Citizen School Transportation Committee

*presentation to the*

Concord Public and Concord-Carlisle Regional School Committees

October 23, 2012

Full report available at
www.concordma.gov/pages/ConcordMA_BComm/CitizenTrans
We wish to acknowledge the contributions of Committee member Ray Bruttomesso. Ray was called to active duty as a military supply officer to be stationed in Kabul, Afghanistan, for the next 9 months.
CTC Charge

To search diligently for ways to maintain the existing bus transportation department.
What do we mean by “Transportation Department?”

- People
- Facilities
- Location
- Service
Transportation Department

The People

Bus drivers
Mechanics
Managers
Support Staff

All are employees of the schools
Transportation Department

Location & Facilities

- Approximately 2 acres on the high school property
- Parking for buses and drivers
- 60 x 65 three bay maintenance building
- 24 x 60 modular office building includes:
  - day room/training room
  - 2 offices
  - reception area
  - bathrooms
Transportation Department

Location & Facilities

• 5000 gallon fuel tank and pumping station

• Safety fencing and lighting

• Additional buildings
Transportation Department

The Service They Provide

Daily CPS and CCRSD Routes
- 65 morning routes
- 64 afternoon routes
- 17 noon kindergarten
- 13 private and metco
- 12 late runs

Co-curricular Trips
- over 45,000 miles
- over 5,700 hours

Concord Recreation Department
Areas of Research

- Level of Service
- Safety
- Cost Analysis
- Social Factors and Intangibles
- Potential Sites
Level of Service

Refers to a wide variety of factors that reflect how (and how well) the department meets the needs of the community. It ranges from the distance a student has to walk to reach their bus stop, to the response the community expects when contacting the department, to the level of driver courtesy to other drivers.

It is distinctly not measurable in total, but in many ways it is the thing that best describes the community’s understanding and connection with the department.
Safety Factors

- Bus Inspection
- Accident Rate
- Level of Service
- Driver Training
- Driver Turnover
## Safety Factors

### Bus Inspection Records

<table>
<thead>
<tr>
<th>Type C and D bus inspection</th>
<th>Out of Service %</th>
<th>Failed %</th>
<th>Defects %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>1%</td>
<td>13%</td>
<td>22%</td>
</tr>
<tr>
<td>First Student Fitchburg</td>
<td>8%</td>
<td>51%</td>
<td>111%</td>
</tr>
<tr>
<td>First Student Sudbury</td>
<td>5%</td>
<td>61%</td>
<td>101%</td>
</tr>
</tbody>
</table>
## Safety Factors

### Bus Accident Rate

**Massachusetts Registry of Motor Vehicles Records of School Bus Accidents**

2002-2010

<table>
<thead>
<tr>
<th>Towns</th>
<th>Percentage attributed to school bus driver</th>
<th>All bus accidents</th>
<th>Count attributed to bus driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concord</td>
<td>31%</td>
<td>39</td>
<td>12</td>
</tr>
<tr>
<td>Acton</td>
<td>25%</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Carlisle</td>
<td>50%</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Sudbury</td>
<td>21%</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>Bedford</td>
<td>56%</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Lincoln</td>
<td>43%</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Lexington</td>
<td>47%</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>State Total</td>
<td>21%</td>
<td>4519</td>
<td>943</td>
</tr>
</tbody>
</table>
Safety Factors
Total Accident Count Variations

Total School Bus Accidents by Town by Year

- Concord
- Acton
- Carlisle
- Sudbury
- Bedford
- Lincoln
- Lexington

Accidents per year

2002 2003 2004 2005 2006 2007 2008 2009 2010
## Safety Factors

### Routes and Stops

<table>
<thead>
<tr>
<th>District</th>
<th>Enrollment</th>
<th>Routes</th>
<th>Stops</th>
<th>Average students/stop</th>
<th>Average stops per route</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCHS</td>
<td>1209</td>
<td>43</td>
<td>600</td>
<td>2.02</td>
<td>13.95</td>
</tr>
<tr>
<td>LSRHS</td>
<td>1601</td>
<td>34</td>
<td>563</td>
<td>2.84</td>
<td>16.56</td>
</tr>
<tr>
<td>Concord K-8</td>
<td>1991</td>
<td>95</td>
<td>1595</td>
<td>1.25</td>
<td>16.79</td>
</tr>
<tr>
<td>Sudbury K -8</td>
<td>3102</td>
<td>59</td>
<td>1332</td>
<td>2.33</td>
<td>22.58</td>
</tr>
<tr>
<td>Lincoln K-8</td>
<td>1149</td>
<td>7</td>
<td>133</td>
<td>8.64</td>
<td>19.00</td>
</tr>
</tbody>
</table>
Cost Analysis

Data derived from Administration’s Transportation Memo of May 3, 2012

- Benefit cost estimate of $279,219 in 2013
- Bus replacement of 24 buses in 2014-2016
  - at a cost of $2,280,000
- Replacement of transportation facility
  - worst case estimate of $2,000,000 (inc $800k land acquisition cost)
- Invitation for Bids were for 3 years
- Overall cost projection was for 3 years
Cost Analysis

Benefits

- $279,219 estimate by Administration
- $180,323 estimate per Tony Logalbo, noting that some staff are already vested
- Includes cost for 30 of the 36 drivers carried by the Town of Concord and not in school budgets
Cost Analysis

Bus Replacement

- Current fleet consists of 36 buses with model years between 2000 and 2012
- Based on useful life: *
  - 3 buses will be needed by 2015
  - An appropriate bus replacement schedule of 2 per year
- Research shows bus replacement cost after initial outsource contract period is charged back to district

Cost Analysis

Site Options

- **Option 1:** Keep entire transportation facility on CCHS property, as is. No additional cost.

- **Option 2:** Keep buildings and move the bus parking to another school or town site. Minimal additional cost estimated at $200k.

- **Option 3:** Rebuild everything at another school or town site. Additional cost estimate of $1.2m.
Cost Factors

Projected Costs for Following Charts

In-house
- Operating cost ~$1.8m inflated 3% per year
- Personnel benefits added as 12.5% of salary
- Replacement buses, 3 in 2015, 2 per year after
- Capital costs of $1.2m included as 10 year debt service

Outsource
- Based on April’s lowest bid response of $2.4-2.6m
- Increased 4.73% per year over 3% inflation after initial contract ends
- Replacement buses added starting in 2015
- Sale of buses spread over 10 years
- Maintenance of additional vehicles added at $30k/year with 3% inflation per year
Increase in Contracted Estimate after initial 3-year contract is based on March 2012 Keystone Research Center report on Cost of School Student Transportation Services in Pennsylvania, and earlier studies from Oregon and Ohio. Both options include bus replacement, and exclude transition costs incurred due to construction of the new High School.
10 Year Cost Comparison

- **Expected Contract Cost**
- **Projected In-House Cost**
- **In-House with $2M Trans. Facility**
- **In-House with $200K Trans. Facility**

<table>
<thead>
<tr>
<th>Year</th>
<th>Expected Cost</th>
<th>Projected In-House Cost</th>
<th>In-House with $2M Trans. Facility</th>
<th>In-House with $200K Trans. Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>2014</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>2015</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>2016</td>
<td>$2,500,000</td>
<td>$2,500,000</td>
<td>$2,500,000</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>2017</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
<td>$3,000,000</td>
</tr>
<tr>
<td>2018</td>
<td>$3,500,000</td>
<td>$3,500,000</td>
<td>$3,500,000</td>
<td>$3,500,000</td>
</tr>
<tr>
<td>2019</td>
<td>$4,000,000</td>
<td>$4,000,000</td>
<td>$4,000,000</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recommendations

1. Commit to keeping school transportation in-house for a minimum of five years.

2. Keep transportation in its current location.

3. Maintain the current level of service.

4. Encourage bus ridership.
Recommendations

1. Commit to keeping school transportation in-house for a minimum of five years.

- Responsive to the will of the people.
- Reduces the workload on administration by allowing them to make a long term plan – to be proactive not reactive.
- Allows for in-house cost control and allocation of resources.
- Assures a stable transportation system during new school construction.
- Protects the community’s investment in a new depot.
- Opens the opportunity to work collaboratively with the town.
Recommendations

2. Keep transportation in its current location.

- Central and on school property
- Fully equipped site
- Minimizes travel time and fuel
- Buses are readily available in case of emergency

Recognizing that the SC voted against this option last spring, we recommend keeping transportation as proximate to the current location as possible and consider the town-owned landfill site the next best option.
3. **Maintain the current level of service.**

- The existing department is integrated into the school community as well as into the town at large.
- Provides the highest level of safety.
- Drivers, mechanics and staff have a vested interest in keeping the buses in good working order.
- Allows the most flexibility for change.
Recommendations

4. Encourage bus ridership.

The safest way for students to get to and from school is on a school bus.

http://www.nhtsa.gov/School-Buses
Citizen School Transportation Committee

Thank you.

In memory of Gary Garafola