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# Campus Community GIS

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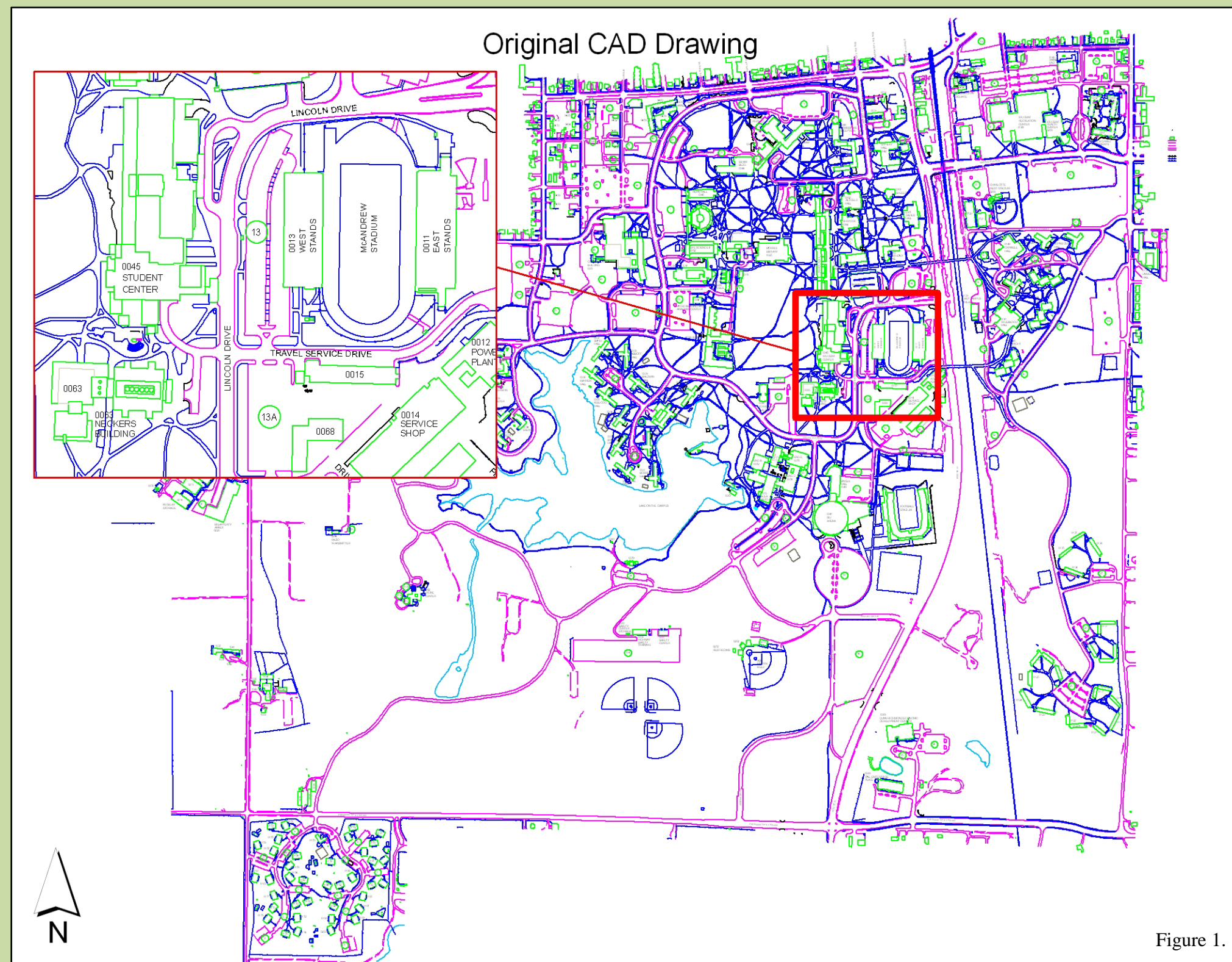
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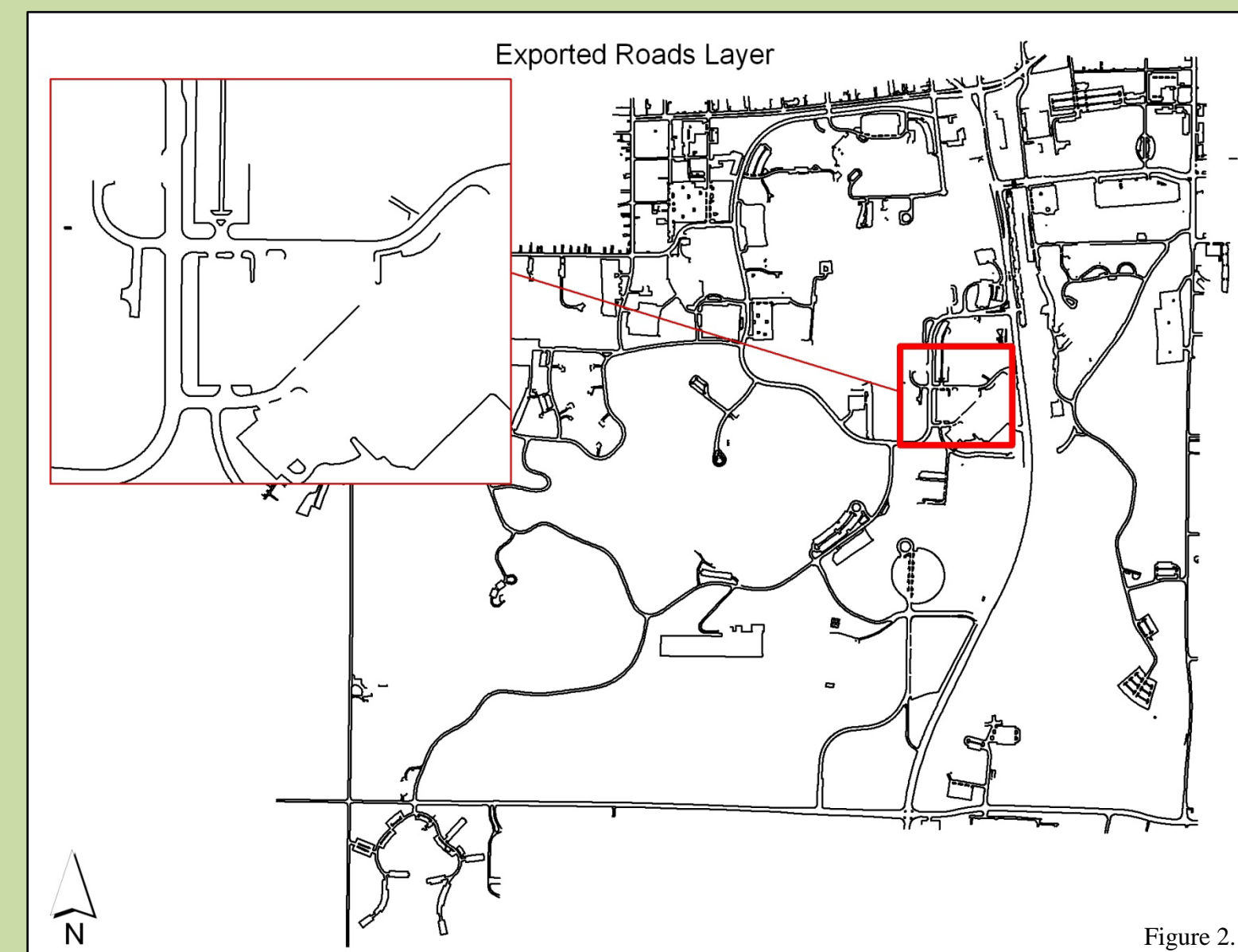
# Campus Community GIS

Rick Hajduk, Brad Mersinger, Adam Oller, Frank Wesseln  
Geog 433: Field Methods, Spring '09

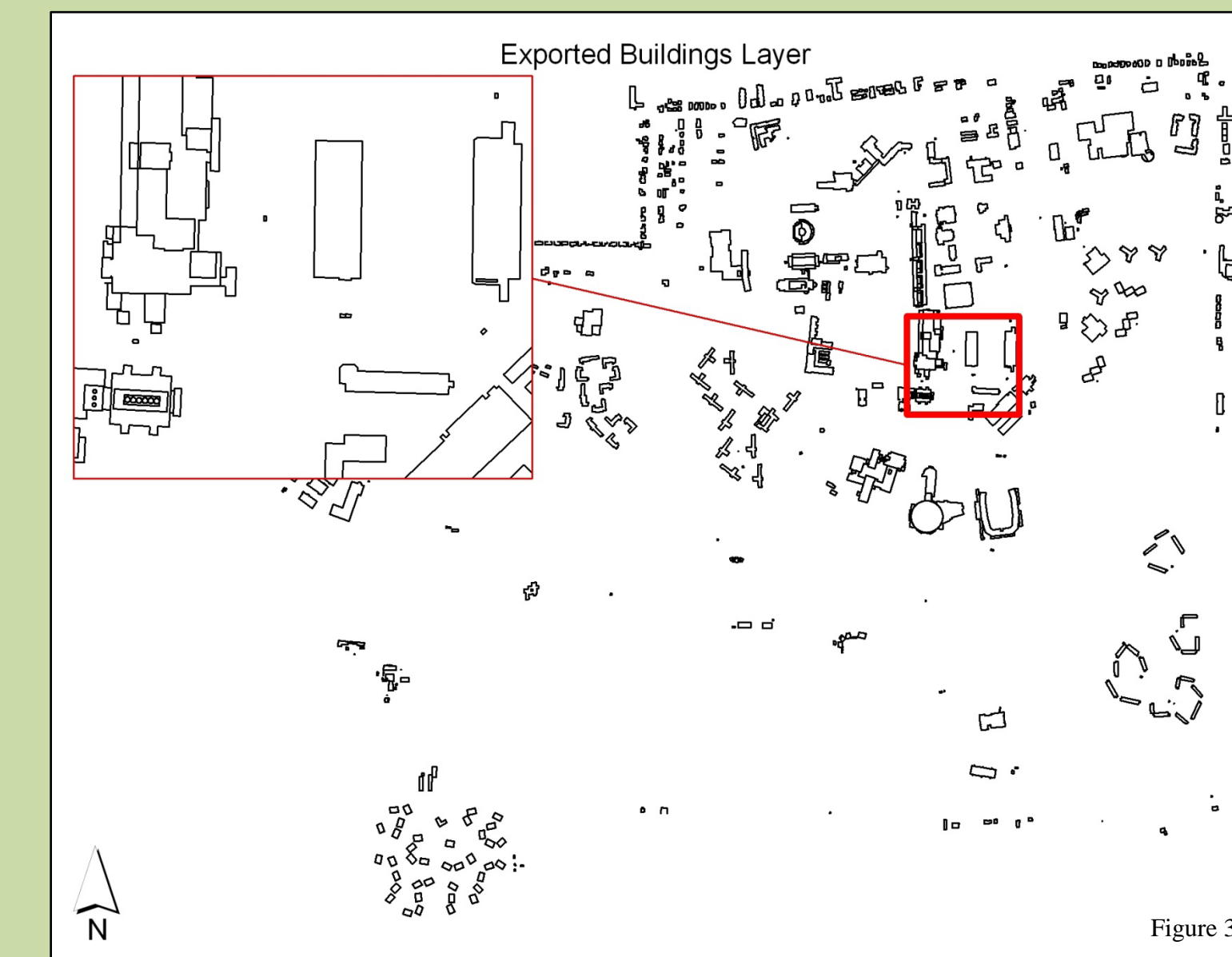


**Figure 1.** The original CAD drawing of the SIUC campus. It has no spatial reference, and no attribute data tied to it. The drawing was created by digitizing the vector data from an aerial image.

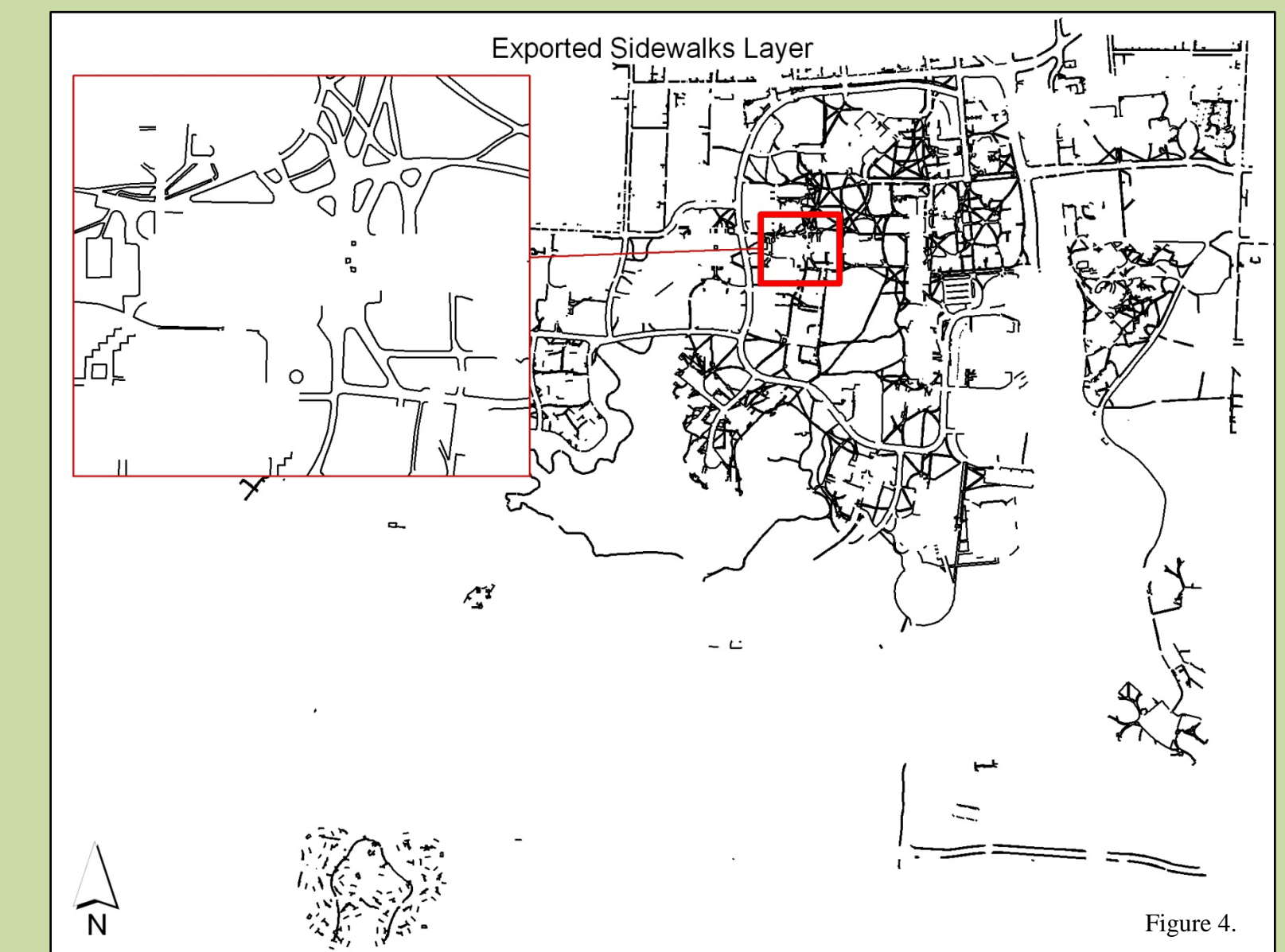
**Purpose:** To provide a geodatabase of the SIUC campus that can be easily queried, displayed, and updated using a GIS software system.



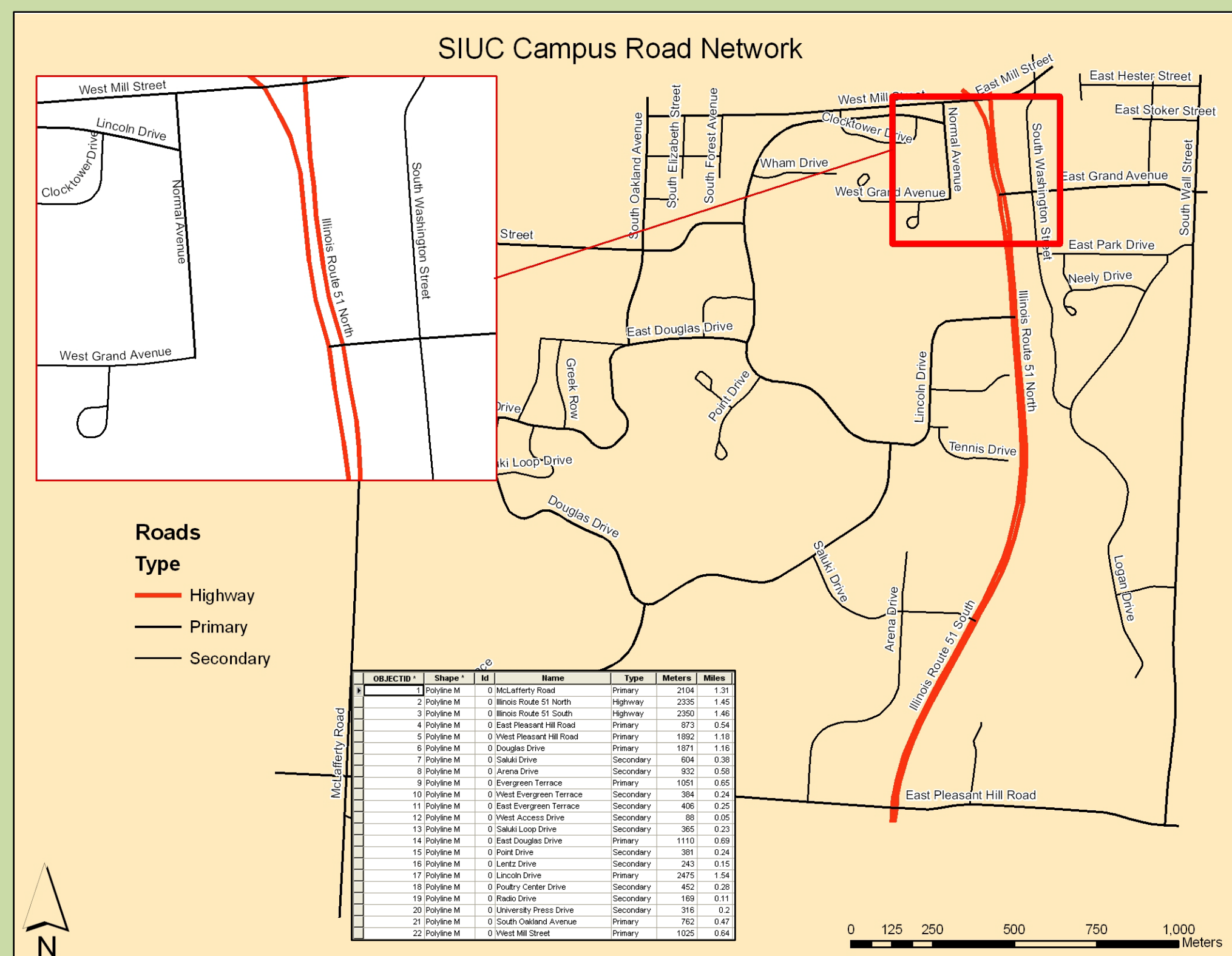
**Figure 2.** The result of selecting and exporting the polylines that made up the roads layer in the original file.



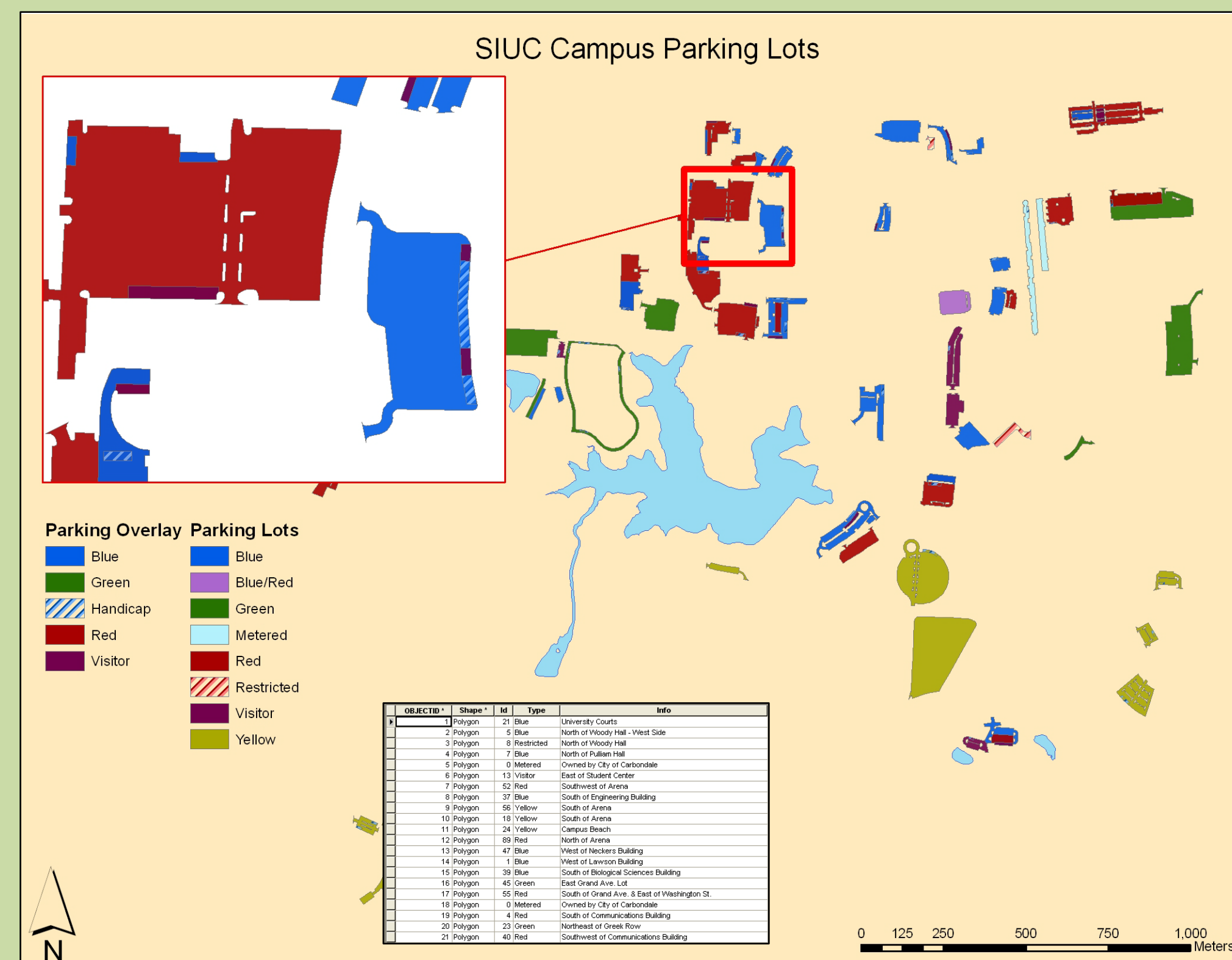
**Figure 3.** The result of selecting and exporting the polylines that made up the buildings layer in the original file.



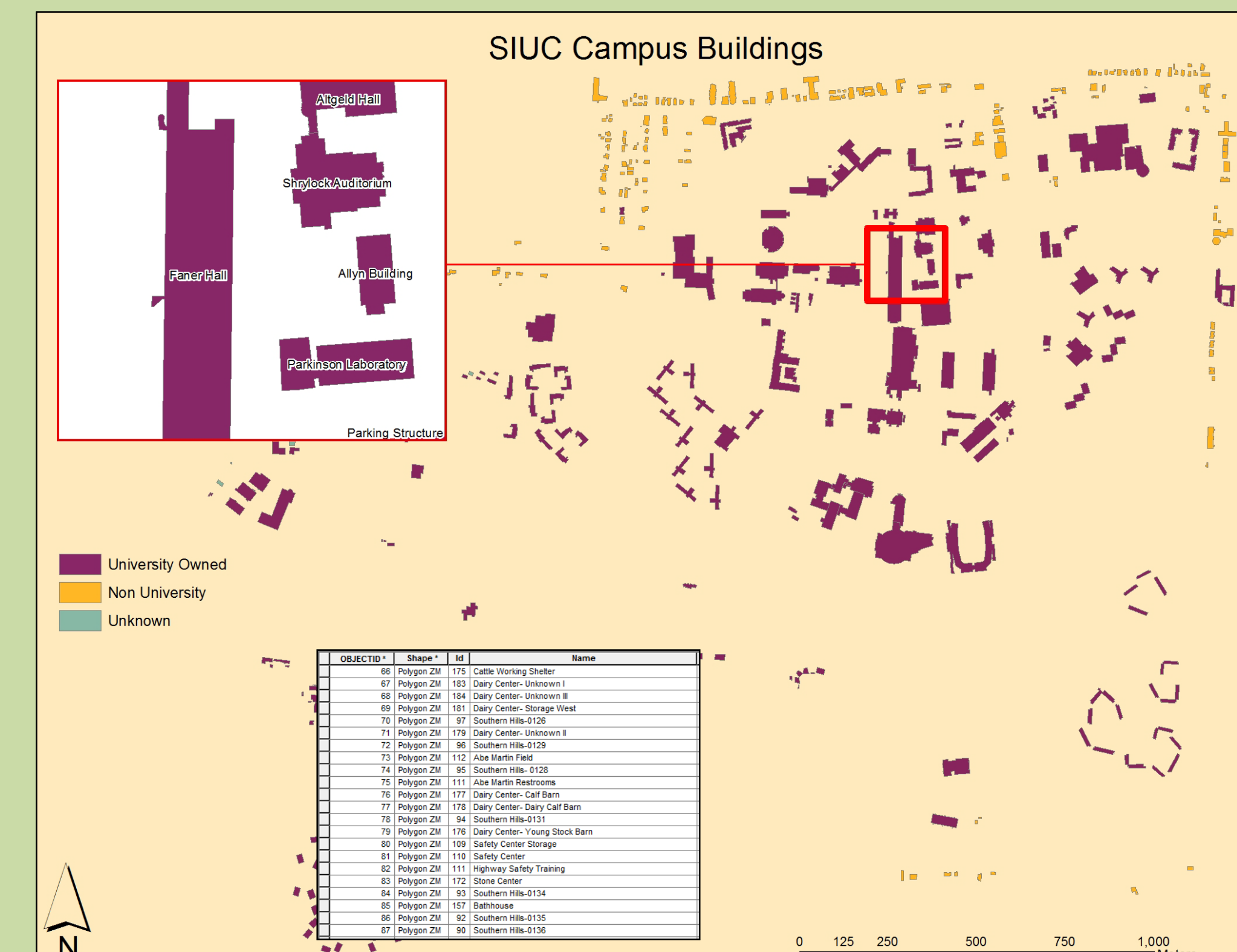
**Figure 4.** The result of selecting and exporting the polylines that made up the sidewalks layer in the original file.



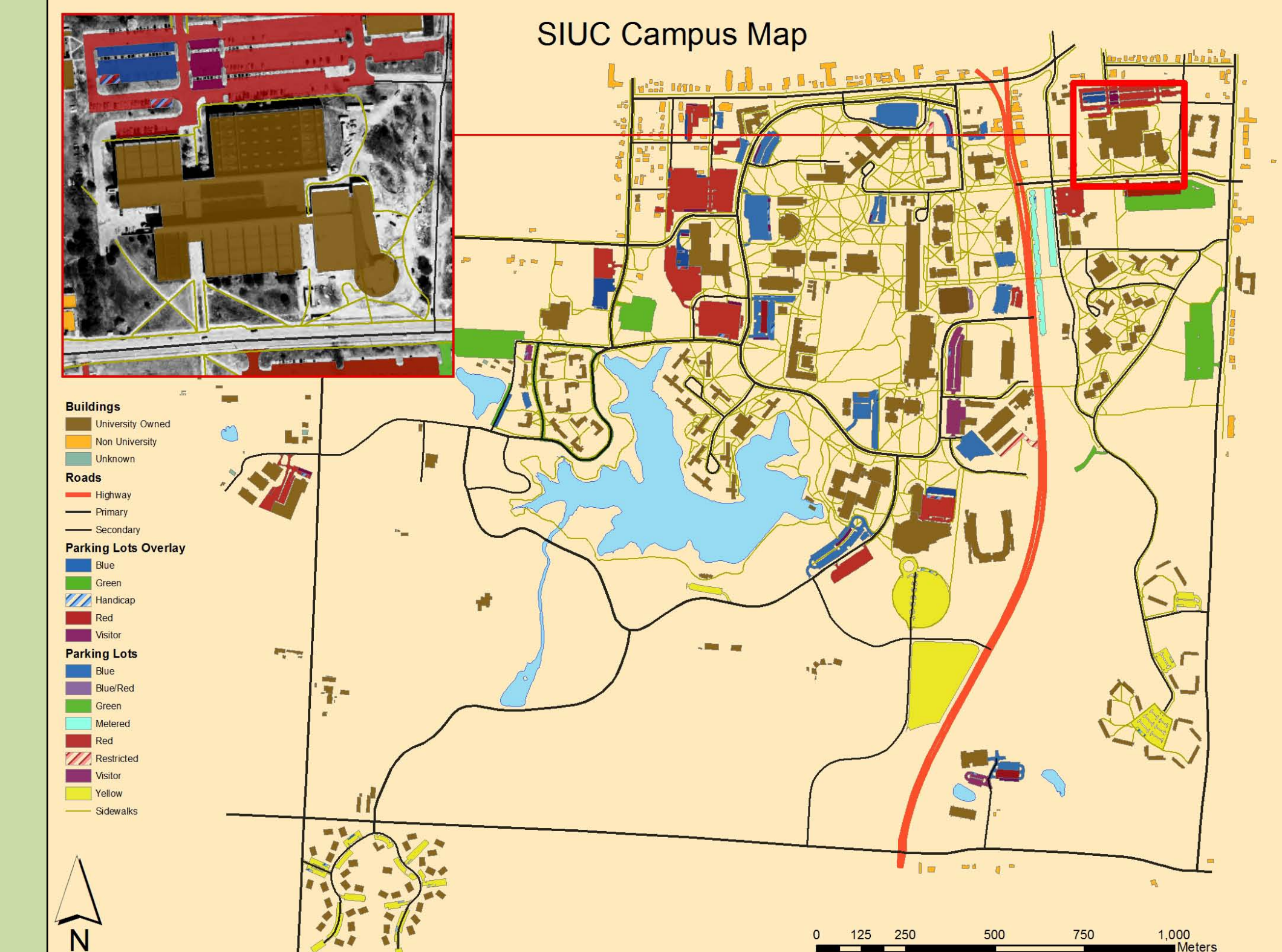
**Figure 5.** The roads layer was created by taking the centerline of the streets from the CAD file. The data reside in a new polyline shapefile (inset) that contains attribute data such as the street name, type of street, length in meters, and length in miles.



**Figure 6.** The Parking lots layer consists of two polygon shape files, Parking\_Lots and Parking\_Lots\_Overlay. The latter shows the smaller subdivisions within the parking lots. The file was created by drawing the polygons from the exported roads CAD layer. Attribute data within the file (inset) include: decal type, lot number, and a short description of lot location

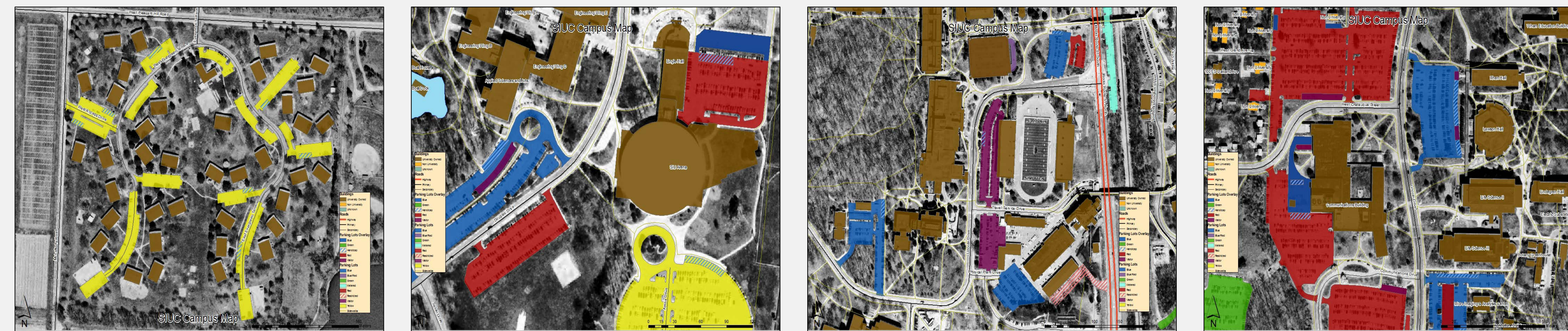


**Figure 7.** The buildings layer was created in much the same way as the parking lots layer. Polygons were made to replace the polylines from the CAD file. The attribute table for this shapefile contains the building number, building name, and ownership of buildings.



**Figure 8.** All individual layers created from the CAD file inputted into the geodatabase, resulting in a final map of campus.

Additional Images created by draping the newly created vector data over an aerial image.



**Acknowledgements:**

- Dr. Therrell – Instructor Geography 433
- Samuel Adu-Prah
- John Bennett- Chief Engineering Draftsman – PSO
- Guangxing Wang
- Tony Oyana

**Sources:**

- SIUC Dept. of Public Safety – Parking Map  
[www.dps.siu.edu/Parking/Parking%20Map%202006\\_2007.pdf](http://www.dps.siu.edu/Parking/Parking%20Map%202006_2007.pdf)
- SIUC Plant and Service Operations – CAD file & building data
- ISGS Data Clearinghouse – Orthophoto  
[www.isgs.illinois.edu/nsdhome](http://www.isgs.illinois.edu/nsdhome)