

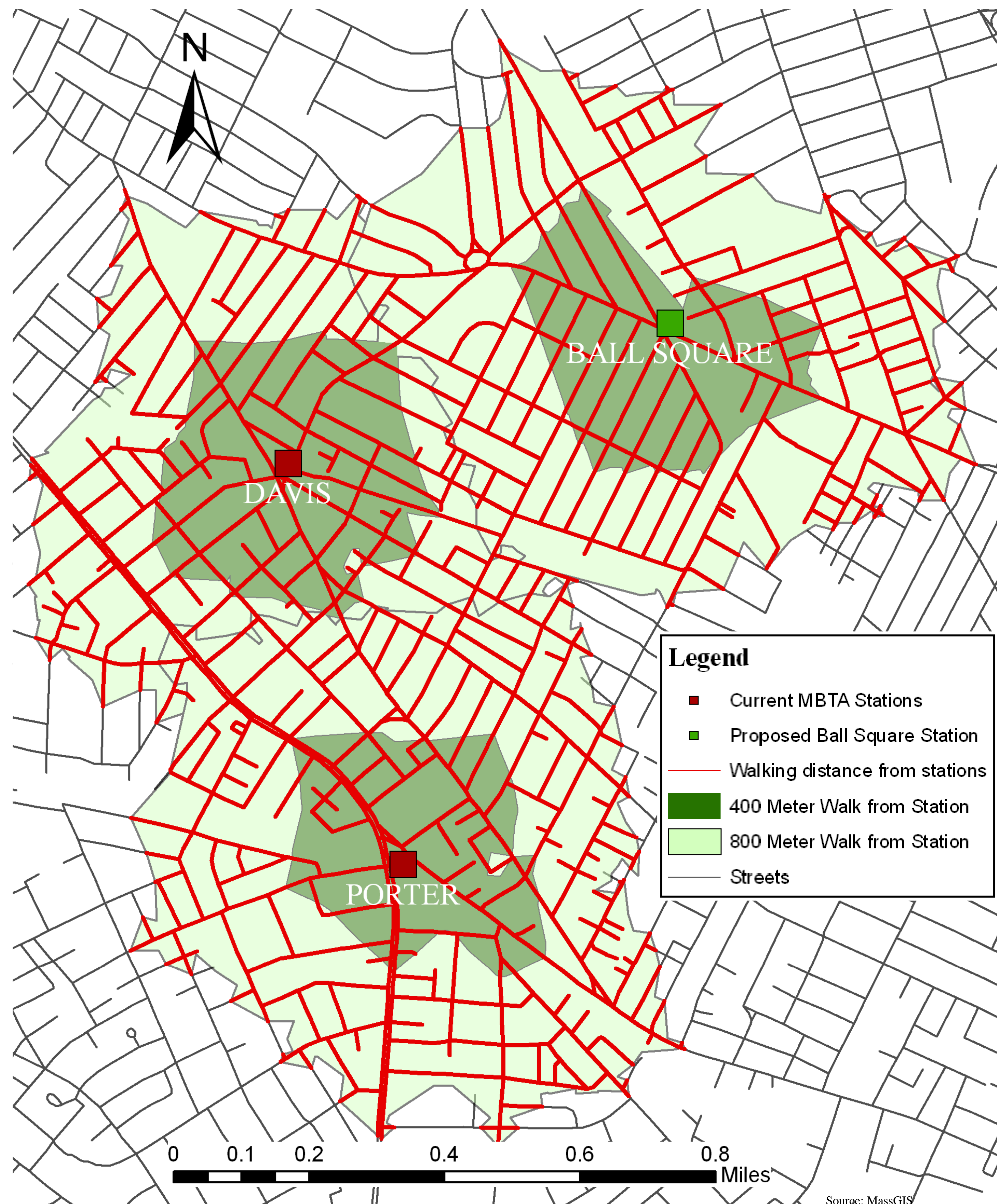
Somerville T Stops, Surrounding “Ped Sheds,” and Potential for New Housing

Project Description

The GIS Network Analyst application is used in this project to examine the potential for new housing development near two existing T stations and one proposed T station. The project examines two factors: walking distance from the stations and the ratio of building to land value of the parcels within that distance. New housing should ideally be situated within walking distance of public transit, and would most likely be built where existing buildings have a low value relative to land value.

Step 1

First, the walkable areas in the vicinity of the station were determined using ArcMap’s Network Analyst tool. The shaded regions of the image below show areas within walking distance of the stations. In the light green areas, stations are accessible within 800 meters



Photos of the Area South of Ball Square and East of Davis Square



Photos by Danielle Lipis

(or about half a mile) along streets. In the dark green areas, stations are accessible within 400 meters (or about a quarter of a mile) of the stations. The map below shows an aerial image of the neighborhood with the “ped shed” overlaid. The map shows that the Davis and Ball Square “ped sheds” overlap significantly, meaning pedestrians in this area can easily access the Red Line (to the Financial District and South of Boston) as well as the Green Line (to the Back Bay and Western Boston and Brookline).

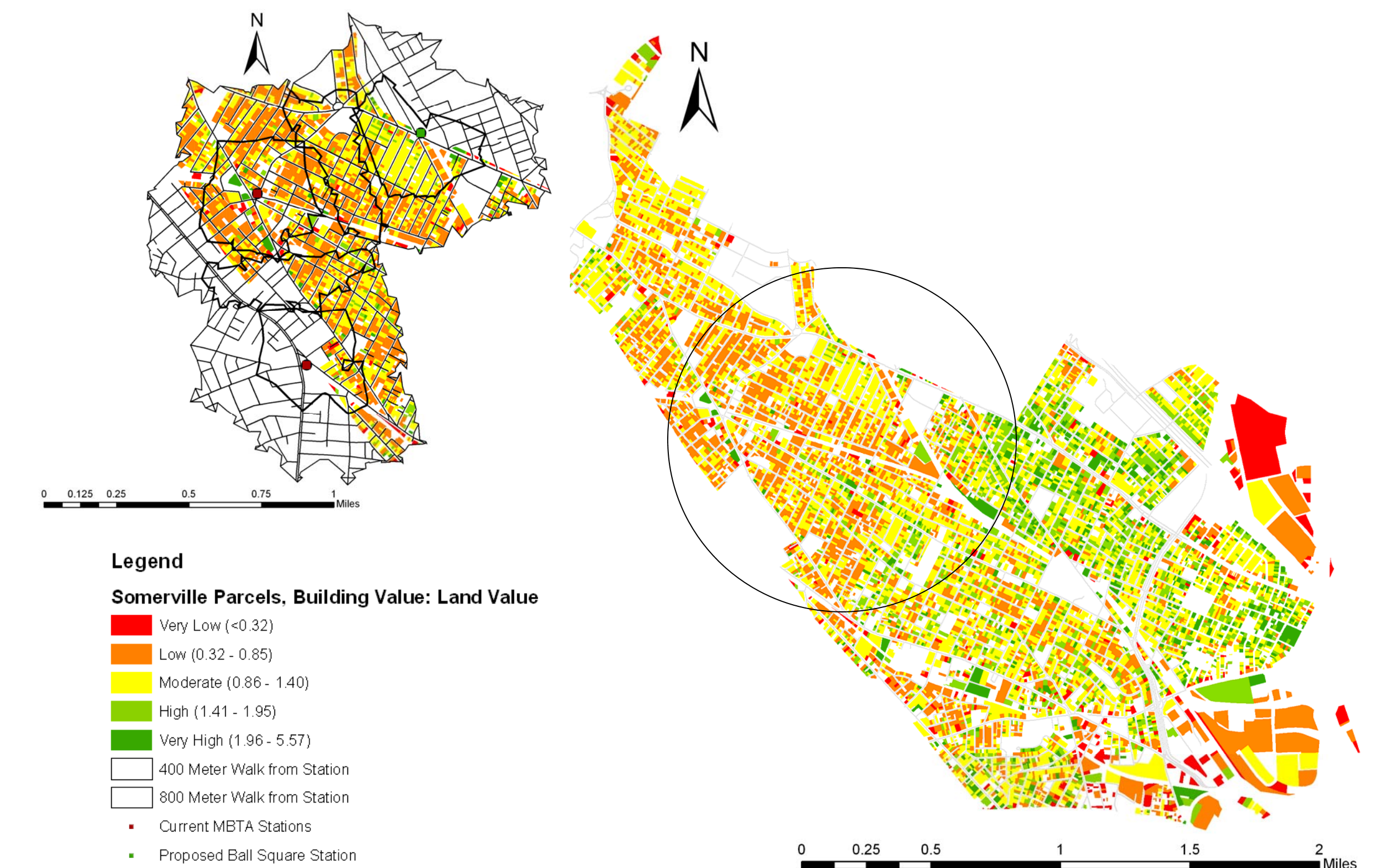
Step 2

The maps to the above left show Somerville parcels within walking distance of the Davis Square, Porter Square and proposed Ball Square T stations, color coded to indicate the ratio of their building value to land value.

“Ped Sheds” Overlaying Orthographic Image



Land to Building Value Ratios within the “Ped Sheds” and all of Somerville

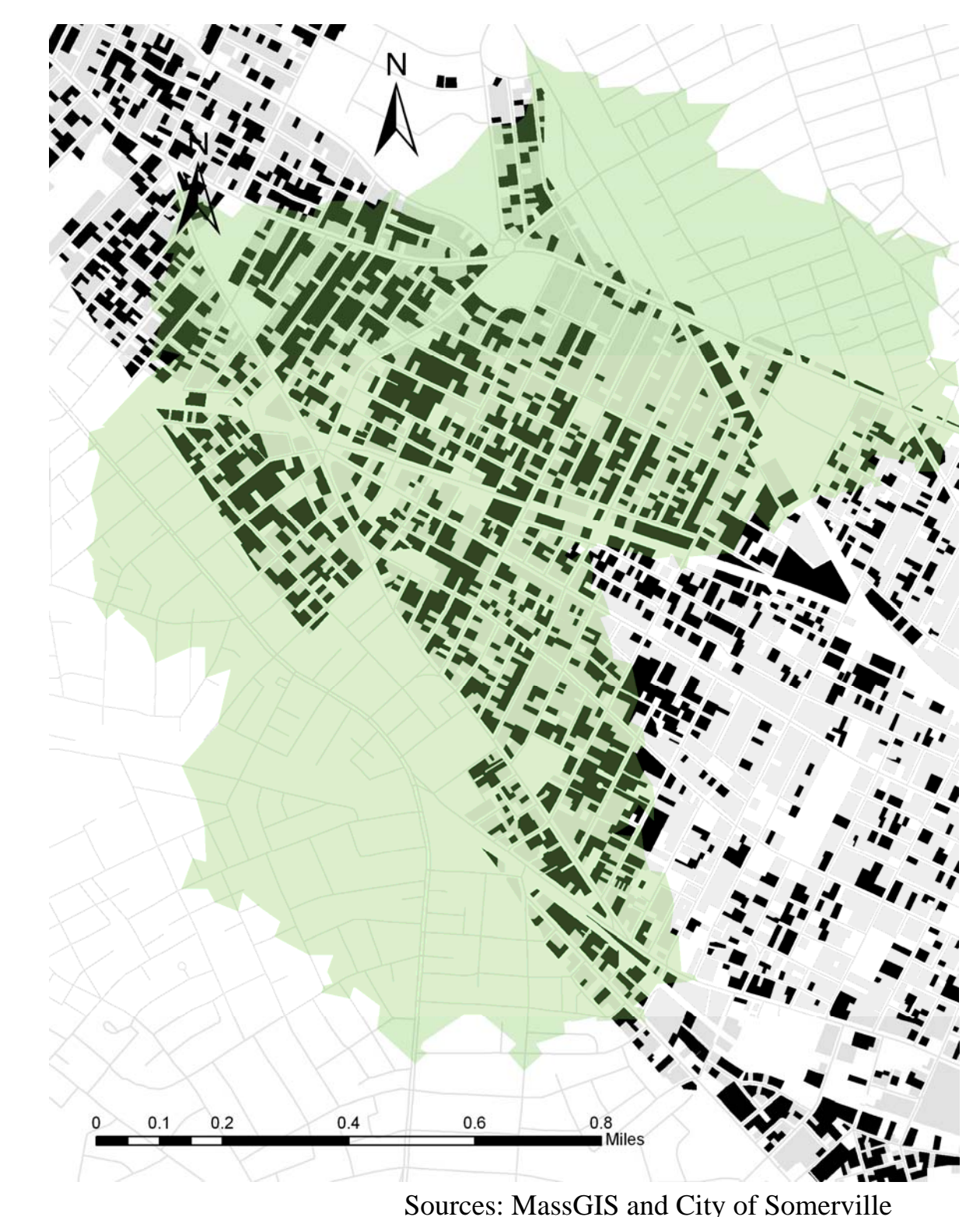


Underutilized Parcel near Ball Square



Photo by Danielle Lipis

Parcels with Low Building to Land Ratios Highlighted



Conclusion

As the maps above illustrate, much of the land directly south of the proposed Ball Square T station has a relatively high ratio of building value to land value, indicating that the introduction of a new T station is not likely to provide an opportunity to redevelop parcels in this neighborhood into new housing. The area surrounding Davis Square also appears to have a relatively high ratio, while the Porter Square vicinity has lower ratios, indicating more parcels near the Porter Square T station are likely to be more appropriate targets for redevelopment.