Streets 101

Planning, Preserving and Prioritizing

An interview with the City Engineer

WE ARE NOT ALONE

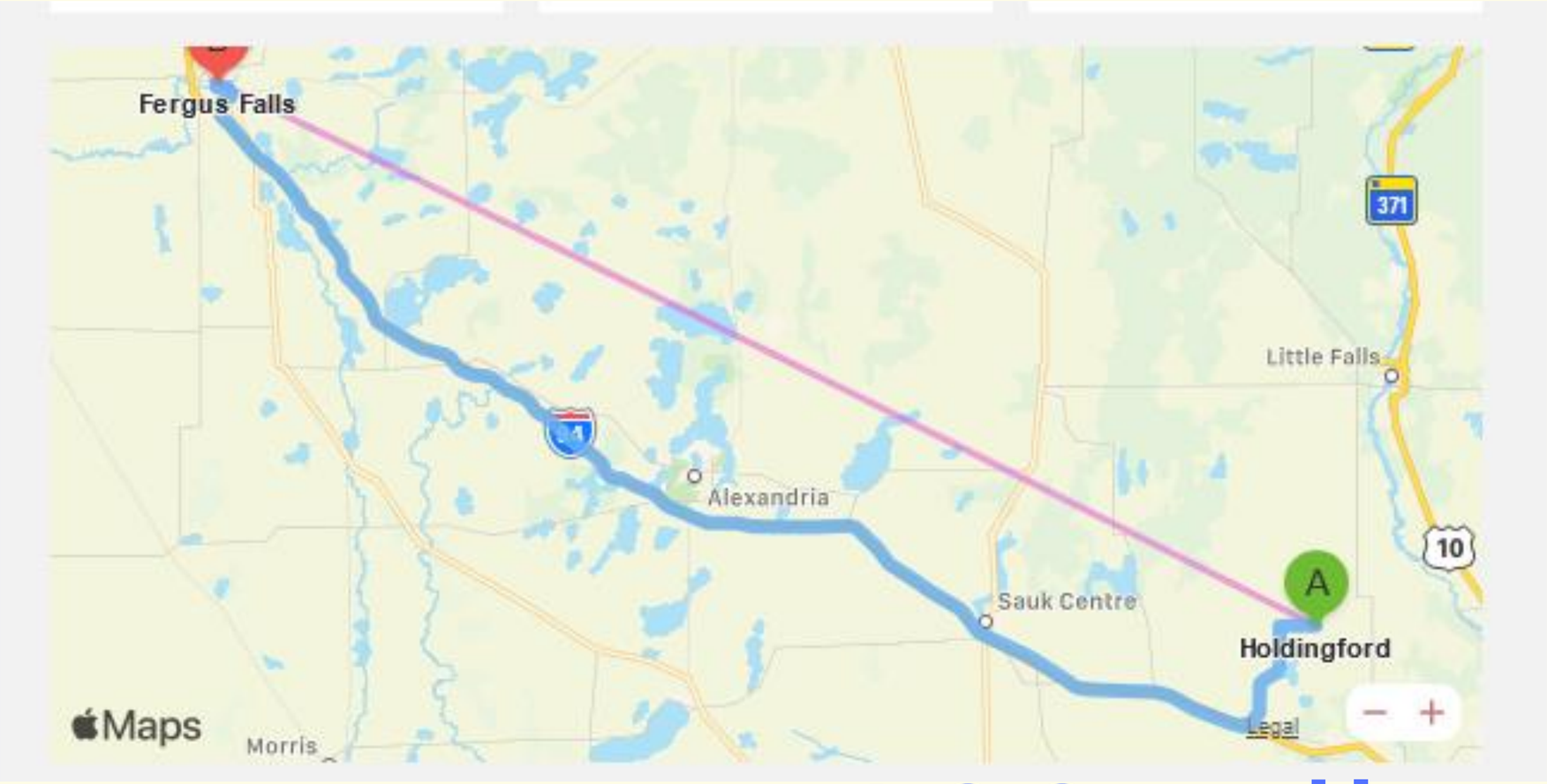
MOORHEAD FERGUS FALLS GRAND RAPIDS

What do all roads have in common?

- Roads have a limited life
- Traffic Volume + Weight + Weather + Time= Wear and Tear
- Proper maintenance can extend useful life, but maintenance has its limits
- Eventually, all roads must be replaced

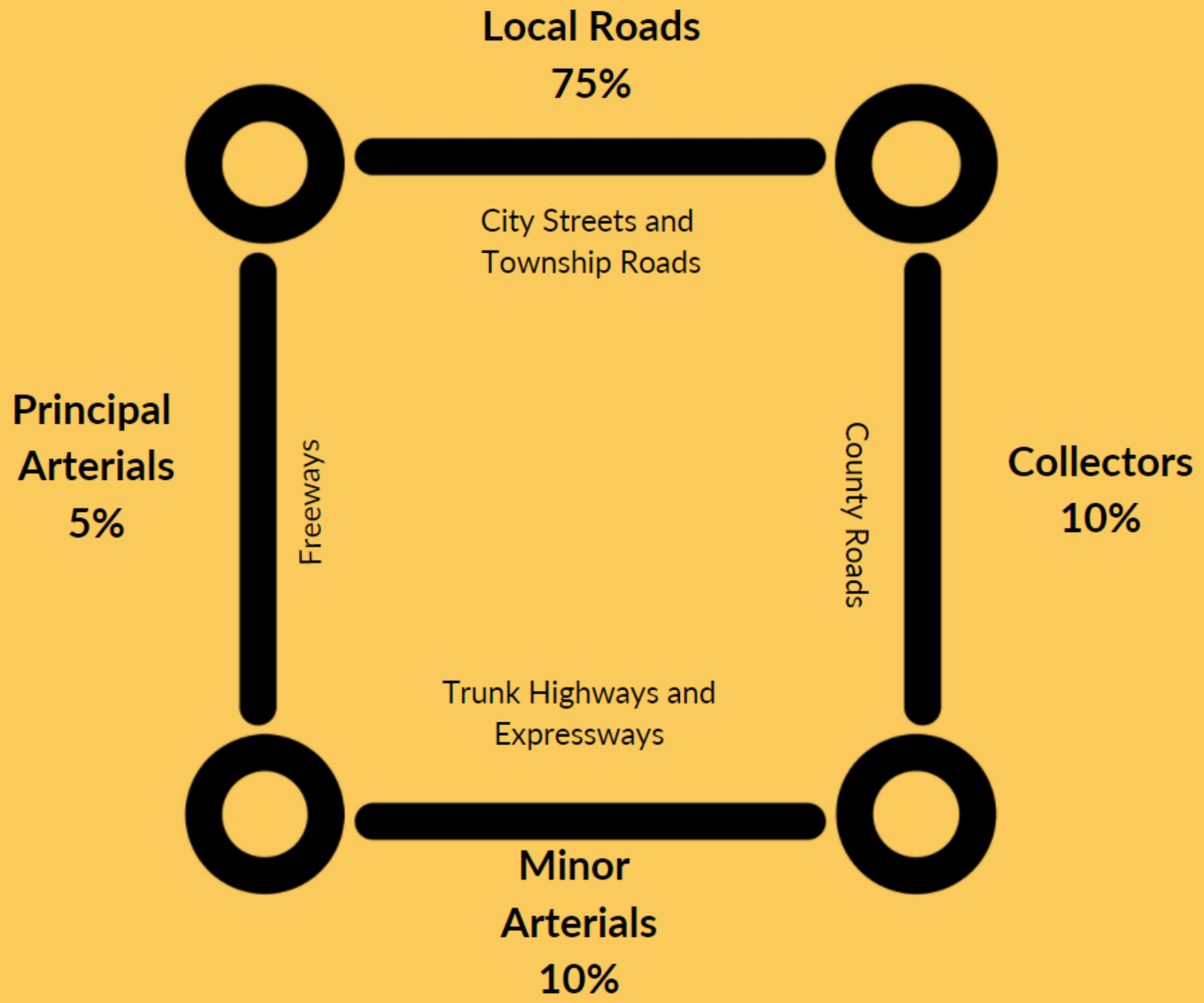




100 miles

on the city's system

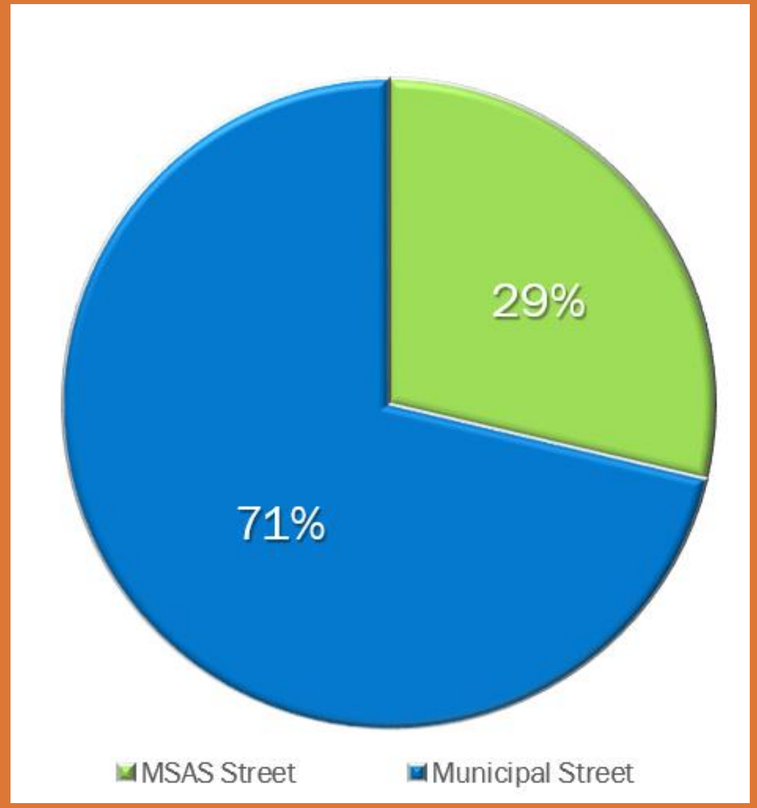


Types of Roadways

MSAS vs Municipal Street

Examples of MSAS Streets

Summit Avenue	Friberg Avenue
Cleveland Avenue	Broadway Avenue
Lincoln Avenue	Union Avenue
Alcott Avenue	Channing Avenue
Vernon Avenue	Cascade Street



Preservation Priorities

- Prevent fair condition roads from falling into poor condition
- Avoid the worst first approach
- Prioritize preservation over reconstruction
- Identify appropriate life-cycle timeframe

Decision Making Factors

Q1

Function
Class
Prioritization

Q2

Pavement Condition
What strategy does the roadway qualify for?

Q3

Pavement Age
Have an appropriate number of years lapsed?

Q4

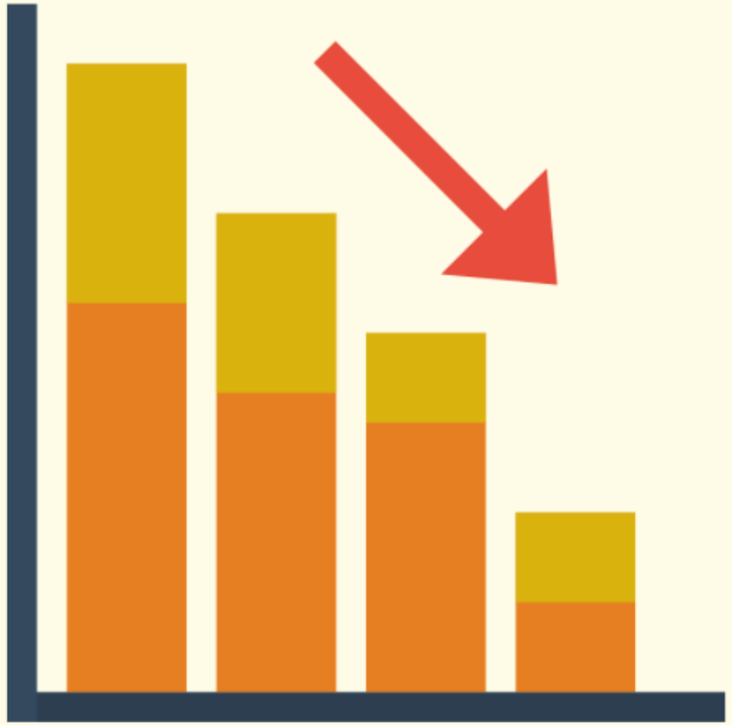
Engineering Factors
- Subsurface utility conditions
- Safety improvements
- Drainage improvements
- Unusual deterioration
- Improved capacity

Q5

Funding Availability
If not, it goes back to the backlog list

Pavement Condition Index

Each street is ranked 1-100



Excellent 80-100

Good 60-79

Fair 40-59

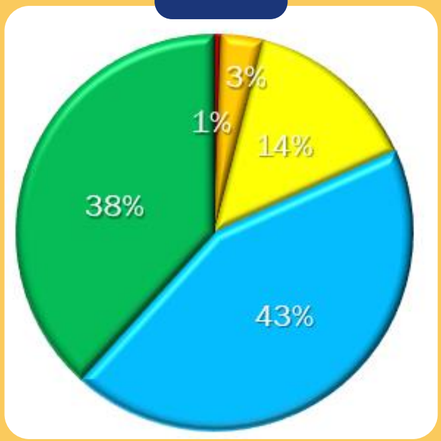
Poor 20-39

Very Poor 0-19

Video: Why Not My Street https://lrrb.org/why-arent-they-working-on-my-road/

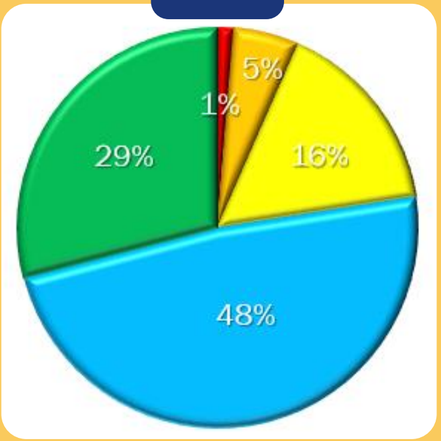
0-19 Very Poor | 20-39 Poor | 40-59 Fair | 60-79 Good | 80-100 Excellent

1



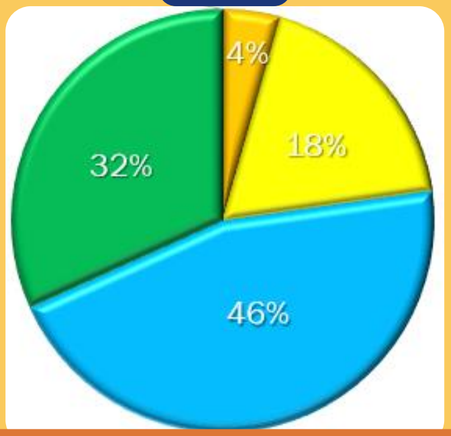
2007
Average PCI
73

2



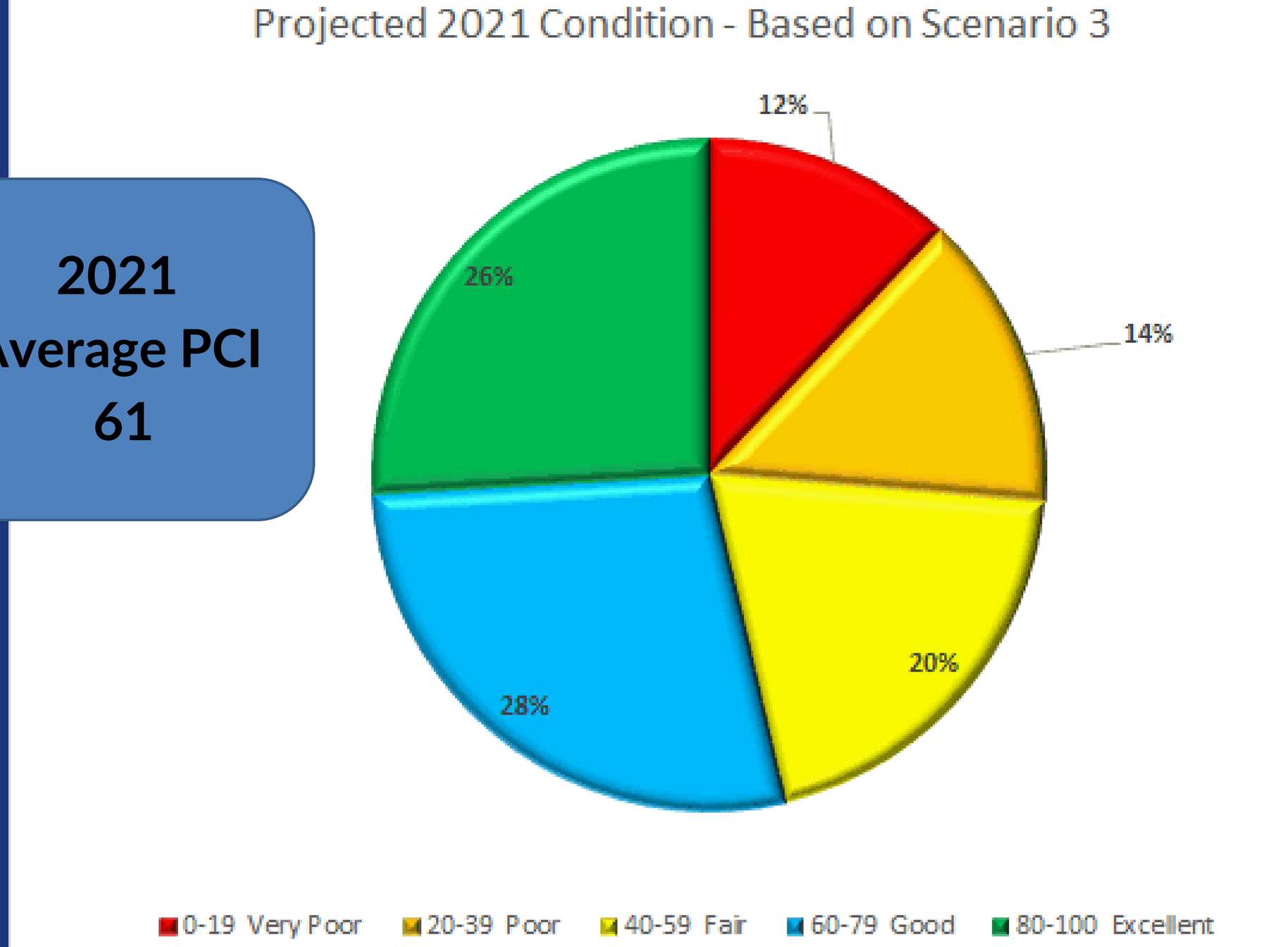
2012/2013
Average PCI
69

3



2015
Average PCI
73

2021
Average PCI
61



ALLIGATOR CRACKS

ROAD CRACKS

The 2020 Sioux Falls corn stalk saga

How a pothole develops - video https://lrrb.org/pothole-repair-proven-practices/

Noooo, potholes!!!
What's the science behind them?

What's the right solution?

Limited funds

What's the most cost effective solution?

Priorities may change

Current City Funding Approach

1

Preventative
Seal Coat
$129,600/year

2

Major Repair
Mill & Overlay
$244,800/year

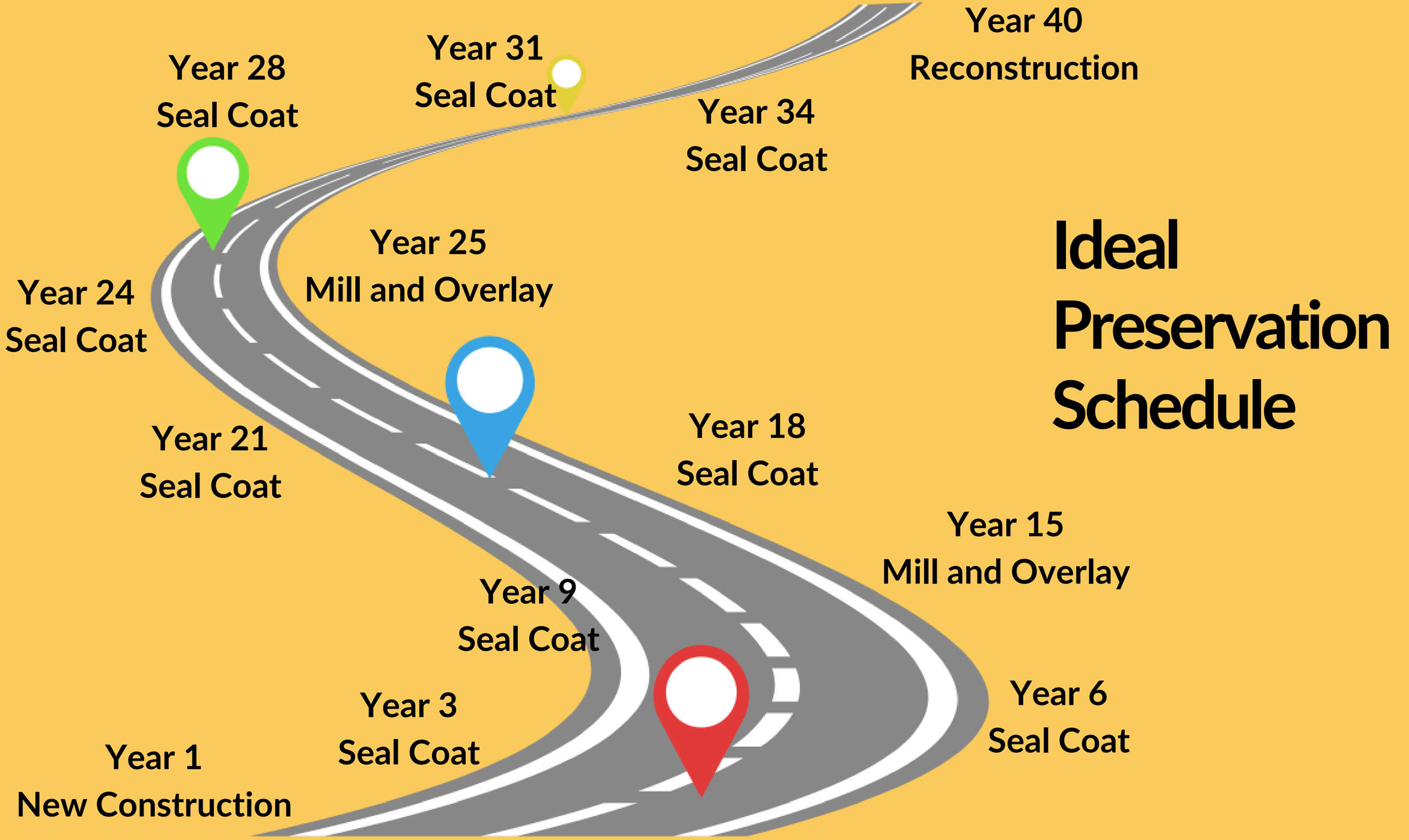
3

Major Rehab
Costs TBD

Previous Levy for Mill and Overlay and Seal Coat Projects

Year	Mill and Overlay	Seal Coat	Total
2020	$244,800	$129,600	$374,400
2019	$204,000	$108,000	$312,000
2018	$170,000	$ 90,000	$260,000
2017	$170,000	$ 90,000	$260,000
2016	$150,000	$ 90,000	$240,000
2015	$100,000	$ 90,000	$190,000
2014	$100,000	$ 90,000	$190,000
2013	$100,000	$ 90,000	$190,000
2012	$100,000	$ 90,000	$190,000

Ideal Preservation Schedule



CHIP SEAL COATING

MILL AND OVERLAY

Annual Mill and Overlay
Projects by Wards

2021- Ward Four
2020-Ward One
2019-Ward Three
2018-Ward Two

RECONSTRUCTION

Beyond a mill and overlay

Usually correcting failing infrastructure

Appraisal process

Special assessments

No levy dollars

Cost dependent upon market prices

Making Progress

Franchise fees as additional funding source

- Making the most financial sense
- Reduce reliance on special assessments
- Dedicated 100% to street maintenance and reconstruction

In Review

Summary 1

Streets have a limited life span

Summary 2

There is a process to determine the most pressing need

Summary 3

We need to find the most economical solution that provides the greatest benefit