



OFFICE OF COMMUNITY DEVELOPMENT

MEMO

MEMO TO: Board of Selectmen
Thomas G. Younger, Town Administrator

FROM: Glenn R. Clancy, P.E. *[Signature]*

SUBJECT: Pavement Management Discussion

DATE: November 21, 2005

As you are aware, the Town has made every effort to fund pavement management at a level of \$1.2 million annually for the last several years. This funding level was expected to result in an improved condition of Belmont's roadways for several years into the future. Unfortunately, rising construction costs, a desire to provide new sidewalks and granite curbing, and the need to fund engineering services and police details, all from the same source of funds, has resulted in a net funding level that is not nearly adequate to keep pace with the deteriorating roadways in Belmont.

In early 2002, the pavement management computer application was programmed to include an estimated cost of \$28.00 per square yard for road reconstruction. Upon completion of the most recent road improvement contract, I determined that the actual cost was \$52.00 per square yard. The difference in cost can be attributed mostly to the increasing cost of materials, the need to repair private property, and the cost to implement traffic calming measures which include drainage upgrades and additional quantities of asphalt, granite curbing and concrete. Current estimates I have reviewed indicate that the cost of road reconstruction is now approximately \$83 per square yard.

I have attached a copy of a brief Power Point presentation I will be giving Monday night, November 28, 2005. As you can see, I am projecting the need for 3.0 million annually to effectively continue the Pavement Management Program. I have presented this request to the Capitol Budget Committee for their consideration.

I look forward to discussing this Monday evening.

Pavement Management 2005

Past vs. Present – Budget Analysis

Actual Allocation

1997

1.2 Million Dollars – Annual Funding

- 1.0 Million Dollars for Roadway

2005

1.2 Million Dollars – Annual Funding

- 0.5 Million Dollars for Roadway

This slide shows the actual amount of money spent on the roadway (the actual driving surface). The next slide explains why there is less money spent on the roadway in 2005 as opposed to 1997.

Pavement Management 2005

Past vs. Present – Budget Analysis

Cost Breakdown

1997

1.2 Million Dollars – Breakdown

- Roadway Repair
- Engineering Costs
- Police Details

2005

1.2 Million Dollars – Breakdown

- Roadway Repair
- Sidewalk and Curbing
- Engineering Costs
- Police Details

In 1997 most of the money was spent on the roadway only. This meant engineering costs were lower because we were only paying to design new pavement. Police details were also lower because much of the work was on smaller, neighborhood roads that did not require a large police presence. The result was that most of the funding went to the roadway.

In 2005 less than half of the money is spent on the roadway. Engineering costs now include pavement design, right-of-way sketches used to determine item quantities. These sketches are also used to help design traffic calming locations and drainage improvements. Sidewalk construction is now included which also means restoration of private property is required. Police details are more expensive because most of the work occurs on major roads with heavy traffic volumes. The result is that less than half of the funding is spent on the roadway.

Pavement Management 2005

Past vs. Present – Budget Analysis

Summary

Less money is being spent on actual roadway repair than was originally expected resulting in fewer miles of roadway repaired per year.

Summary of points made in the previous slide.

Pavement Management 2005

Future Budget Needs

Estimated vs. Actual Project Costs

2002 Contract

Estimated Cost = \$28/sy

2004 Budget Projection

Estimated Cost = \$38/sy

- 15 Years @ 1.2 Million Dollars Annually to complete Collectors and Arterials

2002 Final Contract Cost

Actual Cost = \$52/sy

2006 Contract

Estimated Cost = \$83/sy

- 26 Years @ 1.2 Million Dollars Annually to complete Collectors and Arterials

This slide shows the different costs per square yard based on estimated and actually figures. Costs have increased because the work includes traffic calming, drainage improvements, and restoration to private property.

Pavement Management 2005

Future Projection – Budget Needs

Adjusted Cost to Complete Arterials and Collectors

2006 Program Start

13 - 15 Years @ 2.0 Million Dollars Annually

This slide shows how much would have to be spent annually on the actual road (roadway, curbing, sidewalks, etc) to complete the major roads in 15 years

Pavement Management 2005

Future Projection – Budget Needs

Adjusted Cost Breakdown

\$2.0 M - Construction (Roadway, Sidewalks and Curbing)

\$0.4 M - Incidentals (Engineering, Police Details)

\$2.4 M – Total Required Amount

This slide shows the actual amount of money needed to cover the cost of engineering, police details, and road repair.

Pavement Management 2005

Future Projection – Budget Needs

Summary

\$2.4 Million Dollars annually will be required to maintain roads at a pace that will complete the Arterials and Collectors in 13 – 15 Years.

Additional funding will be required to perform routine maintenance and other roadway repairs. These additional funds would bring the total annual budget to approximately **\$3.0 Million Dollars.**

This slide explains the need for \$3.0 million annually in order to maintain roads that have been recently reconstructed and to continue reconstructing the remaining major roads.