

Many Upper Nazareth Township residents will have noticed an increase in road maintenance activities throughout the Township over the last two years. In 2011, the Township engineer's office conducted a comprehensive conditions assessment of the Township's roads. That assessment quantified what many of us were probably already thinking, that our roads need maintenance, and some need reconstruction. The Township engineer's assessment estimated the cost to repair all of the roads to an optimal condition to be about \$14 million dollars. This is a sum we simply cannot afford. Our total annual road budget, including winter maintenance and street lighting, is \$280,000. The electric bill for street lighting is \$53,000, which leaves us with about \$230,000 for road maintenance. In addition to road paving, road maintenance includes drainage, traffic control signs, pavement markings, winter maintenance, and road safety improvements.

Our roads represent an enormous investment. The current cost of a new road or full reconstruction of an existing road is between \$1.2 million and \$1.7 million per road mile using conventional asphalt pavement. The overall condition of the Township's road network was graded a C- by the Township engineer on an A to F grading scale. This means that many of our roads are in danger of accelerated deterioration and some have already begun to.

So, what are we doing? As a result of the Township engineer's findings, the Township developed a multi-year road maintenance program that began in 2012. Because of limited funding, the main purpose of this program is to stabilize the condition of as many road miles as possible to extend their service life while we plan on how to begin closing the enormous funding gap we have. There are two principle ways we can extend the life of our roads – one is a process called “mill and overlay”, the other is the application of a surface treatment.

An overlay involves the placement of a new layer of asphalt pavement, usually about 1.5” thick, over the existing pavement. In areas that have curbing or drainage related issues, the application of an overlay can only be completed after removing the top layer of existing pavement equal to the depth of the new overlay – this is called milling. The cost of mill and overlay is between \$400,000 and \$800,000 a road mile depending on the road condition and other factors.

Surface treatments are the least costly option to extend the life of our roads. Surface treatments are like driveway sealers you might use on your own home, but they are designed to withstand normal traffic loads of a road. There are various surface treatments available, but on average they cost \$85,000 a road mile and represent the best value for extending the useful life of our road pavements as long as the pavement is still structurally sound. The drawback to these surface treatments is that they will never look as good as a newly paved road. Optimally, these surface treatments should be applied every 7 to 10 years BEFORE the road begins to crack. Once a road starts cracking and letting water in, the rate of degradation accelerates. For those living on streets that may appear to be in good condition, this means that the road may not look as good after the surface treatment is applied as it does now. However, we cannot stress enough that this is important preventive maintenance since the cost to neglect this maintenance will lead to the more costly repairs later.

For the near term, the Township will be focusing on application of the low-cost surface treatments to seal as many road miles as possible. We realize some residents will not like these

products for various reasons and some will be just fine with them. The fact is that we have no recourse but to use these products in order to stretch our limited budget as much as we can to preserve our roads. The Township Supervisors welcome any questions and concerns you may have and thank you in advance for your understanding.

A presentation of the Township engineer's 2011 road condition assessment can be found [here](#) **[add hyperlink]**