



CITY OF WASHINGTON, ILLINOIS
Committee of the Whole Agenda Communication

Meeting Date: 11-13-2023

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Agenda Item: Street Maintenance

Discussion: City Council members have requested discussion focused on residential road maintenance policy, residential road development requirements and ongoing maintenance.

Chip Seal/Fog – 5-7 years – \$5.85 per Sq Yd – Preservation

Pros:

- Cheapest;
- Can use MFT funds; and
- Waterproof and protects the pavement surface.

Cons:

- Not a structural repair;
- Messy for a couple months;
- Larger cracking reflects through;
- For good condition and some fair condition roads;
- Significant cracking requires additional work (Hot-In Place recycling for \$5.75/Sq Yd) to get back into a condition for chip and seal; and
- Not well suited for high speeds with high traffic volumes.

Note – If significant cracking exists, Hot In-Place recycling can rejuvenate existing pavement and bring back into the chip seal cycling for \$5.75/Sq Yd)

Pressure Pave – 10-12 years – \$10.85 per Sq Yd – Preservation

Pros:

- Quickest application; and
- Cracking is still waterproofed with membrane.

Cons:

- Cannot use MFT funds;
- Not structural;
- Cracks reflect through; and
- Snow plows chatter.

(1.5”) Mill and Overlay - 15-20 years - \$21.50 per Sq Yd – Rehabilitation

(3”) Mill and Overlay – 15-20 Years - \$38.65 per Sq Yd – Rehabilitation

Pros:

- Best end quality;
- Can use MFT funds; and
- Longest pavement life.

Cons:

- Most impactful to property access;

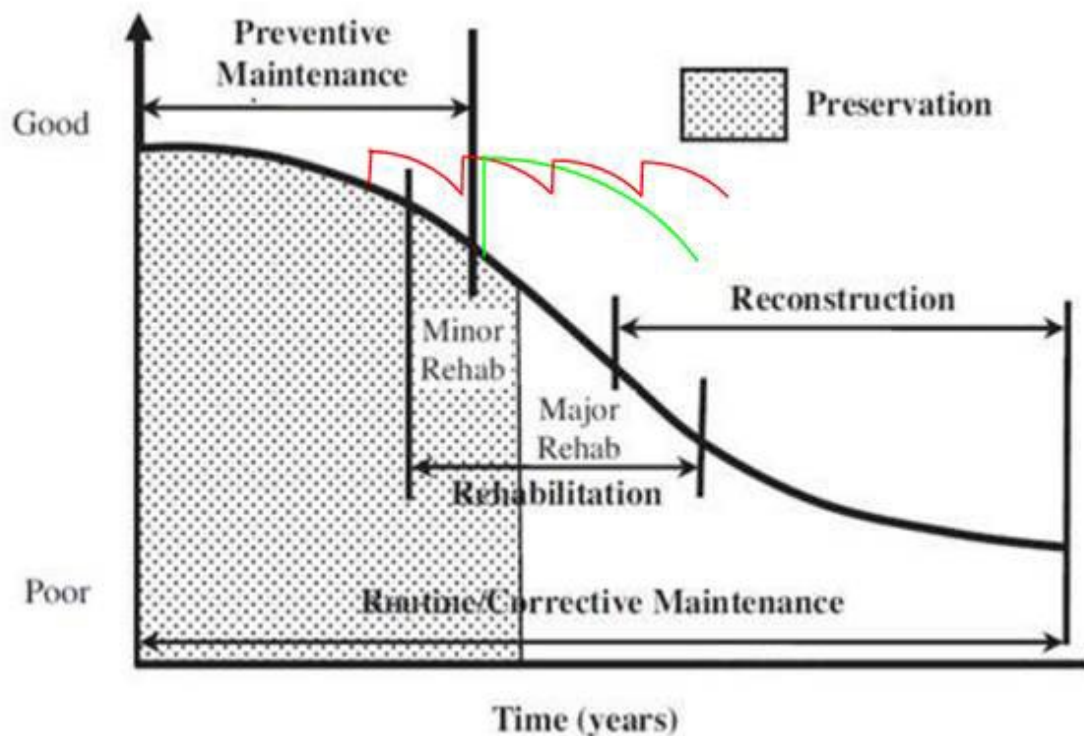
- Most expensive;
- Requires ADA ramp upgrades if MFT used;
- IDOT review of true M&O plans if MFT used; and
- Wastes the most material.

Note – Most of our local residential roads have a pavement around 2” thick. Because of this, we cannot mill 1.5” without the paving trucks destroying the remainder of the pavement and leaving us with only 1.5” of pavement. So, we make sure we give a solid pavement moving forward by milling 3” and paving back 3”. This sets the pavement up for the most reliable future. We were able to mill 1.5” on N. Cummings and Wilmor because their pavements are thick enough. Monroe and Wilshire did not have the same structure so we had to mill and overlay 3”.

Pavement Condition

The image below is a pavement condition curve with pavement maintenance drawn in red and green. The further you allow the condition to slide down the graph, the more expensive the maintenance. The system I have been trying to work with is chip seal/fog in pavement in good to fair condition. This would be similar to the red cycling below. If a pavement goes beyond what we feel the chip seal can protect, the Hot In-Place recycling can bring a pavement back into the red cycling. The green would be similar to a mill & overlay. Pavement Maintenance philosophy is spending a dollar now so you don’t have to spend 3-4 times as much in the future. Spend a dollar on 3-4 roads instead of spending 3-4 dollars on one road.

One small benefit of a routine chip & seal program is that you get to roads more frequently. Many complaints from residents in the pavement world somehow devolve into a “you haven’t done anything to my road ever” type of a discussion. While the Chip Seal is inconvenient, at least we are showing everyone that their roads matters.



Fiscal Impact:

The City has around 1.25 million square yards of pavement.

We currently get roughly \$600,000/yr in MFT from the state.

Yearly Program Cost Estimates

Chip Seal– \$1.0 million a year based on a 7 year program

Pressure Pave – \$1.1 million a year based on a 12 year program

Mill and Overlay 3” – \$2.4 million a year based on a 20 year program – \$1.3 million after 20 years when we can mill and overlay 1.5”.

Spray Patching and cold patching would still need to be done throughout the program to maintain the pavement between applications.