Geog 342 Final Project Report
Sidewalk Layer Classification in an Urban Environment
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Summary

A method was devised to use Feature Analyst to extract a sidewalk layer from high resolution ortho corrected aerial images. Two different areas were sampled: a downtown urban area near the State Capitol and a more suburban area in Natomas. We found that running an unsupervised classification was effective to extract sidewalk and driveways from the Natomas area. We ran clutter removal training to refine the data, but found that it was not effective to perform too much clutter removal. Adding missing features was not effective in improving the sidewalk layer. Manual editing was still necessary to separate the driveway areas from the sidewalk areas, but this editing was straightforward to perform. Results from the Natomas area were pretty good, but the results from the downtown area were poor in comparison. It was found that the image of the downtown area was not good enough to make a determination of the sidewalk location (either manually or using Feature Analyst) in much of the downtown area.