2009 PAVEMENT MAINTENANCE PROGRAMS

FOR THE

CITY OF PEPPER PIKE, OHIO

MARCH, 2009

PREPARED BY**:**

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The proposed 2009 Pavement Maintenance Programs for the City of Pepper Pike are as follows:

CRACK SEALING

Ainsworth Drive
Belcourt Road
Bremerton Road
Brookwood Drive
Butternut Lane
Cedar Road – Lander Road to S.O.M. Center Road
Creekside Drive
Edgedale Road
Edgewood Drive
Emerson Drive
Forest Drive
Fox Hollow Drive
Glenbrooke Chase
Kersdale Road – Gates Mills Boulevard south to cul-de-sac
Lombardy Lane
Louis Drive
New Brainard Road – South Corp Line to Shaker Boulevard
Northwood Drive
Oak Knoll Drive
Park Drive
Trillium Trail

Total **$50,160.00**

ASPHALT REJUVENATION

Old Brainard Road – 400' north & south of South Woodland $2,160.00

Total **$2,160.00**

MISCELLANEOUS ASPHALT REPAIRS / SPOT REPAIRS AT VARIOUS LOCATIONS

Cedar Road – Lander Road to S.O.M. Center Road
Chagrin Boulevard – east of Lander Road
Gates Mills Boulevard – Brainard Road to Cedar Road
Landerwood Drive
East Landerwood Drive
West Landerwood Drive
Pepper Ridge Road

Shaker Boulevard
South Woodland Road – Pinetree Road to S.O.M. Center Road

Total **$142,000.00**

ASPHALT REPAIRS AND CHIP SEAL

This process is one that the City has previously used on Louis Drive. In recent years, this process has been reformulated with new "tar" products that do not track, and better controls on the aggregate that reduces the amount of loose stones, making the product more acceptable for residential applications. If this product performs as expected, we may be able to use it in various applications to extend the life of our asphalt pavements on some of our lower traffic streets. I am recommending that we perform this application on Chatham Road and Brewster Avenue as a test section to observe the performance before we use the product on other residential streets.

Chatham Road	$16,000.00
Brewster Avenue	$6,000.00

Total **$22,000.00**

WINDY HILL CUL-DE-SAC

As the sewer work is being completed on Windy Hill, it is now time to move forward with the cul-de-sac installation. It would be beneficial to bid this work as part of one of the road programs, as it will save on mobilization, bonding and other construction costs for the low bidder, and reduce our cost of construction.

Cul-de-sac installation total…… **$80,000.00**

TOTAL RECONSTRUCTION

Pepper Pike has a number of streets that have a concrete base with an asphalt overlay. This process was used frequently in the mid-eighties through the mid-nineties as a method of maintaining a smooth driving surface of asphalt over the existing concrete base street. To maintain the curb reveal, the existing concrete street was milled along the gutter line so when the asphalt was placed on top, the curb would remain in place. One of the problems with this process is that the concrete is covered with approximately three inches of asphalt, but water still penetrates through and creates cracking during freeze-thaw cycles. Over time, the concrete deteriorates

underneath the asphalt, and eventually the asphalt suffers from cracks reflecting through from the concrete below.

The concrete streets with these overlays were built in the 1960's and 1970's and many are approaching the end of their design life. My recommendation is to gradually replace these streets based on condition over the next ten to fifteen years. One of the streets in the poorest condition is Brandywood Drive. The price provided is the estimate for a complete replacement of the street with a new street. I would also recommend bidding the project as either a new concrete street or a new asphalt street with concrete curbs. This gives the most competitive pricing.

Brandywood Drive **$358.000.00**

IN-PLACE RECYCLE

This process is the same one we used on Belgrave in 2007 with excellent results. We recycle the top six inches of pavement and add approximately two inches of new pavement on top. It reduces hauling costs and will eliminate the numerous pavement flaws that exist in this location.

Kersdale Road – Brainard Road to Gates Mills Boulevard **$140,800.00**

CONCRETE REPAIR, CURB REPAIR AND RELATED ITEMS

Brainard Road – Fairmount Boulevard to Cedar Road	$30,000.00
Cedarwood Road	$65,000.00

Total **$95,000.00**

CONCRETE SEAL

Snowberry Lane. **$20,000.00**

LANDER & SOUTH WOODLAND INTERSECTION IMPROVEMENTS

The purpose of this work is to install islands and yield signs for right turns at the intersection, improving the capacity and function of the intersection without signalization or a radical departure from how it currently functions.

Intersection improvements…….. **$40,000.00**

SUMMARY

CRACK SEALING	$50,160.00
ASPHALT REJUVENATION	$2,160.00
ASPHALT REPAIRS	$142,000.00
ASPHALT REPAIRS & CHIP SEAL	$22,000.00
WINDY HILL CUL-DE-SAC	$80,000.00
TOTAL RECONSTRUCTION	$358,000.00
IN-PLACE RECYCLE	$140,800.00
CONCRETE REPAIRS	$95,000.00
CONCRETE SEAL	$20,000.00
LANDER &SOUTH WOODLAND INTERSECTION	$40,000.00
TOTAL ESTIMATED COST	**$950,120.00**

Below is the total 2009 budget for street maintenance and repair. Through the competitive bid process, I believe that we can perform the work as outlined above and still be at or below budget. We also have the option of non-performing portions of work to keep within the approved budget.

$ 375,000.00	Asphalt Resurfacing and Maintenance Program
$ 200,000.00	Concrete Pavement Repair Program
$ 150,000.00	Street Replacement (existing concrete streets)
$ 100,000.00	Crack Seal
$ 80,000.00	Windy Hill Cul-de-sac
$ 905,000.00	