

Lasting Impressions

Enlightened agencies evaluate more than just first costs in roadway selections.

It's an all-too familiar story for all too many of the traveling public. Needing a way to make limited dollars go farther, many state and local agencies turn to substandard designs and materials that cost less to install, but cost more to own in the long run.

The great news is that the best pavement materials used to cost more, but that cost gap has narrowed in recent years.

Asphalt was rarely cheaper than concrete pavement in the long term.

Now, because of the rise of oil prices, the initial cost of an **asphalt pavement is often higher than a much longer-lasting concrete pavement.**

The Pinch

Let's face it—America's roadways are getting more congested and crumbling because there has not been enough funding to expand and maintain the system to meet current demands.

State and local agencies are spending dollars and time just trying to keep up with maintenance and repairs.

And, because of the inflation in the cost of materials (particularly asphalt) many agencies are reporting they're able to do even less repair and maintenance than before.



Good roads like the one pictured above are what most citizens want, because...

“Poor road conditions cost U.S. motorists \$54 billion per year in repairs and operating cost—\$275 per motorist.”

– ASCE Infrastructure Report Card 2005

Simple facts about life-cycle costs

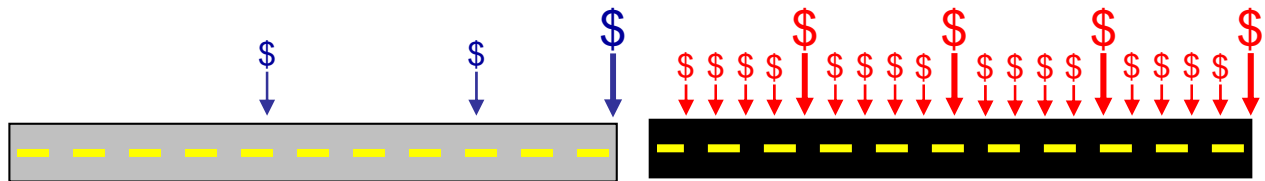
Picture this:

Two roadways are built with 40-year design lives.

- An asphalt road requires maintenance every 2 to 4 years and resurfacing every 8 to 14 years.
- The concrete road requires relatively little maintenance. Depending on usage, it may require some minor rehab every 12 to 16 years, but won't need to be resurfaced for 30, 40, or even 50 years.

What Happens Over Time?:

The ownership costs add up. The average asphalt pavement can cost up to **3 times more** than an equivalent concrete pavement. Rising crude oil prices will make the cost even greater and more unpredictable.



Concrete Pavements – Small arrows indicates rehab at about 12-16 year increments. Large arrow indicates replacement at 30-40 years. Illustration is for example only and is not to scale.

Asphalt Pavements – Small arrows indicates maintenance every 2-4 years. Large arrows indicate resurfacing at 8-14 years. Illustration is for example only and is not to scale.

There is a Better Way

The secret to managing road construction and rehabilitation costs can be found with an economic analysis tool known as life-cycle cost analysis (LCCA). LCCA is useful to compare the true costs of pavement, not just the initial costs, but the ownership costs over the life of different alternatives.

Concrete pavements have historically provided the best value over time, because they require far less maintenance and fewer

repairs than other pavements. Now, with the unpredictable cost of oil, both the initial cost and the cost over time for a concrete roadway are lower than for most any comparable pavement.

Perhaps the roadways you rely on most will be among the many examples of concrete pavements that are still carrying people where they need to be ... for 30, 40, and even 50 years!



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