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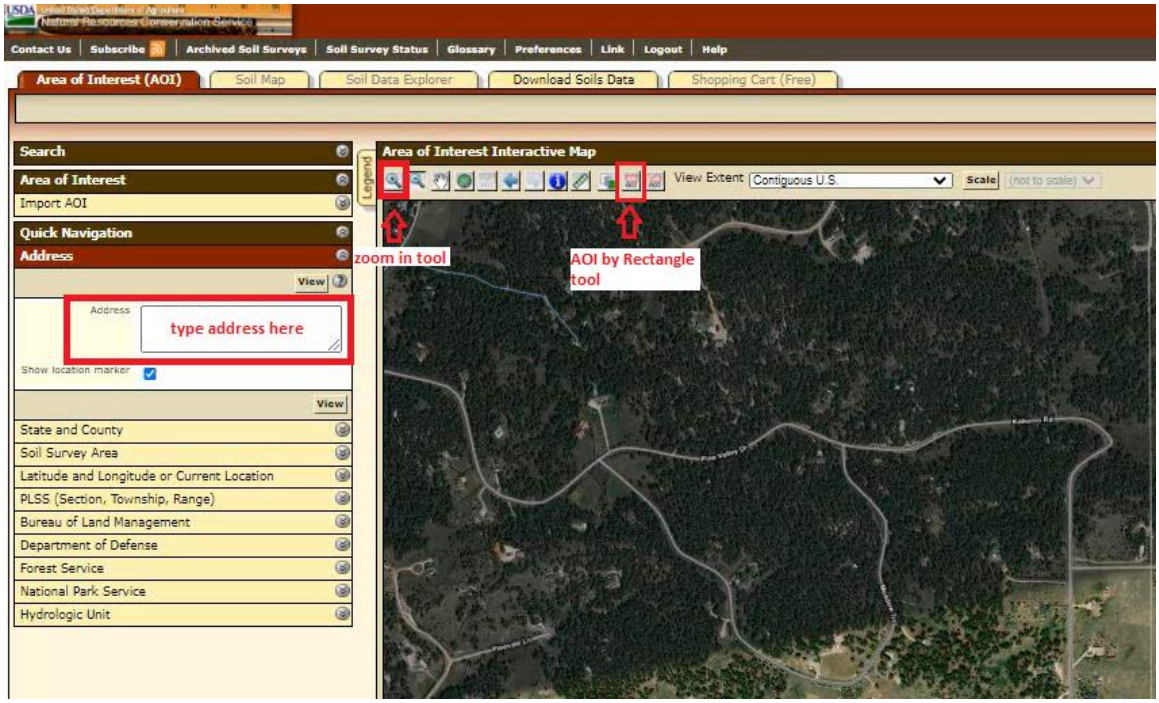
JLA EXPLAINER
BACKGROUND RESEARCH:
WEB SOIL SURVEY

Knowing the characteristics of the soil at a building site is critical during the pre-design and design process. The soil characteristics influence the design of any foundations to be constructed at the site. It is essential to understand the soil type to ensure that the foundation will be designed in a way that will be able to support the weight of the structure. Additionally, soil types at the site will influence the ease (or difficulty) of excavation work, the design of driveways, and the stormwater drainage from the site. Knowledge of the soil types at the site is obviously extremely important for a building or site owner.

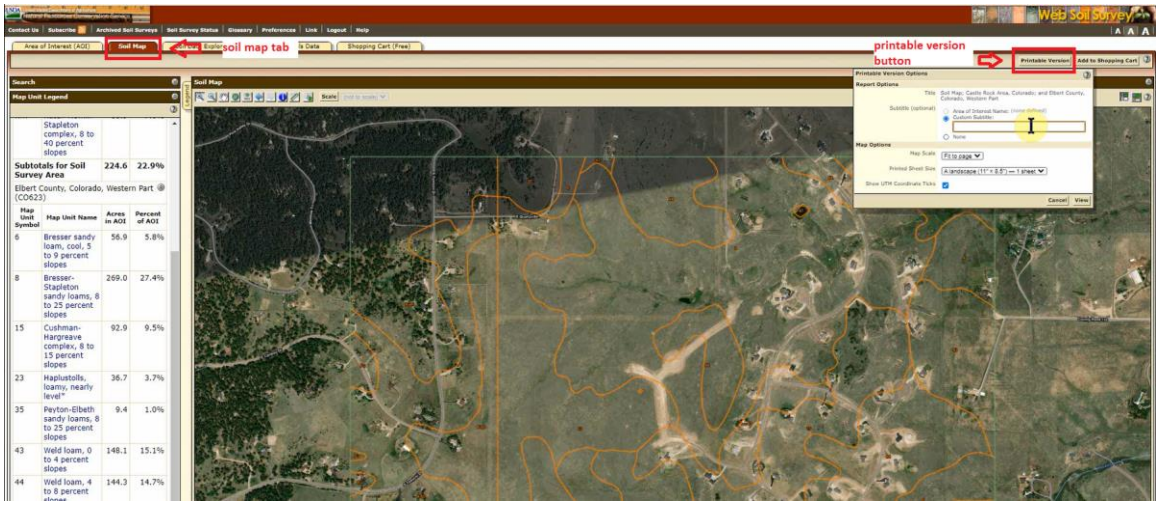
JLA design recommends that a geotechnical engineer perform exploratory borings, and prepare a geotechnical report, for most projects. However, the owner can also conduct some desktop research prior to obtaining a Geotech report. This initial desktop research can be very useful, especially when deciding whether or not to purchase a site or deciding whether or not to build on a site. If the soils are especially poor, you might save yourself the cost of a Geotech report! To do this research, you'll need to obtain a soil map from

the Web Soil Survey operated by the USDA Natural Resources Conservation Service. Here's a step-by-step guide in obtaining a soil map:

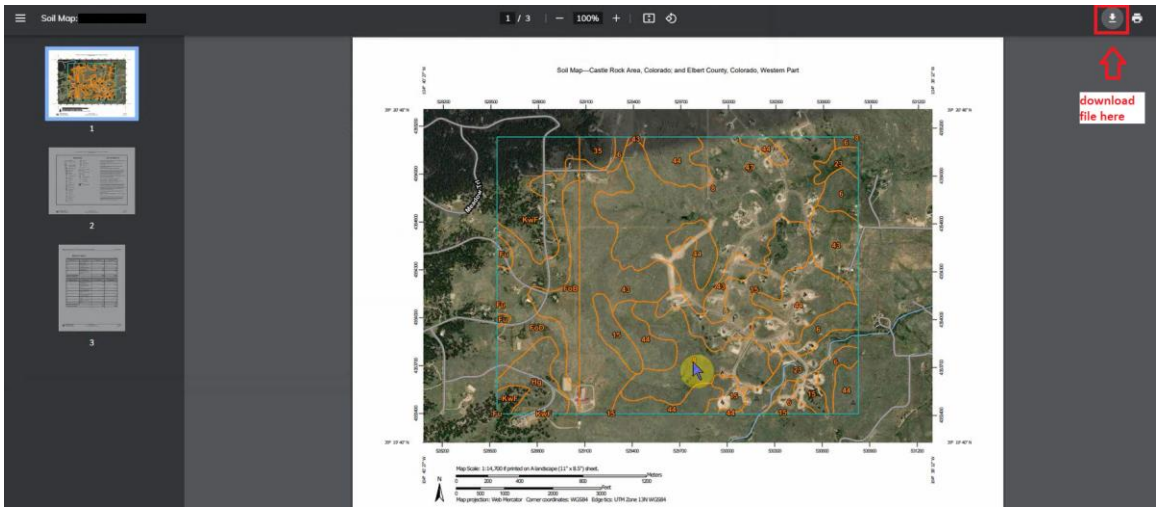
- Open the Web Soil Survey website (https://websoilsurvey.sc.egov.usda.gov/)
- To start the application, click on the "Start WSS" button
- In the Area of Interest Tab, look for the Quick Navigation panel located at the left side of the window, and enter the site address in the "Address" field. Once information is being entered, click "View"
- Use the Zoom in tool to put the map in Zoom in mode. Click on the area where you want to zoom in. Zoom in as close as you need
- Before the soil data can be viewed, you must define the Area of Interest or AOI. You can set your AOI by clicking on the Define AOI by Rectangle tool. Then click and hold the left mouse button and drag a rectangle on the map. When the mouse button is released, the rectangle that is drawn will be the AOI. See images below



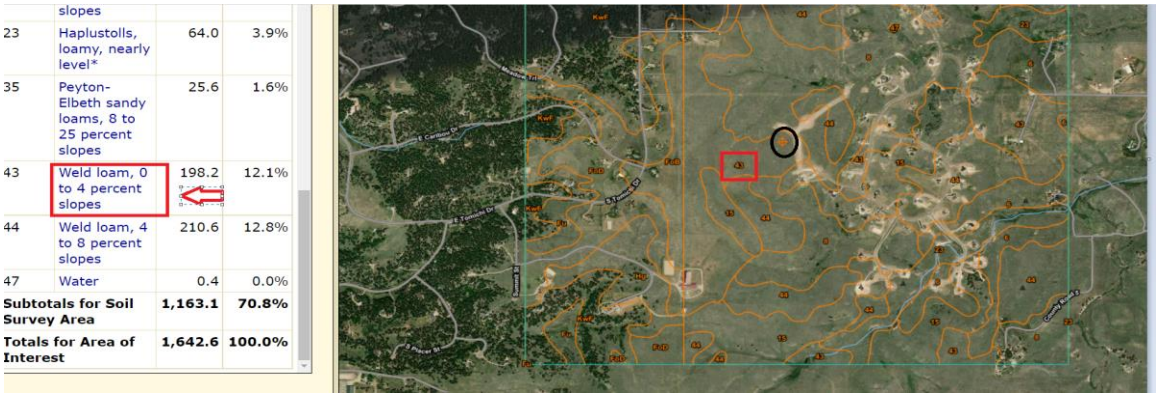
- Click on the Soil Map Tab, the AOI will be divided into different soil types divided by orange lines with the soil type's abbreviation shown in the map.
- To create a printable document containing the map and information, click on the Printable version button at the upper right portion of the window and click "view".
- Click on Printable Version on the upper right portion of the screen (make sure to unblock pop up messages). In the subtitle field, enter the Client's name and click "view".



- The printable document will be opened in a new window. Click on the download button at the upper right, insert filename and press save.



- Go back to the Web Soil Survey website window and on Map Unit Legend sub tab, click on the corresponding Map Unit Name where the site address belongs



	slopes		
23	Haplustolls, loamy, nearly level*	64.0	3.9%
35	Peyton-Elbeth sandy loams, 8 to 25 percent slopes	25.6	1.6%
43	Weld loam, 0 to 4 percent slopes	198.2	12.1%
44	Weld loam, 4 to 8 percent slopes	210.6	12.8%
47	Water	0.4	0.0%
Subtotals for Soil Survey Area		**1,163.1**	**70.8%**
Totals for Area of Interest		**1,642.6**	**100.0%**

- A Map Unit Description Window will appear. Click on the printable version button and click view.
- The printable Map Unit Description will be opened in a new window. Click on the download button at the upper right, insert filename and press save