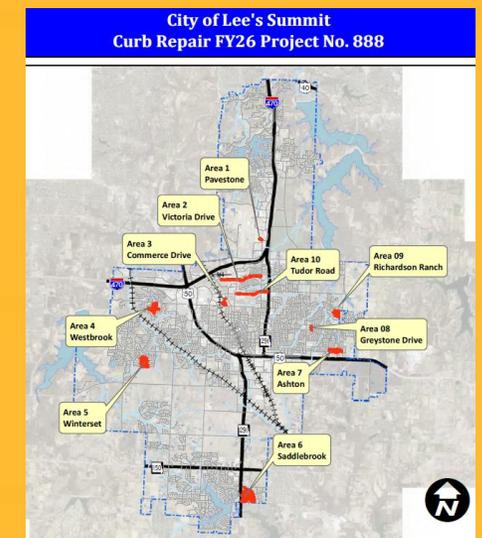
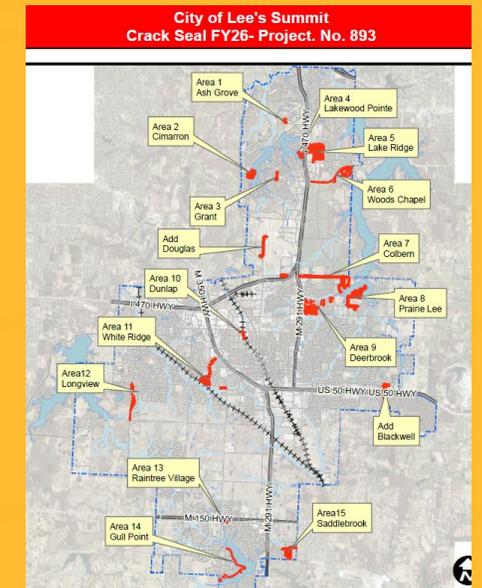
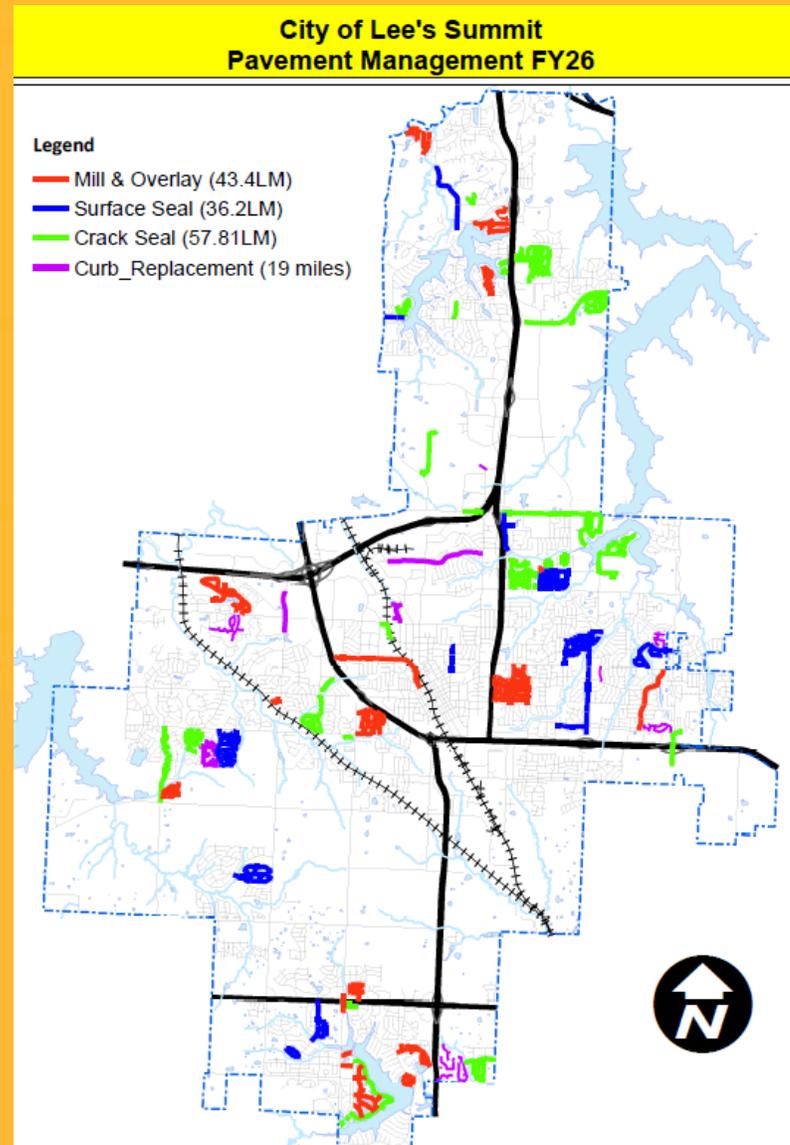
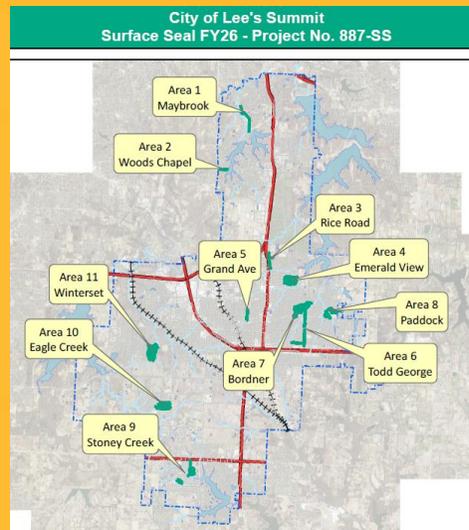


Pavement Management Program Public Works Committee

March 9, 2026

George Binger, PE, CFM

Deputy Director of Public Works/City Engineer,



“Keeping Good Streets Good”



Yours Truly

Pavement Management

- Systematic philosophy to keep good pavements in good condition.
- Pavements should be managed, not simply maintained.
- Re-construction costs 10 (plus) times the cost to perform annual maintenance
- FY2026 Pavement Management Program budget \$9M for the 4 main programs
 - Mill & Overlay 43.4 lane miles; (\$3.8M; \$87.6K/LM)
 - Surface Seal 36.2 lane miles; (\$1.2M; \$33K/LM)
 - Crack Seal 57.81 Lane Miles; (\$268K; \$4,600/LM)
 - Curb Replacement 19 miles (\$3.3M; \$174K/mile)

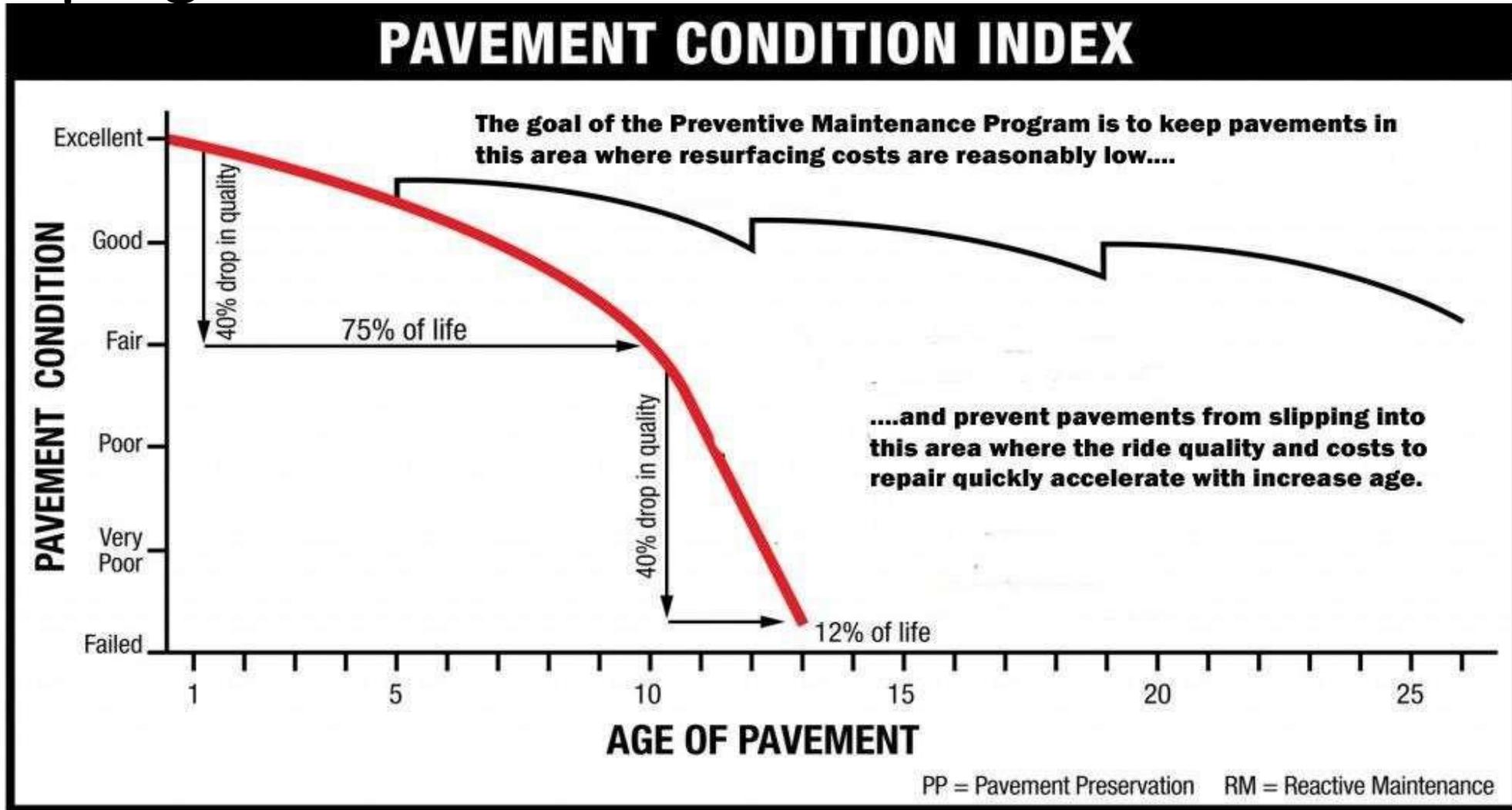
Statistics

		Lane Miles	Sections
Asphalt	Streets	1,046	5302
	Alleys	1	14
Concrete	Streets	66.5	192
	Alleys	0.13	4
Gravel	Street	.5	1
	Alley	1.6	18
		1,115.73	5,531

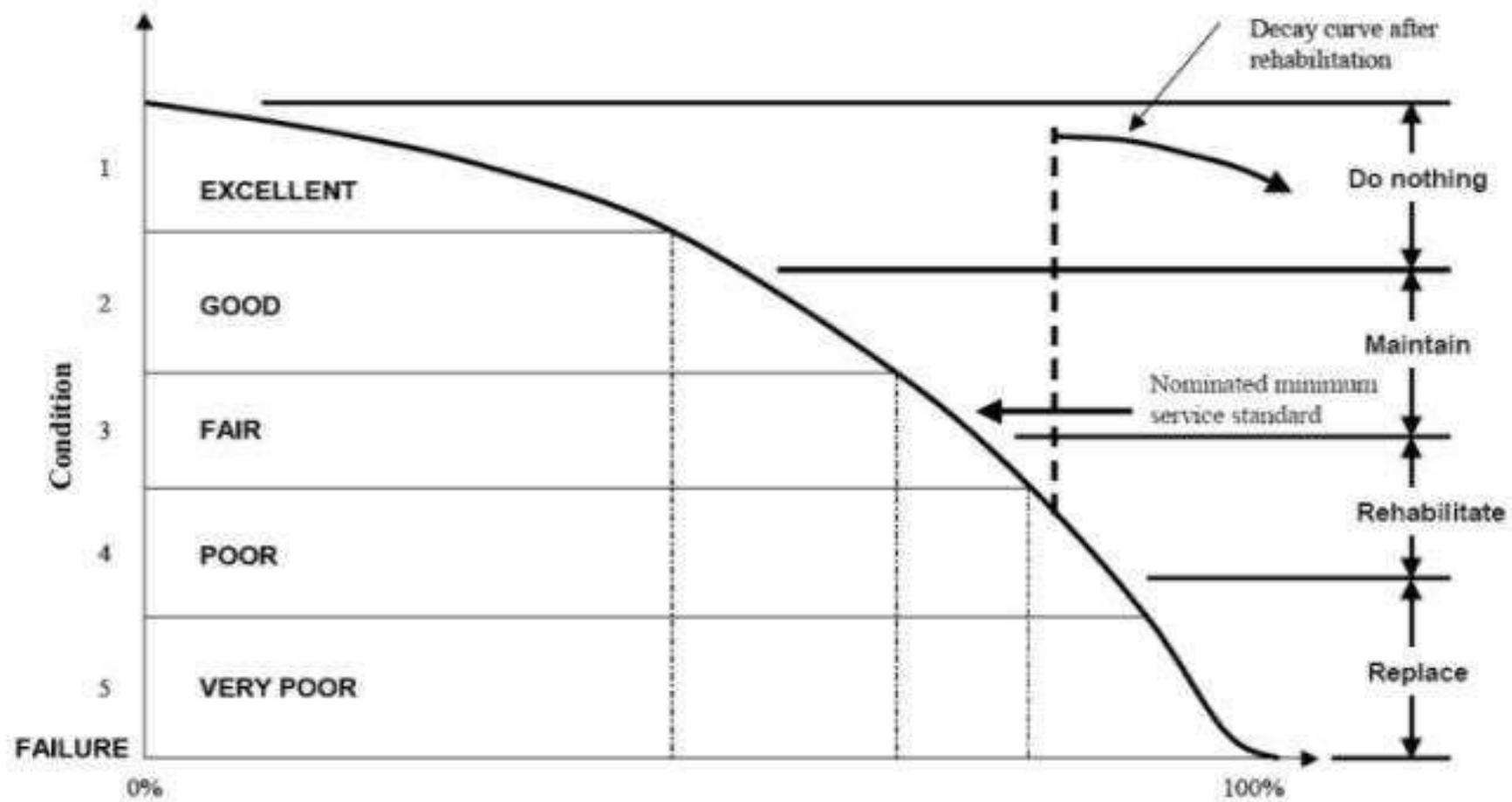
Funding the Pavement Management Programs

- The permanent ½ cent Transportation Sales Tax: \$9M per year
- Current augmentation from 15-year CIP Sales Tax
 - \$5M for curb over 15 years
 - Some curb included in various CIP Projects
- PW Operations (General Fund – Materials/Equipment)
 - \$204K small areas of curb replacement (contracted)
 - \$236K pothole patching
 - \$1.04M larger street repairs

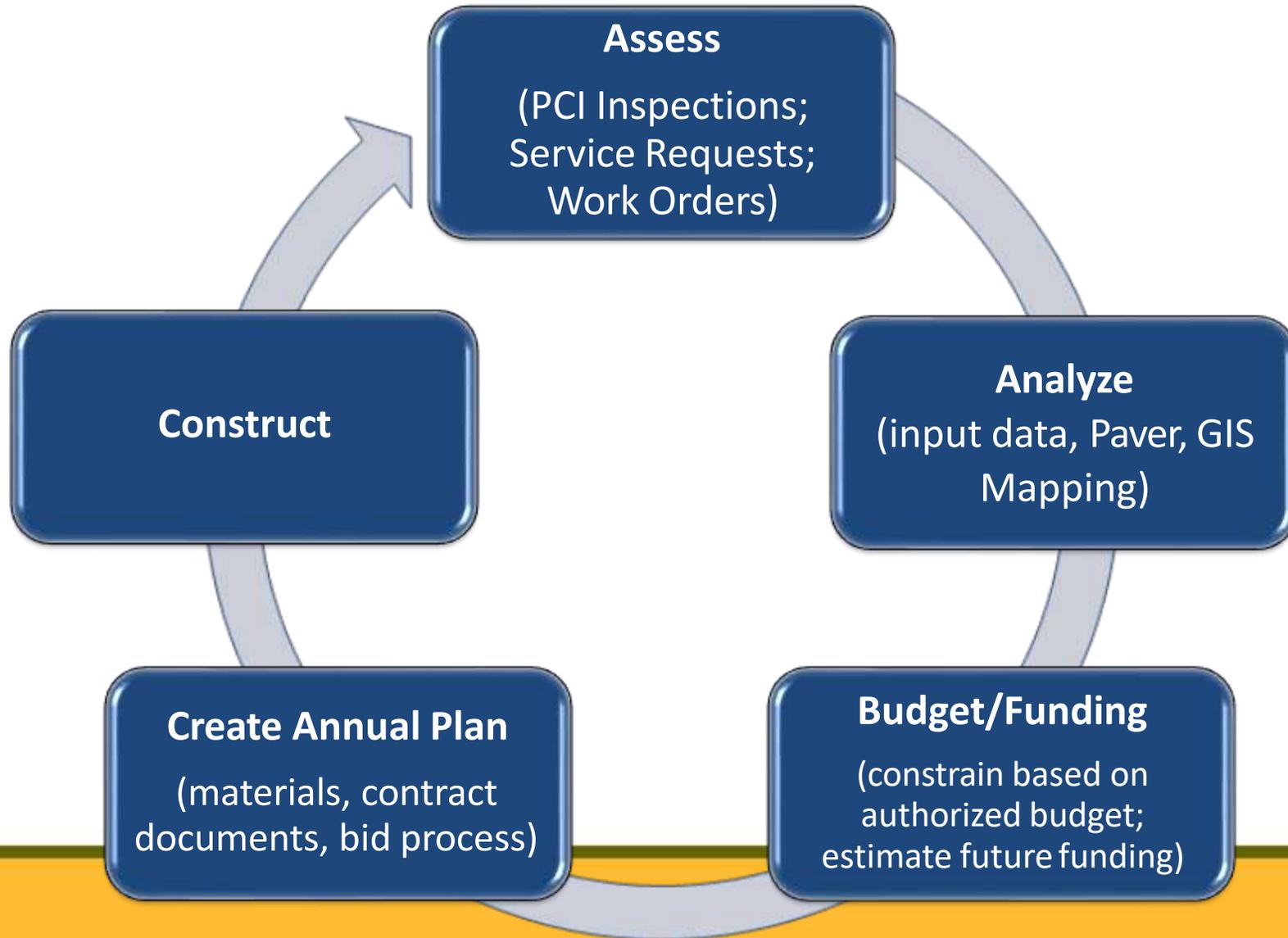
Keeping the Good Pavements in Good Condition



Goal: Right Treatment at the Right Time



Pavement Management Cycle



PCI Based on Pavement Inspections

- NEW this year: hired a company that specializes in automated pavement inspections.
- Road Asset Services (RAS), LLC
 - Inspect/Rate all public streets Citywide
 - Inspect/Rate all curb and gutters Citywide
 - Provide data for GIS upload
 - Provide guidance on right treatment at right time
 - Geolocate all public Street Signs Citywide and provide a GIS layer
 - Provide current “Google like” street view of all public streets Citywide

Road Asset Services, LLC

Benefit –

- All roads inspected same time, will provide consistency
- PCI measurements likely to decrease
 - inspecting 100% instead of representative sample areas
 - Automated scanners vs. the human eye
- Verify inventory of street curbing with updated condition.
- Complete inventory of sign type and location.
- Timeliness actual inspection take place in less than 30 days.
 - Processing data takes about 4 months.



What happens after a street inspection?

- The inspection information is downloaded to the PAVER pavement management system to quantify pavement inspections
- PAVER then generates a condition number known as the Pavement Condition Index (PCI) on scale of zero to 100
 - Zero (very bad)
 - 100 (excellent/new)

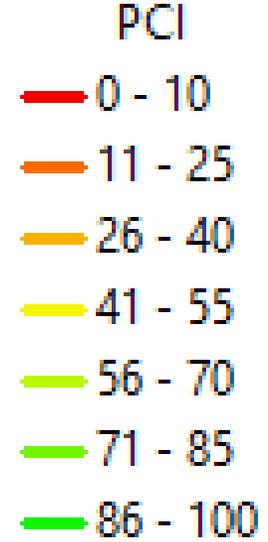
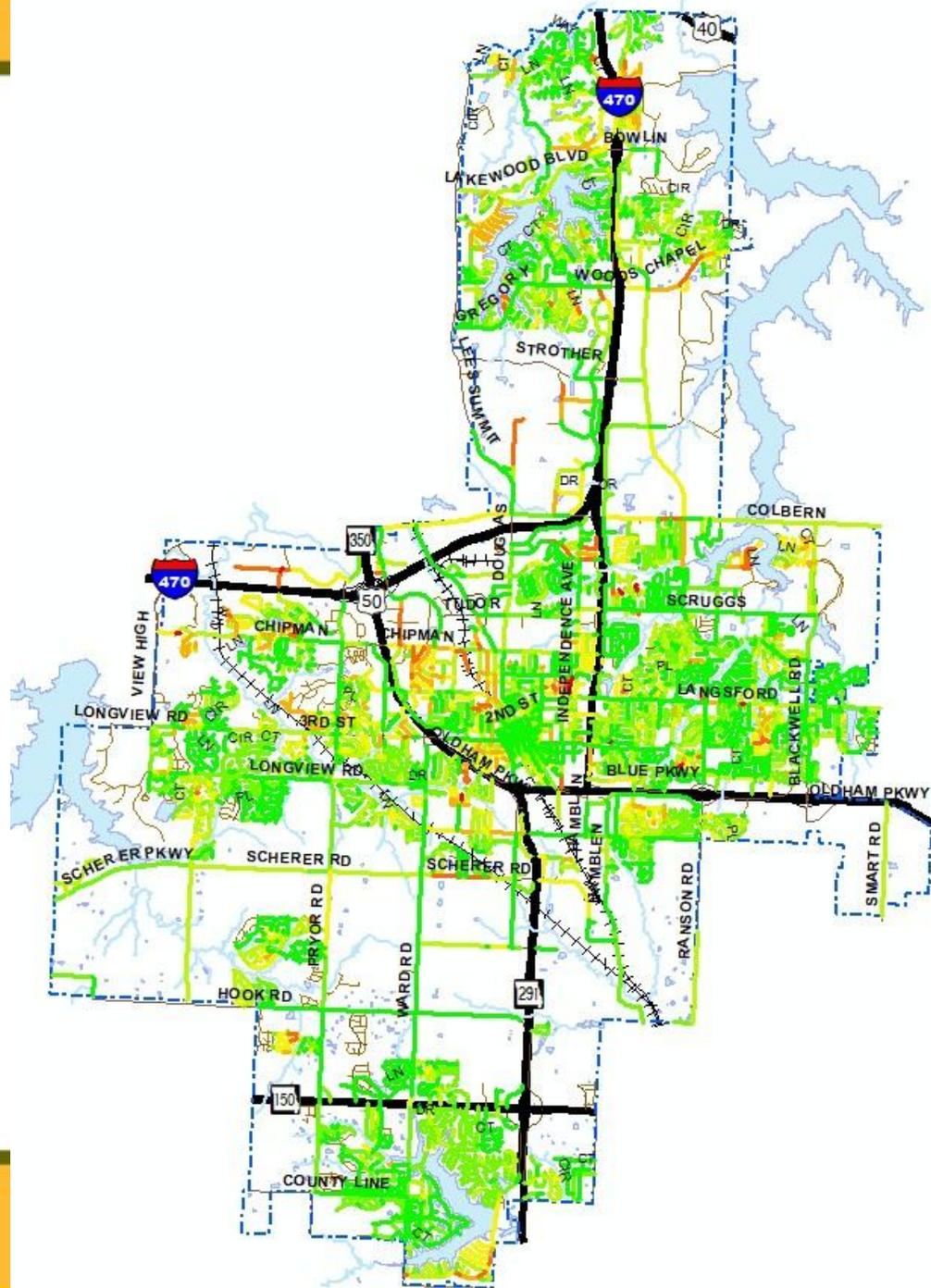
PCI Rating Scale

Red = Poor/Very Poor condition

Yellow = Fair condition

Green = Good/Excellent condition

PAVER (PCI)	Pavement Condition	Corrective Action
24 and Below	Very Poor	Overlay – Consider Rebuild
25 - 59	Poor	Overlay
60 - 74	Fair	Surface Seal/Overlay
75 - 89	Good	Surface Seal/Crack Seal
90 and Above	Excellent	Very Unlikely/Crack Seal



LS Paving History

1992 Approval of first Design and Construction Manual

- Previous construction on project by projects approval basis
- Heavy involvement/influence form the Development Community
- Road design based on 20-year lifespan (actual life 10 year)
 - Road placed on clay subgrade

2006 Curb material update

- Changed limestone aggregate to granite aggregate

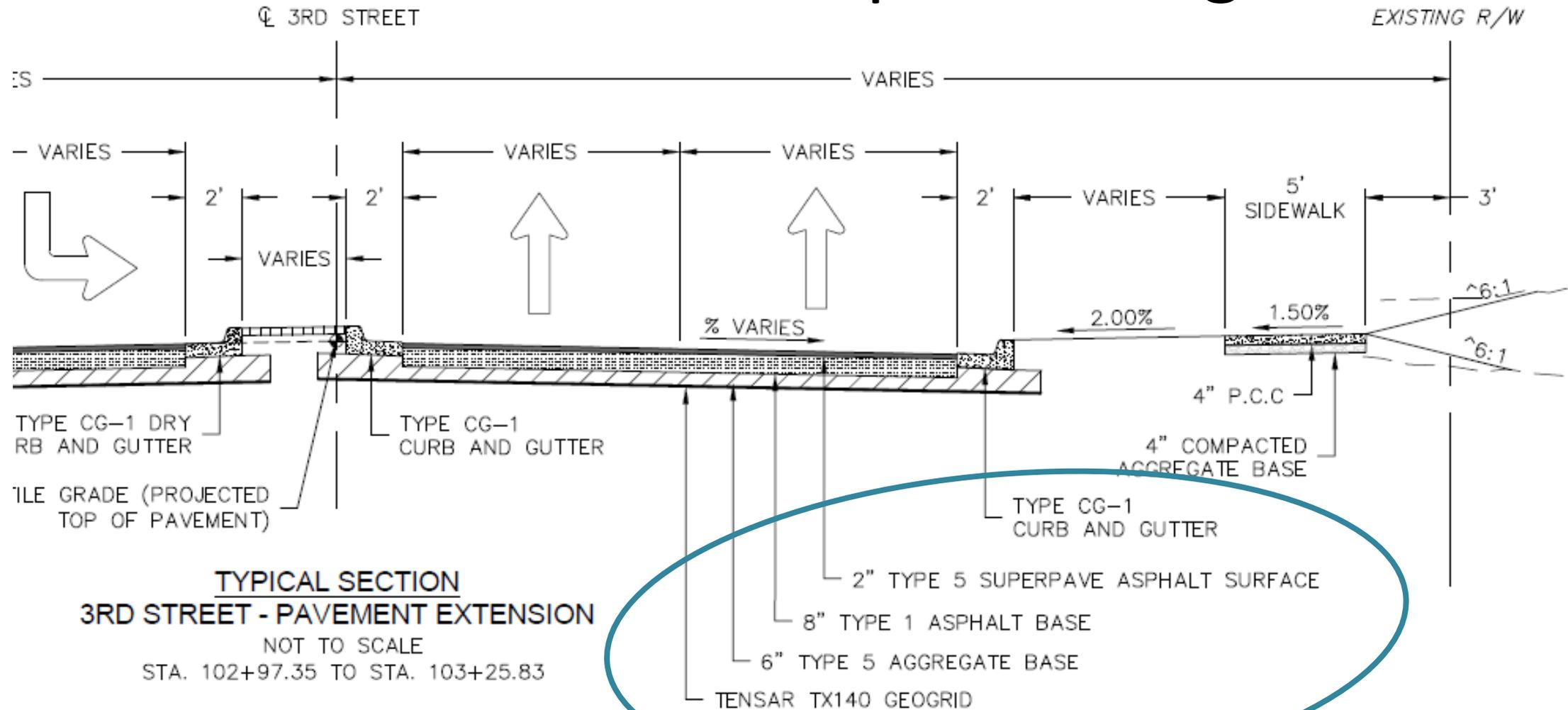
2011 Update road design to 35-year lifespan

- Incorporated stabilized subgrade below a crushed rock base
- Upgraded asphalt requirements to better aggregate and quality of oil

2023 Updated asphalt to a Superpave mix

- Upgraded asphalt requirements to better aggregate and quality of oil

3rd Street Asphalt Design



TYPICAL SECTION
3RD STREET - PAVEMENT EXTENSION
 NOT TO SCALE
 STA. 102+97.35 TO STA. 103+25.83

Pavement Maintenance Management Plan

- Improved initial construction materials and pavement sections
 - Updated Asphalt Material KCMMB A2 (better aggregate, oil, and mix design)
 - Mill & Fill construction (confined edges)
- To take advantage of economics of scale
 - Residential streets are usually grouped by areas for maintenance
 - Arterial roads usually planned as standalone areas
 - Goal is consistent surface and maintenance cycles.
- Typically, the curb and overlay projects are stacked
 - Curb replacement in the fall
 - Overlay follows curb replacement next summer
- Crack Seal:
Usually installed 4-6 years following an overlay or 7-9 years after new construction
- Surface Seal: 3-5 years following crack seal.

PMP Programs

- Curb Replacement
- Mill & Overlay
- Crack Seal
- Surface Seal

Curb Replacement

- Average \$159,000/mile
- Replaces damaged & deteriorated curb ahead of Overlay
- Sidewalk ramps are reconstructed to current ADA specifications



Construction



Mill & Overlay

- Average \$111,400/LM
- Remove top 2" of street surface
 - make any repairs (patching)
 - replace asphalt
- Restore road close to initial construction
- Improved ride quality



Mill and Overlay Construction



Crack Seal

- Average \$5,700/LM
- Cracks blown out & refilled with rubberized asphalt
- Seals water from subgrade:
Slows pothole formation
- Not Pretty
- 3 to 4 years following overlay
- 6 to 9 years following new construction



Construction



Surface Seal

- Average \$32,000/LM
- Add 1/4" - 3/8" asphalt/polymer/aggregate slurry material to the road surface
- Does not add structural strength to pavement
- Protects Asphalt from UV degradation
- Does not improve ride quality
- Cracks sealed, but visible
- Streets closed for ~4 hours



Micro Surfacing Construction



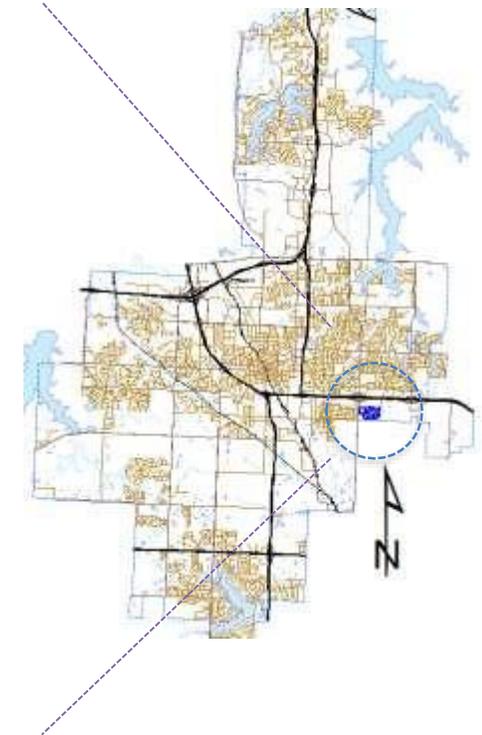
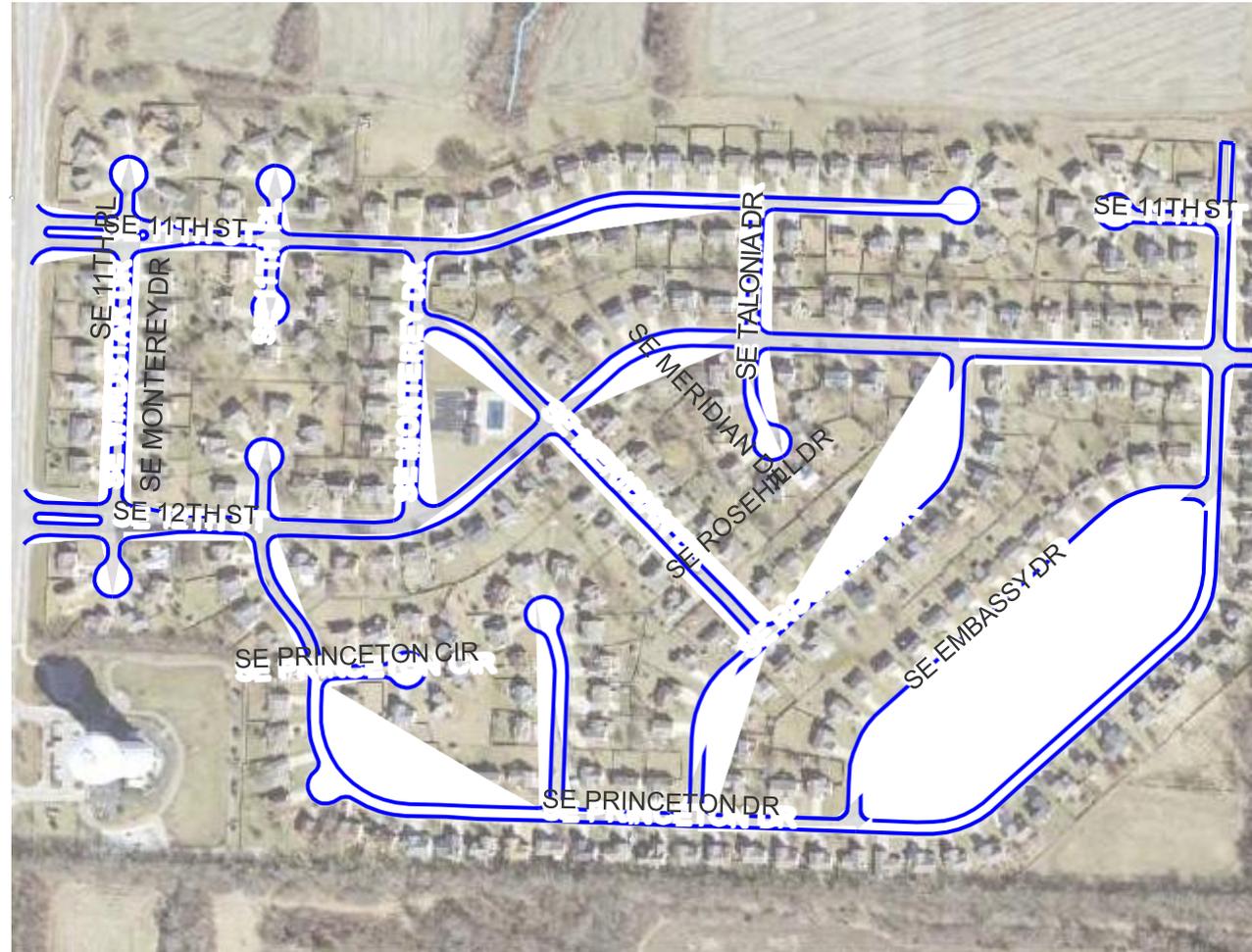


Project: Princeton Heights

- SE 50Hwy & Ranson Road
- 308 Homes
- 5.43 Road Lane Miles
- 5.44 Curb Miles

- Curb - \$ 864,960
- Overlay - \$ 604,902
- Total... \$1,424,250

- Surface Seal - \$173,760
- Crack Seal - \$30,951



George Binger, PE, CFM
Deputy Director of Public Works/City Engineer

