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City Street Budgets
Cost Comparison Analysis

Prepared for:

Ace Solid Waste, Inc.

March 2011

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Consulting Engineering
Land Surveying

March 16, 2011

Mike Berkopec, General Manager
Ace Solid Waste, Inc.
6601 McKinley Street NW
Ramsey, MN 55303

Re: City Street Budgets
Cost Comparison Analysis

Dear Mr. Berkopec:

Enclosed is the cost comparison analysis of city street budgets for eight communities within the Minneapolis-St Paul Metro area. Four of the communities, Blaine, Columbia Heights, Robbinsdale, and Stillwater have a government managed waste collection system. Four of the communities, Coon Rapids, Eagan, Fridley, and Maplewood have a free enterprise, market driven system of waste collection.

The information used to complete the cost comparison for each community is included as an Appendix to this document.

If you have any questions on the information presented, please do not hesitate to contact me.

Thank you!

Sincerely,

MOORE ENGINEERING, INC.

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I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.

Michael P. Foertsch

Date 3/25/11 Reg. No. 18139

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Introduction:

Is there a difference in a local residential street's life cycle costs if a community has a government managed trash hauling system or a market driven system?

This report reviews the details of the general fund street budgets of eight (8) Minneapolis/St. Paul (MSP) metro-area communities. Four (4) of the communities listed below have a government managed system and four (4) communities currently have a market driven system of trash hauling. Although, communities vary greatly in their approach to managing budgets and the items included in street department budgets, this analysis should give stakeholders a starting point to determine if reducing the number of garbage truck trips will have a favorable impact on City budgets. The common denominator in all cases is that street maintenance and repair is a part of the general fund operating budget of the city. The information presented below has been reviewed for consistency between each of the communities' respective budgets and is based on the "available" public information on their respective websites.

Analysis:

	City Budget	Street Budget	Street Miles	Cost per Mile
Gov't Managed				
Blaine	$23.695M	$1.340M	244	$5,500
Columbia Heights	$8.752M	$0.802M	60	$13,300
Robbinsdale	$7.956M	$0.893M	49	$18,000
Stillwater	$10.466M	$1.391M	90	$15,500
Market Driven				
Coon Rapids	$24.598M	$1.784M	225	$7,900
Eagan	$27.537M	$2.144M	237	$9,000
Fridley	$14.127M	$1.190M	115	$10,300
Maplewood	$18.046M	$0.787M	125	$6,300

Conclusion:

Generally, it appears there is not a definitive correlation between the type of garbage collection system and the cost per mile to maintain streets.

The above table represents a point in time in the community's life cycle. City budgets change as priorities within the city change. It is not uncommon for a community to temporarily suspend a street maintenance activity or a sealcoat program, for example, to fund a higher priority budget item.

Based on my experience the following factors have the most impact on City road budgets:

1) Environmental impacts.
   Freeze-thaw cycles and the presence of water below the bituminous surfacing of the roadway have a significant impact on a roadway's load bearing capacity and life expectancy. A community's policies and maintenance practices for preventing the introduction of water into the pavement section directly impact a pavement's life expectancy.

2) Historical design standards.
   The communities with the higher cost per mile are mature, first ring suburbs and a mature community, just on the outside of the immediate MSP metro-area. More mature communities are generally older first ring suburbs versus less mature outer ring suburbs. The higher cost per mile may be in part due to the existing design standards when the streets were originally designed and built. An increased awareness of the benefit of residential street design and construction standards has naturally evolved over the past 20-30 years. An increased focus on pavement research into pavement life expectancies and the development of "new technologies" in pavement maintenance and design have resulted in longer lasting pavements.
3) Maintenance Practices.
   Blaine's cost per mile is lower than the others in part because there was no evidence in the information that Blaine currently has a seal coat program? The remaining communities have identified a program and a cost for seal coating their streets on a regular cycle. Some included the seal coat cost in their general operating budget, some did not. Where seal coat information was identified as a capital improvement cost versus an operating cost, it was added to the operating budget for comparison purposes.
4) Sub-grade Material.
   A drained, granular sub-grade provides a more stable foundation on which to build a roadway, whereas, a more non-granular sub-grade is less stable, requiring a thicker pavement cross-section. A brief review of the "standard" detail design standards for the residential streets within the communities in this study shows they generally identify the same cross-section thickness of the pavement section. This means, they are mostly "assuming" a similar sub-grade material below their street pavement section. The instability of the subgrade is a major factor in pavement failure.

A focus on the factors above will provide a lower maintenance cost per mile for most cities. Although a reduction in vehicle traffic will always have an incremental benefit on any street, converting this to hard dollar savings will be difficult for any City given factors outlined above. The inconsistent application of roadway design standards and maintenance operations which vary from community to community make cost comparisons extremely complicated.