thanks for reaching out the other day to discuss your plans for additional storage facilities. Our customers at the campground have been very happy with your current facilities and many of them will be pleased to finally be able to get a spot with you when you expand. Having the storage facilities across the street have been so convenient for our customers and as a business owner I appreciate the fact that our campers are better able to keep their campsites clean and organized because of your business. Thank you for being a nice and quiet neighboring business.

Josh Sweeney  
Aqualand Campground

RECEIVED

JUL 15 2020

DOOR COUNTY  
LAND USE SERVICES DEPARTMENT

**SOILS REPORT**  
**BIERMAN CUP**



July 15, 2020

Mr. Richard Bierman

*Re: Soils Evaluation for Self-Storage Project near Sister Bay, WI  
Parcel(s) 018-01-17312823F1, F2, F3*

Mr Bierman:

An evaluation of the on-site soils was completed for your proposed project today, July 15, 2020. Five separate pits were excavated at intervals throughout the property. Generally, the soil profiles concurred with published NRCS soil survey data. Bedrock was found to be a limiting factor in the western portion of the site; being encountered at depths from 2-4'. The eastern half of the site was found to have deep well-drained soils (7'+ without any limiting factors observed). The eastern half of the site will be used for storm water BMP's and in my professional opinion, there are no observed limitations impeding this use. Please see the attached soil evaluation log and NRCS Soil Survey for a more comprehensive analysis of the on-site soils.

Respectfully submitted,

A handwritten signature in purple ink that reads 'Skyler Witalison'.



**Skyler Witalison, P.E.**

*Baudhuin Surveying & Engineering*

312 N. 5<sup>th</sup> Avenue

Sturgeon Bay, WI 54235

Office: (920) 743-8211 x231

Cell: (920) 868-2382

[switalison@baudhuin.com](mailto:switalison@baudhuin.com)



Attachment 2:

1002-TS-23  
 Division of Industry Services  
 P. O. Box 2658  
 Madison, Wisconsin 53701  
 Scott Walker, Governor  
 Laura Gutierrez, Secretary

SOIL AND SITE EVALUATION – STORM

In accordance with SPS 382.365, 385, Wis. Adm. Code, and WDNR Standard 1002

Attach a complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent of slope, scale or dimensions, north arrow, and BM referenced to nearest road

**Please print all information**

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m)]

County **DOOR**

Parcel I.D. **0180117312833F2**

Reviewed by:  
Date:

Property Owner **BIERMAN**

Property Location  
Govt. Lot 1/4 1/4 S T N R E (or) W  
Lot # Block # Subd. Name or CSM #

Property Owner' Mail Address

City State Zip Code Phone Number  
**TOWN OF LIBERTY GROVE**

Drainage area \_\_\_\_\_  sq. ft  acres

Test site suitable for (check all that apply):  Site not suitable;

Bioretention;  Subsurface Dispersal System;

Reuse;  Irrigation;  Other \_\_\_\_\_

Hydraulic Application Test Method  
 Morphological Evaluation  
 Double Ring Infiltrometer  
 Other: (specify) \_\_\_\_\_

Soil Moisture  
Date of soil borings: \_\_\_\_\_  
USDA-NRCS WETS Value:  
 Dry = 1;  
 Normal = 2;  
 Wet = 3.

1 #OBS.  Pit  Boring Ground surface elevation **+/- 651'** ft. Elevation of limiting factor **-2.2'** ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
	0-16"			TOPSOIL						
	16-26"			sl						0.50
	26"+			BEDROCK						
Comments: <b>BEDROCK AT 26". NO WATER PRESENT. NO REDOX OBSERVED.</b>										

2 #OBS.  Pit  Boring Ground surface elevation **+/- 652.5'** ft. Elevation of limiting factor **-2.0'** ft.

Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
	0-12"			TOPSOIL						
	12-24"			sl						0.50
	24"+			BEDROCK						
Comments: <b>BEDROCK AT 24". NO WATER PRESENT. NO REDOX OBSERVED.</b>										
Name (Please Print) <b>SKYLER WITALISON</b>		Signature				Credential Number <b>P.E.</b>				
Address <b>BAUDHUIN, INC.</b>		Date Evaluation Conducted <b>2020-07-15</b>			Telephone Number					

SBD-10793 (R01/17)

<b>3</b> #OBS. <input checked="" type="checkbox"/> Pit <input type="checkbox"/> Boring Ground surface elevation, +/- 647.0' ft. Elevation of limiting factor <u>N/A</u> ft. Page of ____										
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
	0-12"			TOPSOIL						
	12-36"			I						0.24
	36-84"			sl				25%		0.50
	END									
Comments: NO BEDROCK ENCOUNTERED. NO WATER PRESENT. NO REDOX OBSERVED.										

<b>4</b> #OBS. <input checked="" type="checkbox"/> Pit <input type="checkbox"/> Boring Ground surface elevation, +/- 648.0' ft. Elevation of limiting factor <u>N/A</u> ft.										
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
	0-12"			TOPSOIL						
	12-30"			I						0.24
	30-72"			sl				25%		0.50
	END									
Comments: NO BEDROCK ENCOUNTERED. NO WATER PRESENT. NO REDOX OBSERVED.										

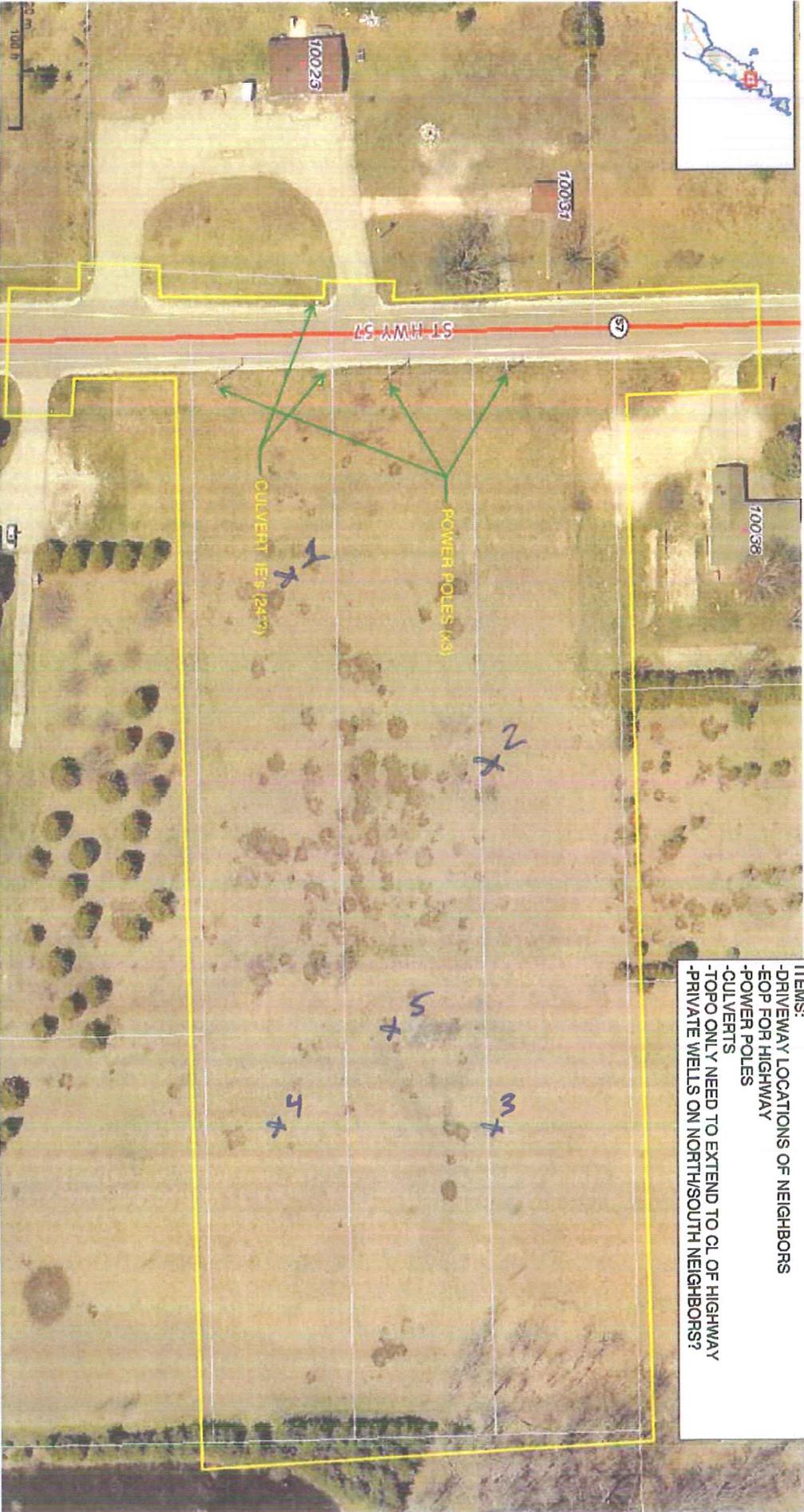
<b>5</b> #OBS. <input checked="" type="checkbox"/> Pit <input type="checkbox"/> Boring Ground surface elevation, +/- 650.0' ft. Elevation of limiting factor <u>-4.0'</u> ft.										
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
	0-8"			TOPSOIL						
	8-18"			I						0.24
	18-48"			sl				40%		0.50
	48" +			BEDROCK						
Comments: BEDROCK AT 48". NO WATER PRESENT. NO REDOX OBSERVED.										

#OBS. <input type="checkbox"/> Pit <input type="checkbox"/> Boring Ground surface elevation, ____ ft. Elevation of limiting factor ____ ft.										
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Boundary	% Rock Frags.	% Fines	Hydraulic App Rate Inches/Hr
Comments:										

SBD-10793 (R 7/17)

Overall Site Comments:

WDNR  
September 2017



- ITEMS:
- DRIVEWAY LOCATIONS OF NEIGHBORS
  - EOP FOR HIGHWAY
  - POWER POLES
  - CULVERTS
  - TOPO ONLY NEED TO EXTEND TO CL OF HIGHWAY
  - PRIVATE WELLS ON NORTH/SOUTH NEIGHBORS?

X = Soil borings

Soil Map—Door County, Wisconsin  
(BIERMAN)



Soil Map—Door County, Wisconsin  
(BIERMAN)

**MAP LEGEND**

<b>Area of Interest (AOI)</b>	 Area of Interest (AOI)	 Spoil Area
<b>Soils</b>	 Soil Map Unit Polygons	 Stony Spot
 Soil Map Unit Lines	 Soil Map Unit Points	 Very Stony Spot
<b>Special Point Features</b>		 Wet Spot
 Blowout		 Other
 Borrow Pit		 Special Line Features
 Clay Spot	<b>Water Features</b>	
 Closed Depression	 Streams and Canals	
 Gravel Pit	<b>Transportation</b>	
 Gravelly Spot	 Rails	
 Landfill	 Interstate Highways	
 Lava Flow	 US Routes	
 Marsh or swamp	 Major Roads	
 Mine or Quarry	 Local Roads	
 Miscellaneous Water	<b>Background</b>	
 Perennial Water	 Aerial Photography	
 Rock Outcrop		
 Saline Spot		
 Sandy Spot		
 Severely Eroded Spot		
 Sinkhole		
 Slide or Slip		
 Sodic Spot		

**MAP INFORMATION**

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Door County, Wisconsin  
Survey Area Data: Version 16, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Mar 30, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
OmB	Omena sandy loam, 2 to 6 percent slopes	3.9	57.5%
SvA	Summerville loam, 0 to 2 percent slopes	1.8	26.3%
Wa	Wainola loamy fine sand	1.1	16.2%
<b>Totals for Area of Interest</b>		<b>6.8</b>	<b>100.0%</b>

## Door County, Wisconsin

### OmB—Omena sandy loam, 2 to 6 percent slopes

#### Map Unit Setting

*National map unit symbol:* g5d6  
*Elevation:* 600 to 860 feet  
*Mean annual precipitation:* 27 to 33 inches  
*Mean annual air temperature:* 41 to 45 degrees F  
*Frost-free period:* 130 to 160 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Omena and similar soils:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Omena

##### Setting

*Landform:* Ground moraines  
*Landform position (two-dimensional):* Summit, shoulder, backslope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loamy till

##### Typical profile

*A,E,Bs - 0 to 10 inches:* sandy loam  
*Bt - 10 to 17 inches:* loam  
*C - 17 to 60 inches:* sandy loam

##### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):*  
Moderately high to high (0.57 to 1.98 in/hr)  
*Depth to water table:* About 60 to 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Available water storage in profile:* Moderate (about 6.5 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* B  
*Forage suitability group:* Mod AWC, adequately drained  
(G095AY005WI)  
*Hydric soil rating:* No

### Minor Components

**Bedrock is at 40 to 60**

*Percent of map unit:*

*Hydric soil rating:* No

**Emmet sandy loam**

*Percent of map unit:*

*Hydric soil rating:* No

**Omena variant sandy loam**

*Percent of map unit:*

*Hydric soil rating:* No

**Slope is greater than 6%**

*Percent of map unit:*

*Hydric soil rating:* No

**Slope is less than 2%**

*Percent of map unit:*

*Hydric soil rating:* No

### Data Source Information

Soil Survey Area: Door County, Wisconsin  
Survey Area Data: Version 16, Jun 8, 2020

## Door County, Wisconsin

### SvA—Summerville loam, 0 to 2 percent slopes

#### Map Unit Setting

*National map unit symbol:* g5dv

*Elevation:* 600 to 860 feet

*Mean annual precipitation:* 27 to 33 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 130 to 160 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Summerville and similar soils:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Summerville

##### Setting

*Landform:* Ground moraines

*Landform position (two-dimensional):* Summit

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Loamy alluvium

##### Typical profile

*Ap,E - 0 to 12 inches:* loam

*Bs - 12 to 15 inches:* fine sandy loam

*2R - 15 to 79 inches:* bedrock

##### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* 10 to 20 inches to lithic bedrock

*Natural drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to high (0.00 to 1.98 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 30 percent

*Available water storage in profile:* Very low (about 2.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3s

*Hydrologic Soil Group:* D

*Forage suitability group:* Low AWC, adequately drained  
(G095AY002WI)

*Hydric soil rating:* No

### Minor Components

#### Bedrock outcrops

*Percent of map unit:*  
*Hydric soil rating:* No

#### Namur variant loam

*Percent of map unit:*  
*Hydric soil rating:* No

#### Bonduel shallow variant

*Percent of map unit:*  
*Hydric soil rating:* No

#### Longrie loam

*Percent of map unit:*  
*Hydric soil rating:* No

#### Slope is greater than 2%

*Percent of map unit:*  
*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Door County, Wisconsin  
Survey Area Data: Version 16, Jun 8, 2020

## Door County, Wisconsin

### Wa—Wainola loamy fine sand

#### Map Unit Setting

*National map unit symbol:* g5f2

*Elevation:* 600 to 860 feet

*Mean annual precipitation:* 27 to 33 inches

*Mean annual air temperature:* 41 to 45 degrees F

*Frost-free period:* 130 to 160 days

*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Wainola and similar soils:* 95 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Wainola

##### Setting

*Landform:* Drainageways

*Landform position (three-dimensional):* Talf

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Sandy glaciofluvial deposits

##### Typical profile

*A - 0 to 5 inches:* loamy fine sand

*E - 5 to 13 inches:* fine sand

*Bs - 13 to 30 inches:* fine sand

*C - 30 to 60 inches:* fine sand

##### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* High to very high (5.95 to 19.98 in/hr)

*Depth to water table:* About 0 to 24 inches

*Frequency of flooding:* None

*Frequency of ponding:* Occasional

*Available water storage in profile:* Low (about 4.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3w

*Hydrologic Soil Group:* A/D

*Forage suitability group:* Low AWC, high water table  
(G095AY001WI)

*Hydric soil rating:* No

### Minor Components

#### Deford

*Percent of map unit:* 3 percent

*Landform:* Depressions

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Hydric soil rating:* Yes

#### Rousseau

*Percent of map unit:* 2 percent

*Landform:* Rises

*Landform position (three-dimensional):* Rise, dip

*Down-slope shape:* Linear

*Across-slope shape:* Convex, concave

*Hydric soil rating:* No

### Data Source Information

Soil Survey Area: Door County, Wisconsin

Survey Area Data: Version 16, Jun 8, 2020

## Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

*Hydrologic soil group* is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

*Group A.* Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

*Group B.* Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

*Group C.* Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

*Group D.* Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

*Depth* to the upper and lower boundaries of each layer is indicated.

*Texture* is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

*Classification* of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

*Percentage of rock fragments* larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Percentage (of soil particles) passing designated sieves* is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

*Liquid limit and plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

### Report—Engineering Properties

Absence of an entry indicates that the data were not estimated. The asterisk "\*" denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007 (<http://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Engineering Properties—Door County, Wisconsin														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number—				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	
OmB—Omena sandy loam, 2 to 6 percent slopes														
Omena	100	B	0-10	Sandy loam	SC-SM	A-4	0-0-0	0-5-10	90-95-100	75-88-100	55-70-85	25-38-50	15-20-25	2-5-8
			10-17	Loam, sandy loam	CL-ML	A-4	0-0-0	0-8-15	90-95-100	75-88-100	50-73-95	25-50-75	15-18-20	2-6-10
			17-60	Sandy loam	SC-SM	A-2-4	0-0-0	0-2-20	80-88-95	70-85-90	40-53-65	20-30-40	15-20-25	2-5-8
SvA—Summerville loam, 0 to 2 percent slopes														
Summerville	100	D	0-12	Loam	CL	A-4, A-6	0-0-0	0-5-10	95-98-100	90-95-100	75-85-95	55-65-75	25-30-35	7-11-15
			12-15	Fine sandy loam, sandy loam, loam	SC-SM, SC, CL, CL-ML	A-2-4, A-2-6, A-4	0-0-0	0-8-15	95-98-100	90-95-100	55-75-95	25-50-75	20-28-35	4-10-15
			15-79	Bedrock	—	—	—	—	0-0-0	0-0-0	—	—	—	—

Engineering Properties--Door County, Wisconsin														
Map unit symbol and soil name	Pct. of map unit	Hydrologic group	Depth	USDA texture	Classification		Pct Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
					Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
			<i>In</i>				<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>	<i>L-R-H</i>
Wa--Wainola loamy fine sand														
Wainola	95	A/D	0-5	Loamy fine sand	SM	A-2-4	0-0-0	0-0-0	100-100-100	90-95-100	55-68-80	20-28-35	—	NP
			5-13	Fine sand, loamy fine sand, very fine sand	ML, SM	A-2-4, A-4	0-0-0	0-0-0	100-100-100	90-95-100	50-65-80	15-35-55	—	NP
			13-30	Fine sand, loamy fine sand, very fine sand	SM, ML	A-2-4, A-4	0-0-0	0-0-0	100-100-100	90-95-100	50-65-80	15-35-55	—	NP
			30-60	Fine sand, loamy fine sand, very fine sand	SM, ML	A-2-4, A-4	0-0-0	0-0-0	100-100-100	90-95-100	50-65-80	15-35-55	—	NP

### Data Source Information

Soil Survey Area: Door County, Wisconsin  
 Survey Area Data: Version 16, Jun 8, 2020