# Geocoding at Clemson University

Due to licensing restrictions, geocoding addresses or places at Clemson University are performed differently depending on your area of interest. Follow the instructions below based on the geographic location of the data you are trying to geocode.

## Contents

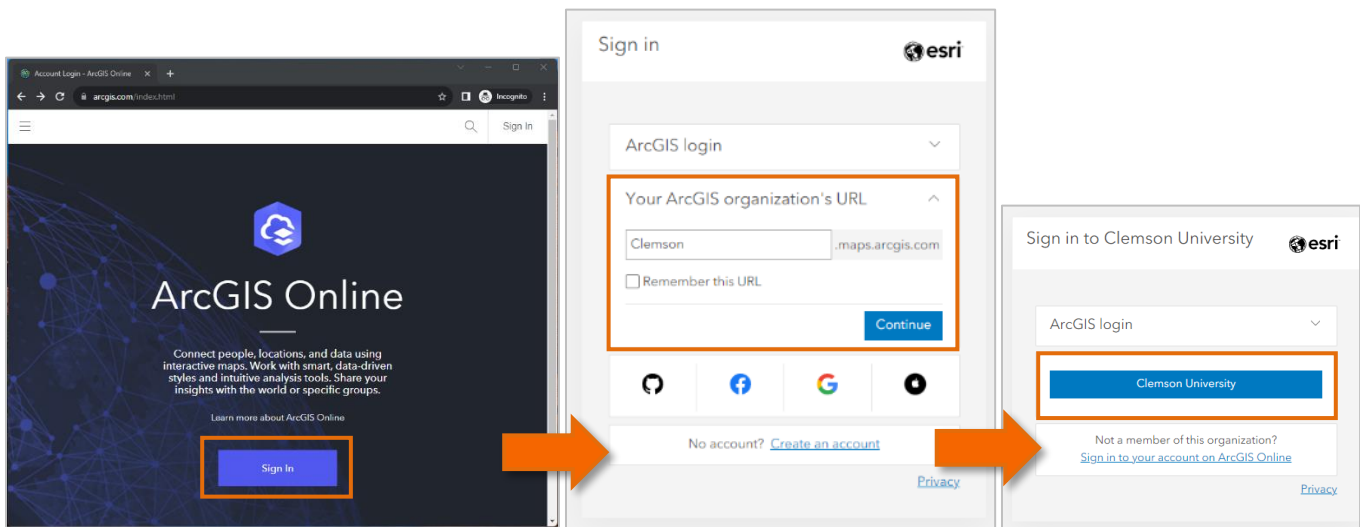# 1. Geocoding Addresses in North America

Our current Streetmap Premium license allows you to geocode as many addresses or places as you'd like within the following countries in North America: American Samoa, Canada, Guam, Mexico, Northern Mariana Islands, Puerto Rico, Saint Pierre and Miquelon, the United States, and the U.S. Virgin Islands region.

You will do this by connecting to our geocoding service: **Clemson North America Geocoding Service**. Below are instructions on how to achieve this, depending on your preference: using ArcGIS Online, using ArcGIS Pro, or on a local Clemson-owned computer.
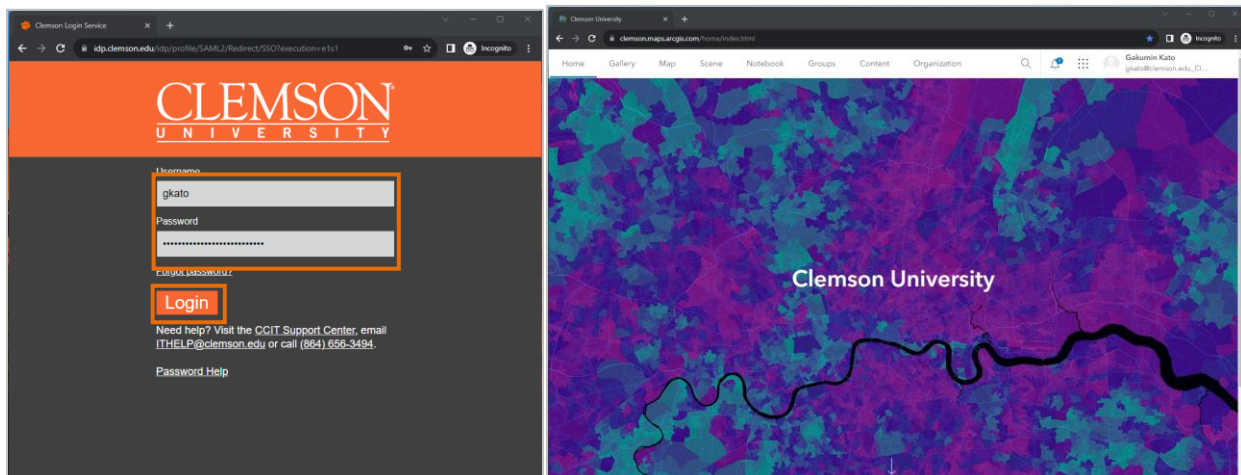
## 1.1. Using ArcGIS Online

1.1.1 Go to **arcgis.com** and click Sign in. You will see the window below, click on "Your ArcGIS organization's URL"

1.1.2 You will be asked to enter Your ArcGIS organization's URL. In the box that appears, type *Clemson* and click Continue. Click on "Clemson University".
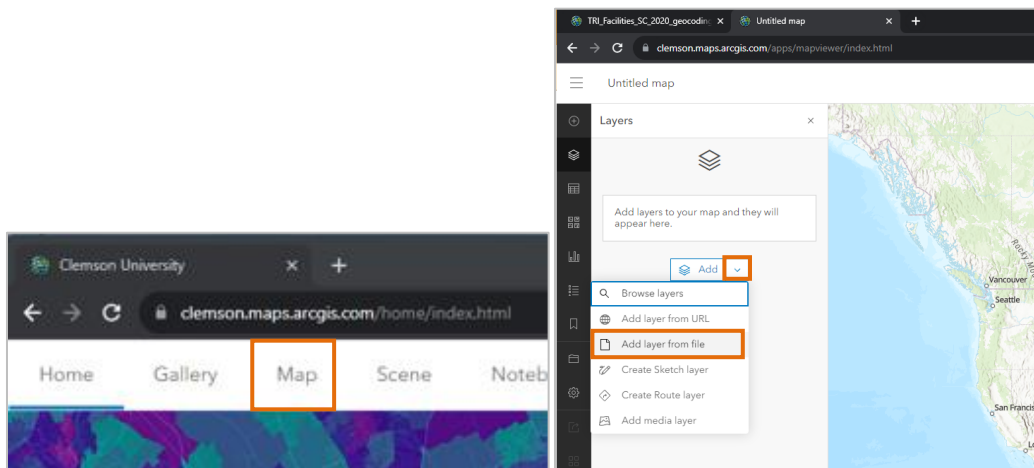


1.1.3 This will take you to a new window where you will be using your standard Clemson login. Enter your Clemson username and password and click on Login.

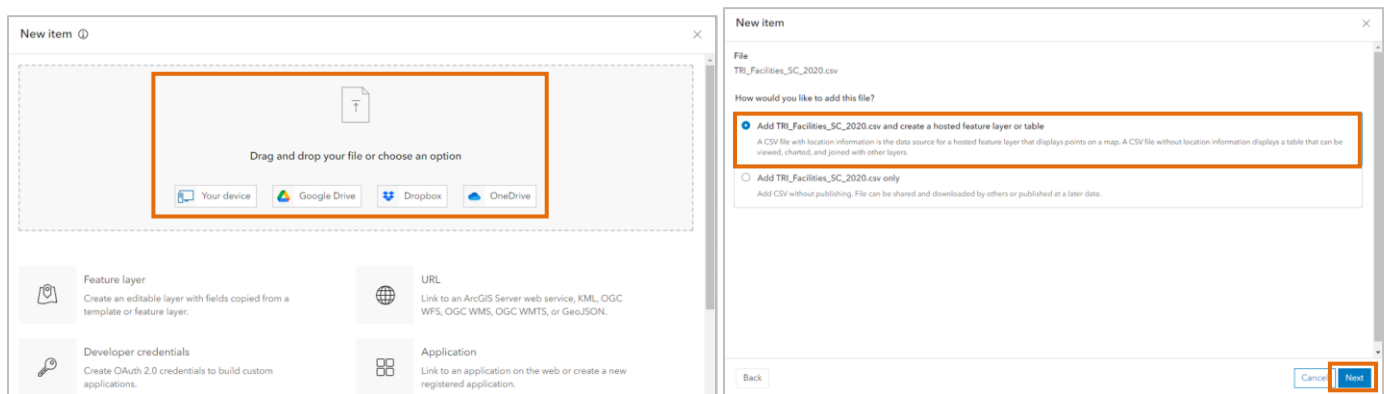1.1.4 If you see the window below, that means you have successfully signed in your ArcGIS Online account.

1.1.5 On your ArcGIS Online page, click on Map to open Map Viewer. Click on the drop-down menu next to Add, and select Add Layer from file.

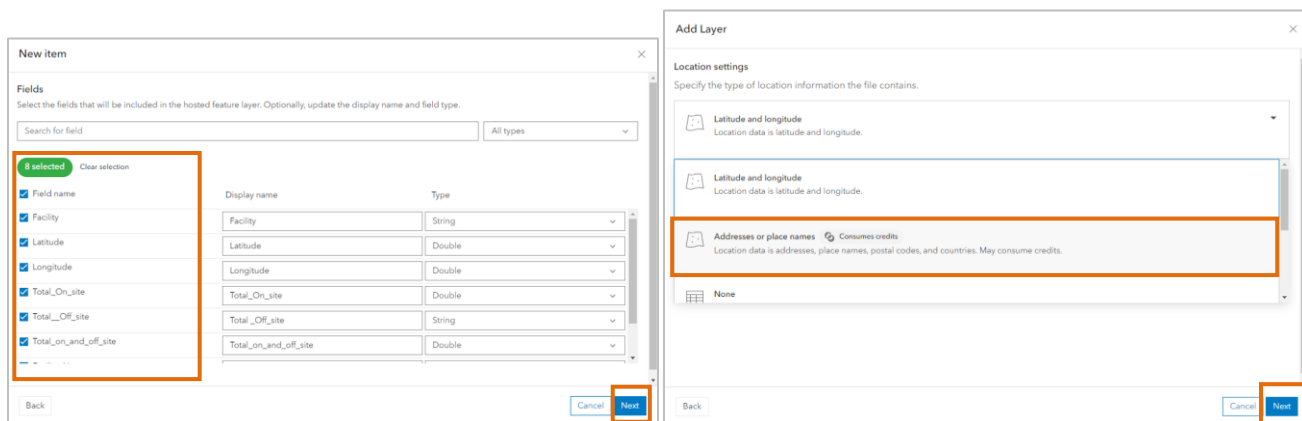

1.1.6 Upload table file that contains address information.

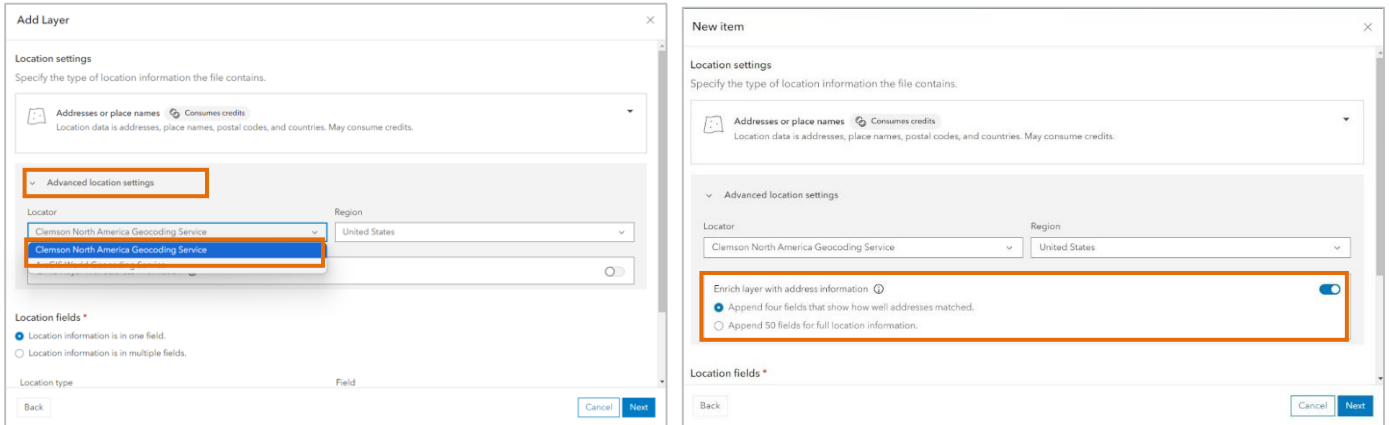1.1.7 Add your file and create a hosted feature layer or table. Click on Next.



1.1.8 Select fields to be included the hosted feature layer. Click on Next.

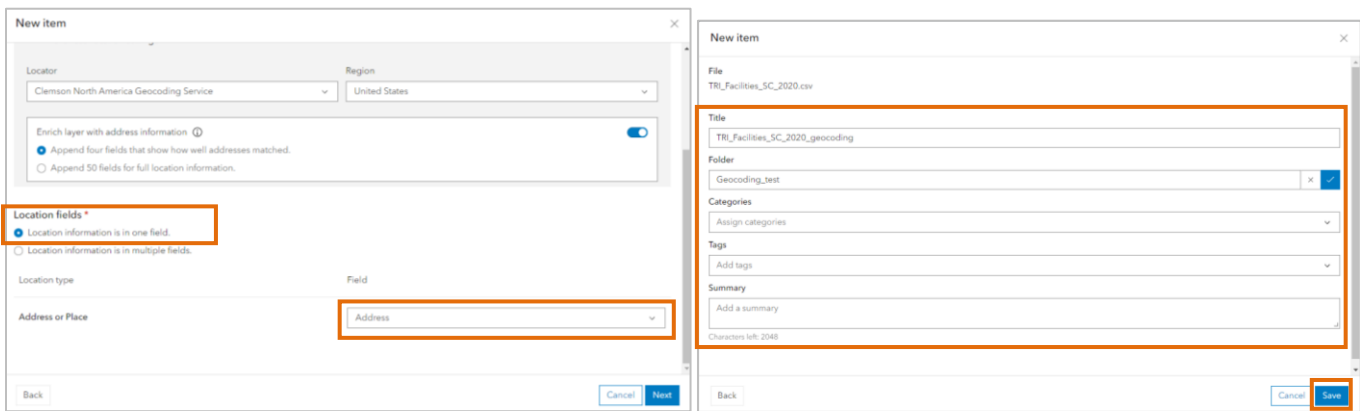1.1.9 At Location settings window, select Addresses or place names.

1.1.10 Under Advanced location settings, select **Clemson North America Geocoding Service** as Locator.

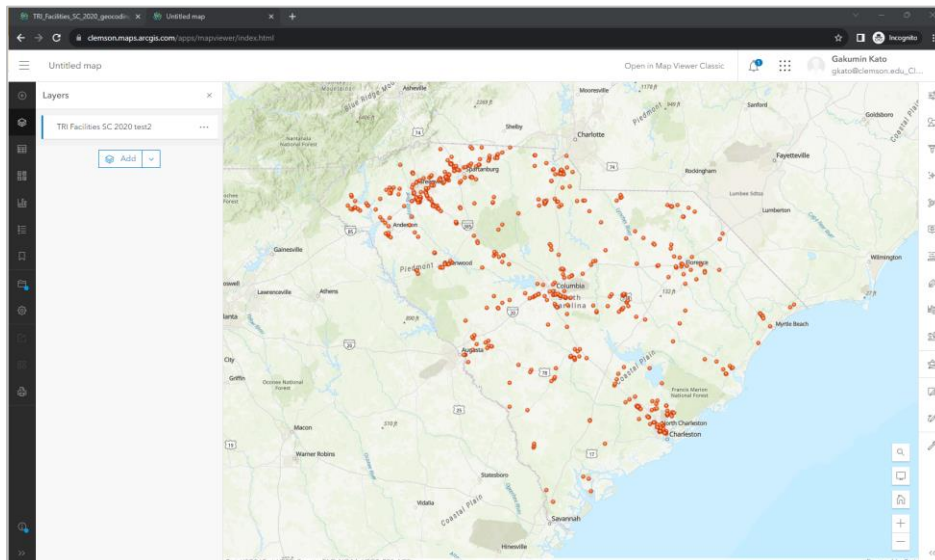1.1.11 Optionally, enable Enrich Layer with address information



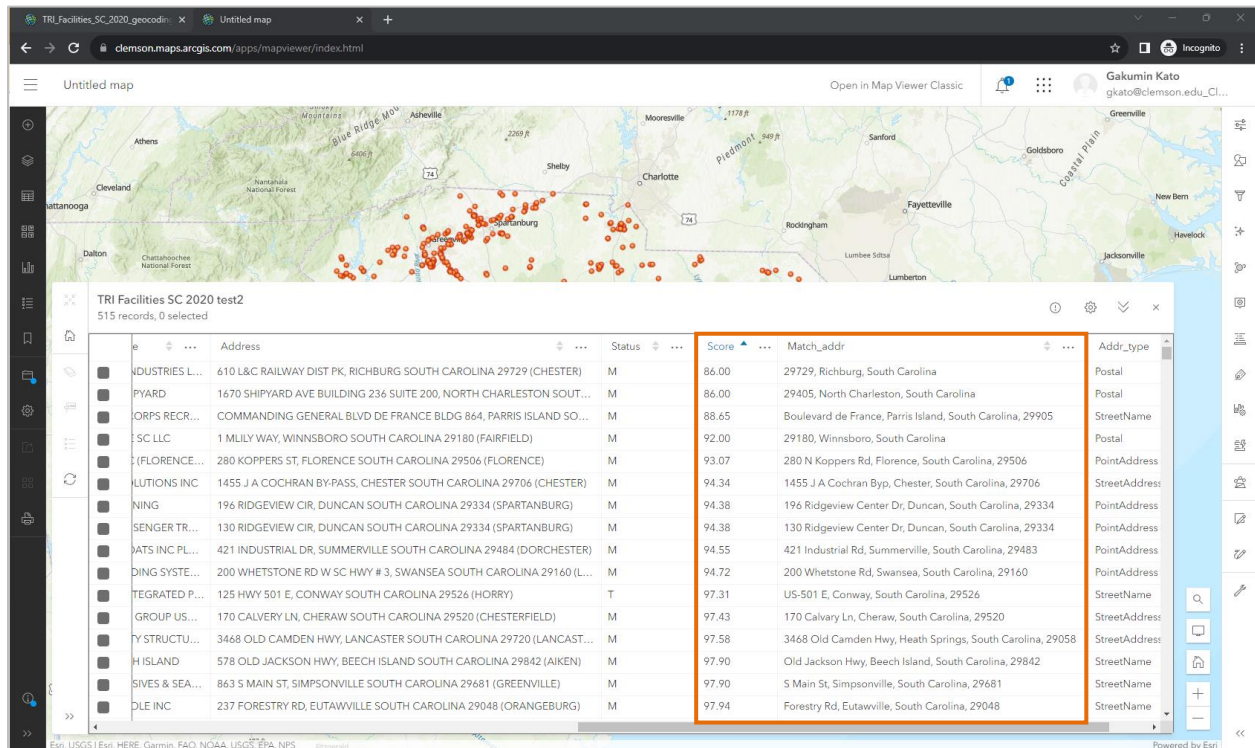1.1.12 Specify Location fields. This example table stores address information in one field, Address.

1.1.13 Name the hosted feature layer, populate other fields accordingly, and click on Save



1.1.14 Once the geocoding is complete, a new point layer is added to your Map Viewer.

1.1.15 Attribute table includes Score and Match_addr fields. You can confirm accuracy of geocoding using this attribute information.



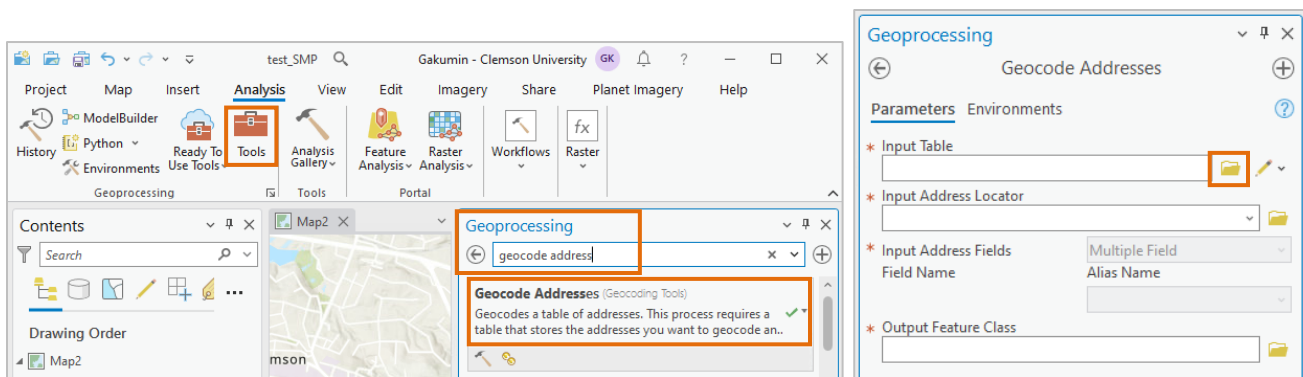## 1.2. Using ArcGIS Pro

1.2.1 In ArcGIS Pro, click on Tools to open Geoprocessing pane.

1.2.2 On the Geoprocessing pane, type *geocode addresses* in the search box. The first search result is Geocode Addresses tool. Click on it to start the tool.

1.2.3 Click the Browse button next to the Input Table box. On the Input Table dialog box, specify your table file.
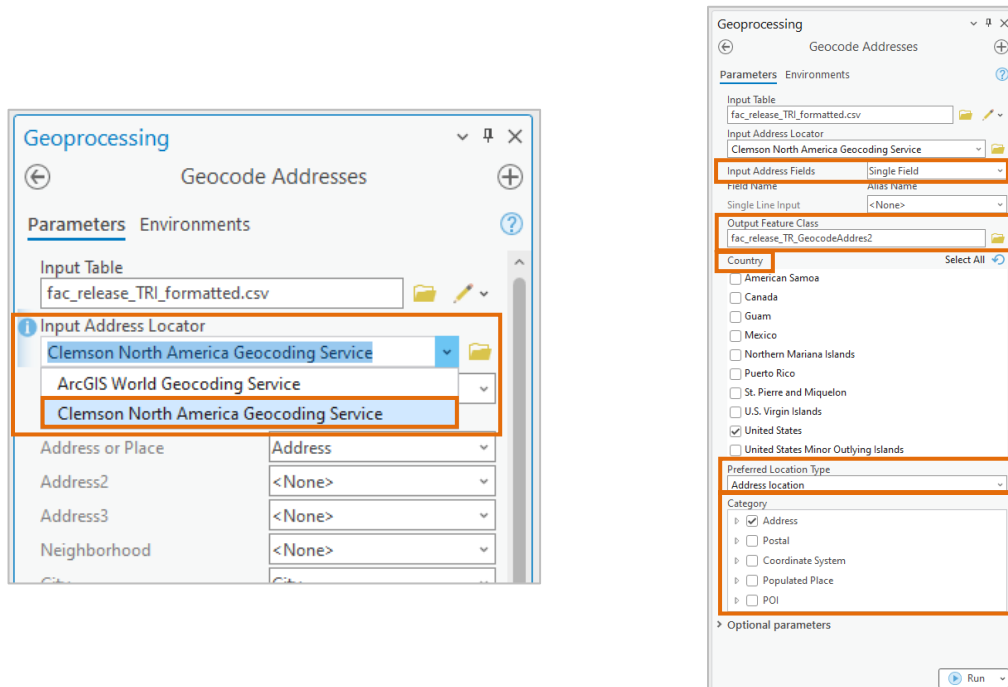


1.2.4 In the Input Address Locator dialog box, click on the drop-down and select **Clemson North America Geocoding Service**.

1.2.5 Specify appropriate settings for Input Address Fields, Country, Preferred Location Type, and Category,

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depending on your table data.

1.2.6 Specify the name of your output in Output Feature Class and navigate it to your output location. Click Run to geocode the table.



## 1.3. Using a local lab computer (HIPPA-compliant tasks)

The GIS labs have dedicated machines where ArcGIS StreetMap Premium data are locally installed. Geocoding through these local machines would provide a better performance when you have thousands of records to geocode.
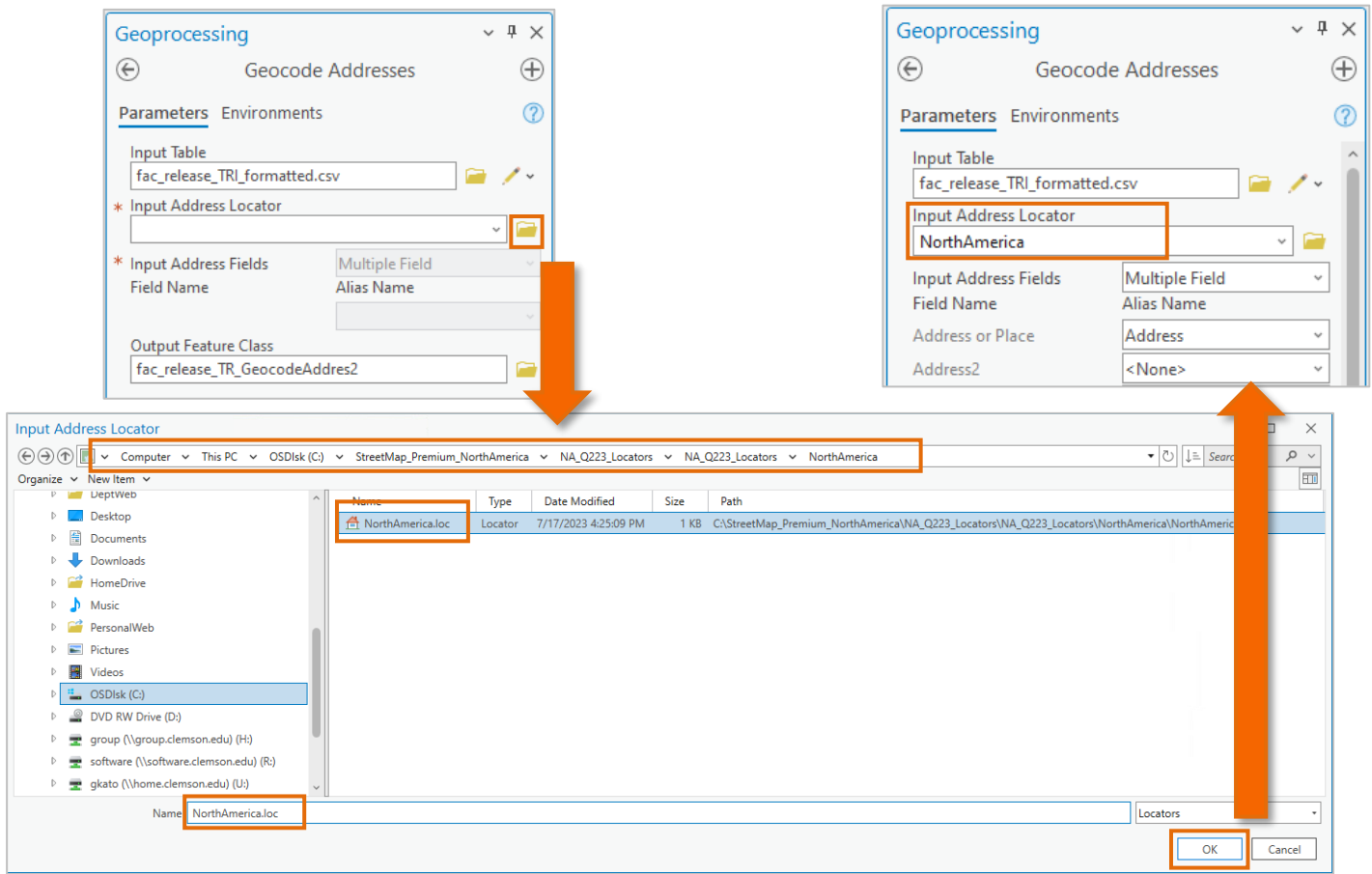
- Barre Hall, Room 109 (Workstation ID: barrb109-01)
- Cooper Library, Room 412 (Workstation ID: coop412-02)
- Lee Hall, Room 212 (Workstation ID: lee212-05)
- Lehotskey Hall, Room 231 (Workstation ID: leho231-01)

Please follow the steps below to geocode addresses in ArcGIS Pro using the local StreetMap Premium data.

For Steps 1.3.1 – 1.3.3, please refer to 1.2.1 – 1.2.3 above.

1.3.4 In the Input Address Locator dialog box, click on browse. Then, find the latest locator of North America, "**NorthAmerica.loc**", in the following directory (the example below shows the latest locator data published in Q2, 2023). Then, confirm that "**NorthAmerica**" is selected in Input Address Locator dialog box.

- C:\StreetMap_Premium_NorthAmerica\NA_Q223_Locators\NA_Q223_Locators\NorthAmerica

Hereinafter, please refer to the steps shown 1.2 Using ArcGIS Pro.

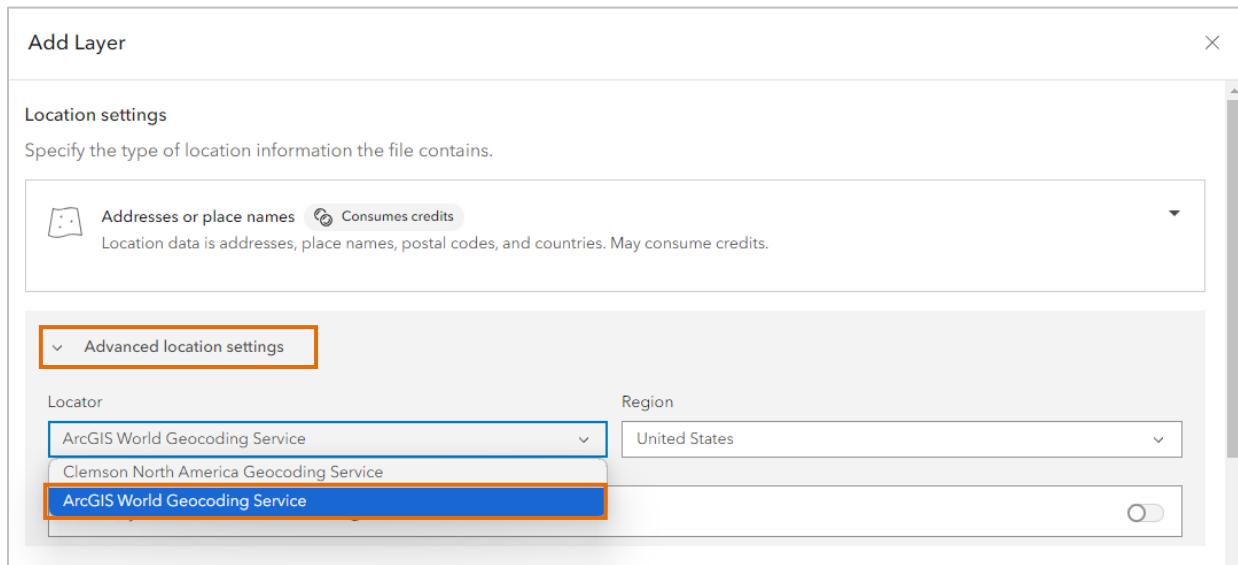## 2. Geocoding Addresses outside of North America

If you need to geocode countries not included in the previous list, you will need to use the ArcGIS World Geocoding Service. This service consumes **credits**, currently 1,000 geocoding records will consume 40 credits, and each Clemson user account has a total of 3,000 credits.

Below are the instructions on how to geocode using the ArcGIS World Geocoding Service.

### 2.1. Using ArcGIS Online

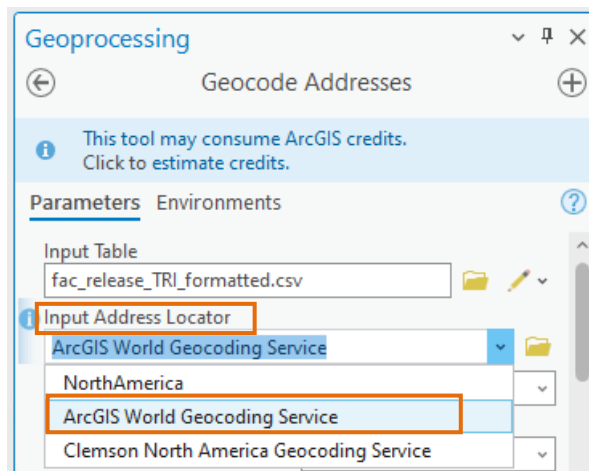For 2.1.1 – 2.1.9, please follow the same steps 1.1.1 – 1.1.9 above.

2.1.10 Under Advanced location settings, select **ArcGIS World Geocoding Service** as Locator. Specify Region of your interest.

## 2.2. Using ArcGIS Pro

For 2.2.1 – 2.2.3, please follow the same steps of 1.2.1 – 1.2.3 above.

2.2.4 In the Input Address Locator dialog box, click on the drop-down and select **ArcGIS World Geocoding Service**.



If you wish to learn more about how to geocode, please refer to Esri's **tutorial**.