



PAVEMENT MANAGEMENT UPDATE
MAY 20, 2009

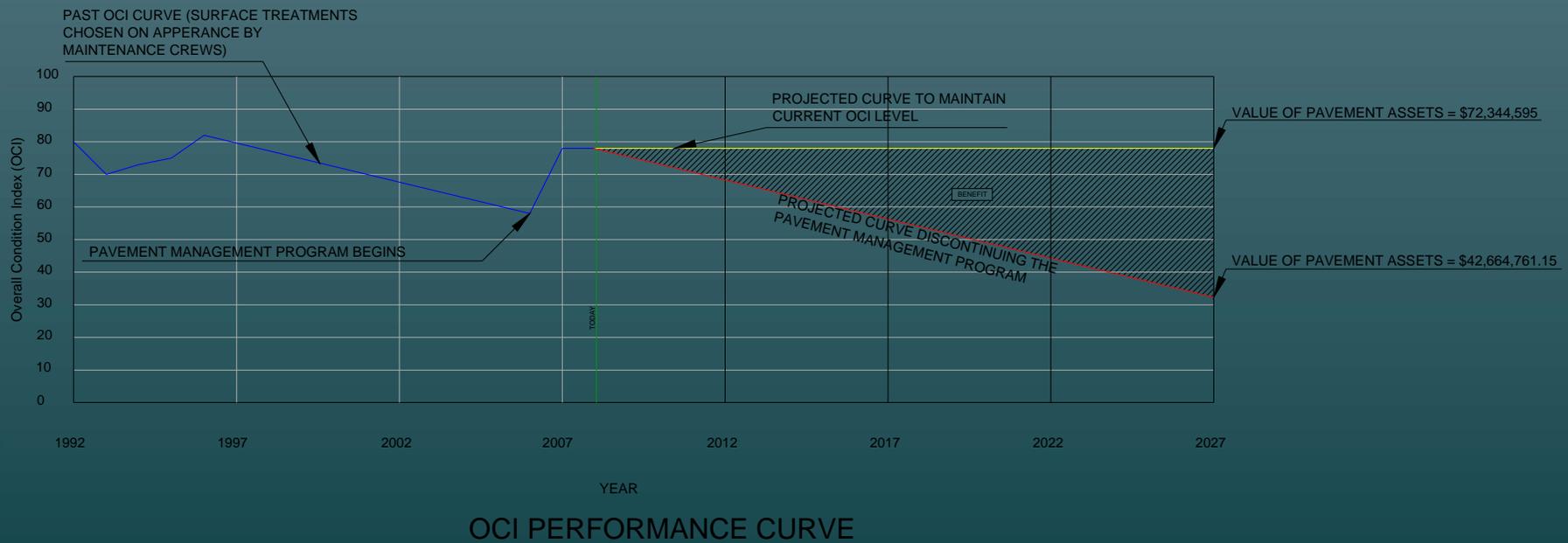
PRIOR TO PAVEMENT MANAGEMENT



- **Roads repaired when major problems surfaced**
 - Costs for repairs were high
 - No preventative maintenance program existed
- **New roads “looked” acceptable**
- **Windshield judgment not science**
- **No long term plan for surface treatments**



BENEFIT CHART

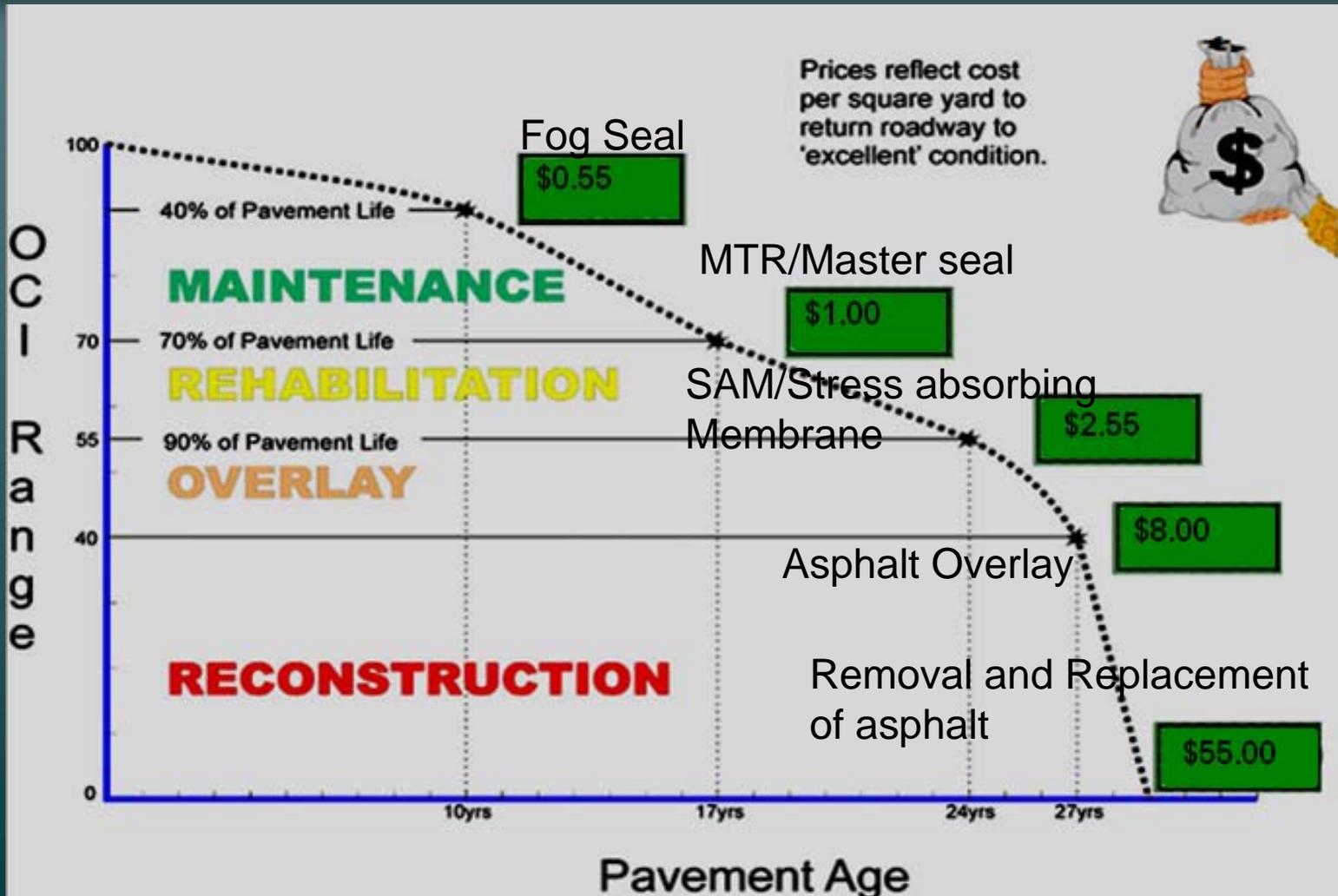


PAVEMENT MANAGEMENT PHILOSOPHY

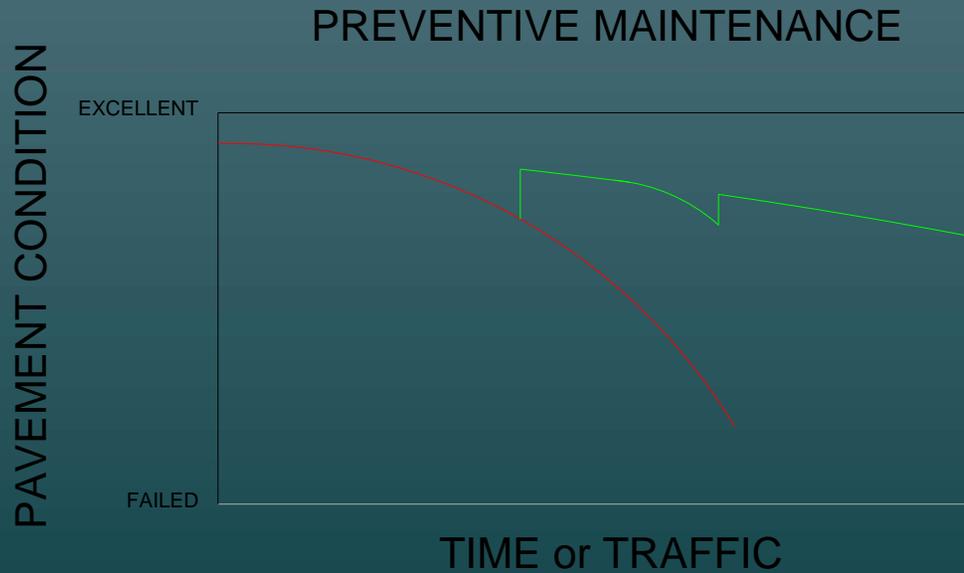


- **Preserve excellent pavement first**
- **Repair poor pavements**
(use SAM or combination SAM and Overlay in the interim)
- **Reconstruct as last resort**

PAVEMENT LIFE CURVE



PREVENTIVE MAINTENANCE



PRESENT METHODOLOGY



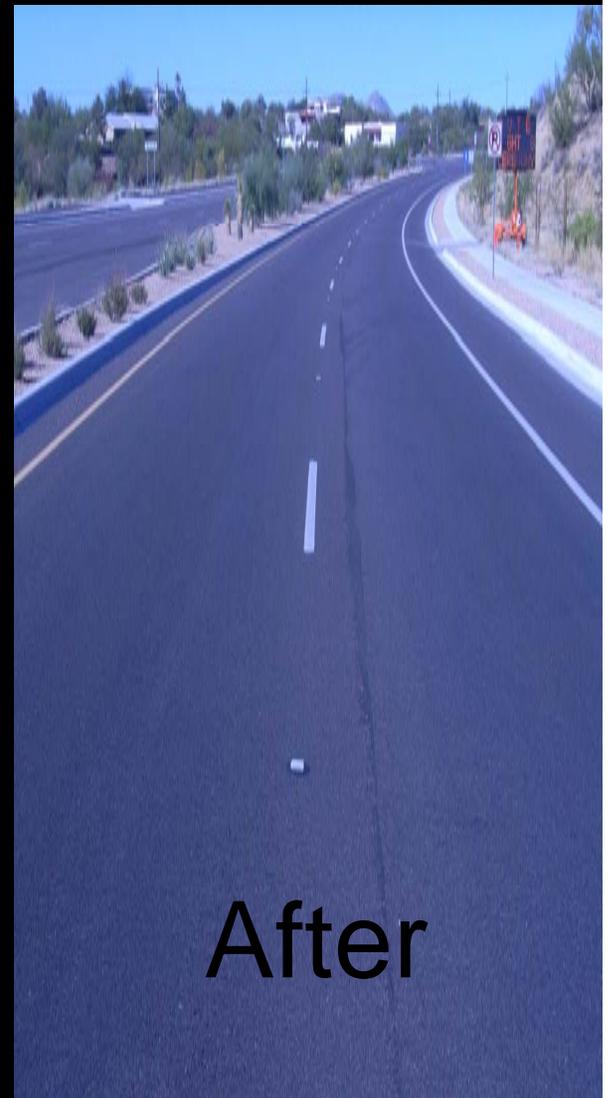
Surface treatments available:

- SAMs
- Master seals
- Fog seals
- (Reconstructs & Overlays as a last resort).

RECONSTRUCT & OVERLAY



Before



After

Stress Absorbing Membrane (SAM)

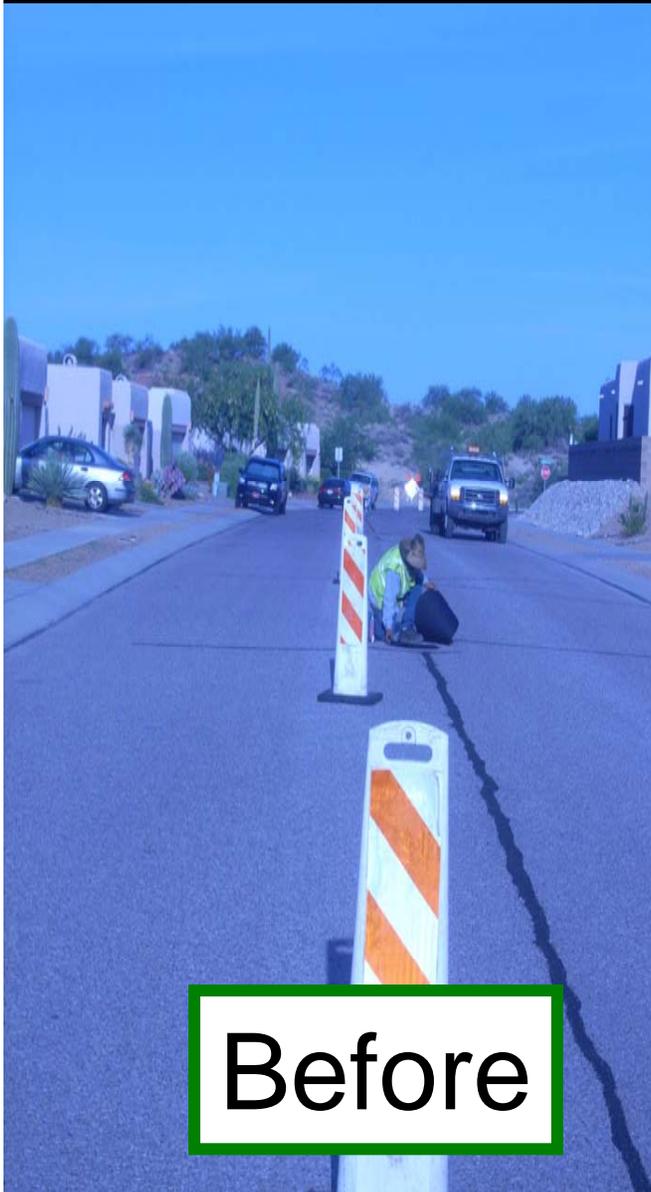


Before



After

MasterSeal

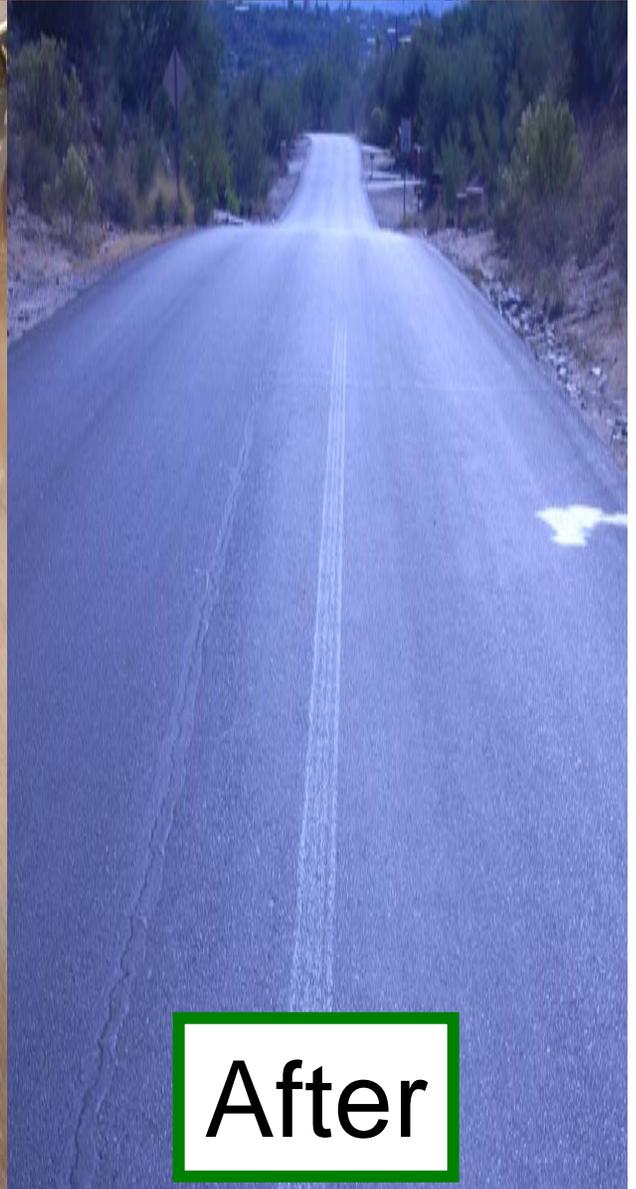


Before



After

Fog Seal



OVERALL CONDITION INDEX



CURRENT OCI: 77.67

DESIRED OCI: 80.00



OCI 100 (new asphalt)



OCI 90 (2 year old asphalt)



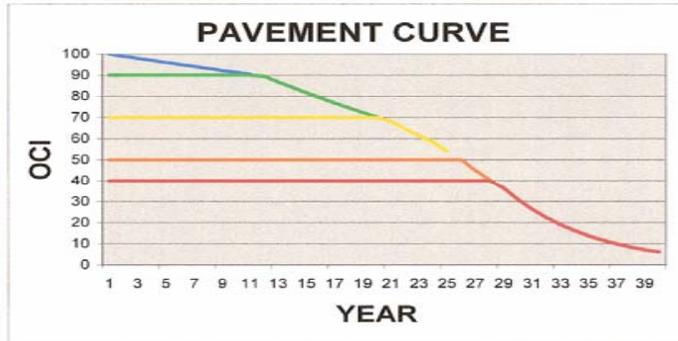
OCI 90 (New SAM)



OCI 80 (New MasterSeal)



OCI 30



OCI 80 (3 year old SAM)



OCI 35



OCI 40



OCI 60



OCI 75

OCI IMAGES 100



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OCI IMAGES 90



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OCI IMAGES 80



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OCI IMAGES 75



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OCI IMAGES 60



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OCI IMAGES 40



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OCI IMAGES 30



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ANNUAL FUNDING SCENERIOS



| AVERAGE ANNUAL FUNDING FOR PAVEMENT PRESERVATION | PROJECTED OCI AT THE END OF 30 YEARS |
|--|--------------------------------------|
| \$400,000 | 46.06 |
| \$500,000 | 60.66 |
| \$600,000 | 64.25 |
| \$700,000 | 66.59 |
| \$800,000 | 68.52 |
| \$900,000 | 72.52 |
| \$1,000,000 | 75.50 |
| \$1,100,000 | 78.86 |

AVERAGE ANNUAL COST TO MAINTAIN VARYING OCI LEVELS FOR 30 YEARS



Average Annual Cost to Maintain Varying OCI Levels for 30 Years



| OCI LEVEL | AVERAGE ANNUAL COST |
|-----------|---------------------|
| 90 | \$1,430,000 |
| 85 | \$1,250,000 |
| 80 | \$1,199,000 |
| 75 | \$1,419,000 |
| 70 | \$1,511,000 |
| 65 | \$1,882,000 |
| 60 | \$1,966,000 |
| 55 | \$2,226,000 |

CONCLUSION



**USE COST EFFECTIVE PREVENTATIVE
MAINTENANCE TO ACHIEVE AN
OPTIMUM VALUE OF 80 OCI FOR THE
TOWN'S PAVEMENT MANAGEMENT
PROGRAM**