

The New Generation of the Connecticut Soil Survey

USDA Natural Resources
Conservation Service



**The new digital
*Soil Survey of the
State of Connecticut,*
dated July 15, 2005,
or later, is the
official soil survey
for the state.**



Kinds of Map Units

Consociation



Dominantly Soil A

29A Agawam fine sandy loam, 0 to 3 percent slopes

Complex



Always Soil A with Soil C

237A Manchester-Urban land complex, 0 to 3 percent slopes

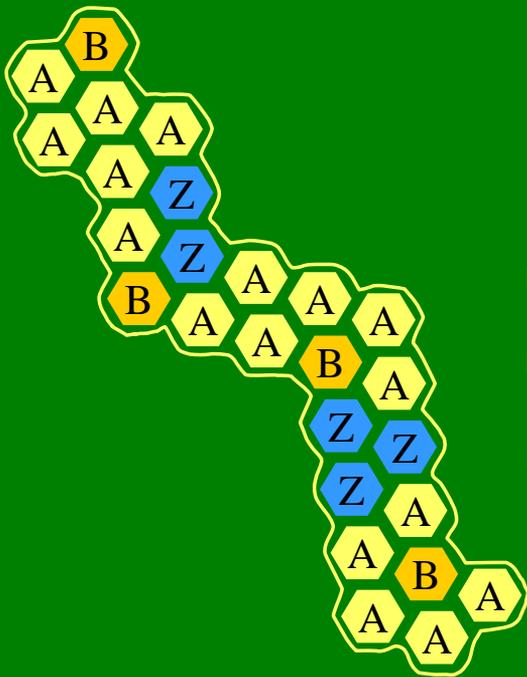
Undifferentiated



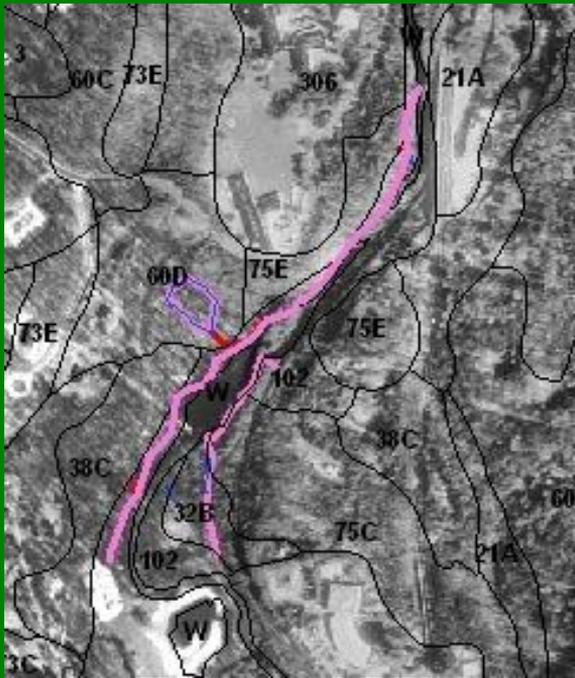
Soil A and B or All A or All B

86D Paxton and Montauk fine sandy loams, 15 to 35 percent slopes, extremely stony

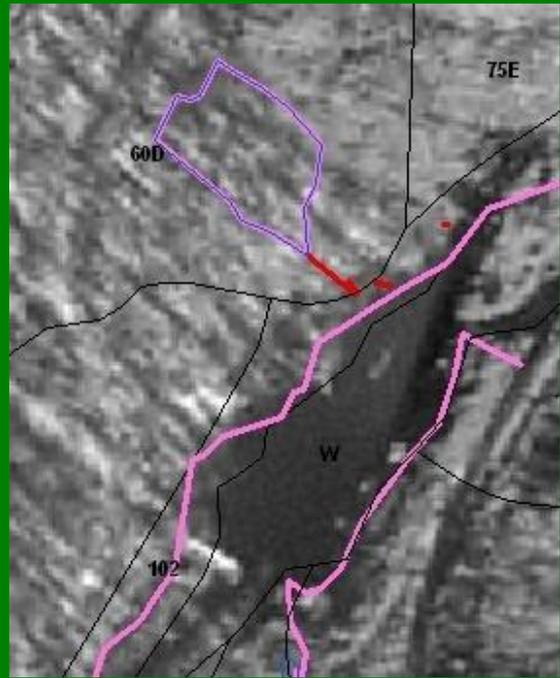
Soil Map Unit



- A** Central Pedons
- B** Similar Inclusions
- Z** Dissimilar Inclusions



1:12,000 scale



1:3,000 scale



Official digital soils information may be obtained from NRCS:

- Web Soil Survey – *users can create maps online, print the maps, and get soils information for their site*

<http://soils.usda.gov/survey>

- NRCS Soil Data Mart – *users can download spatial data for GIS use, tabular soils data, or generate soil reports online*

<http://soildatamart.nrcs.usda.gov>

Click on the green “start” button to proceed

The screenshot shows the homepage of the Web Soil Survey (WSS) website. At the top, there is a header with the USDA logo and the text "United States Department of Agriculture" and "Natural Resources Conservation Service". Below this is a banner image with the text "Web Soil Survey" in large yellow letters. A navigation menu includes "Home", "About Soils", "Help", and "Contact Us". A breadcrumb trail reads "You are here: WSS Home".

On the left side, there is a search bar with the text "Enter Keywords" and a "Go" button. Below the search bar is a "Browse by Subject" menu with several categories: "Soils Home", "National Cooperative Soil Survey (NCSS)", "Archived Soil Surveys", "Status Maps", "Official Soil Series Descriptions (OSD)", "Soil Series Extent Mapping Tool", "Soil Data Mart", "Geospatial Data Gateway", "eFOTG", "National Soil Characterization Data", and "Soil Geochemistry Spatial Database".

In the center, there is a large green circular button with the text "START WSS" in white. A red arrow points from the text "Click on the green 'start' button to proceed" to this button. Below the button, there is a heading "Welcome to Web Soil Survey (WSS)" and a paragraph of text: "Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information."

Below the text, there is a section titled "Three Basic Steps" with a numbered list: "1 Define..." and a sub-section "Area of Interest (AOI)" with the text "Use the Area of Interest tab to define your area of interest."

On the right side, there are two sections: "I Want To..." with a list of links: "Start Web Soil Survey (WSS)", "Know the requirements for running Web Soil Survey", "Know whether my web browser works with Web Soil Survey", "Know the Web Soil Survey hours of operation", and "Find what areas of the U.S. have soil data"; and "Announcements/Events" with a link: "Web Soil Survey 2.0 has been released! View description of new features."

At the bottom right, there is a section "I Want Help With..." with a link: "How to use Web Soil Survey".

Navigate to your area of interest

The screenshot displays the Web Soil Survey website interface. At the top, the USDA logo and "Natural Resources Conservation Service" are visible. The main navigation bar includes "Contact Us", "Download Soils Data", "Archived Soil Surveys", "Preferences", "Logout", and "Help". Below this, a secondary navigation bar features "Area of Interest (AOI)", "Soil Map", "Soil Data Explorer", and "Shopping Cart". The "Area of Interest (AOI)" tab is highlighted with a red oval. On the left, a "Quick Navigation" panel lists various search criteria under "Navigate By...": Address, State and County, Soil Survey Area, Latitude and Longitude, PLSS (Section, Township, Range), Bureau of Land Management, Department of Defense, Forest Service, National Park Service, and Hydrologic Unit. The main content area is titled "Area of Interest Interactive Map" and shows a map of the continental United States with state boundaries and two-letter state abbreviations. A red network of lines is overlaid on the map, representing soil survey areas. The map interface includes a legend, a "View Extent" dropdown set to "Continental U.S.", and a "Scale" dropdown set to "(not to scale)".

Click and drag one of the AOI buttons to outline the boundaries of your desired area

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Shopping Cart

Quick Navigation

Navigate By...

Address

State and County

View

State: Connecticut

County (optional): Tolland

View

Soil Survey Area

Latitude and Longitude

PLSS (Section, Township, Range)

Bureau of Land Management

Department of Defense

Forest Service

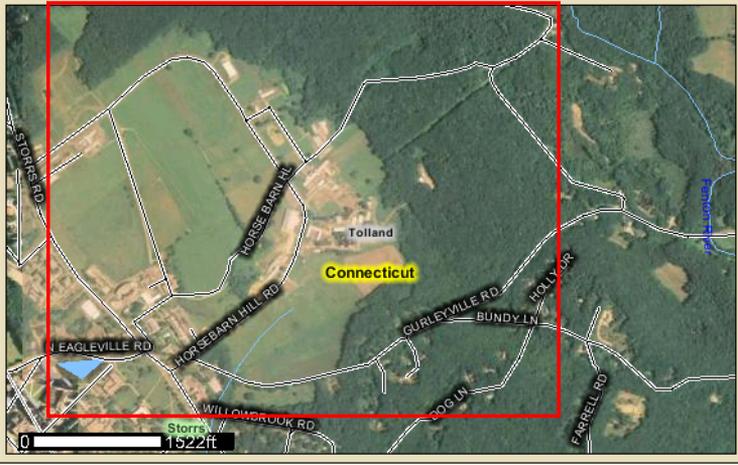
National Park Service

Hydrologic Unit

Area of Interest Interactive Map

Legend

View Extent: Continental U.S. | Scale: (not to scale)



Area of interest has been created – next click on soil map tab

The screenshot shows a web application interface with the following components:

- Navigation Tabs:** "Area of Interest (AOI)", "Soil Map" (highlighted with a red circle), "Soil Data Explorer", and "Shopping Cart".
- Area of Interest Properties Panel:**
 - Clear AOI** button
 - AOI Information:** Name field, Map Unit Symbols (radio buttons for "Use Soil Survey Area Map Unit Symbols" and "Use National Map Unit Symbols"), Area (acres) 644.1
 - Soil Data Available from Web Soil Survey:** State of Connecticut (CT600), Soil Maps Version 4, Mar 22, 2007, Soil Data Version 5, Mar 22, 2007
 - Clear AOI** button
 - Quick Navigation:** Navigate By... Address, State and County
- Area of Interest Interactive Map Panel:**
 - Legend
 - View Extent: Continental U.S.
 - Scale: (not to scale)
 - Map showing a green hatched area of interest in Connecticut, with roads like Storrs Rd, Horse Barn Hill Rd, Willowbrook Rd, and Mirror Lake.

View the soil map

USDA United States Department of Agriculture
Natural Resources Conservation Service

Web Soil Survey

Contact Us Download Soils Data Archived Soil Surveys Preferences Logout Help

Area of Interest (AOI) **Soil Map** Soil Data Explorer Shopping Cart

Printable Version Add to Shopping Cart

Map Unit Legend

State of Connecticut (CT600)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam	16.9	2.6%
3	Ridgebury, Leicester, and Whitman soils, extremely stony	51.7	8.0%
17	Timakwa and Natchaug soils	2.2	0.3%
23A	Sudbury sandy loam, 0 to 5 percent slopes	5.9	0.9%
38C	Hinckley gravelly sandy loam, 3 to 15 percent slopes	4.5	0.7%
38E	Hinckley gravelly	7.8	1.2%

Soil Map

Explore the soil data

The screenshot displays the Web Soil Survey interface. At the top, the NRCIS logo (United States Department of Agriculture, Natural Resources Conservation Service) is on the left, and the 'Web Soil Survey' title is on the right. A navigation bar includes 'Contact Us', 'Download Soils Data', 'Preferences', 'Logout', and 'Help'. Below this, three tabs are visible: 'Area of Interest', 'Soil Map', and 'Soil Data Explorer', which is circled in red. The main content area shows 'View Soil Information for: All Uses' and a 'Create Printable Document' button. A secondary navigation bar contains 'Intro to Soils', 'Suitabilities and Limitations for Use' (highlighted), 'Soil Properties and Qualities', 'Soil Reports', and 'Soil Survey Publications'. The 'Suitabilities and Limitations Ratings' section is expanded, showing a list of categories with expand/collapse icons. The 'Instructions' pane is also open, providing guidance on viewing ratings.

United States Department of Agriculture
NRCIS Natural Resources Conservation Service

Contact Us | Download Soils Data | Preferences | Logout | Help

Area of Interest | Soil Map | **Soil Data Explorer**

View Soil Information for: All Uses [Create Printable Document](#)

Intro to Soils | **Suitabilities and Limitations for Use** | Soil Properties and Qualities | Soil Reports | Soil Survey Publications

Suitabilities and Limitations Ratings [Open All](#) [Close All](#)

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Sanitary Facilities
- Vegetative Productivity
- Waste Management
- Water Management**
- Embankments, Dikes, and Levees
- Excavated Ponds (Aquifer-fed)
- Pond Reservoir Area

Instructions

Viewing Suitabilities and Limitations Ratings

Suitabilities and limitations ratings are organized by category. Note that in cases where no ratings data is available for the AOI, folders and the ratings categories within folders may disappear.

1. Open a ratings category in the panel to the left, and select a rating.
2. To learn more about the rating, click **View Description**.
3. In the **View Options** pane, select the items you want to view. For more information, click the help button.
4. Optional: To change the aggregation method as well as other advanced parameters, click on the **Advanced Options** pane and make changes. For more information, click the help button.
5. When ready, click **View Ratings**.

Note: The ratings results you get in Web Soil Survey are identical to those in [Soil Data Viewer 5.0](#) or later.

FOIA | Accessibility Statement | Privacy Policy | Non-Discrimination Statement | Information Quality | FirstGov | White House

Drainage Class

Intro to Soils Suitabilities and Limitations for Use **Soil Properties and Qualities** Soil Reports

Properties and Qualities Ratings

Open All Close All

Soil Chemical Properties

- Calcium Carbonate (CaCO₃)
- Cation-Exchange Capacity (CEC-7)
- Effective Cation-Exchange Capacity (ECEC)
- Electrical Conductivity (EC)
- Gypsum
- pH (1 to 1 Water)
- Sodium Adsorption Ratio (SAR)

Soil Erosion Factors

- K Factor, Rock Free
- K Factor, Whole Soil
- T Factor
- Wind Erodibility Group
- Wind Erodibility Index

Soil Physical Properties

- Available Water Capacity
- Available Water Supply, 0 to 100 cm
- Available Water Supply, 0 to 150 cm
- Available Water Supply, 0 to 25 cm
- Available Water Supply, 0 to 50 cm
- Bulk Density, 15 Bar
- Bulk Density, One-Tenth Bar
- Bulk Density, One-Third Bar

Map — Drainage Class

Scale (not to scale)

Tables — Drainage Class — Summary By Map Unit

Summary by Map Unit — State of Connecticut

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
2	Ridgebury fine sandy loam	Poorly drained	12.5	1.2%

Area of Interest (AOI) | Soil Map | **Soil Data Explorer** | Shopping Cart

View Soil Information By Use: All Uses | Printable Version | Add to Shopping Cart

Intro to Soils | Suitabilities and Limitations for Use | Soil Properties and Qualities | **Soil Reports**

Soil Reports

Open All | Close All

AOI Inventory

- Component Legend
- Map Unit Description
- Map Unit Description (Brief)
- Map Unit Description (Brief, Generated)**
 - View Description
 - View Soil Report
- This report has no options.
 - View Description
 - View Soil Report
- Selected Soil Interpretations
- Selected Survey Area Interpretation Descriptions
- Survey Area Data Summary
- Building Site Development
- Construction Materials
- Land Classifications
- Land Management
- Recreational Development

Soil Map

Scale: 1:12,000 ± 1 %

Report — Map Unit Description (Brief, Generated)

Minor map unit components are excluded from this report.

State of Connecticut

Map Unit: 2—Ridgebury fine sandy loam

Component: Ridgebury (80%)

The Ridgebury component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on depressions on uplands, drainageways on uplands. The parent material consists of coarse-loamy lodgment till derived from granite and/or schist and/or gneiss. Depth to a root restrictive layer, densic material, is 20 to 30 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria.

Map Unit Descriptions are in the “AOI Inventory” menu of the Soil Reports tab

CT NRCS soil scientists developed interpretive tables which reflect local criteria and conditions

AOI Inventory

Brief Map Unit Description
 Component Legend
 Map Unit Legend

Selected Soil Interpretations

[View Description](#) [View Soil Report](#)

Options

Select 1-3 soil interpretations

- CT-SWR Retention/Detention Basin
- CT-SWR Underground Gallery
- ENG - Construction Materials; Gravel Source (MO12)
- ENG - Construction Materials; Reclamation (MO12)
- ENG - Construction Materials; Sand Source (MO12)
- ENG(MO12 CT) - Lawn, Landscape, Golf Fairway

Map symbol and soil name	Pct. of map unit	CT-SWR Retention/Detention Basin *		ENG - Construction Materials; Sand Source (MO12) **		ENG(MO12 CT) - Lawn, Landscape, Golf Fairway *		
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	
Ridgebury	80	Very limited	1	Poor	0	Very limited	1	
		Depth limited		Thickest layer		Depth to saturated zone		
Ridgebury	40	Very limited	1	Bottom layer	0	Very limited	0.99	
				Thickest layer				Depth to saturated zone
				Bottom layer				Depth to pan
Leicester	35	Very limited	1	Poor	0	Very limited	1	
		Depth limited		Bottom layer		Depth to saturated zone		
				Thickest layer				

When not to use a soil survey:

- To regulate from – only a guide
- For site specific locations and applications (for example: where to site a house)
- If you know it's a disturbed area

Nothing beats the on-site investigation!



If you're in Washington DC.....visit the “Dig It” soils exhibit at the Smithsonian!



A slice of Connecticut, a sample of Windsor loamy sand, is one of the 54 monoliths in a gallery of soils representing each US state and territory.

