



Transit X, LLC offers a preliminary proposal for

## **Berkshires, MA**

For a privately-funded shared mobility service that is

**High capacity • Automated • Wait-free**  
**Solar powered • Final destination • Resilient**

26-page companion Transit X Handbook available at [transitx.com/transitxhandbook.pdf](http://transitx.com/transitxhandbook.pdf)





# Economics for Berkshires, MA

Inputs are underlined.

Size of region	<u>2,401</u> km <sup>2</sup>	926.3 sq miles
Number of people in region (residents + visitors)	<u>126,715</u>	
<b>Travel distance per year by all people (residents and visitors)</b>	<b>1,837,367,500</b> km	<b>1,141,222,050</b> mi
Percentage of all travel that occurs within the region	<u>80%</u>	
Road coverage (percent of area conveniently served by paved roads)	<u>8%</u>	
<b>Service area size</b>	<b>192.08</b> km <sup>2</sup>	<b>74.1</b> sq miles
Coverage (percent of people convenient to Transit X)	<u>41%</u>	
Estimate #1 for network length based on desired coverage	<u>96</u> km	<u>59.9</u> miles
Length of paved roads (non-highway) in region	<u>480</u> km	<u>298.3</u> miles
Estimate #2 for network length based on paved roadways	<u>98</u> km	<u>61.1</u> miles
<b>Transit X network length</b>	<b>98</b> km	<b>61.1</b> miles
Total fixed costs for Transit X	\$228,875,325	
...per person	\$1,806	
Mode share of travel on Transit X	35%	
Distance traveled on Transit X, per year	512,258,059 km	318,172,707 mi
...per day	1,403,447 km	871,706 mi
Daily number of people riding Transit X	44,160	
Distance per Transit X customer per day	32 km	19.7 mi
Average trip distance	11 km	6.6 miles
Cost for an average trip (at \$0.28 per km)	\$2.98	
Distance traveled during peak hour	140,345 km	87,171 mi
<b>Number of pods needed to meet peak demand</b>	<b>1,218</b> pods	
Pod shed parking volume	44 standard 53' trailers	
Cost of pods	\$6,090,000	
Cost of pods per person	\$48	
<b>Yearly payment to municipality for RoW</b>	<b>\$7,203,629</b>	
<b>System Economics</b>		
Total system cost	\$234,965,325	
OPEX (O&M) per year	\$16,447,573	
Equity	\$117,482,663	
Financed	\$117,482,663	
Revenue from fares	\$144,072,579	
EBITA (Profit)	\$127,625,006	
Debt service	\$15,272,746	
OPEX + Debt service	\$31,720,319	
Net income	\$112,352,260	
Operating Margin	89%	
One-time project costs (per person)	<b>\$1,854</b>	
Operating costs (per passenger-mile)	<b>\$0.10</b>	
Equivalent number of cars taken off the road	<b>35,328</b> motor vehicles	
Yearly cost of cars removed (per person)	<b>\$2,509</b>	
Breakeven revenue distance per day	308,995 km	191,923 mi
Breakeven (people riding daily)	<b>9,723</b> people	
<b>IRR (Internal rate of return)</b>	<b>47%</b>	
Payback period (profits pays back equity)	<b>11</b> months	
Network capacity (number of pods)	2,935 pods	
Peak demand as % of maximum track capacity	<b>42%</b>	
<b>Externalities (estimated)</b>		
Reduction in CO2 emissions	<b>60,702,580</b> kg CO <sub>2</sub>	
Public cost for maintaining roadways per year	<b>\$24,490,200</b>	
Reduced waste products per year	<b>3,312,013</b> kg	
Travel time saved (hours per person per year)	564	
Cost savings per household per year over personal car ownership	\$3,930	
Increase in household income from time saving and car costs	<b>27%</b>	
Reported injuries avoided per year	<b>318</b>	
Lives saved per year	<b>3</b>	
Land value from reduced parking	TBD	
Health care cost savings from lower pollution	TBD	
Change in local temperature heat island (degrees C)	TBD °C	