SeptiCAD v5 Tutorial

Start SeptiCAD with the toolbar icon 

Choose the system type & enter the appropriate system information.

Enter thickness of fill above system [default 8 inches]

Enter the elevations of 4 corners of the system in inches relative to Elevation Reference Point (ERP). Select checkbox for Compound Grades if required.

Enter width and grade for 4 sides of the system [default - 4:1 grade & 36" width]

Enter Calculation Type

> The Auto-Step method automatically calculates the maximum elevation drop between chamber rows based on elevations of the limiting factor on the highest corners of the upslope and downslope sides of the field.
>
> The Force-Step method allows the designer to (1) set the bottom elevation for a Stone Bed or Cluster Concrete Chambers (always bottom of stone), (2) step rows down slope at a particular elevation drop between rows (i.e. 2 or 1.5 inches).

Choose Fill Type: Auto, 3% Crown, Sloping or Sloping 3%

Click **Generate Design** to do the design

> **Preview Design Window**
> - Designer is prompted to set the drawing scales (top right)
> - Designer is can modify chamber row/shelf elevations manually (right)
>
> **Compound Grades Window** (if applicable) will open now. Input menu.
>
> Now the software will constructs the Cross Section and Page 2/3 Maps. An prompt you to make some choices depending on the system. The experimental Transitional Horizon drawing and labeling tool will be brought up here if option is selected in SeptiCAD Preferences Menu.
>
> Now Review the Plans.
>
> If design is correct then skip to Continue Design  tool on toolbar

IF drawings are NOT accurate: Select the program output in MODEL space and delete. Then start a new septic design with the Design tool  . The input for the last design will automatically load.

Continue Design: 

The designer will be prompted for the following:

Distribution Piping Window: This menu will do a variety of different pipe distribution methods that can be used. Preview images are shown for each method. You can try out different methods before setting with a final drawing and continuing to the next step.

MISCELLANEOUS OPTION: The following tools may be activated in sequence uon continue design, if indicated in the Preferences Menu: Swing Ties, Page 2 and Page 3 Notes, septic tank elevation calculator.

HHE-200 Application: A sequence of 3 menus will appear to fill in the remaining information on the HHE-200 Form, site location, checkboxes, etc.

DONE: The program will now print out all the information to the HHE-200 Forms. If there are any errors: <u>DO NOT</u> RUN CONTINUE DESIGN  AGAIN. To fix any errors, go to the HHE-200 layout and double click on the text in the form and modify the text.

<u>FINAL STEPS:</u> <u>Draft the remainder of the design in model space or print the design and hand-draft the rest of the design:</u>

Step 1: Verify and finalize the Cross-Section (bottom-left)

Move the Cross Section to fit correctly on the page, or change label locations if needed (the magenta colored guide is LOCKED).

Step 2: Create the Page 2 Map

The Page 2 Map is located in the top-right corner of MODEL space. Using the CAD drawing tools draw property lines, houses, wells, etc.

Try inserting RASTER images, such as tax maps, paper surveys, or aerial photography to quickly draw site features. Many towns have tax maps available online through Town website or through the State of Maine DEP GIS data layers available via Google Earth. Use the SeptiCAD Georeferencing Tools to reference the images to the system.

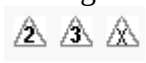
Create other site features using the CAD drawing tools.

Use the Block Library to insert commonly used objects such as a septic tank, pump station, generic house, well, etc.

Hint: Field measurements are commonly collected square to the disposal field, house, etc. To locate these features in CAD use a temporary guideline. First turn ORTHO mode ON (F8 key). Then click the polyline tool (PL) and click the starting point (house/field corner), then drag the cursor to a particular side (don't click), then enter a distance on the keyboard (say 10) and press enter, continue to drag the cursor and enter lengths until you are where you need to be. Insert the object, label the distances with the toolbar tools and lastly, delete the temporary line.

Step 3: Create the Page 3 Map

First, copy the information from the Page 2 Map that is relevant to the Page 3 Map.

To copy some of the objects from the Page 2 Map to the Page 3 Map, select the necessary objects and use the COPY command (on right click menu). The COPY command will prompt for a base point, choose the corner of the system. Now place the copy to the same corner of the disposal field on the Page 3 Map. The change label size tools can be used to quickly resize labels 

Modify/Draw pipes as necessary and label them.

If necessary Use the Block Library  to insert objects such as a utility poles, septic tank, pump station, etc.

Step 4: Label objects and perform final adjustments to objects.

Use either the labeling tools or the Label Library  .

Change the LINEWEIGHT or LINETYPE of object such as a property line or fence.

Step 5: Insert Location Map

METHOD 1:

Goto HHE-200 Layout: Draft the locations map as normal and Label Library tool (SLL)  to label the map with text.

METHOD 2:

Use MapQuest tool on toolbar  to show a map for the Lat/Long entered for HHE-200 Page 1. Zoom to appropriate magnification at MapQuest website.

Use a Snipping Tool (comes with Windows 7, 8 or 10) to get a copy of the map and save it as a JPG image file.

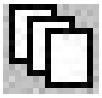
Now insert the image and use polyline (pl) tool to trace the roads on the map.

Label roads and the site location using Label Library tool (SLL)  and rotated text.

Step 6: Insert the Soil Logs using the SeptiCAD tool on the toolbar. 

Step 7: Review the Design:

Method #1 (Quick, but not exact): Goto HHE-200 layout and just review the plans. Line types and line thickness may not be exactly as printed.

Method #2: (Make a PDF): Click SeptiCAD print tool  and print all to PDF Redirect printer. The resulting PDF file is what you would get it if you printed it to a printer. Download free PDF Redirect
http://www.exp-systems.com/PDFreDirect/Downloads.htm?1

Step 8: Auxillary Steps

If you need to commonly email the designs, than you can setup the SeptiCAD Stamp Tool  to insert your signature, SE # and date on bottom of all the three HHE-200 pages. To do this you need to create a signature and place it in this file:

DEFAULT USER- C:\SeptiCADv5\BLOCKS\SIGNATURE-USER1.dwg
ALTERNATE USER- C:\SeptiCADv5\BLOCKS\SIGNATURE-USER2.dwg
ALTERNATE USER- C:\SeptiCADv5\BLOCKS\SIGNATURE-USER3.dwg

If additional forms are required (variances, well release, etc) then use the PDF or WORD forms available from the State.

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