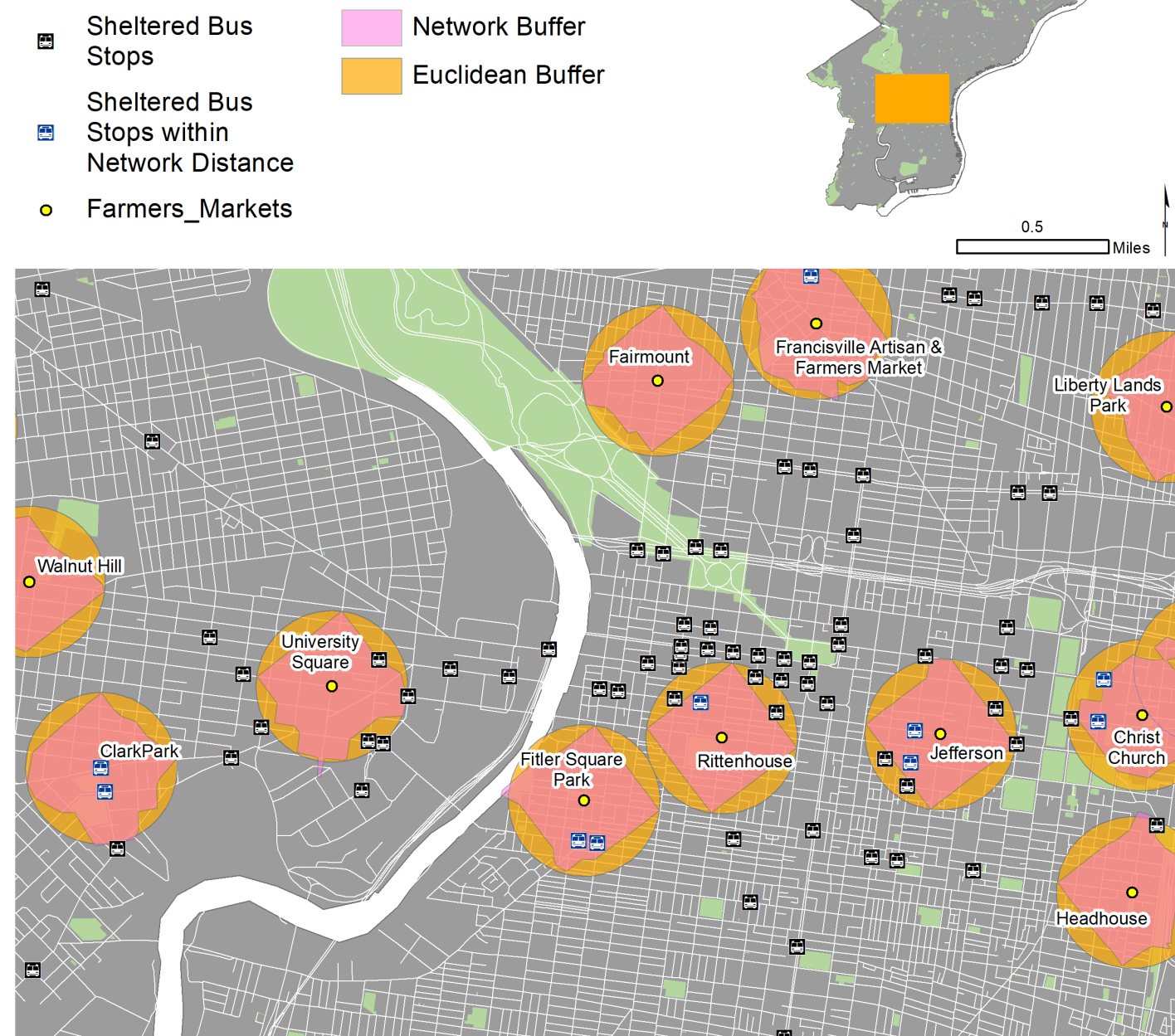


Farmers Markets and Sheltered Bus Stops, Treva Tam

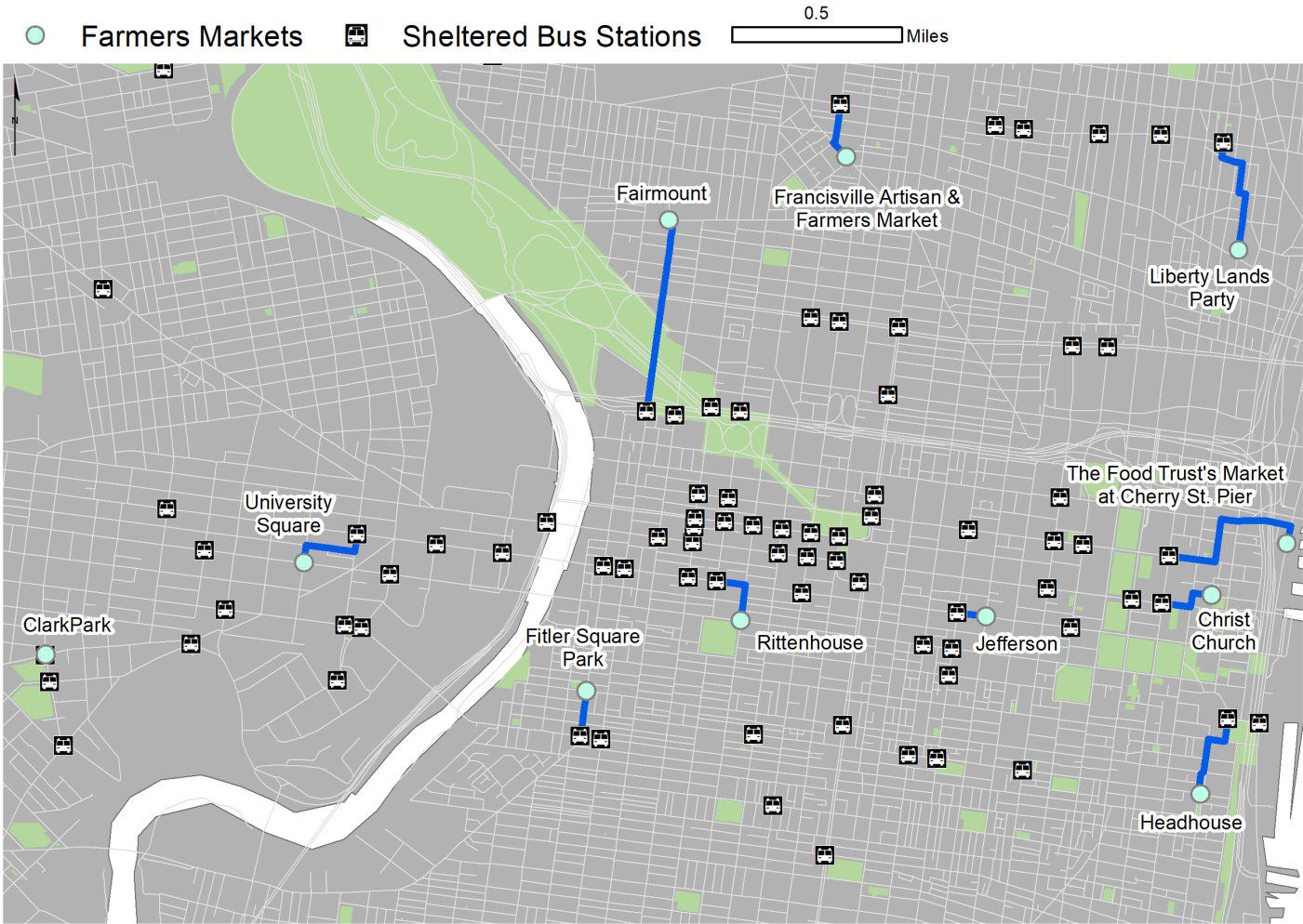
Particularly during the summer, I don't want to be out in the sun waiting for the bus when I'm carrying my produce home from these farmer's markets. This series of maps looks at the distance from farmer's markets in Philadelphia and sheltered bus stops. I focus particularly on farmer's markets within the center city and university city area since I live close to those areas.

My first map presents Euclidean buffers and network buffers using a distance of 0.25 miles (or 1320 feet) since I do not want to be walking too far with my produce. The Euclidean buffers can be seen as the orange circles expanding outwards from the farmer's markets. However, the network buffers are more useful given my question since I would have to walk along the streets. Selecting by spatial attributes, I highlighted the bus shelters within the network buffers in blue. As can be seen on the map, not all farmer's markets have sheltered bus stops within this radius. University City's farmer's market is particularly interesting when thinking about the difference between Euclidean and network buffers. From the map, we can see that there are several bus stops within the Euclidean Buffer; however, none are within the network buffer. I could walk to any of the bus stops within the Euclidean buffer; however, the distance of my walk would actually be more than 0.25 miles.



The next map and tables confirms the slight differences in distance between Euclidean and network methods. In the network analysis, I remove the one-way restriction since pedestrians are able to walk both ways. The table below lists farmer’s market in the center city and university city area. They are listed according to the market’s distance from the sheltered bus stop using Euclidean distance. From the table, we can see that network distance tends to be a greater distance than Euclidean for every case except for Clark Park (in which the marker for the bus stop and Clark Park are right on top of each other). We can see the difference between the two distance methods when we look at Rittenhouse and Christ Church. While the straight line distance is shorter for Rittenhouse, the street distance is actually shorter for Christ Church.

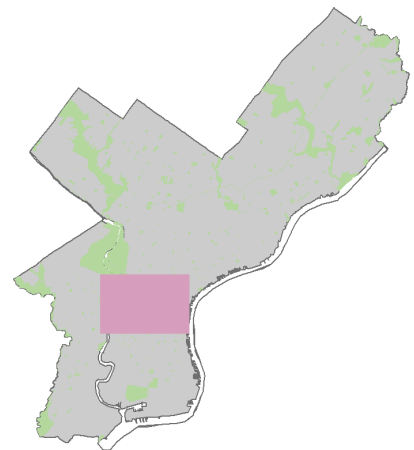
Farmer’s Market	Euclidean Distance (ft.)	Network Distance (ft.)
Clark Park	2.9	2.8
Jefferson	445.4	449.2
Fitler Sq. Park	710.7	710.8
Rittenhouse	716.2	1010.6
Christ Church	773.7	959.5
Francisville	826.7	920.8
University Square	946.8	1320.6
Headhouse	1245.5	1516.9
Liberty Land’s Park	1690.4	2038.4
The Food Trust at Cherry St.	1846.1	2777.6
Fairmount	2681.2	3065.9



Source: Philadelphia Department of Public Health and SEPTA

[-] Route: Fitler Square Park - Clark Park		9.3 mi
1:	Start at Fitler Square Park	
2:	Go south on 23RD toward PINE	3 ft
3:	Turn left on PINE	0.4 mi
4:	Turn left on 18TH	0.3 mi
5:	Arrive at Rittenhouse, on the left	
6:	Depart Rittenhouse	
7:	Continue north on 18TH	372 ft
8:	Turn right on STOCK EXCHANGE	0.2 mi
9:	Turn left on 16TH and immediately turn right on CHESTNUT	0.2 mi
10:	Turn left on BROAD	301 ft
11:	Bear right on PENN	181 ft
12:	Turn left on JUNIPER	282 ft
13:	Turn right on MARKET	0.3 mi
14:	Turn right on 10TH	0.1 mi
15:	Arrive at Jefferson, on the right	
16:	Depart Jefferson	
17:	Continue south on 10TH	0.4 mi
18:	Turn left on PINE	0.7 mi
19:	Make sharp right on 2ND	383 ft
20:	Arrive at Headhouse, on the left	
21:	Depart Headhouse	
22:	Continue southeast on 2ND	2 ft
23:	Make sharp right on LOMBARD	0.1 mi
24:	Turn right on 3RD	0.6 mi
25:	Turn right on CHURCH	291 ft
26:	Arrive at Christ Church, on the left	
27:	Depart Christ Church	
28:	Go back west on CHURCH	291 ft
29:	Turn right on 3RD	518 ft
30:	Turn left on ARCH	0.2 mi
31:	Turn right on INDEPENDENCE	0.1 mi

Starting in Graduate Hospital (where I live), I want to do a driving tour of the farmers markets around me. I created a map optimizing the route starting in Fitler Square Park and ending at Clark Park's farmer's market. I re-allowed the one-way restriction since I am now driving and will have to follow rules of the road.



● Farmers Markets

0.5

Miles

