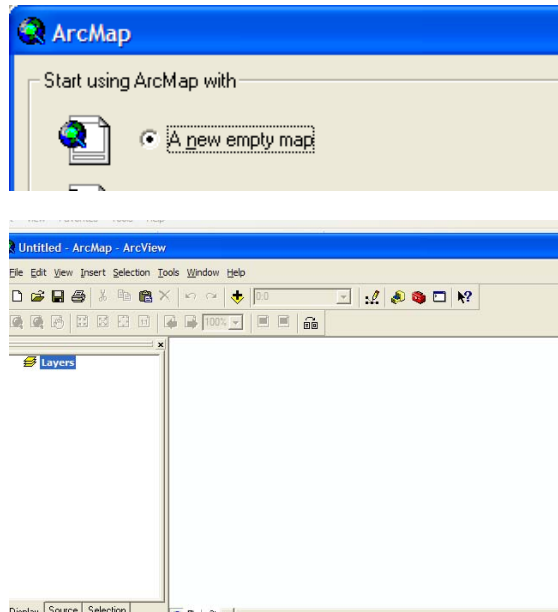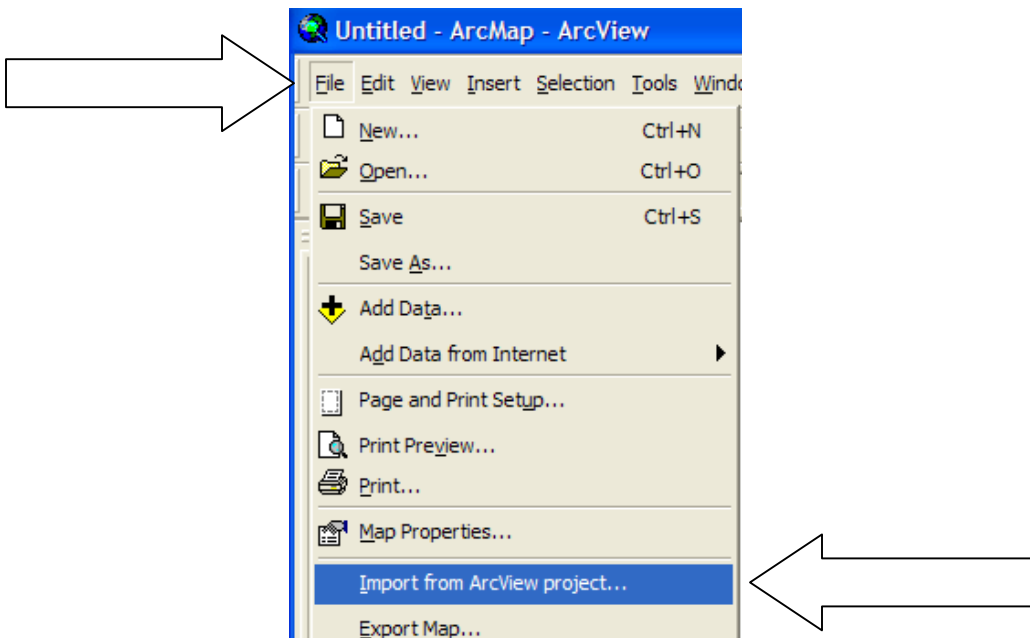# Community Geography
Crime Module 2

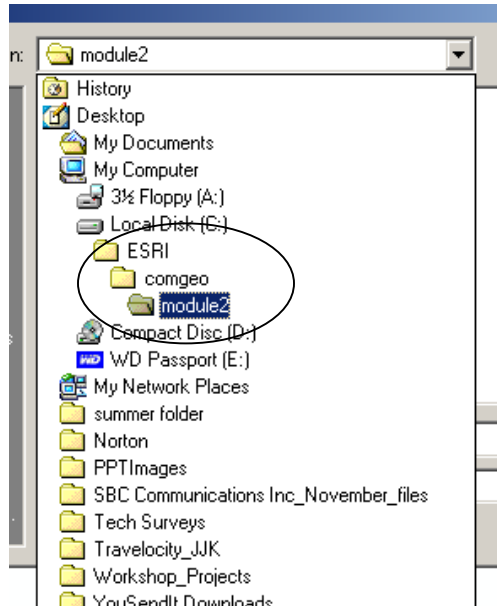You will first need to convert the ArcView project file (.apr) into an ArcView 9 project file (.mxd).

1. Start ArcMap and open **A new empty map**
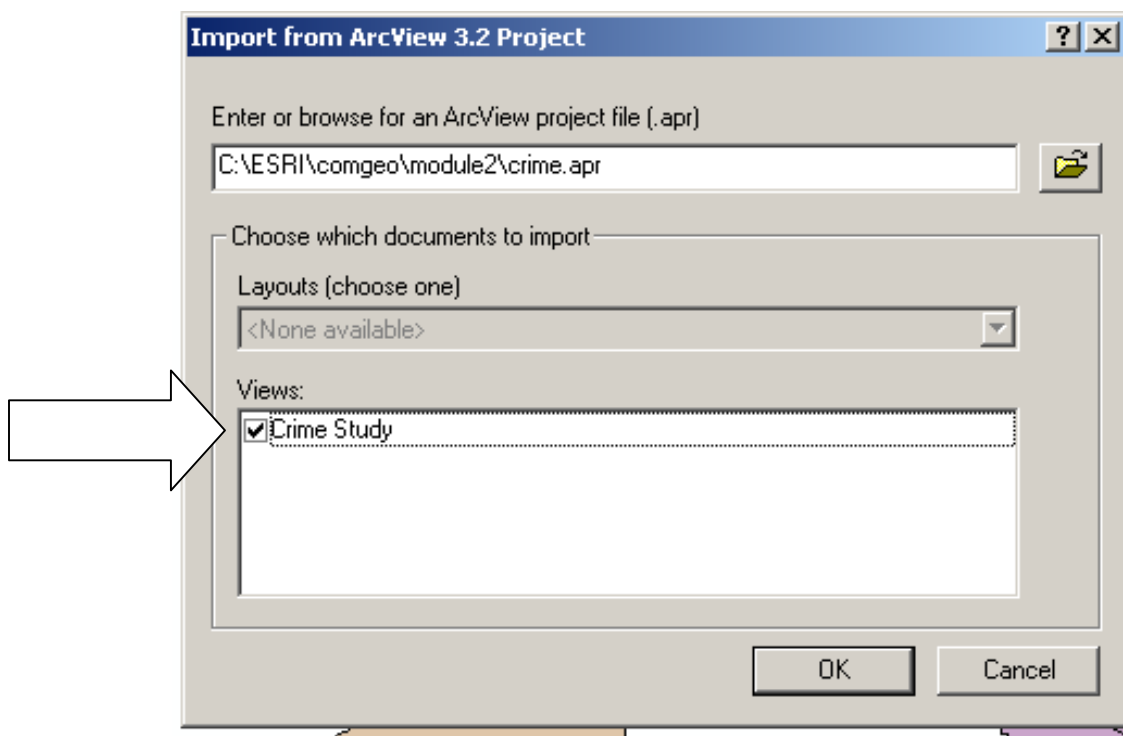

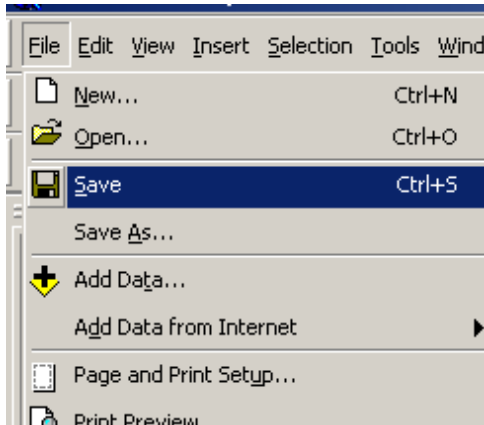2. Click on **File** and **Import from ArcView project**

3. Click on **Enter or browse for an ArcView project file**

4. Place checkmark in front of the **View(s)** you wish to import into ArcView 9 and click on the **OK** button.

5. Save your project file (.mxd) that has been converted from ArcView 3.x to ArcView 9.x with a file name.

6. Assign your new ArcView 9.x project file (.mxd) a name. You can use the same name that it had prior to the conversion from ArcView 3.x. Click on **Save**.
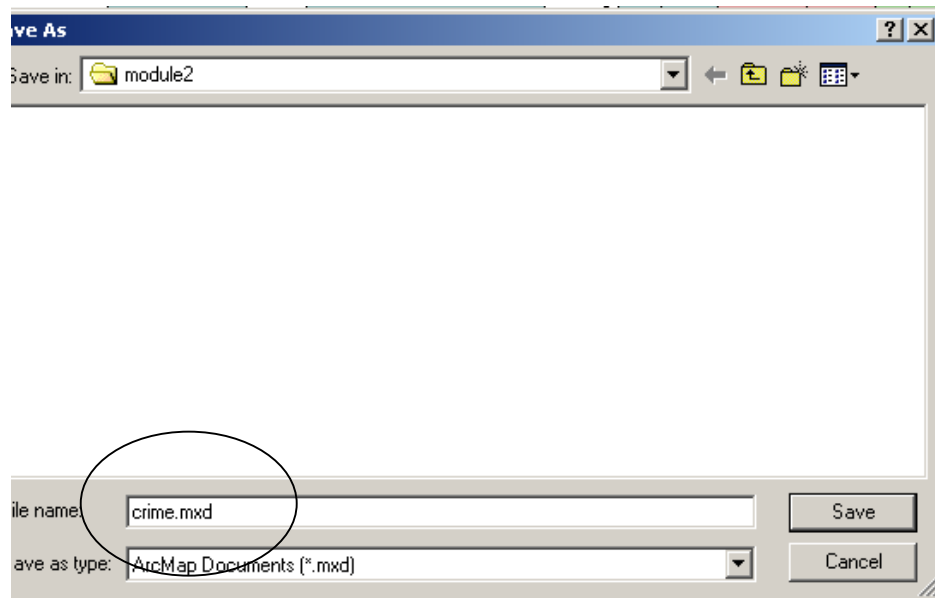
7. Follow steps 2 through 6 in your Community Geography book.

The process of geocoding has three basic steps. You need to (1) make a layer matchable, (2) match a list of addresses, and then (3) correct any unmatched addresses. To make a theme matchable, you need to specify which fields in your street database contain the address information and which address style should be used; ArcMap uses this information to build the

geocoding address locator. Once the locator is created, the address layer is matchable. In this project, the Roiads layer has the address information you need for geocoding,. So you will make this layer matchable by creating an address locator.
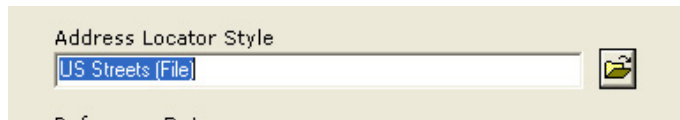
8. Start ArcToolbox by clicking on the small red toolbox icon on the Standard toolbar.
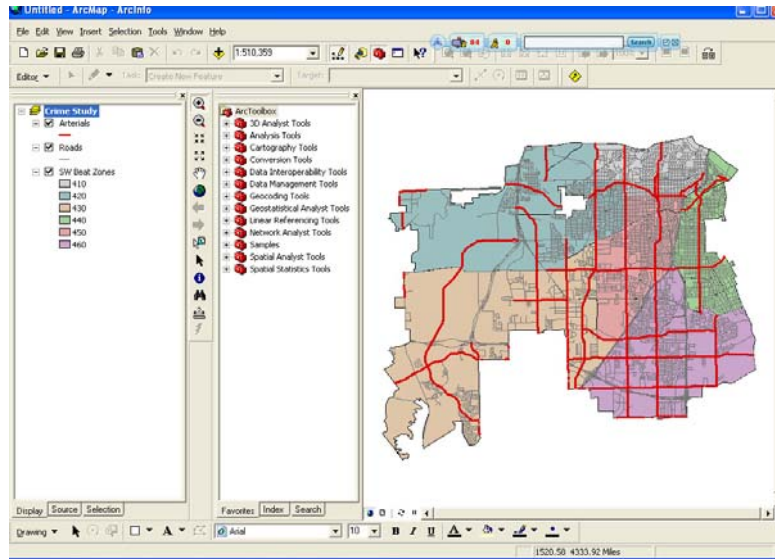
9. In ArcToolbox, click the plus sign next to Geocoding Tools. Double click on Create Address Locator.
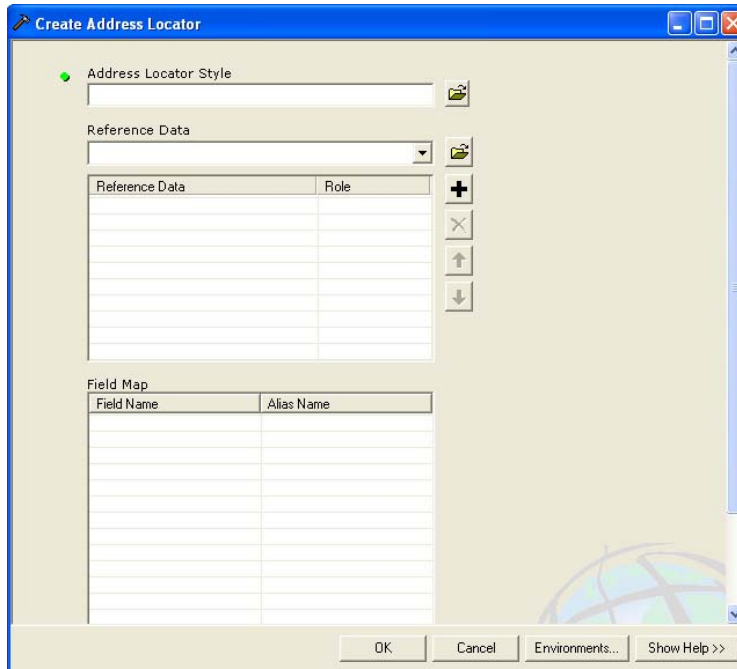
10. In Address Locator Style, click on the navigation folder. In the Select Address Locator Style window that pops up, scroll down and click on U.S. Streets (file) and then click on OK.


11. In Reference Data, click on the navigation folder and navigate to the folder you have your Community Geography data stored. Ie. C:\esri\comgeo\mod2\sw_roads. Click on the first cell in the Role column and choose Primary Table. The Alias Names will automatically fill in the Field Map.
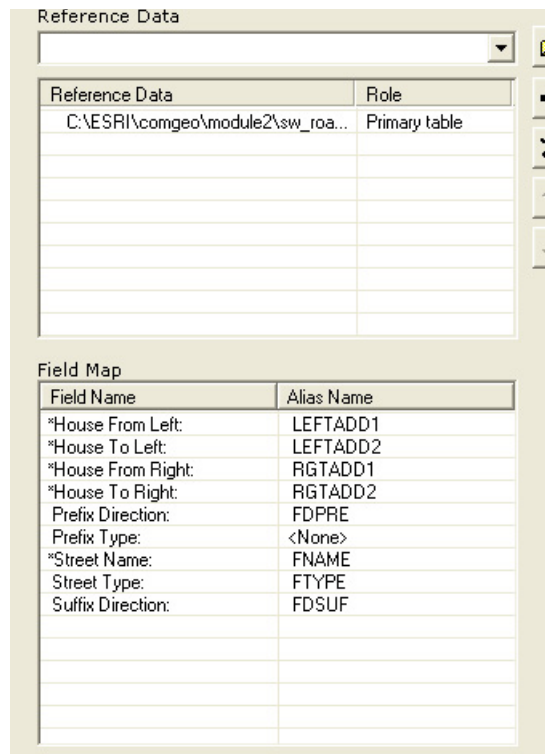
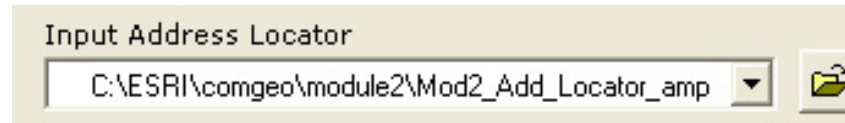12. In the Output Address Locator, click on the navigation folder and navigate to the folder with your data C:\esri\comgeo\mod2\ and give your address locator the name Mod2_Add_Locator_amp with your initials at the end of the name. Click OK. When the Create Address Locator is completed, click Close.

Now that you have created your address locator, you will geocode the addresses in the robbery data text file named crime.txt.
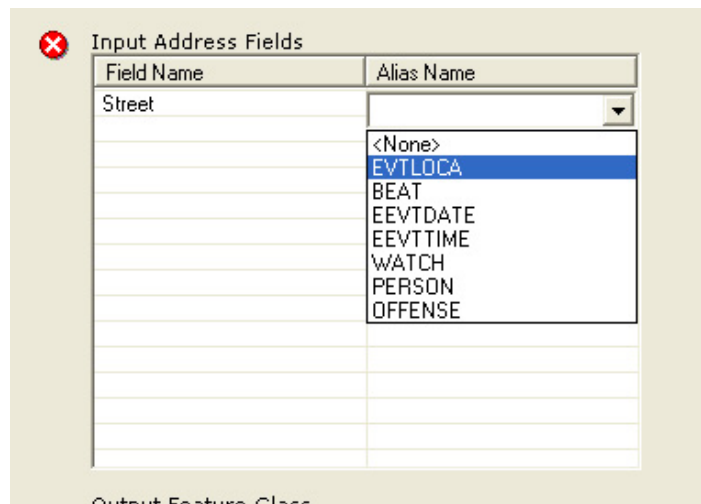
13. In ArcToolbox, double click Geocoding Addresses. In the Input Table, click on the navigation folder and navigate to the folder with your data C:\esri\comgeo\mod2\crime.txt and click on Crime.txt.

Input Table

C:\ESRI\comgeo\module2\crime.txt
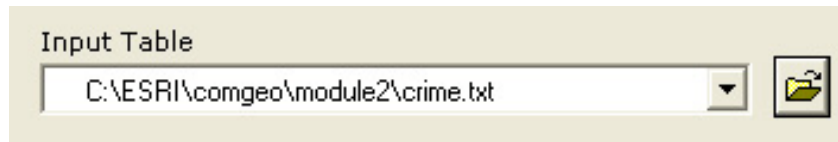
14. In the Input Address Locator, click on the down arrow and select the address locator you created in step 12.

Input Address Locator

C:\ESRI\comgeo\module2\Mod2_Add_Locator_amp

15. In the Input Address Fields, click on the down arrow and select the field EVTLOCA.

Input Address Fields

Field Name	Alias Name
Street	

<None>
EVTLOCA
BEAT
EEVTDATE
EEVTTIME
WATCH
PERSON
OFFENSE

Output Feature Class

Notice the red caution symbol now disappears.

16. In the Output Feature Class, make sure the new geocoded file you are creating will be stored with the rest of your module 2 data. Click OK. . When the Geocode Addresses is completed, click Close.

Output Feature Class

C:\ESRI\comgeo\module2\crime_GeocodeAddresses1.shp
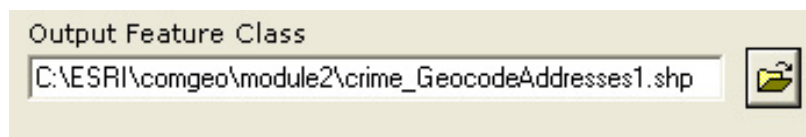
17. Close ArcToolbox by clicking on the "x" in the top right corner of the ArcToolBox window.


18. Examine the crime.txt attributes table.8

19. Close the crime.txt attribute table.

20. Click the Tools menu, Geocode, Review/Rematch Address, and then choose the newly created geocoded file crime_GeocodeAddresses. Answer Yes to the start editing question box.

21. Examine the information in the Review/Re-match Addresses window.
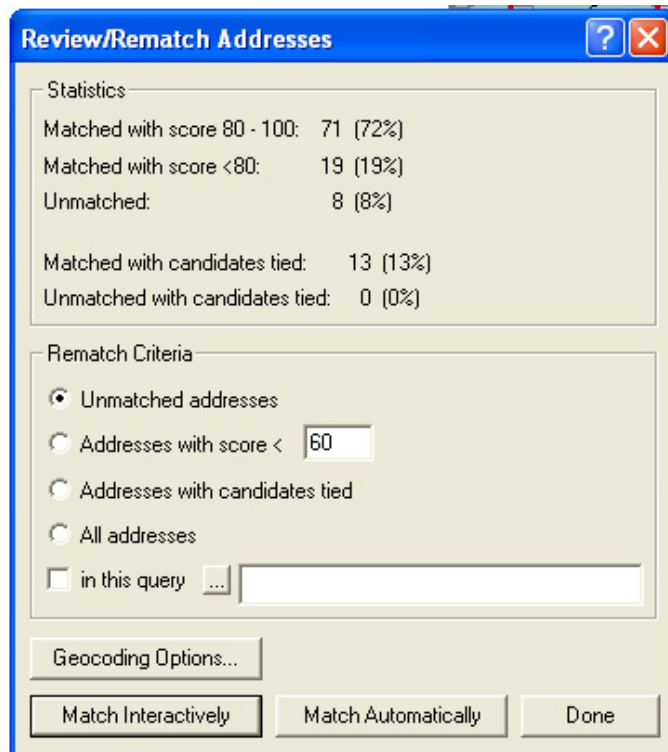
You will notice that one address had a partial match, and eight had no match in the Roads layer.

Partially matched or unmatched addresses can happen for a variety of reasons. For example, a road name could be misspelled in the crime table, the roads table, or both. In many cases, you can identify and fix the problem that allows you to look at each situation individually.

22. Click the Match Interactively button.
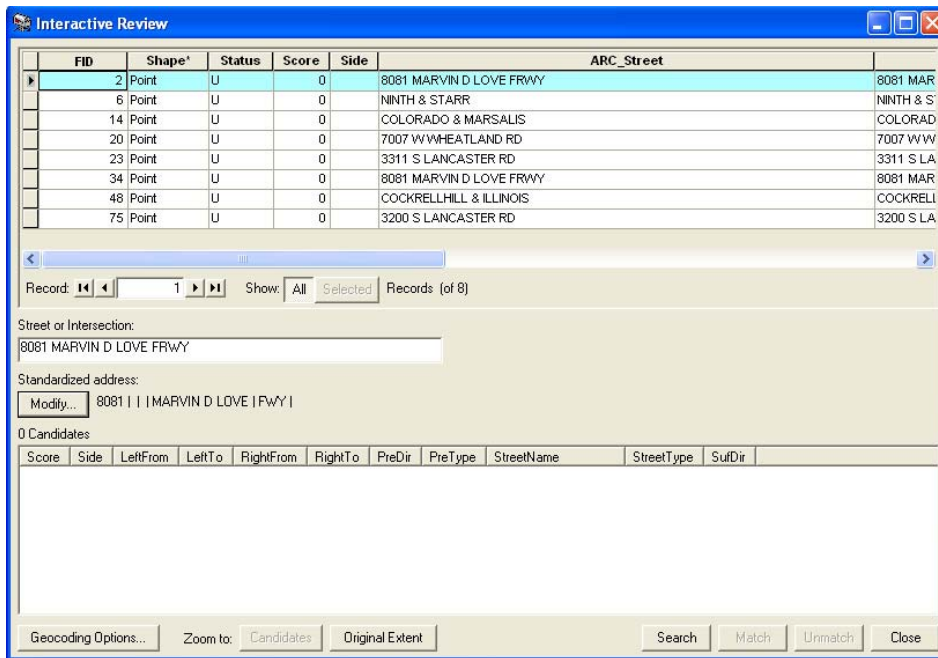
The first unmatched address, 8081 MARVIN D LOVE FRWY, is listed at the top of the Geocoding Editor window. ArcView has not found any similar addresses, or candidates, for this record. However, if you were to do a little research in the Roads attribute table, you would find a road named MARVIN D LOVE SERVICE ROAD. A service road generally runs parallel to a highway, and businesses or homes actually are located on the service road rather than on the highway itself. Thus, you will assume the service road is the correct road.

23. In the Street or Intersection field, delete the word FRWY from the address and type SERVICE ROAD. Press the Modify button. Click the "x" to close the Standardization window.
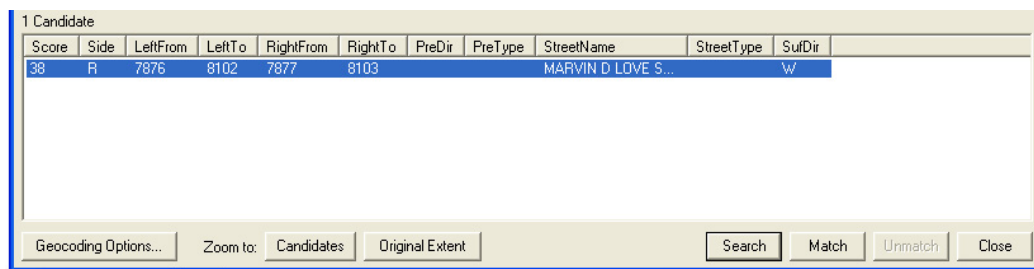
A possible match now appears in the candidate list. (It's important to note that the typing you did in the address box helped ArcMap find the candidate, but it did not change the original data in the crime.txt table.

24. Compare the address with the characteristics of the candidate.

Although this address still has a low score (38), you are confident this is the correct street segment, so you will create a match.

25. Click the Match button.

26. Click once on the next address.

The next address is NINTH & STARR, which is an intersection between two streets. This time a candidate is listed. The addresses don't match exactly because the Roads table uses "9th" instead of "Ninth," but again you are confident it is a match.
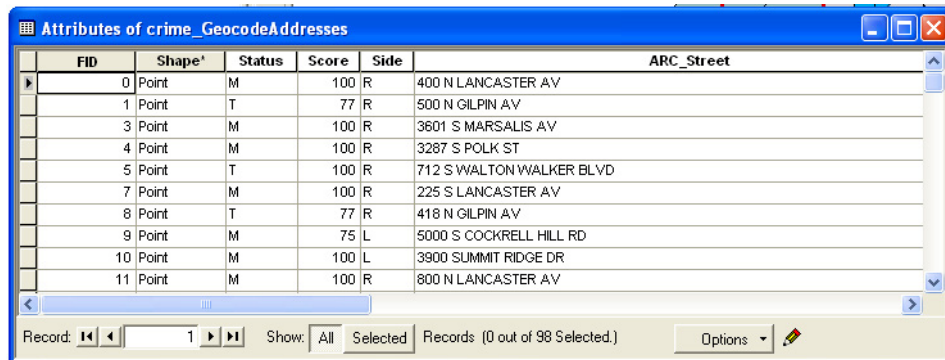
27. Click the Match button again. Continue checking and matching the reaminder of the addresses. Look for discrepancies such as different spellings, lack of a directional notation (N, S, E, W), or missing spaces. Assume for the purposes of this exercise that all the candidate addresses are correct matches. When you finish, all the addresses should be matched.

28. Click Close in the Interactive Review window, then click Done in the Review/Rematch Addresses window.

29. In the Crime Study dataframe in the Table of Contents, turn off the Roads theme. Turn on the new Crime_GeocodedAddresses layer. Double click on the dot symbol un Crime_GeocodedAddresses layer. Change the symbol to an outlined circle, with the size of 18 and change the color to bright blue so that the dots are easier to see.
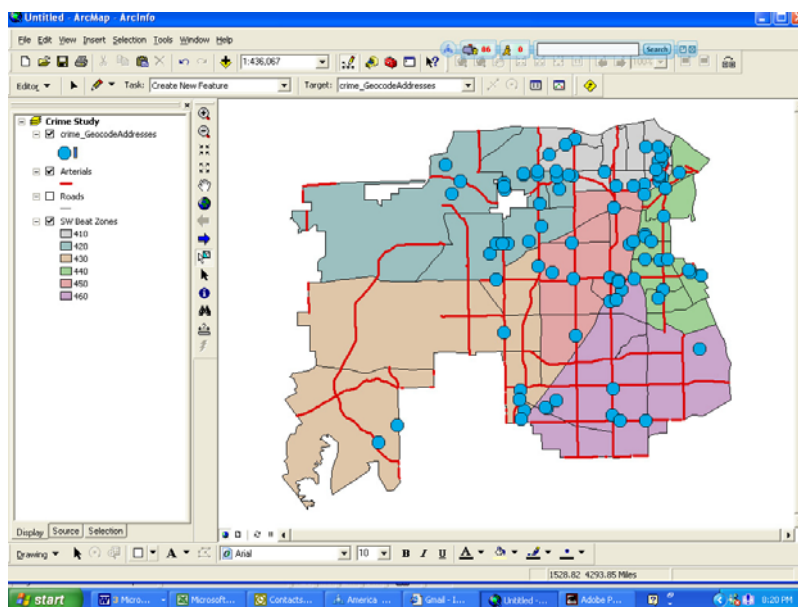
30. Right click on the Crime_GeocodedAddresses layer and open its attribute table. Examine the fields in the table.

Do the field look familiar? The field in the crime.txt table were copied into this table during the geocoding process. The fields displayed at the left side of the table beginning with ARC_ were added by ArcMap. These fields tell you the address used, whether the address had a match. You will also see the Status of the match, whether the address was matched, unmached or tied. You will also see the score of the match and if the address is on the right or left side of the street.

31. Close the attribute table.

32. Save your project.