**Mapping What's Inside:**

For this exercise, I decided to map each residential address point within each school district in Delaware County, Ohio. My thought process behind doing this was asking the question, "how do they determine which streets or subdivisions are a part of which school district? How do they evenly distribute the number of students per district?" By performing this kind of analysis, we can see how to evenly divide a county into different districts, not just by population, but by location as well. My original idea was to compare the tax districts of Delaware County to the school districts, but I was having trouble displaying the patterns in such a way that wasn't a bunch of lines competing with other lines.

To start this analysis, I first downloaded and added the parcel data as well as the school district data. Once both layers were added, I went to the symbology of the school district data, and decided to display 'unique values,' which would allow me to symbolize and display all of the included school districts on my map. Displaying my values this way is similar to the "drawing areas and features" portion of the *ESRI Guide to GIS Analysis.* I also added some transparency to the colored portions of the map, so that way you can see landmarks to recognize the area. After having done this, I then went to the symbology of the parcels layer. I also used the 'unique values' symbology on this, and when I did it displayed symbols for all different kinds of building categories, including small, medium, and large corporations, farmland, different size residencies, etc. Since I was only focusing on residencies, I cleared out all other kinds of buildings, and grouped all residence types under one symbol and overlaid this on the map.
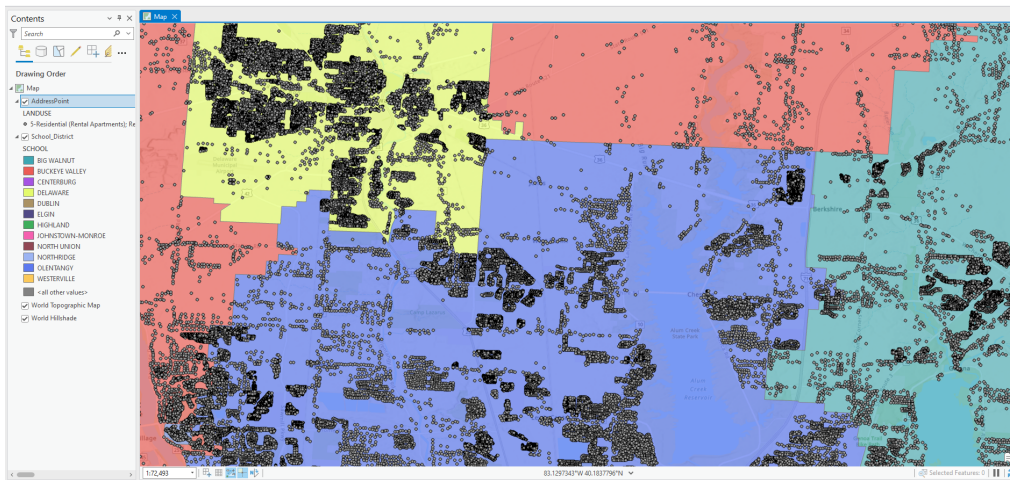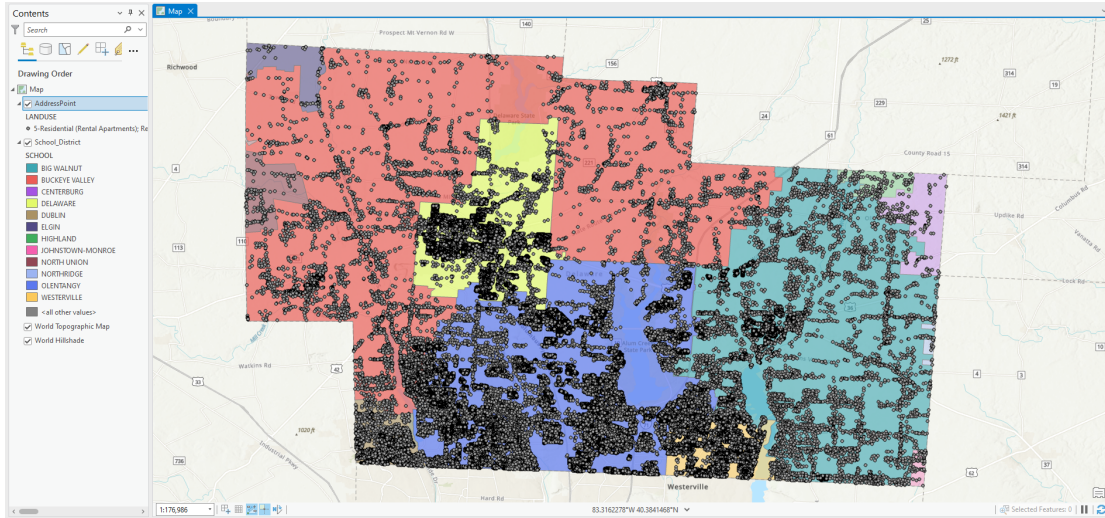
While the first map image looks very condensed and messy, once you zoom in you are able to see the individual residencies and what we should infer as subdivisions.

Mapping Change:

      When completing this exercise, I ended up using a very similar pathway to make my map as I did in the previous exercise. I did not intend for it to be this way, but I believe it ended up working pretty well. To begin, I downloaded the subdivisions data for Delaware County. Within the file, there is temporal data listed for each subdivision. This was in a strange format but it was still easy to understand. Once I added the subdivision data onto my map in ArcGIS, I clicked on the subdivisions layer and went to 'symbology,' as I know that you can display symbols with graduated colors, which was part of the goal of the exercise. When I clicked on 'graduated colors' the data came up already classified into groups based on time. While originally classified into six symbols, I moved this down to five. I eventually had classified the subdivisions into being built before 1895, between 1895 and 1966, between 1966 and 1990, between 1990 and 2008, and between 2008 and 2022. I used graduated color symbols from yellow to red to represent the building of subdivisions over time, with yellow being the oldest subdivisions, and red being the newest.
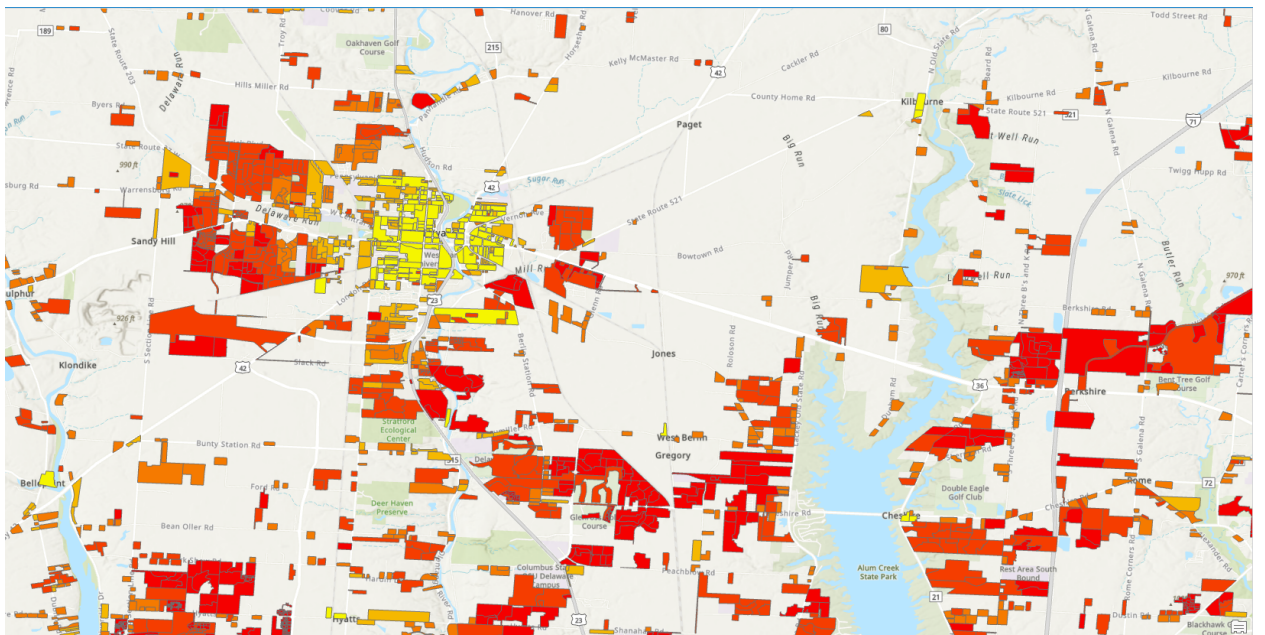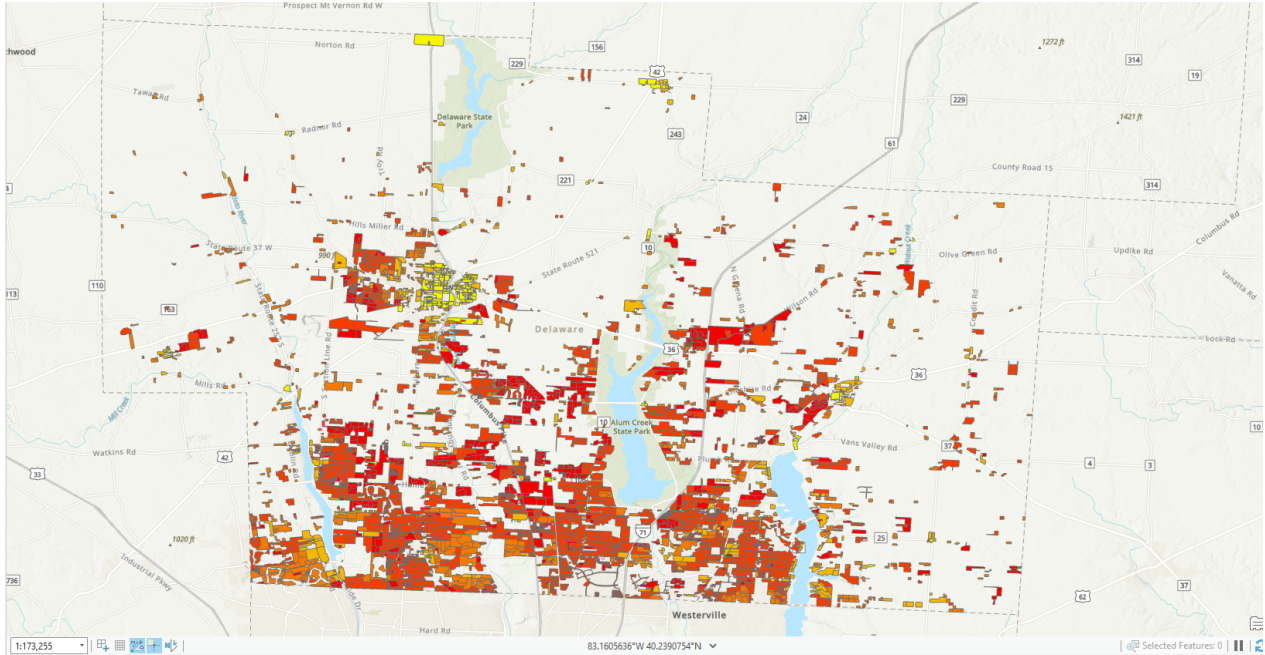
It was interesting to see that some of the oldest development was in downtown Delaware (as expected), but that OWU is fairly old in comparison to the rest of the developments on the map as well.