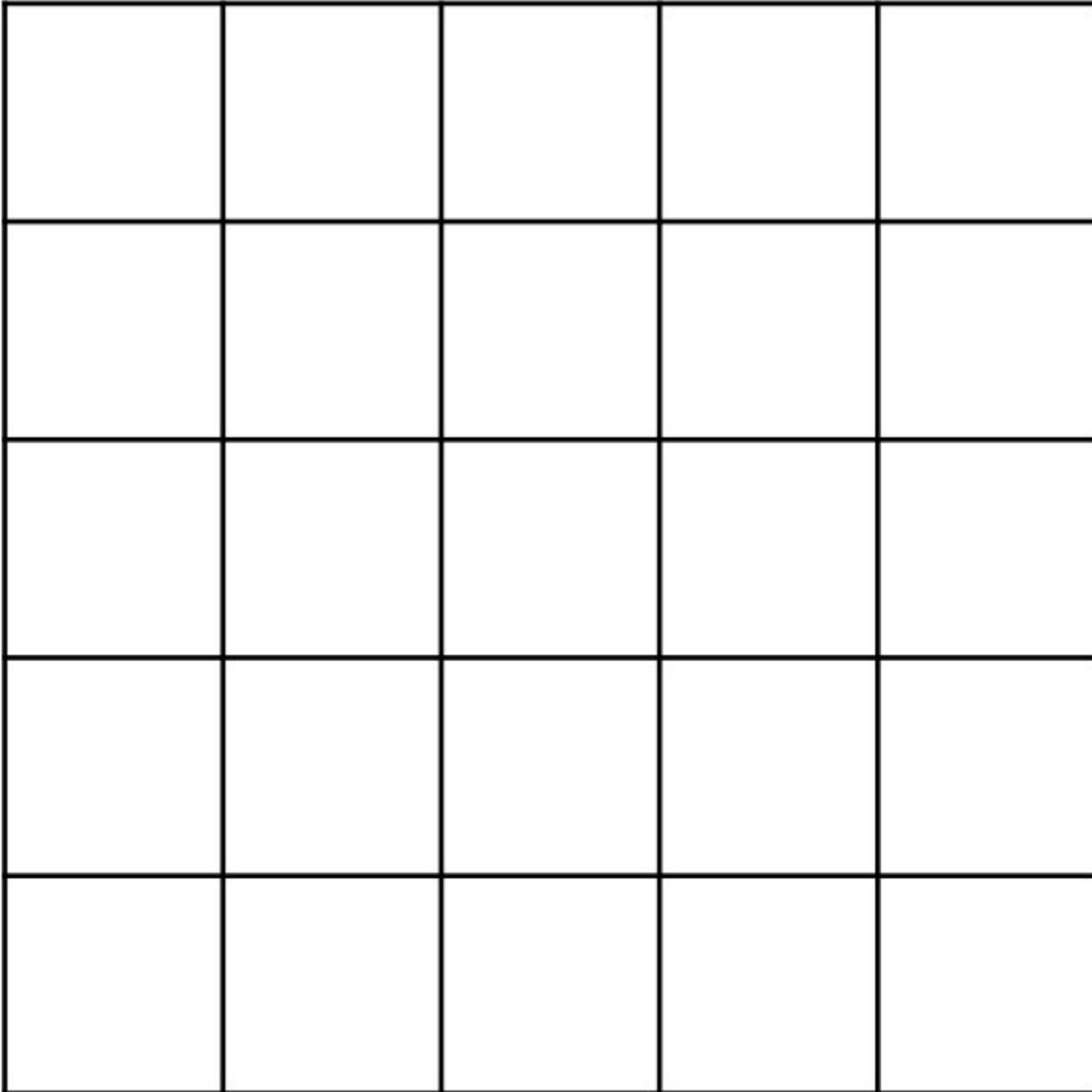


Wide-Area Coverage with Personal Rapid Transit (PRT)

While far-more [scholarly articles](#) have been written about the potential of PRT in metropolitan areas, a simple way of comparing transit systems could help the public and their elected representatives when thinking about how to spend transit dollars.

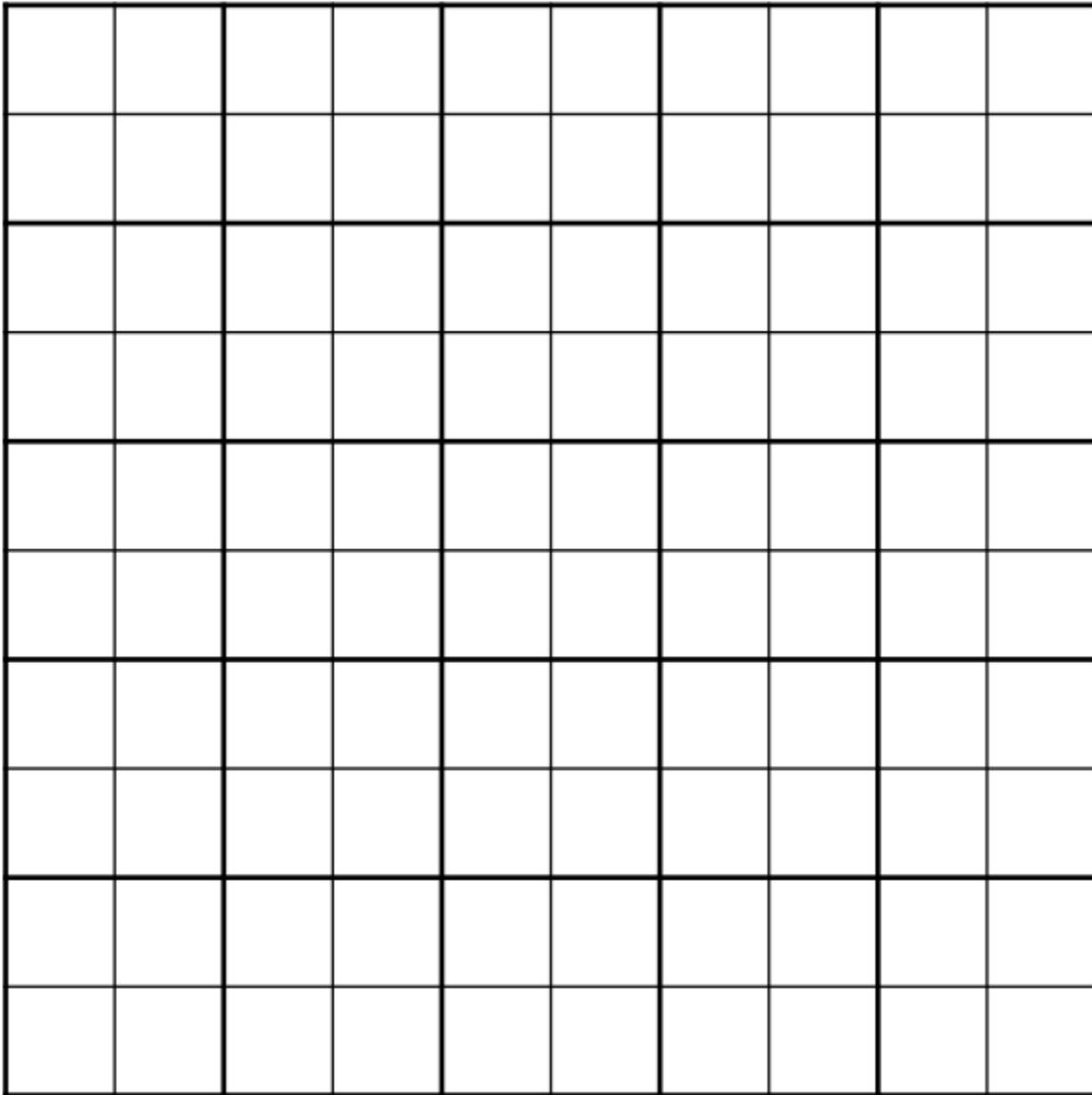
Let's start with a 25 square-mile area – what will service look like, and how much will it cost?

The following lines represent an area 5 miles wide and 5 miles long. This is just one configuration of 25 square miles, and was chosen for simplicity. By building PRT guideway along each black line, we can serve the area with quick 24/7 service. Any resident or business would be $\frac{1}{2}$ mile or less from PRT.



Studies show, however, that transit ridership drops off dramatically when people must walk over $\frac{1}{4}$ mile. So, ...

... let's add more lines that divide the area into ½-mile squares. Doing so will put everyone within the 1/3-mile range that transportation studies recommend, and would look like this:



A rule of thumb for PRT systems is that 8 stations generally serve a square mile well. So, think of each square above as containing 2 small neighborhood stations – or 200 stations total. While such service may be appealing, what will it cost?

One can easily count that the figure has 11 vertical lines and 11 horizontal lines. Since each line represents 5 miles of guideway, we need 110 miles of guideway to serve the area (22 lines x 5 miles/line). At \$15M/mile for a PRT system, that 110 miles of guideway will cost \$1650M (or \$1.65B).

To make sense of \$1.65B, let's compare it with the BART underground extension (BART Burrow) that will provide 4 stations along a 6-mile corridor for \$7B (\$7000M). One way of looking at a 25 square-mile PRT service area is to say it could be built for 1/4th the cost of the BART Burrow. Another way is to say that residents in 100 square miles of the valley could get smart transit that is quicker, safer, and easier than their own car for the same price as the BART Burrow.

Learn more at **MilpitasPRT.com**, and from this [3-minute video \(bit.ly/3eWgd6q\)](http://bit.ly/3eWgd6q) introduction to PRT.