

# Creating a Biosecurity Plan Map of Your Swine Facilities Using Google Earth

***This document will help you create a biosecurity map of your swine facilities using Google Earth Pro. The map will be part of your enhanced biosecurity plan against foreign animal disease. It should show the specific biosecurity lines that you follow to decrease the risk of exposure.***

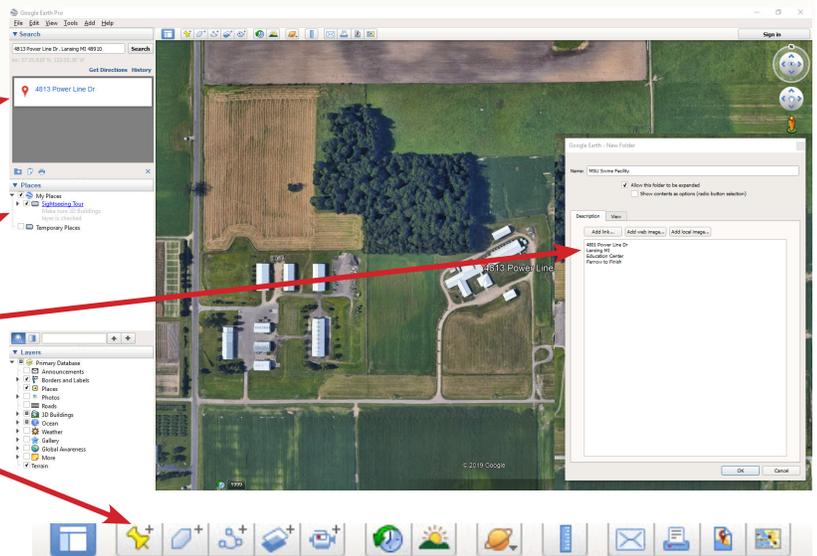
## Mapping the Premises for Animals Raised Indoors

Have the addresses of your swine operations ready before you begin to download Google Earth Pro.

To download Google Earth Pro Desktop, go to <https://www.google.com/earth/versions/>. Scroll down on the webpage and click on the box "Download Earth Pro on desktop." Click on "Accept and Download." Save. Go to "Downloads" on your computer. Find "Google Earth Pro Set Up" and double-click on it. A pop-up message will ask, "Do you want this app to make changes to your device?" Click on "yes." Google Earth will download and install.

## Getting an Aerial View from Google Earth Pro

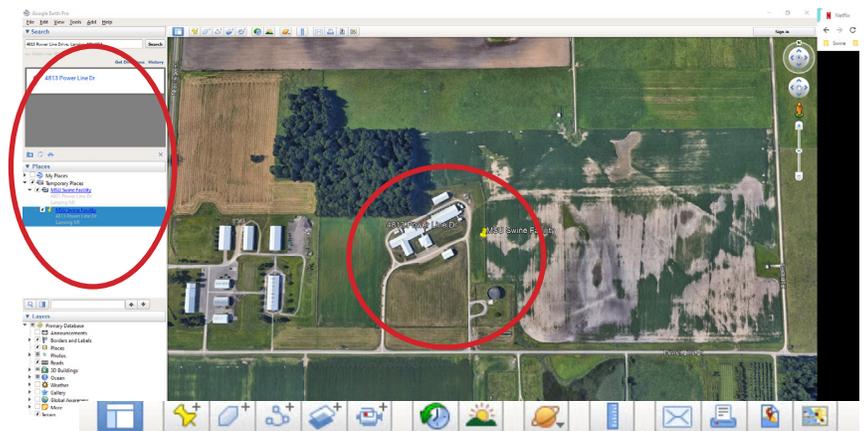
1. Open Google Earth Pro from your desktop.
2. In the Search bar, in the upper left, type in the address of your production site. (The address should be where the swine facilities are located.)
3. Under the Places tab (center left), right-click on the My Places tab, follow Add over and click on Folder.
4. In the box that pops up, next to "Name," add the name of the facility. Under the Description tab, add any relevant information.
5. To add a Pin to that facility, which will be easier to see from the larger map view, click on the Yellow Pin Button next to the Search bar near the top of the screen.
6. In the open window, again add the Name of the facility on the top line, along with a Description in the box below. There is the option of changing the style and color of the pin on the next tab next to Description. This box will also give you the exact latitude and longitude of the site for your records.

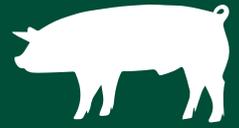


## Considerations for Biosecurity Plan Map

Areas to consider for labeling on your facility:

- Perimeter Buffer Area (PBA)
- Line of Separation (LOS)
- Line of Separation Access Points (LOS Access)
- Parking Area
- Mortality
- Manure Hauler Path
- Traffic Path



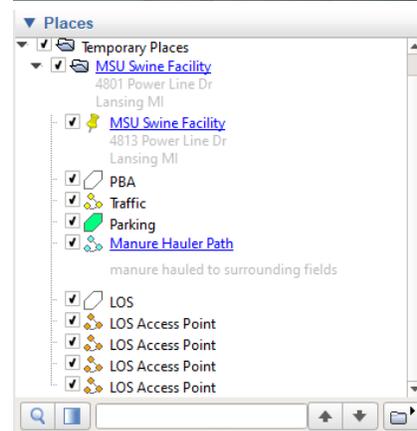
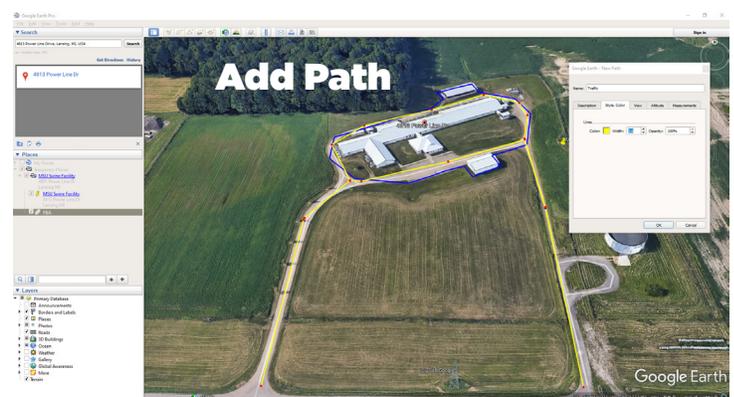
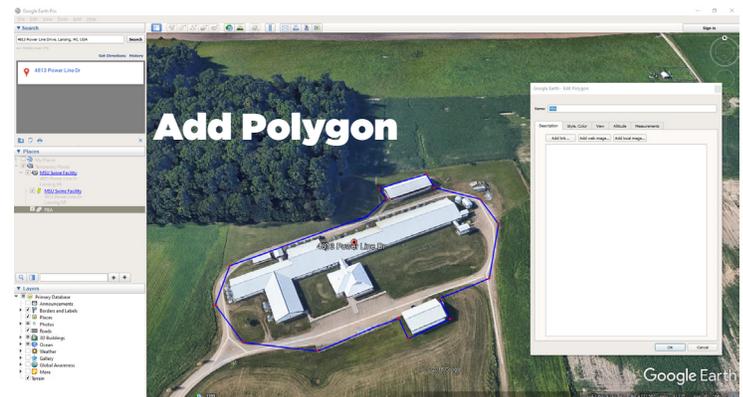


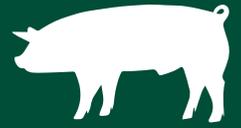
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Other factors to consider while planning out your biosecurity strategy for your facilities: visitors that come into the barn (electricians, mechanics, plumbers, and others), propane, mail, or garbage trucks, other livestock traffic close by, and/or seasonal production equipment (planting and harvest seasons, manure haulers).

## Labeling the Biosecurity Map

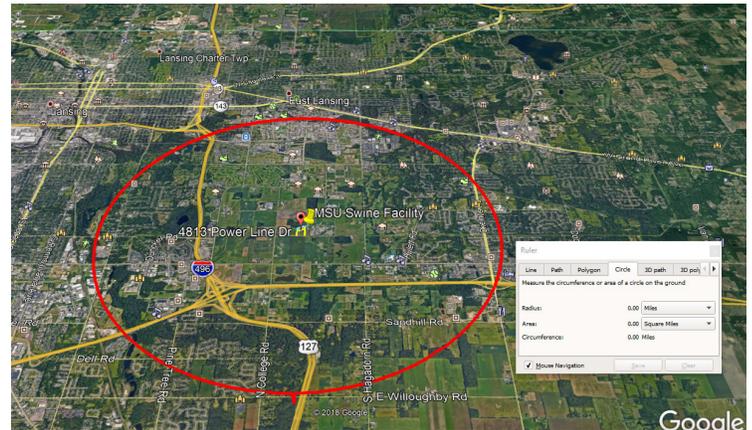
- The first step to labeling your facilities is locating the tools needed and understanding how to use them on the map.
  - In Google Earth Pro, you will use two major tools – the Add Polygon tool and Add Path tool – several times to indicate and label your facilities.
  - The Add Polygon Tool  will allow you to create shapes that you can fill in or just leave as an outline around buildings or structures as needed.
  - The Add Path tool  will be useful to create paths for movements such as traffic, manure haulers, or mortality movements.
    - Note: The Places box must be open to edit on the map. Also, to edit the line or shape, right-click on the object that needs to be edited in the Place bar, then click on Properties. Then click on the line or shape on the map.
    - Similar to the Pin Tool, to change the style and color, select the “Style, Color” tab next to the Description tab on the box. Keep the style and colors simple and consistent for all facilities.
- To use both of these tools, use your mouse and click a start point on the map and drag. Click an endpoint.
  - The line tool will be a straight line from one clicked point to another. The polygon tool will follow similarly to the line tool, except you have the option of filling inside the lines.
- When you are finished with a specific tool, click OK in the opened box panel.
  - To edit or redo a line or polygon that is already established, simply right-click the line or polygon in question from the Places pane and choose Properties.





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- Complete the biosecurity map by adding the appropriate labels. Type the label into the Name section in the Properties box. If extra details are needed, add it to the Description, which is the first tab in the Properties box. The text you place in the Description will show up in the correct label under the Places box.
- To create a Control Zone (radius from facility to see other livestock facilities and swine operations), use the Ruler Button  and use the Circle Tab to create a circle with the starting point being your facility. Using this tool, the map can show what farms and livestock facilities are inside a specific area. Keep the Properties box open (you can move it to the side, out of your way), and hold down the mouse button to drag.
- Once your facility is correctly labeled per the biosecurity plan, the application should auto-save and be there read for use the next time Google Earth Pro is opened up.
- Google Earth Pro can display all the lines and labeling done for each site, but lines can be turned on and off, as well as edited when changes are made on the farm over time.



## Example of a Finished Biosecurity Map



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