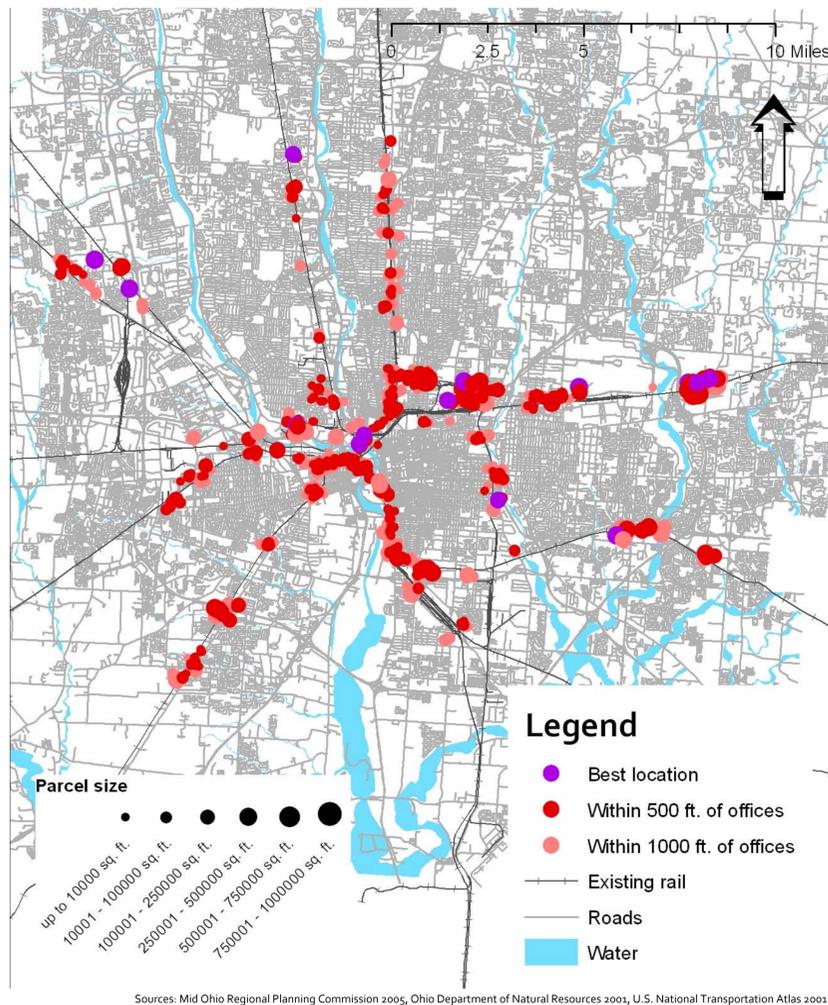


Best potential sites near office buildings



Methods and Conclusions

In this study, I focus on commuter travel between high-density residential areas – maximizing the number of travelers within walking distance – and office buildings. First I isolated vacant parcels near existing railroads and isolated all parcels used for offices or high-density housing. I then created buffers, separately, around the office and residential parcels, based on studies indicating how far commuters were willing to walk from their house or office: 500 and 1,000 feet for offices, 1/4 and 1/2 mile for residences. Vacant parcels overlapping with these buffers were given values based on proximity to those land use types; in this way, sites targeted towards either offices or residential areas could be “scored” separately, and a number of sites were flagged as being suitable for both uses (see example at right).

I felt that the tool was of considerable use, but it is important to notice that more needs to be done to improve its utility. However, final decisions on the suitability of individual parcels must be made after thorough on-the-ground suitability studies. GIS methods can not on their own comprehensively identify all of the best sites, but GIS analyses, such as those employed in this study, may offer the easiest way to measure the initial suitability of potential sites over a large area.

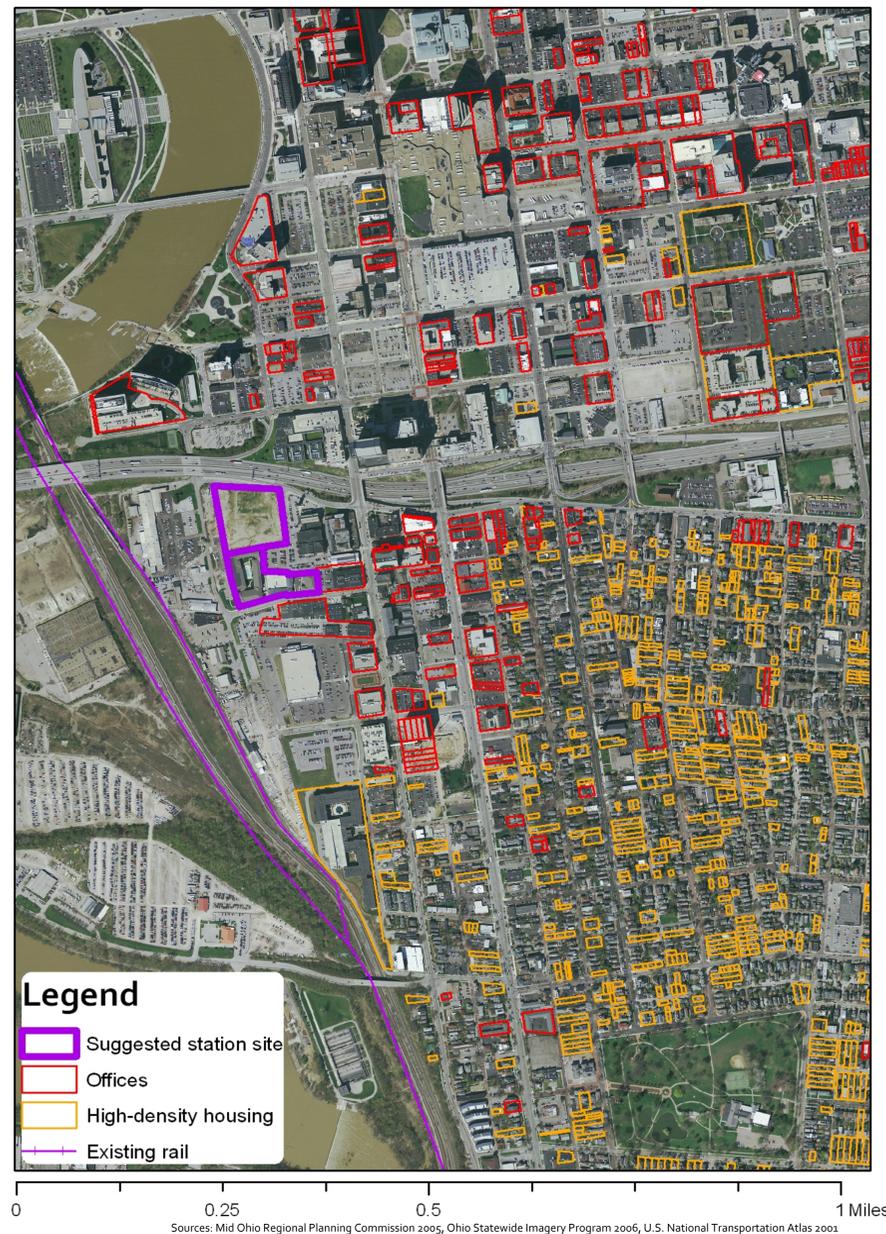
Commuter Rail Station Siting

A Suitability Model for Columbus, Ohio

Columbus, Ohio is a driving city, and the second largest city in the U.S. without some form of passenger rail. Columbus’ sprawling form presents a challenge for instituting alternative modes of transportation, especially commuter rail. While the presence of an efficient commuter rail system would encourage denser development near stations, the system needs to first build a ridership base in order for future transit-oriented development to appear viable. This means that initial stations need to focus on accommodating the needs of existing likely passengers.

The goal of this study is not to create a comprehensive list of recommended station sites, but to identify sites meeting a minimum suitability, differentiating between those serving pri-

marily residential areas and those serving office areas. As a result, not all of the sites recommended by the analysis are currently practical locations for stations. The analysis also serves to illustrate the geographic distribution of potential sites serving office buildings (left), high-density residential areas (below), or both. The resulting distribution is informative in the general tendencies it illustrates: the best office-oriented locations tend to be downtown while the best residential-oriented locations tend to be farther out. However, the locations and distributions of anomalies is equally notable.



Best potential sites serving high-density residential areas

