



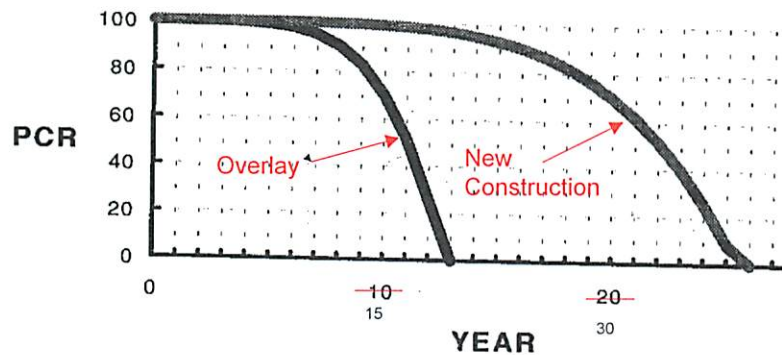
Pavement Preservation Program

February 3, 2015

Roadway Network

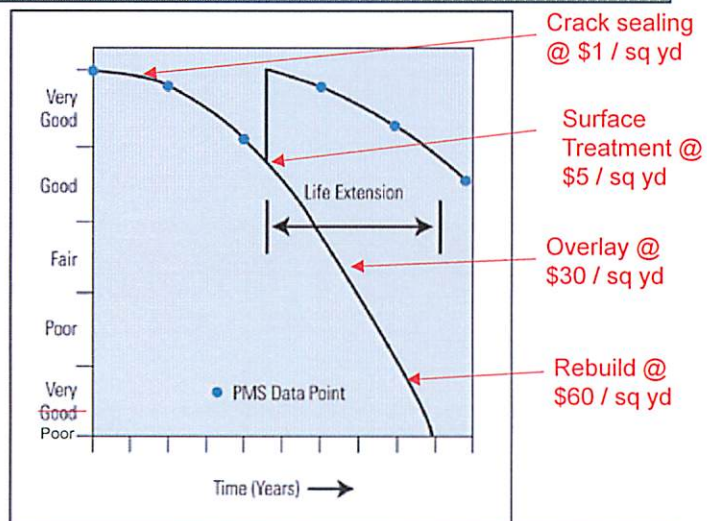
- 106 lane miles in City = 875,000 sq yds
 - 75% is residential, no grant funding programs
 - Does not include SR 527 or SR 96
 - Typical life expectancy of original pavement in Mill Creek is 30 – 40 years
 - Age range for City streets is 10 – 40 years
 - Deterioration rate is not constant
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Pavement Deterioration Curve



- Typical graph of pavement condition over time

Pavement Preservation



“Tools in the Toolbox”

- Preservation treatments to extend life
 - Chip seal and slurry seal
 - Proposed trial of new Bonded Wearing Course
 - Surface coating on structurally sound roads
 - Extend pavement life 7 – 10 years
 - Primarily for lower volume residential streets
 - Usually does not require ADA ramp upgrades
 - \$3 - \$5 per square yard average cost
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“Tools in the Toolbox”

- Structural techniques for road failure
 - Overlay: grind and repave
 - Only option for major collector / arterial roads
 - New roadway should last 20 – 25 years
 - Requires ADA ramp upgrades
 - Can be half the total project cost
 - \$30 per square yard average cost but varies
 - \$56 per sq yd for 164th with Fed \$ and night work
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Life Cycle Costs

- Comparison of same road over 20 years
 - Two preservation treatments - \$10 / sq yd
 - One overlay - \$30 / sq yd
 - If no ADA - \$15 / sq yd
 - Preservation treatment
 - Annual cost range: \$0.40 - \$0.75 / sq yd / yr
 - Structural Overlay
 - Annual cost range: \$1.20 - \$2.50 / sq yd / yr
 - If no ADA: \$0.75 / sq yd / yr
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2015 Work Plan

- Trial of Bonded Wearing Course (BWC)
 - Thin (3/4") top coat, applied like a chip seal
 - Silver Crest / Silver Glen neighborhoods
 - No ADA upgrades in this area
 - Multi-agency partnering with SnoCo
 - Expected cost is \$10 / square yard
 - Life expectancy 15 – 20 years?
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Bonded Wearing Course



Bonded Wearing Course



2015 Work Plan

- Trial of smaller ¼" chip seal material
 - 23rd Avenue SE cul-de-sacs
 - Wexford Court subdivision
 - Use SnoCo maintenance crews
 - Citywide patching and crack sealing
 - Landscape median reconstruction
 - Consultant design work for 2016 overlay
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Questions?
