

Concord's School Bus Transportation System

Mark Hanson, April 2013

Our in-house school bus department is superior to outsourcing and should be sustained. For fiscal and environmental reasons, we need a place for a bus depot in Concord. Our current experience with parking our buses in Acton reveals the high cost and significant environmental impact of not providing parking close to our high school.

We are fortunate to have enough data to allow us to compare our in-house system to outsourcing, and to compare the cost and environmental benefits of a transportation department close to the high school versus having the buses parked in Acton and maintained in Billerica.

Why is an in-house system superior to a contracted system? 1) For our students it provides a safer, friendlier, cleaner service. Concord's ridership is 10% higher than surrounding towns that contract. 2) For our taxpayers it does this at a cost as much as \$238,000 below the lowest bid received last spring from three contractors (first bids are generally lower than costs of future contracts).

Why do more students take our buses? It's because of the trust parents have in the system. Our buses are reliable and cleaner. For example, comparing three years of state inspection records for our in-house busing to Sudbury's contracted service shows our buses have 1/5th the number of minor defects and 1/8th the number of serious defects.

Since buses are the safest way to transport students, increasing ridership increases safety. The National Highway Traffic Safety Administration monitors the cause of student fatalities during normal school travel hours. The results are: teenage drivers 58%, adult drivers 23%, walking and cycling 18%, and buses 1%.

Another reason is our drivers. Driver pay rates for our town and contractors are similar, but benefits aren't. Our town provides better health insurance. Our town provides modest retirement benefits; contractors don't. Our town provides limited sick pay; contractors don't. Overall, our in-house service treats drivers with greater respect, and the result is lower turnover, a better environment for children and greater community loyalty.

Although some think outsourcing busing would save money, this is not true. Our costs are lower because we don't have to make a profit and we don't have the extra administrative overhead that comes with contracting out a public service. Our analysis, based on the most recent figures from the administration, shows that our in-house operation is as much as \$238,000 less expensive per year than outsourcing. Our annual cost in-house included all transportation department personnel, bus replacement, and all materials and fuel consumed by the fleet. Our annual cost for outsourcing included the lowest bid cost, the

cost of transportation services that were not covered by the bid, and the cost of school department staff to monitor the contract and perform route planning.

Starting with our bus schedules, routes analysis shows parking buses as close as possible to CCHS reduces miles, driver time, environmental impacts and cost. Conversely, moving the bus parking to Acton and maintenance to Billerica adds 106,697 miles and increases costs \$440,000 per school year. Four findings of our analysis:

1. Comparing driver time sheets before and after the move to Acton shows annual labor costs may increase \$175,000.
2. Analyzing bus repairs due to mileage predicts repair costs will increase \$50,000.
3. The extra 106,697 miles will require 17,783 gallons of fuel producing in 397,983 pounds of CO₂.
4. The additional fuel will cost \$63,840.

If we want to contain these costs and environmental impacts, we need to provide bus parking in Concord.

While we operated from the high school, in-house operations saved us as much as \$238,000 per year and minimized greenhouse gas emissions. Finding a place in Concord for our transportation department would restore those benefits. A bus depot can be a good neighbor. An earth berm can screen sound and sight. A terminal is generally quiet on weekends and during the summer.

The benefits of maintaining and operating our own terminal for Concord taxpayers, our school children, and our environment are substantial. If you are interested in keeping our busing, attend Town Meeting. Town Meeting Article 13 goes halfway: it commits us to building a terminal, but does not commit to keeping it in-house. Article 14 proposes returning the terminal and operations to CCHS property, but is non-binding.

Here's some background on the author:

Mark Hanson is a retired mechanical engineer with interests in energy conservation, regional economics and transportation. He worked for Bolt, Beranek and Newman, Arthur D. Little and MIT Lincoln Laboratory studying transportation operations, traffic control and traffic safety for the FAA, the AAR, and the Central Artery project.