

Let's Talk About...

RECENT STREET IMPROVEMENTS

Last Tuesday, North Lemmons, North Brown and one block of North Howard all received a facelift courtesy of Granbury Paving.

This work represented **the first fruits of a planning process** begun in February when the City Council conducted a Streets Workshop. Ten Hamilton streets were designated as the highest priority for improvement. In March, the engineering firm KSA gave the City an estimate of the maintenance required for those ten streets. After careful and prolonged consideration, the Council approved a contract with Granbury Paving to Chip Seal two of the ten roads: North Brown from Highway 36 to Whitney, and North Lemmons from West Ross to Alamo. The price tag was \$99,910.50.

Why were Lemmons and Brown chosen from among the ten streets? To understand that requires looking at the life cycle of a street. According to the Federal Highway Administration, during its first 15 years, a street will experience a 40% drop in quality, moving from a rating of Excellent to Fair and using up 75% of its life span. If routine maintenance is not done during these first 15 years, that same street will rapidly move from Fair to Very Poor or Failed in approximately 5 more years.

However, if preventative maintenance is done in time, that street's useful life span can be extended another 10 - 15 years at considerable savings to the city. Studies have shown that every \$1 spent on street maintenance in that first 15 years will eliminate or delay spending \$6 - \$10 on rehabilitation or reconstruction later.

The trick is to catch each street in time. According Hamilton's 2018 Comprehensive Plan, "An ideal maintenance schedule addresses road deterioration as it occurs so that roads never fall below Fair condition. Roads receive annual pothole and crack sealing, a seal coat every 8-10 years, an overlay every 20 years, and reconstruction every 30 years. Seal coat and overlay repairs extend the life of the road and forestall more expensive maintenance. A delayed maintenance schedule only addresses roads that have fallen into Fair or Poor condition. Because of surface and road base deterioration, cheaper maintenance options will only have a temporary effect on roads in Fair to Poor condition."

It's kind of like our teeth. When we have a small cavity, the dentist can drill it out and fill it at a relatively low cost. If we wait, that cavity gets bigger and the tooth may need a crown or a root canal. Let it go long enough and we're looking at extraction and a bridge, denture or implant. The longer we wait, the more it costs.

Unfortunately, the majority of our streets have reached the "implant" stage. They need total reconstruction. To just chip seal over the deteriorated roadbed would be like spray painting the outside of a house with flaking, peeling paint and rotting lumber underneath. While it might look better for a short time, it just won't last.

North Lemmons and North Brown were determined by KSA to still be in the "small cavity" phase. While they were arguably some of our better streets in town, they had myriad small cracks that would allow water to invade the foundation, creating potholes that are both a symptom of and contributor to deterioration. Applying the chip seal to these two streets is expected to delay their complete renovation another 10 to 15 years.

Before applying the chip seal, the potholes and cracks were repaired. A thin layer of liquid asphalt was sprayed onto the street, followed by the application of a layer of specially milled gravel. A weighted roller seated the gravel into the asphalt, and the road was ready to be driven upon.

In order to complete the process begun a few weeks ago during the demonstration of the Asphalt Zipper, the block of North Howard between West Ross and West Henry was also chip sealed.

(Next week we will return to the series of articles about utilities with a discussion of City Water.)