

Safe, Low-Cost Road Maintenance – A Contradiction in Terms?

Each year, very small towns in Maine budget very large sums of money to maintain town roads.
Now, there is an alternative.

In 2012, the town of North Yarmouth spent \$650,000 to maintain town roads. This represented nearly 25% of the Town Meeting approved annual budget. 2012 was an exceptional year, as the budget included paving Mill Road, which accounted for \$250,000. In an average year, the town spends approximately \$300,000. All town roads are on a schedule that plans for and budgets for resurfacing, so periodically that amount jumps, as it did in 2012.

Voters at Town Meeting have consistently supported the expenditure of these funds to keep their roads in good repair. This year, the town will trial a new, low cost method of road maintenance, which, it is hoped, will result in significant savings now and in the future.

Chip sealing is an economical pavement maintenance practice that has been used in many American towns, resulting in significant reductions to road maintenance budgets. One mile of chip sealed road surface costs about \$40,000, compared to \$250,000 per mile for traditional asphalt. Depending on traffic, a chip sealed road can be expected to last up to seven years. Chip sealing uses the same ingredients as asphalt paving, but the construction method is different. With chip sealing, a thin film of heated asphalt liquid is sprayed on the road surface, followed by the placement of small aggregates ("chips"). The chips are then compacted to assure maximum adherence to the asphalt, and excess stone is swept from the surface. Chip sealing also eliminates the need for crack sealing.

Last year, Road Foreman Clark Baston and Interim Town Manager Marnie Diffin consulted with officials in Union, who had successfully used low-cost chip sealing in their town. They recommended that North Yarmouth trial this method on both Town Farm and Milliken Roads. These are low traffic roads, ideally suited for the technique. The roads also are excellent test sites that will help the town evaluate chip sealing and it's value for future maintenance of similar town roads.

Starting on Monday, August 12, these two roads will be resurfaced using this new technique.

What can residents of the new roads expect?

At first, the new road will feel quite different. Until the new surface is compacted by the vehicles that travel over it, the "chips" will be somewhat loose and could be dislodged by excessive speed. In Union, townspeople thought the new road was unfinished. They did not realize that it was town traffic that would "finish" the road, actually performing the final compacting needed.

Speed limits will be temporarily reduced to preserve the surface – and the vehicles that travel over it. For the first six weeks, residents will experience greater noise and dust, as well. This is the temporary trade-off for improved safety, as the new surface also increases skid resistance on wet roads.

In the end, however, townspeople will have new, durable, safer roads at a cost savings all taxpayers will love.