

PAVEMENT MANAGEMENT



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Municipalities, no matter what the size, are responsible for the maintenance of miles of roadways. The quality and condition of the roadways directly impact the residents. Therefore, maintaining roadways can be a major impact on their budget.

Many municipalities will wait until the roadways are in a state of disrepair rather than spend tax dollars to manage the roadways to get the most use out of them. The result is a complete failure of the cartway, which then requires full depth reconstruction. The rate at which a road deteriorates varies, but is greatly increased with age. Without a properly organized road maintenance effort, the condition of the road system will get progressively worse, and the cost of repair will increase drastically.

A recent study by the Federal Department of Transportation estimates that deferring \$1 in highway resurfacing for just two years can require spending \$4 in highway reconstruction costs to repair the damage.

Proper maintenance can extend the lifetime of most pavement types, thereby prolonging the need to perform complete roadway reconstruction. An improperly planned maintenance program can be as expensive as no maintenance program. Remington & Vernick Engineers and its Affiliates promote using a Pavement Management System (PMS) to maintain roadways. This approach identifies the condition of all municipal roadways and describes a number of different processes to extend the cartway life. The processes begin with a simple surface treatment and extend to complete reconstruction.

The two "greener" methods of roadway maintenance -- Microsurfacing and Cold-in-Place Recycling are available through a Remington & Vernick PMS.

Microsurfacing

A surface treatment of microsurfacing applies approximately three-eighths of an inch of stone mixed with a bituminous emulsion to the surface of the road. The emulsion seals the road to prevent premature failure of the existing road and the stone provides a new wearing surface. The process uses far less fossil fuels than a standard overlay and extends the life of the road up to seven years.

Cold-in-Place Recycling

When faced with a need to reconstruct a roadway, we will first evaluate if a cold-in-place recycling process should be considered. This process consists of mixing the existing paving and subbase together and then, injects a bituminous emulsion or cement into the mixture to stabilize it. Cold-in-place recycling replaces a full-depth reconstruction at a fraction of the cost and is used with far less consumption of fossil fuels. *Cold-in-place recycling uses 48% less fuel per lane mile than asphalt.*

The overriding and obvious consideration is a PMS will save your municipality considerable tax dollars. The question, therefore, is not whether you can afford to maintain your road system properly, but can you afford not to? The bottom line is good roads cost money - the total cost for maintaining bad roads far exceeds the cost for well-maintained roads; and when you take into consideration the public safety and economical benefits of good roads, there is no doubt the road system must be maintained properly.



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