



## City of Inver Grove Heights Pavement Management Citizen Taskforce Meeting 2

November 04, 2021  
4:00 to 6:00 p.m.

The second meeting of the Pavement Management CTF will be held **at Inver Grove Heights City Hall** in the Council chambers. The meeting is public; Covid protocols for public meetings strongly encourages the use of masks and social distancing. We have a busy first meeting and hope to accomplish the following:

### Agenda

4:00 - 4:10	Welcome & quick intros	Kelly Kayser
4:10 - 4:20	Recap and Meeting notes	Kelly Kayser
4:20 - 4:40	Discuss Charter	All
4:40 - 4:45	Possible Charter adoption	All
4:45 - 5:05	Public and Private Infrastructure	Steve Dodge, City
5:05 - 5:20	Historic PMP efforts	Steve Dodge/Tom Kaldunski, City
5:20 - 5:35	2021/2022 critique and changes	Klay Eckles, City/WSB
5:35 - 5:55	Discussion/ Questions	All
5:55 - 6:00	Topics for next meeting	Klay Eckles City/WSB
6 pm	Adjourn	Kelly Kayser

If you have any questions or concerns regarding the meeting format or content, please contact Klay Eckles at [keckles@ighmn.gov](mailto:keckles@ighmn.gov).



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## **Pavement Management Program Citizens' Taskforce Problem Definition and Charter**

Inver Grove Heights has over 140 miles of roadways. Although the city has actively implemented a Pavement Management Program (PMP) over the last 10 years, the average pavement condition of city streets has declined. The city has a budget of about \$5M plus money collected via assessments to complete annual projects. An analysis of road condition, underlying soils and other factors suggested that a budget of \$16M a year would be necessary to improve city roads. The city does not have funding capabilities to proceed as per the analysis.

The Citizens' Taskforce (CTF) has been created to explore improvements to the Inver Grove Heights PMP. The charge of the CTF is to examine all aspects of the PMP, then provide input and recommendations in a final report to City Council. Specific areas of the PMP that the CTF will investigate and give feedback on include:

1. A citizen perspective on past PMP efforts and projects, and input on what rehabilitation strategies hold the most promise for helping move the city toward meeting its PMP goals more quickly.
2. What factors should be considered and how should they be weighted when choosing the appropriate rehabilitation technique for a given roadway.
3. Overall funding levels—whether the city is currently providing enough funding to the program.
4. Whether the assessment policy is fair, effective, and comparable to other cities.
5. How specific streets are chosen for inclusion in a project.
6. Whether or not the city should consider “road diets” when a road requires reconstruction.
7. How the PMP program should be applied toward rural areas.
8. How the City best communicates information about the city PMP program to the general public, and how it specifically engages neighborhoods that might be impacted by a future project.
9. How the city defines success and measures progress in the program.

As a taskforce, decisions on recommendations will be made by consensus. The CTF is set to expire no later than December 14, 2022. Prior to that date, with the help of city staff and the city's consultant, the CTF will provide a final report summarizing the work and recommendations of the CTF.

Adopted: November 4, 2021

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# Public Works Division

Presented by Klay Eckles, Interim Public Works Director

# **Infrastructure condition and Pavement Management Program Alternative Strategies**

**May 2021**



# What is PMP?



8150 Barbara Ave. Inver Grove Heights, MN  
55077 651-450-2500  
[www.invergroveheights.org](http://www.invergroveheights.org)

# TYPES OF PM TREATMENTS

- Crackseal
- Sealcoat
- Patching
- Mill and Overlay
- Full-Depth Pavement Replacement
- Full-Depth Reclamation
- Partial Reconstruction
- Full Reconstruction

# What is PMP?

- City has close to \$1B replacement value infrastructure (sewer, water, streets, storm)
- Streets fail first—so management programs revolve around pavement management
- **Goal is to get maximum life and quality for minimum investment**
- Waiting too long does not serve this goal

# What is PMP?

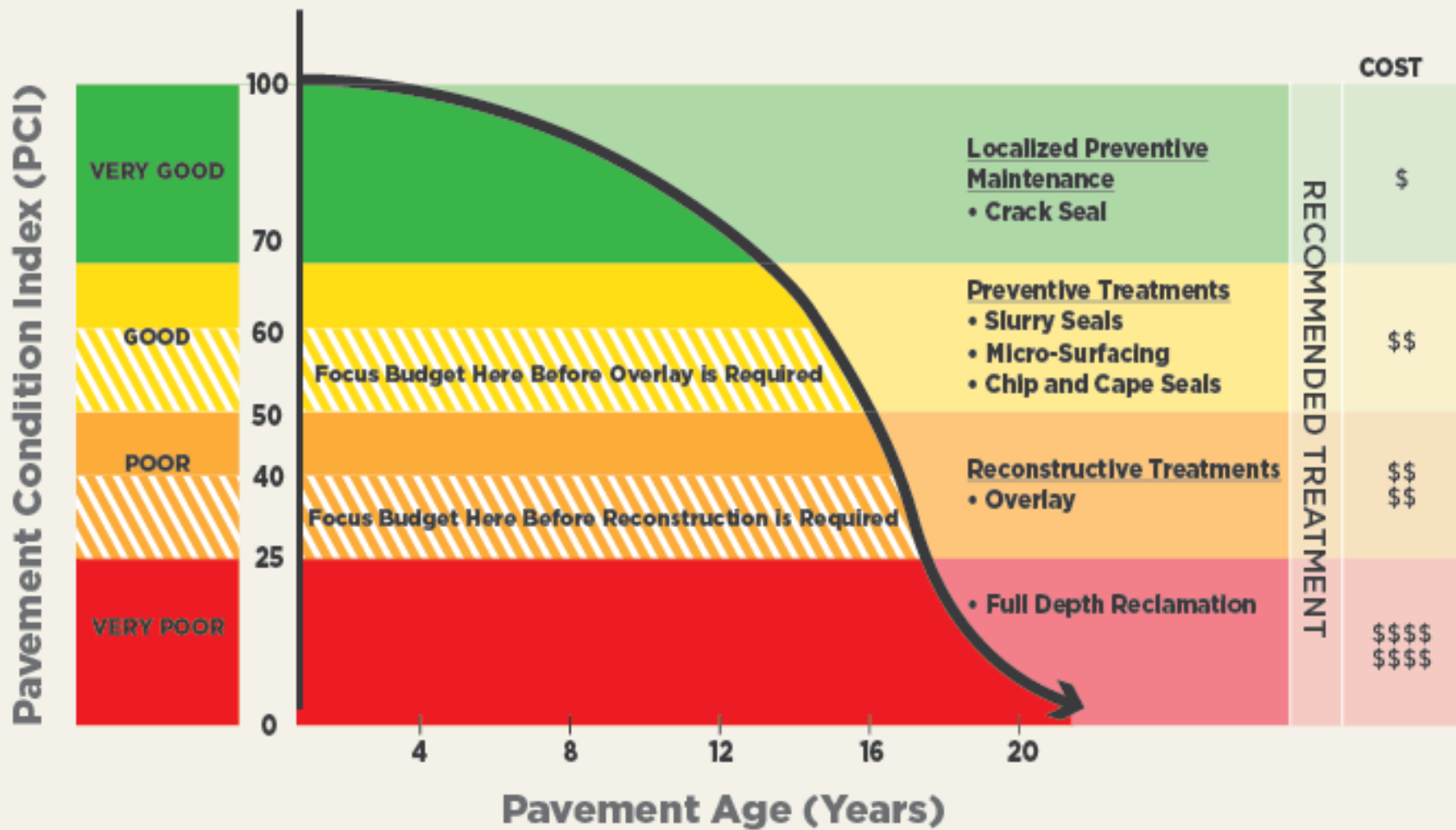
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- Waiting too long does not serve this goal

# The Challenge of Time

- Failing to take action has little immediate impact
- Long term delay or underfunding yields an almost insurmountable problem-
  - Projects are more complicated and expensive
  - Funding sources are limited any one year
  - Other resources are limited too (staff and professional services)

# THE CONCEPT OF PAVEMENT PRESERVATION

## CATCH STREETS BEFORE THEY FAIL

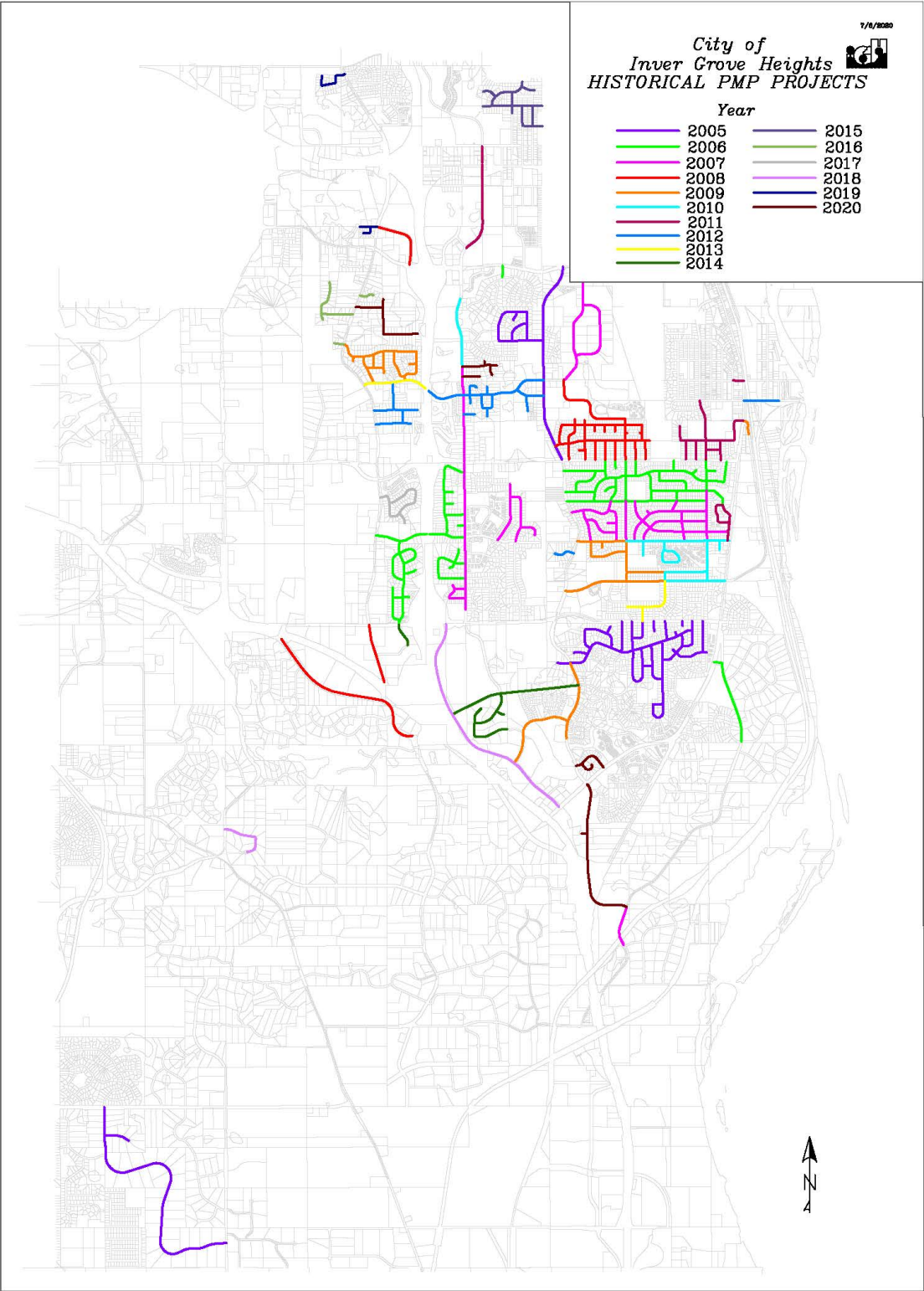


# PMP HISTORY

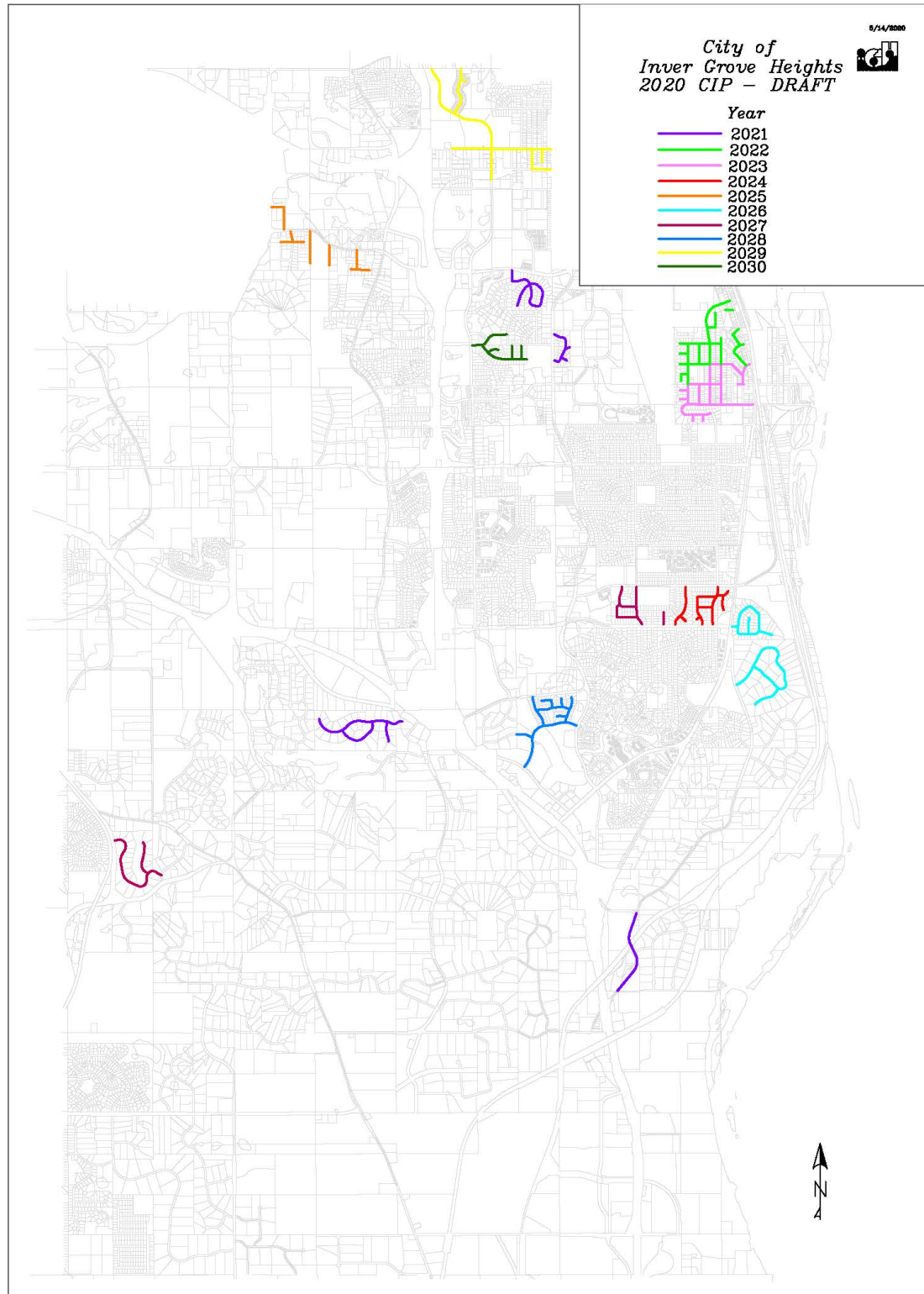
- Adopted July 2001
- Established use of ICON software for tracking pavement condition and estimating rate of deterioration
- Established Pavement Condition Index (PCI) and scale range for considering various major maintenance treatments
- Established initial funding policy



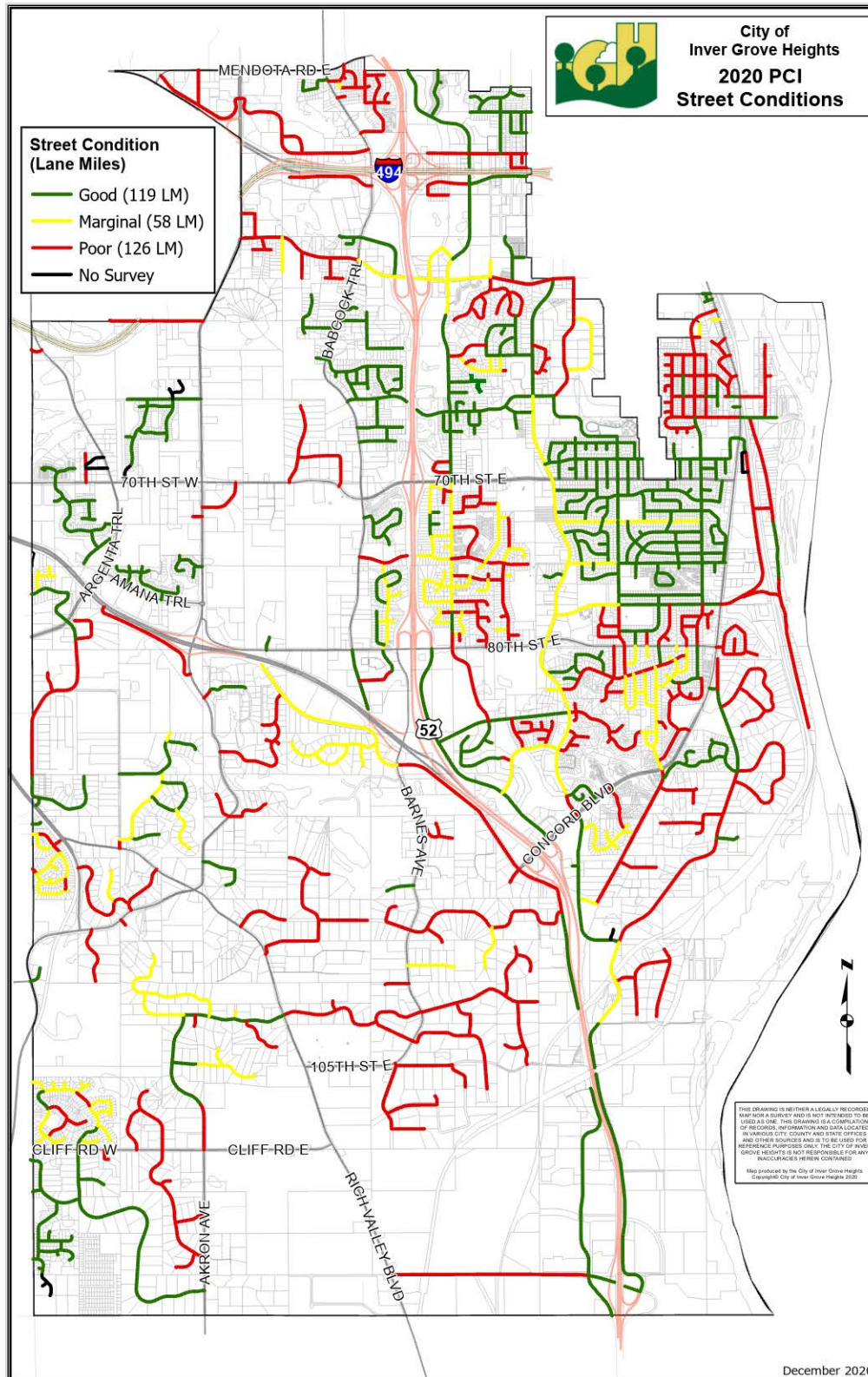
City has  
not  
been  
idle



Future  
plan had  
many  
miles of  
Recon



But not  
enough  
to keep  
up or  
catch up



# RESULTS OF GEOTECHNICAL ANALYSES

- Three separate studies in 2013, 2018 and 2020 covered about 90 percent of system
- Identify PMP treatment needed per the City's current standards
- Estimated cost to address identified needs (\$151 million in 2020 dollars)



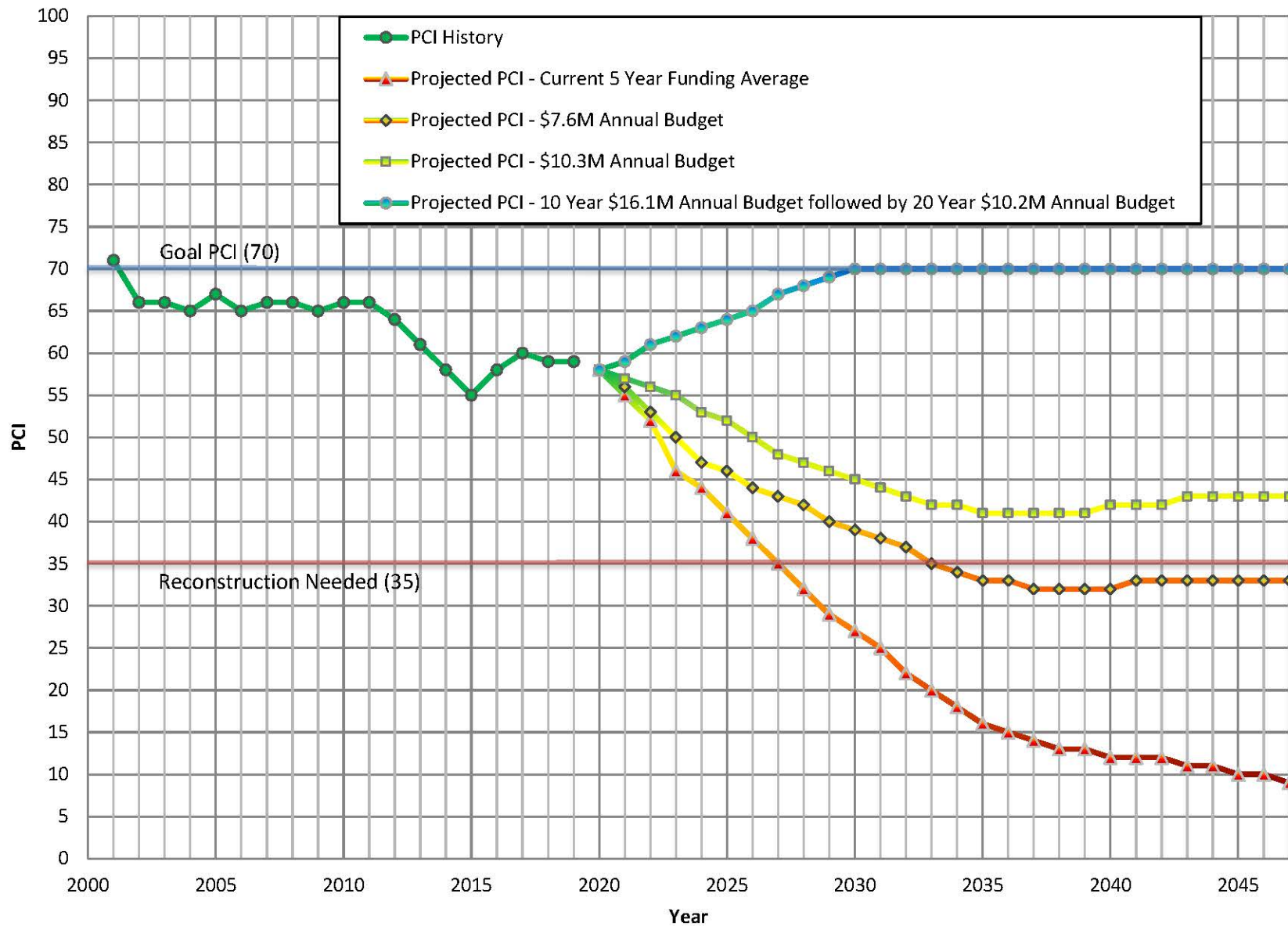
*Ethics, Excellence, Engagement*

# **Pavement Management Program Update**

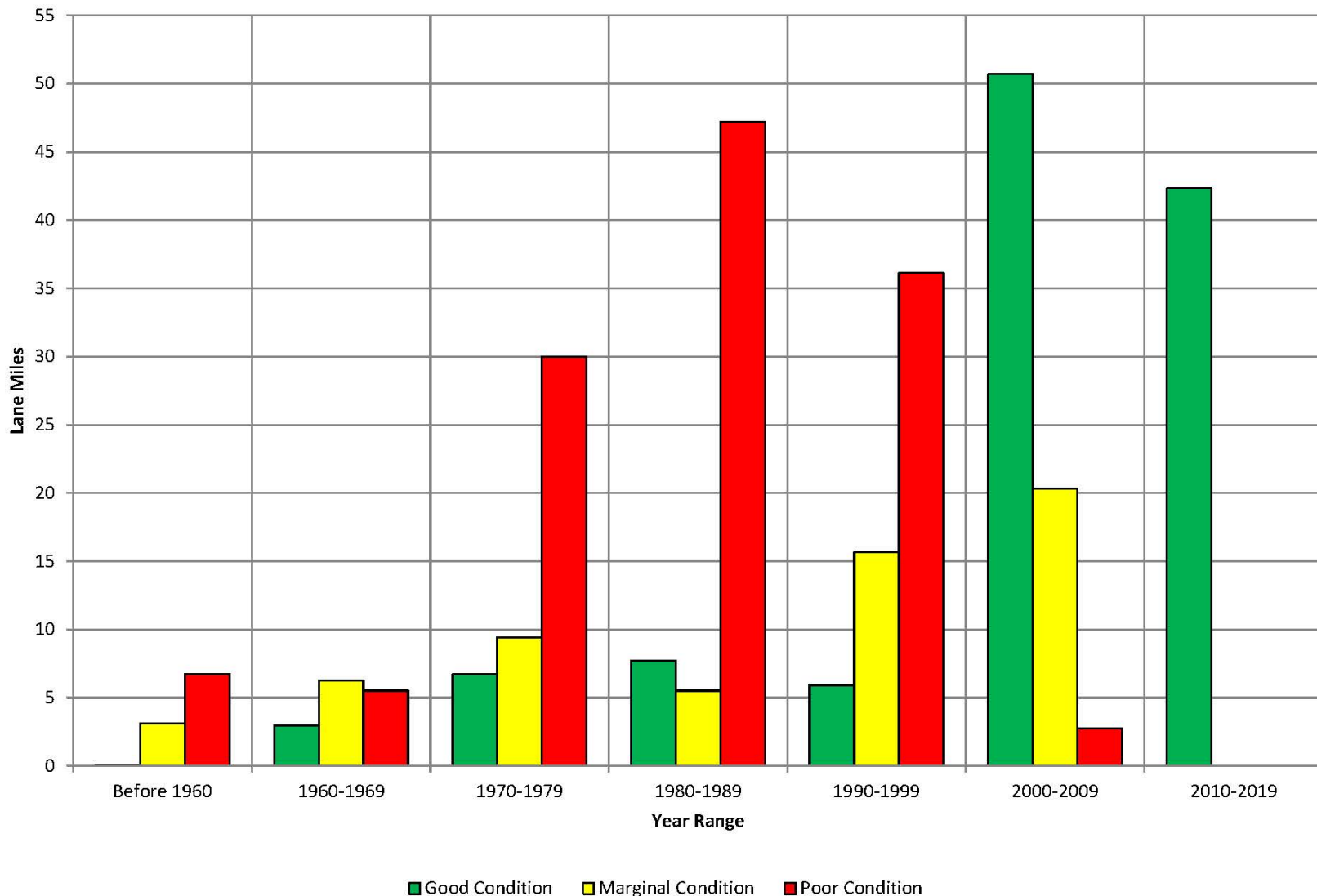
**August 3, 2020**

Presented by: Scott D. Thureen, Public Works Director

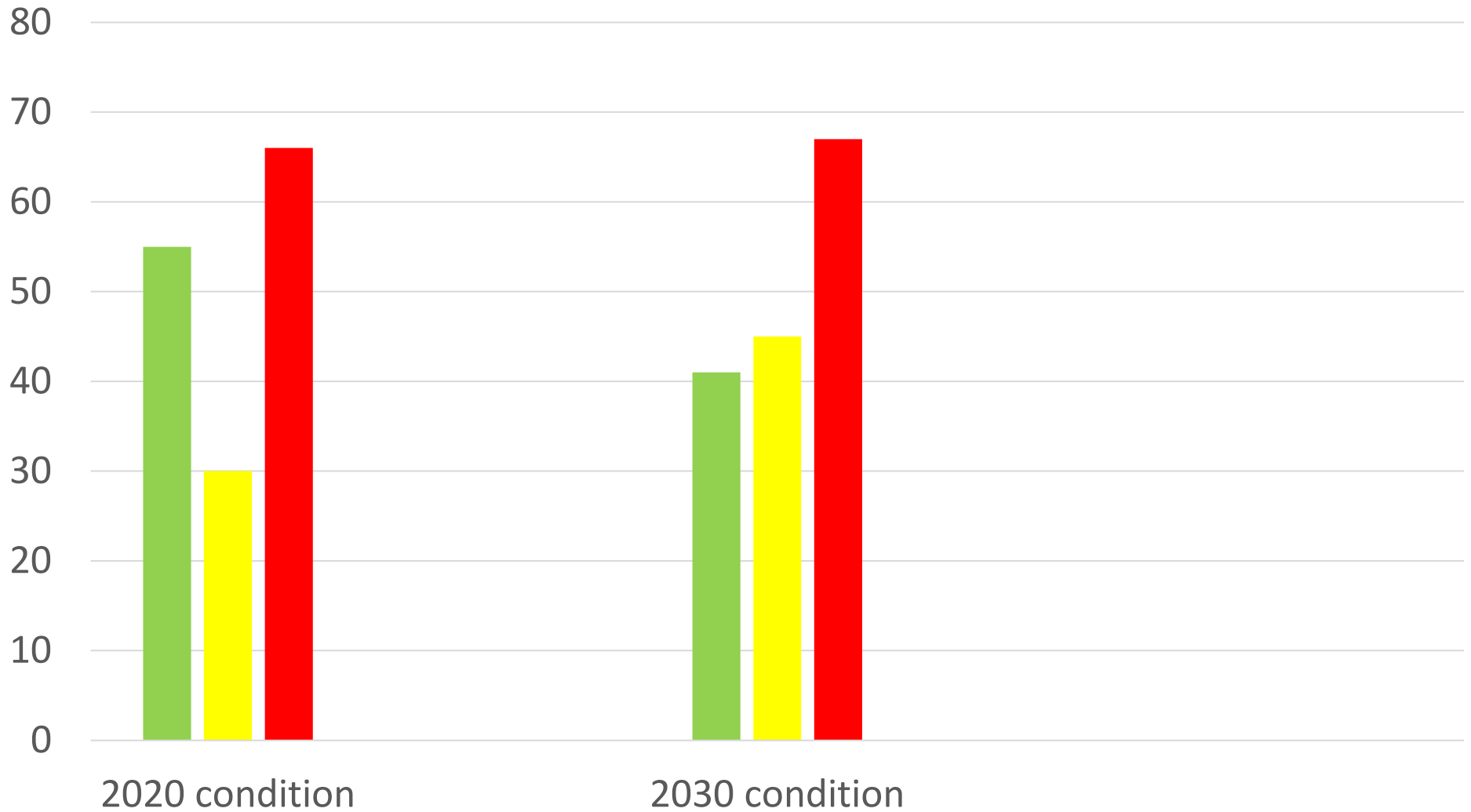
# PAVEMENT CONDITION INDEX (PCI) HISTORY AND FUTURE PROJECTIONS



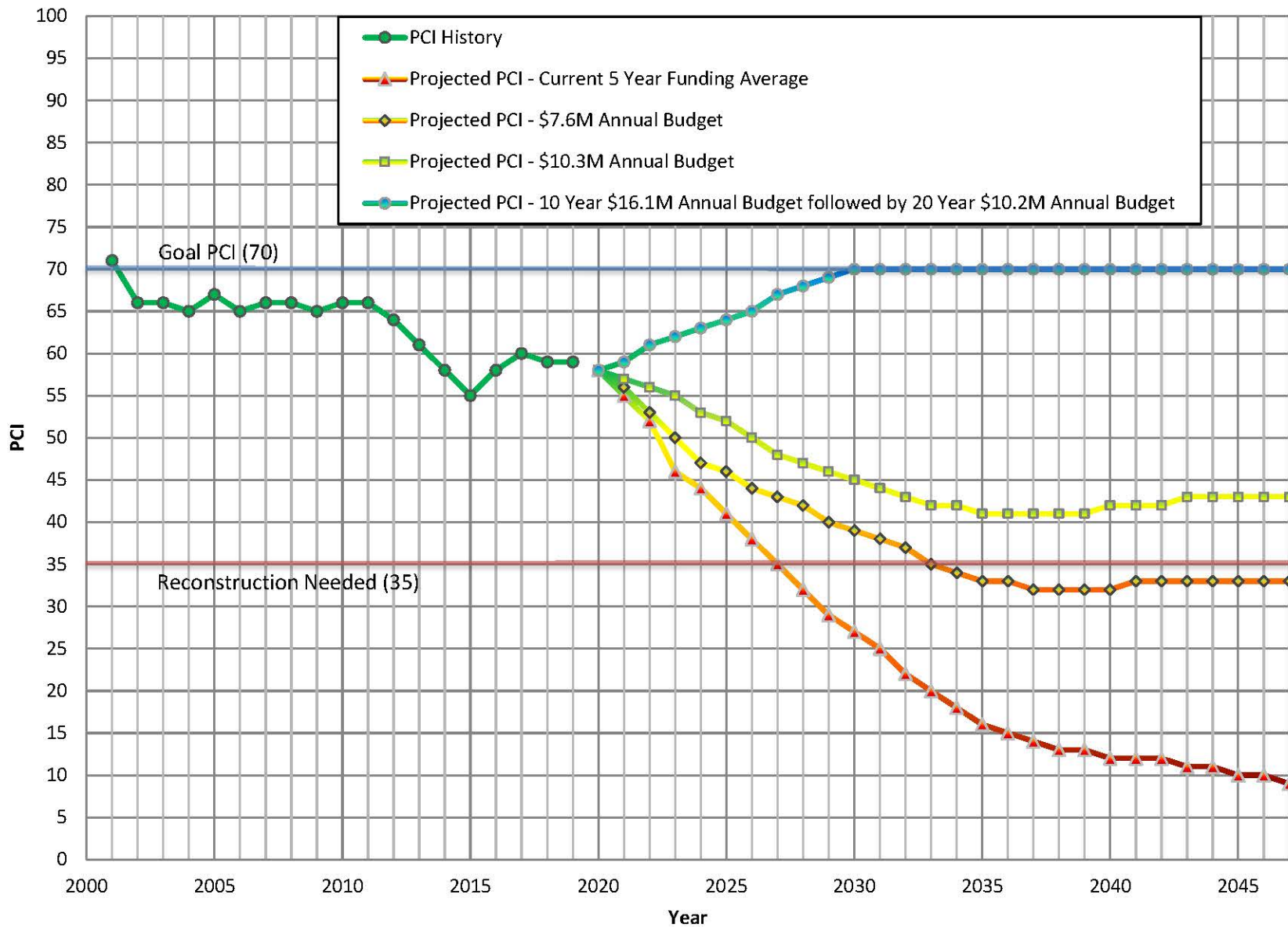
### Pavement Condition and Year of Latest Construction



# 10 Year Change at Current Rate

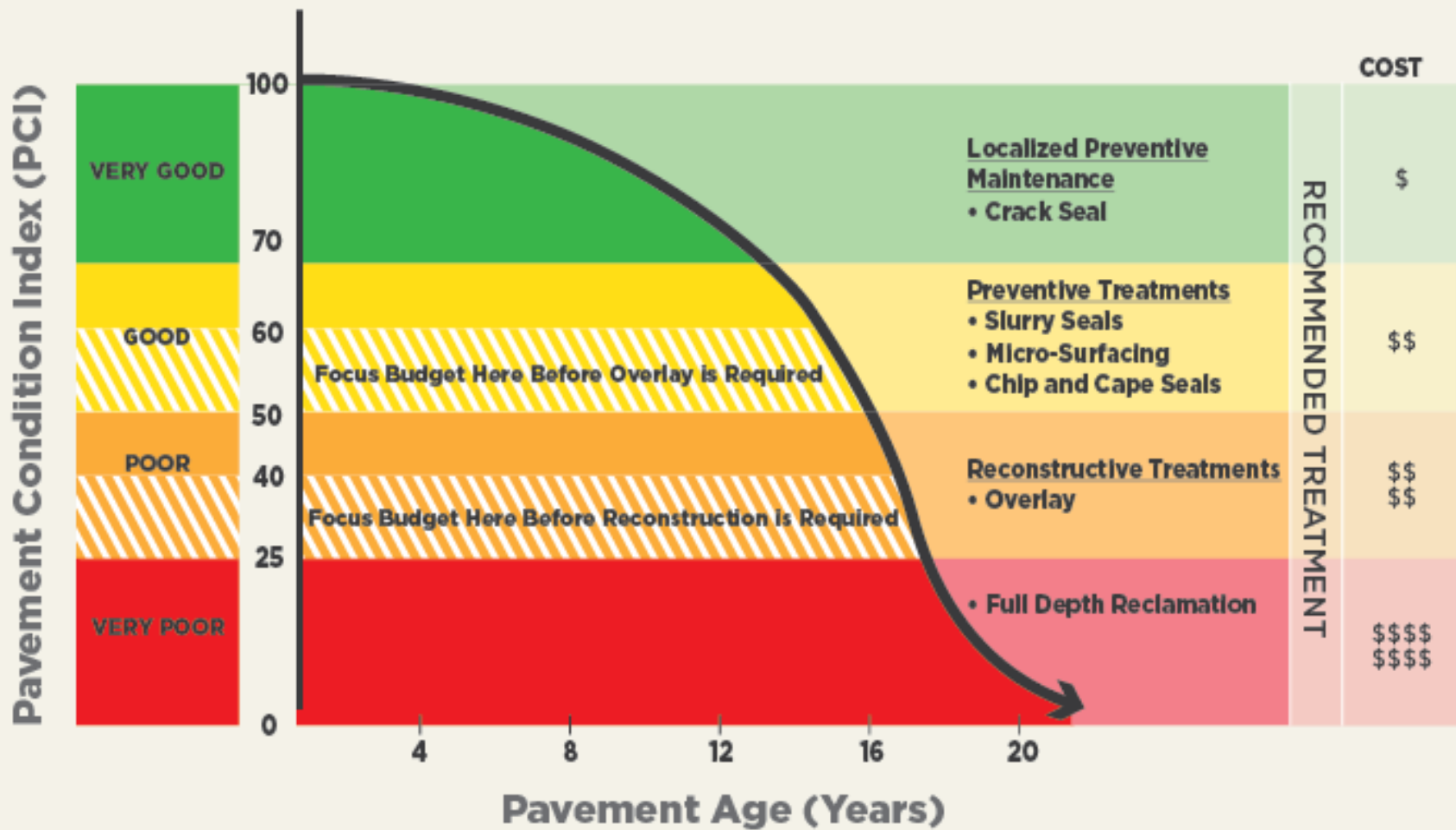


# PAVEMENT CONDITION INDEX (PCI) HISTORY AND FUTURE PROJECTIONS



# THE CONCEPT OF PAVEMENT PRESERVATION

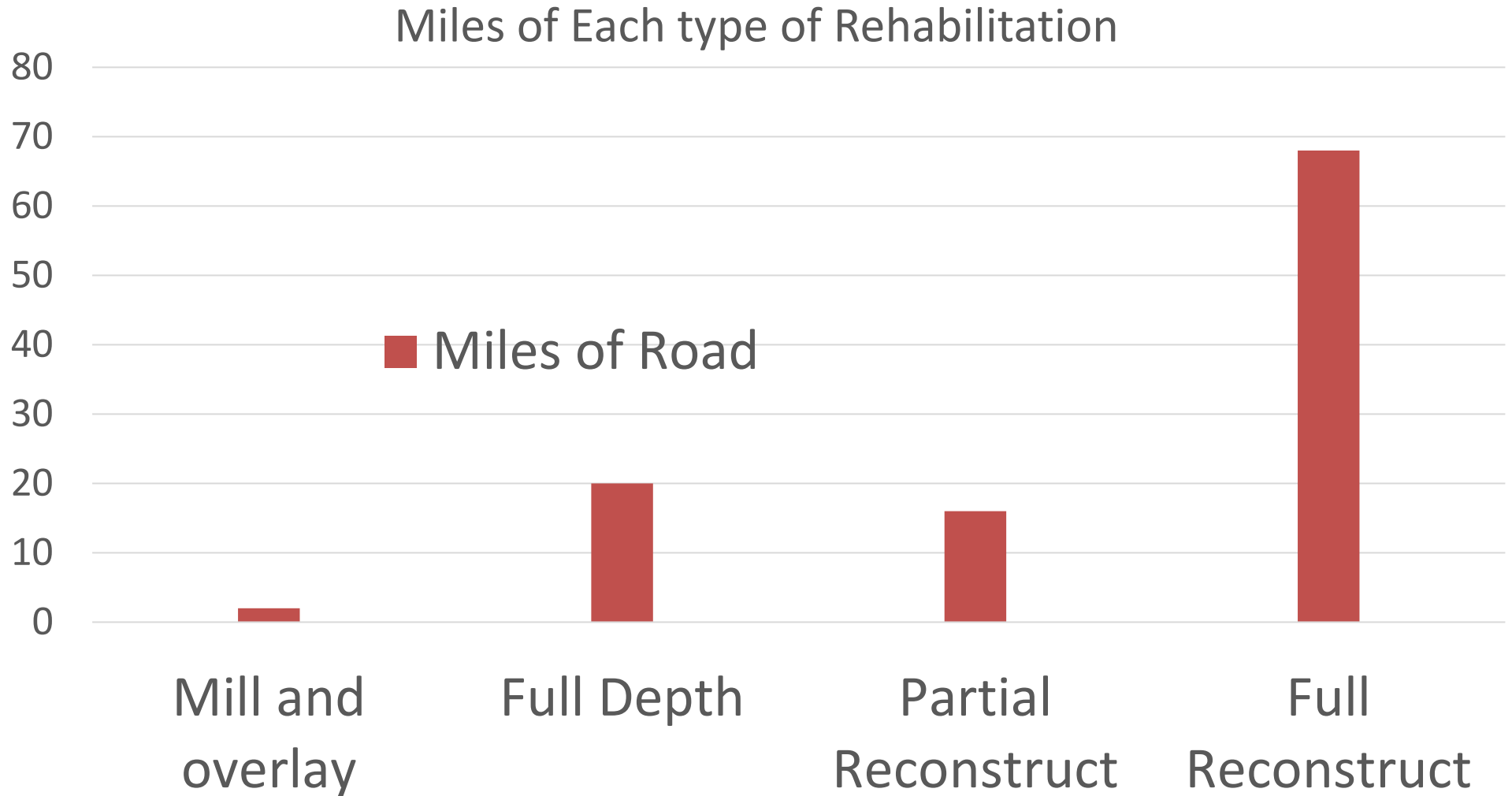
## CATCH STREETS BEFORE THEY FAIL



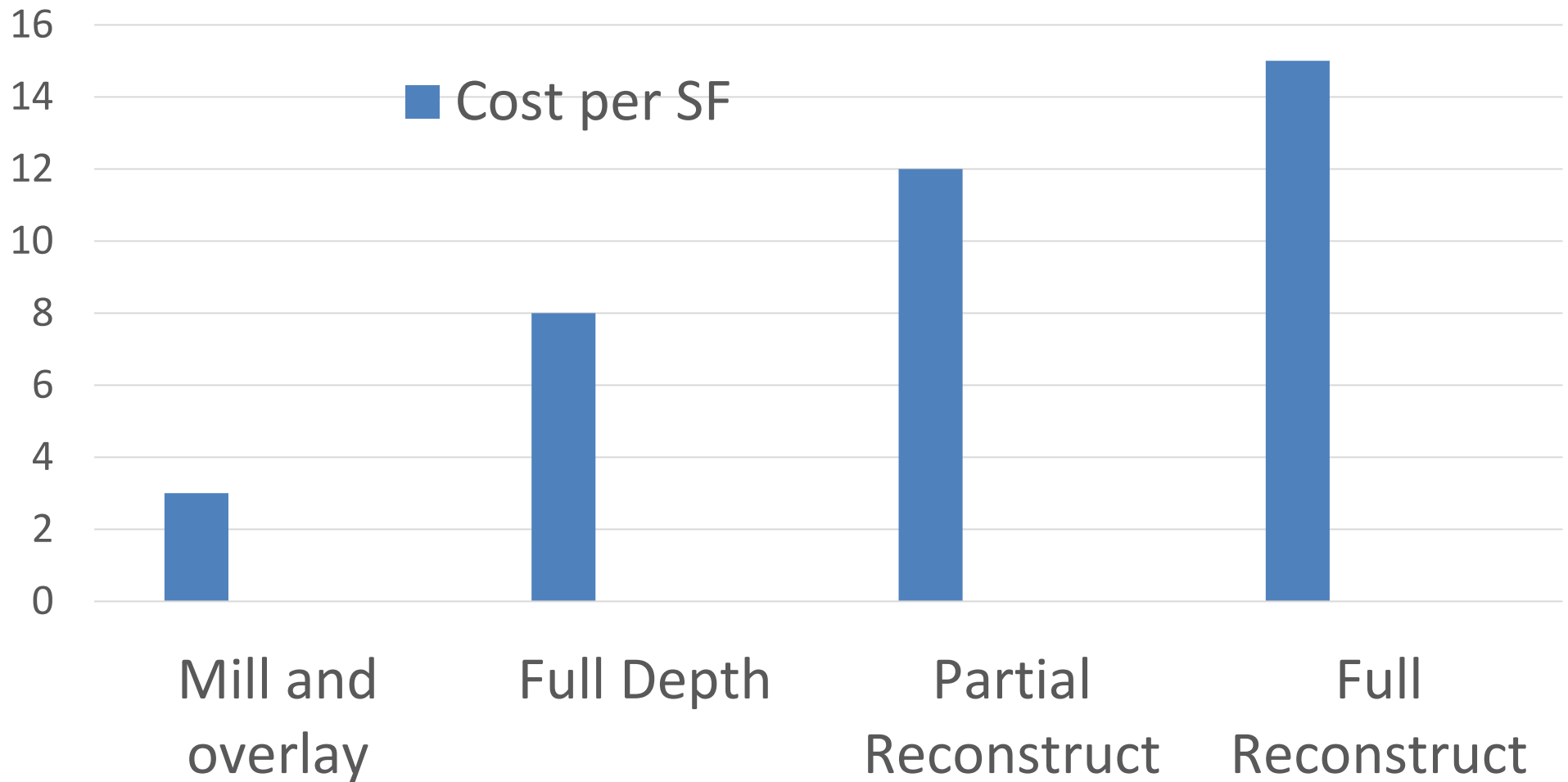
# TYPES OF PM TREATMENTS

- Crackseal
- Sealcoat
- Patching
- Mill and Overlay
- Full-Depth Pavement Replacement
- Full-Depth Reclamation
- Partial Reconstruction
- Full Reconstruction

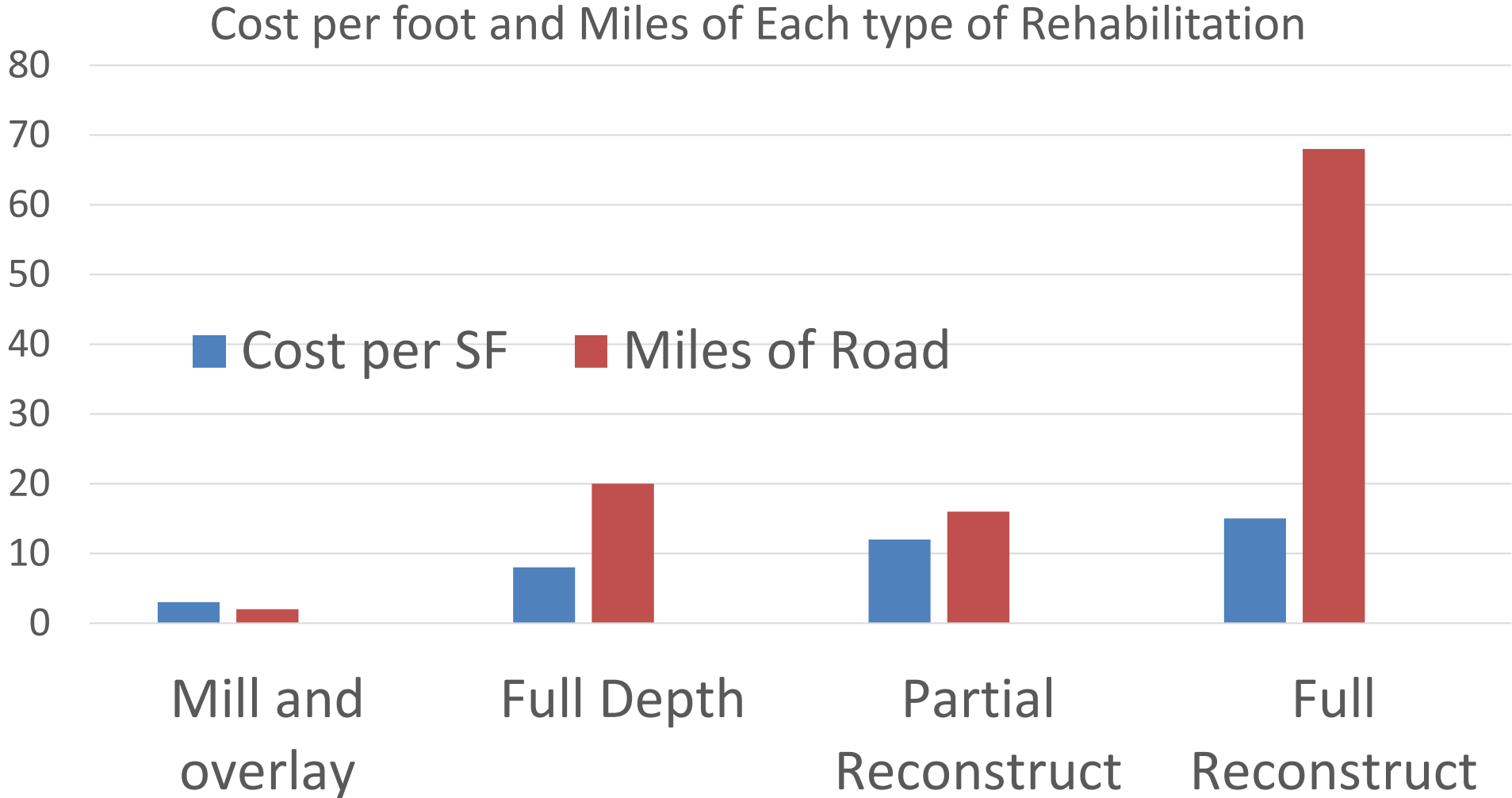
# “Recommended” Strategies



# Full Reconstruct is 5x of an Overlay



# Full Reconstruct is 5x of an Overlay



# What are the alternatives?

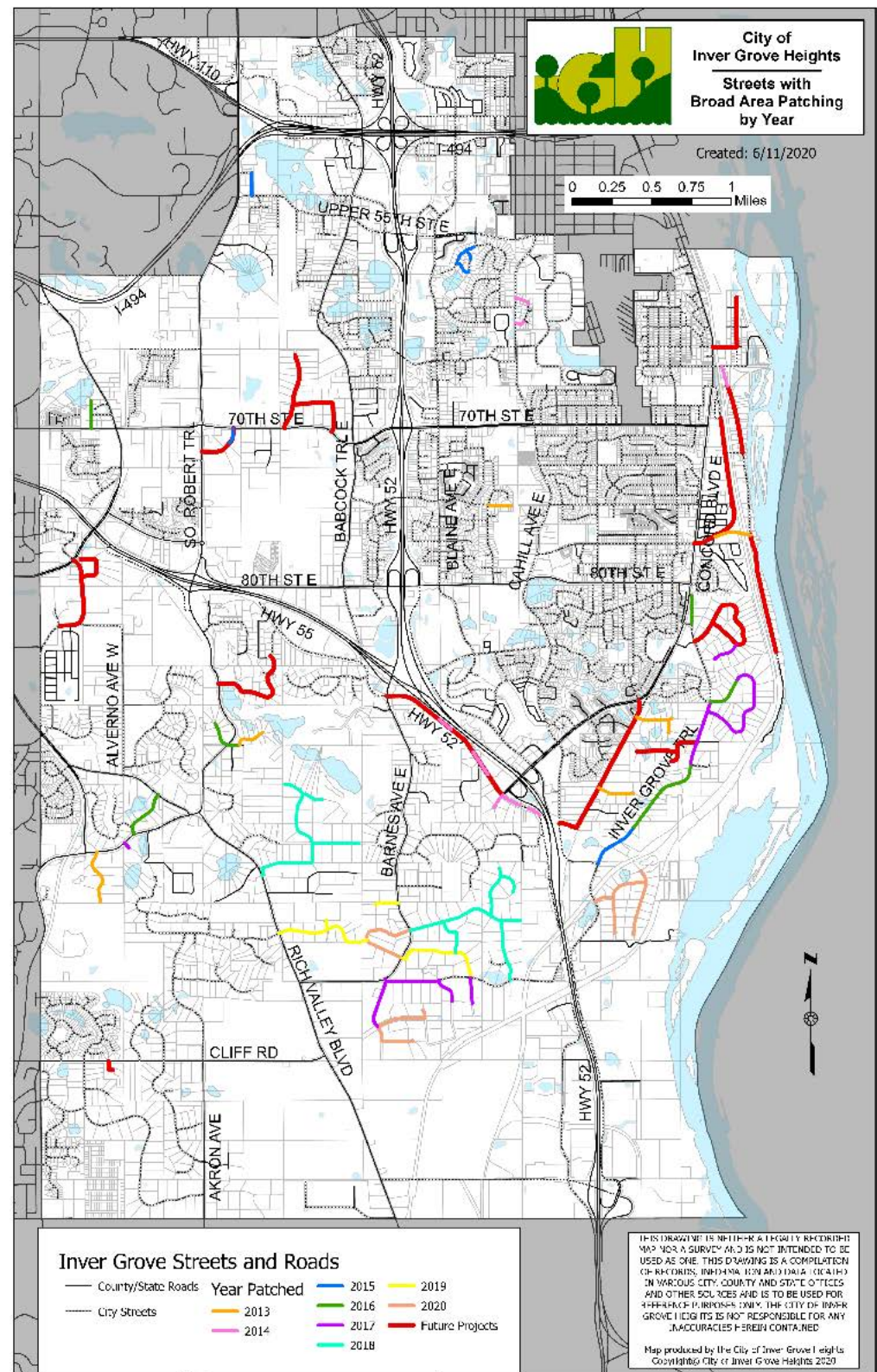
- Mill and Overlay as much as possible?
- Can we M&O roads that engineers recommend something else?
- What are ramifications of not following soils engineering recommendations?

# TYPES OF PM TREATMENTS

- Crackseal
- Sealcoat
- Patching “Broad Area Patching”
- Mill and Overlay
- Full-Depth Pavement Replacement
- Full-Depth Reclamation
- Partial Reconstruction
- Full Reconstruction

What is Broad Area Patching?

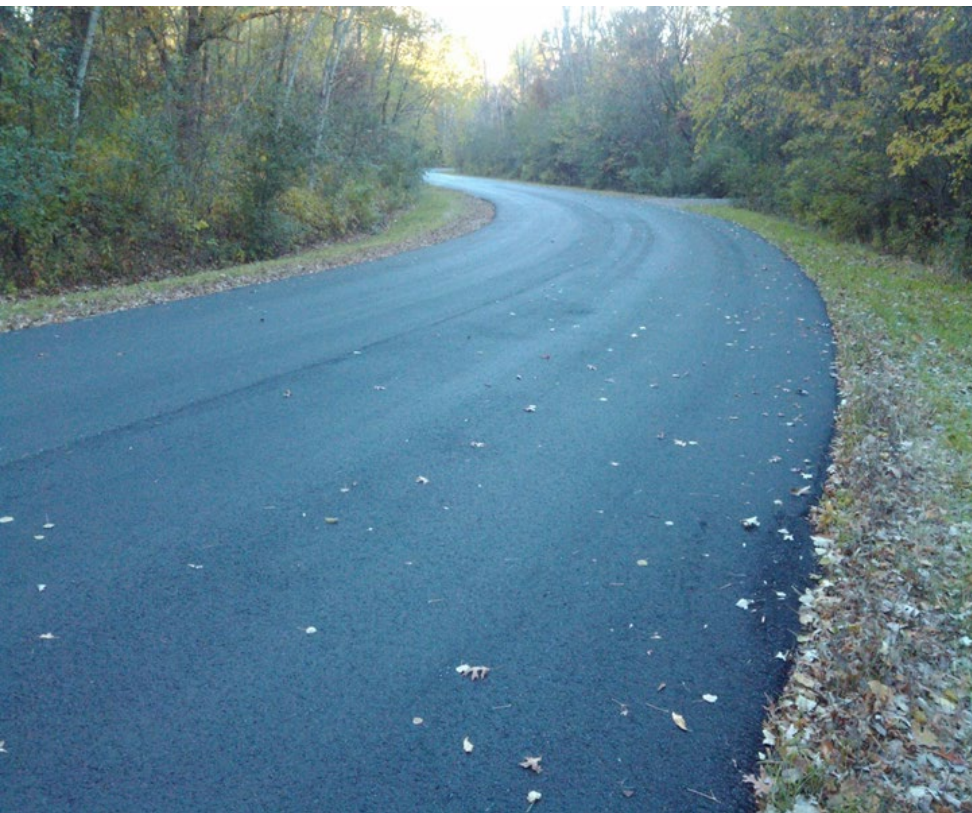
PW crews, faced with massive patching needs every spring have resorted to using the city paver in rural areas—A **Minimal Approach**



# Broad Area Patching—A simple Overlay



8150 Barbara Ave. Inver Grove Heights, MN  
55077 651-450-2500  
[www.invergroveheights.org](http://www.invergroveheights.org)



# Arkansas Ave 2013 to 2021





## Inver Trail 2015 to 2021

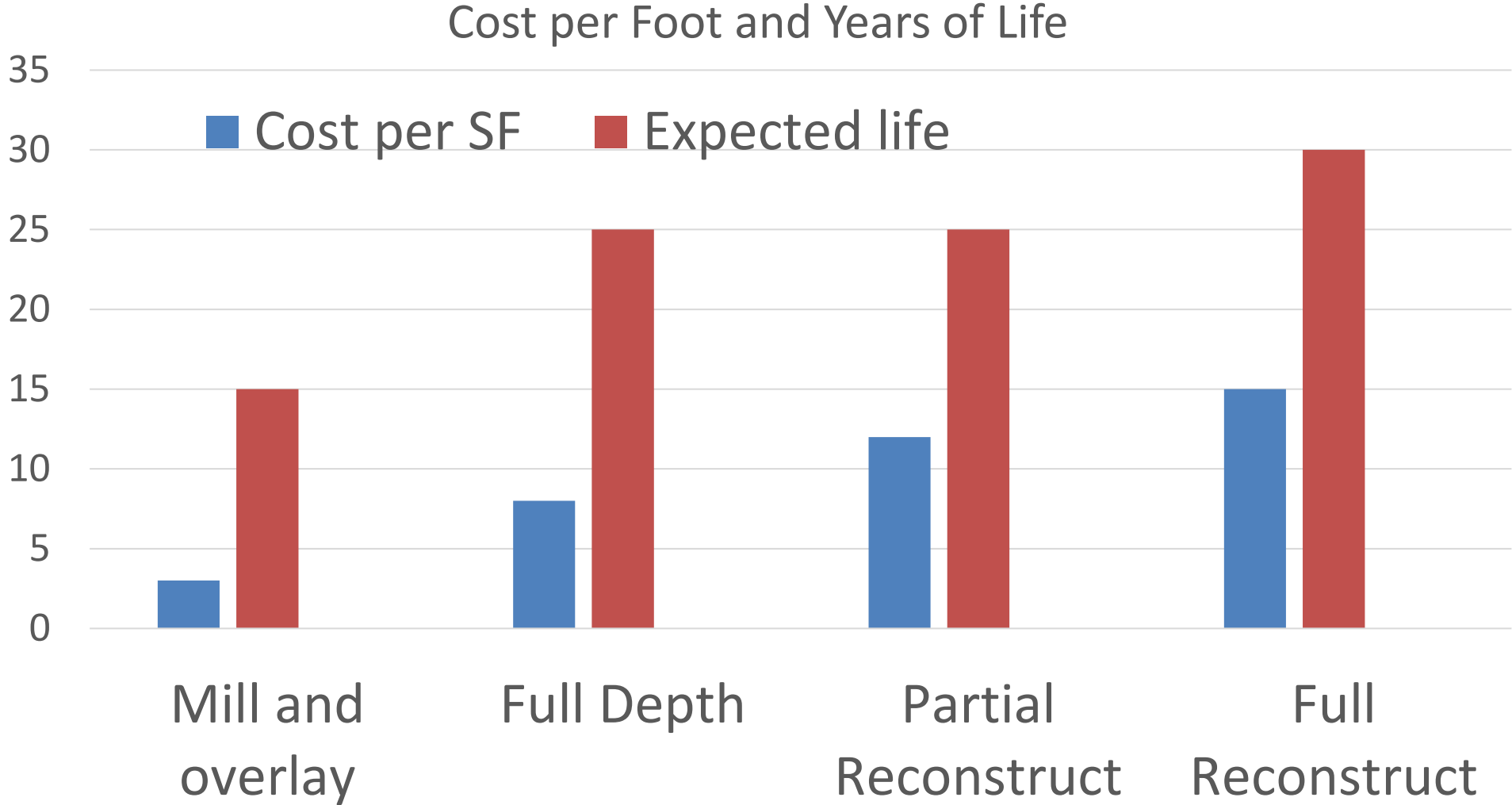


# Comparison of Impact

Improvement	Cost per SQ Ft	City Contribution	Miles Rehabilitated
Reconstruction	\$15	\$1,000,000	0.6
Mill/Overlay	\$3	\$1,000,000	8.6

Note that Life of a M&O is 15 years or less, compared to 25+ years for Reconstruction

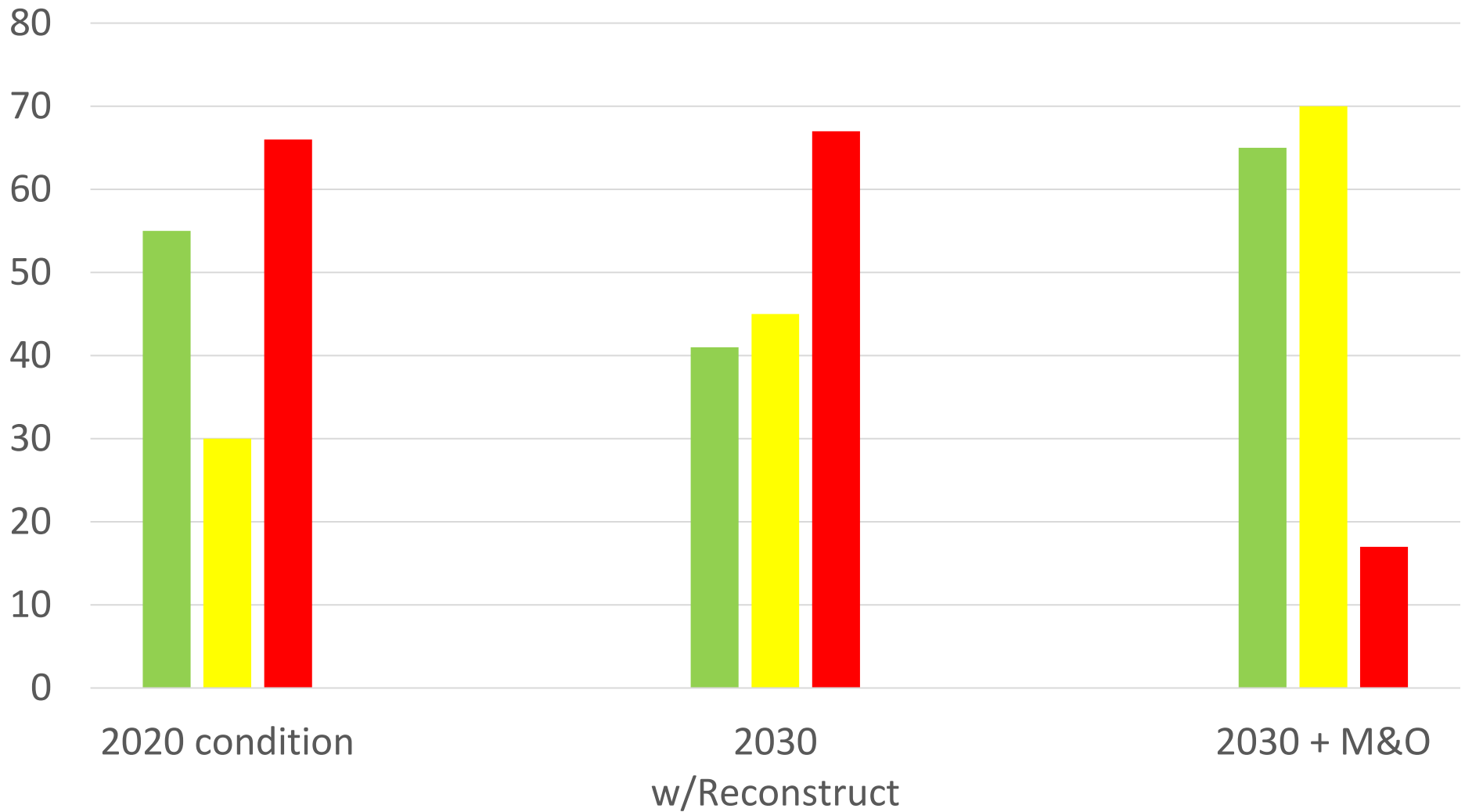
# Minimalist Overlay has Good Value



# Minimalist Strategy- a Possibility

- Mill and Overlay as much as possible
- Relatively inexpensive
- Lower engineering effort
- Average 15 years of life
- Could provide a stop-gap on many roads
- Would “Stretch out” the bulge in the curve

# Best Case with Aggressive M&O



# Minimal Strategies- not a Magic Bullet

- Not appropriate for all cases
- Still would need more funding
- Service life and quality of the product is lower
- Would need a strong education component
- Significant assessment revenues extend impact but residents fund a higher proportion

# Recommended Steps

- Confirm the current trends are not acceptable
- Explore more robust PMP funding strategies
- Consider a Minimal approach using Overlays
- Complete the Sewer and Water Renewal Study
- Consider a Citizen's task force with Council Liaison

# QUESTIONS/COMMENTS



# Infrastructure 101 and Historical PMP Information In IGH

Presented by:

Klay Eckles

Interim Public Works Director

Steve Dodge

Assistant City Engineer

November 4, 2021



CITY OF  
INVER GROVE  
HEIGHTS

ENGINEERING DIVISION

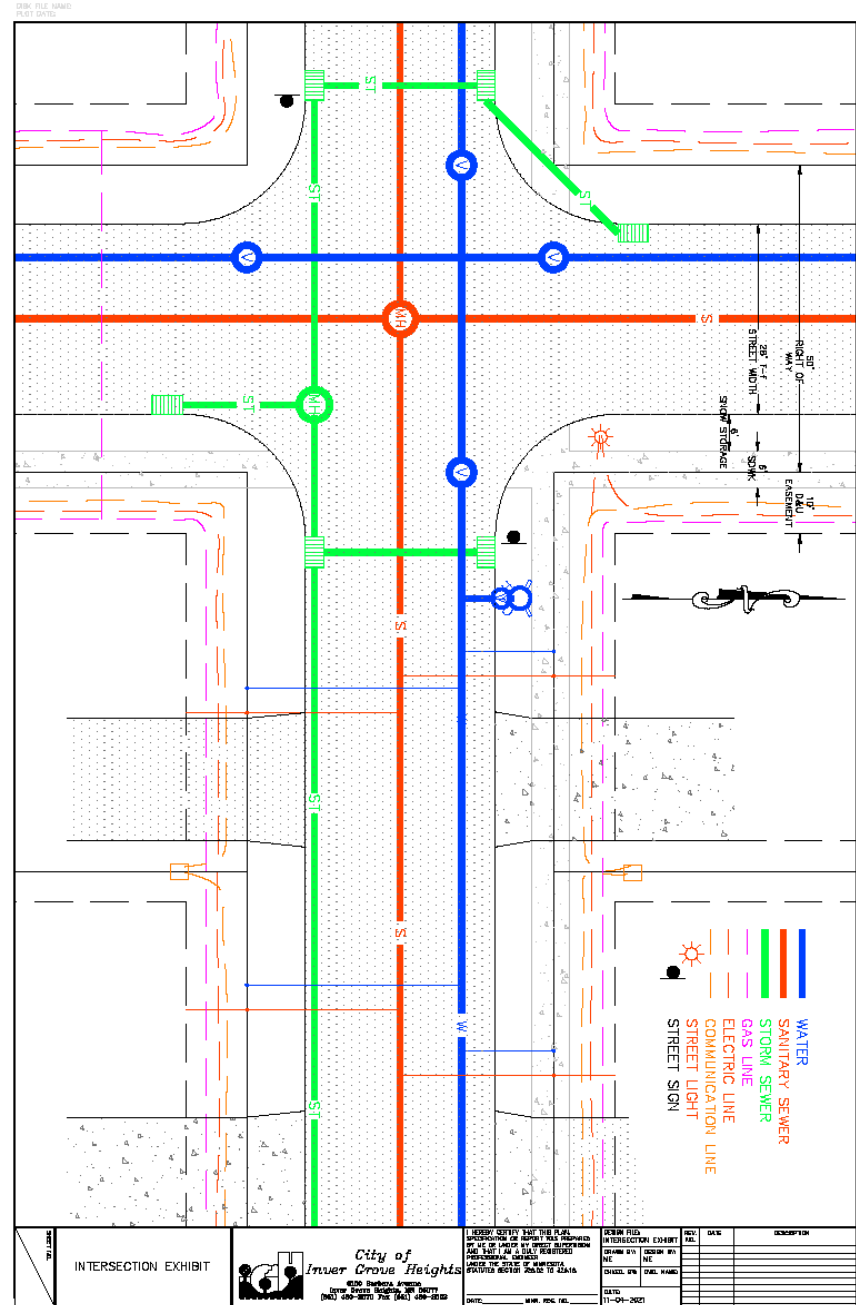


[www.ighmn.gov](http://www.ighmn.gov)

# INTRASTRUCTURE 101

## TYPICAL STREET INTERSECTION

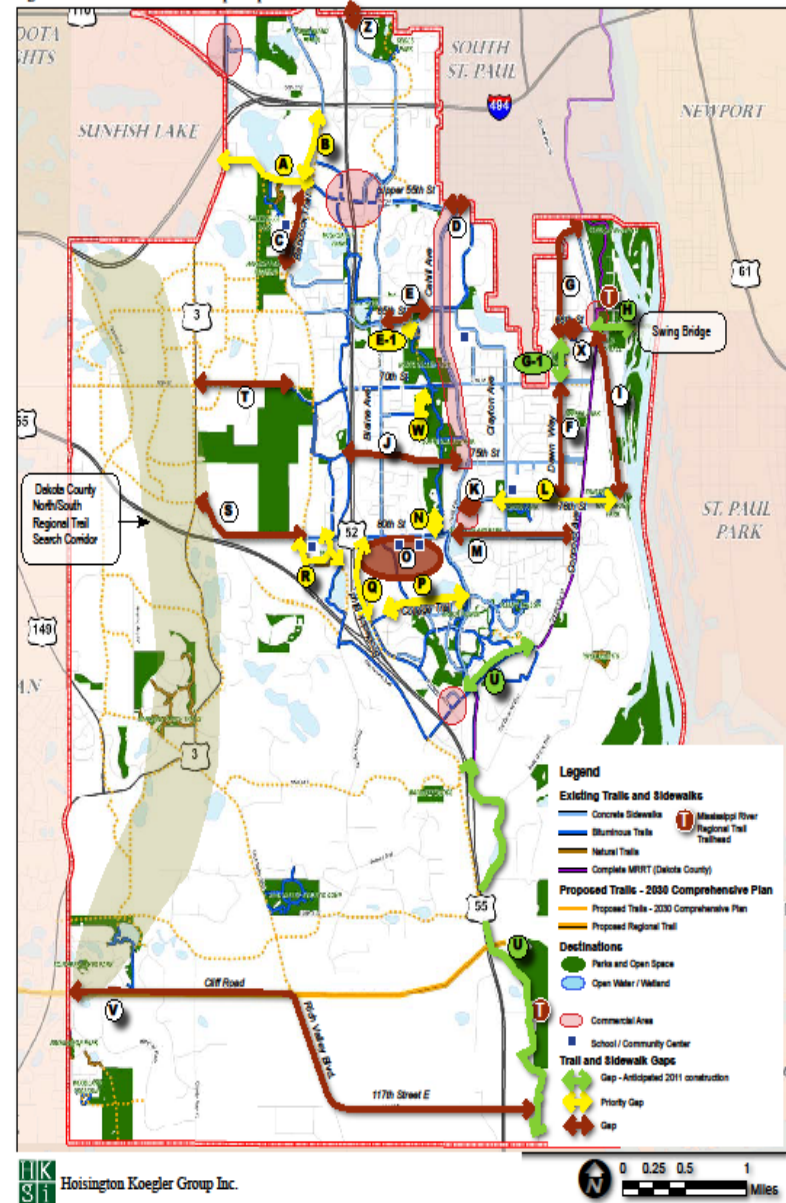
- Public Utilities:
  - Sanitary Sewer
  - Watermain
  - Storm Sewer
- Private Utilities
- Driveways
- Pedestrian Ways
- Streets



# INTRASTRUCTURE 101

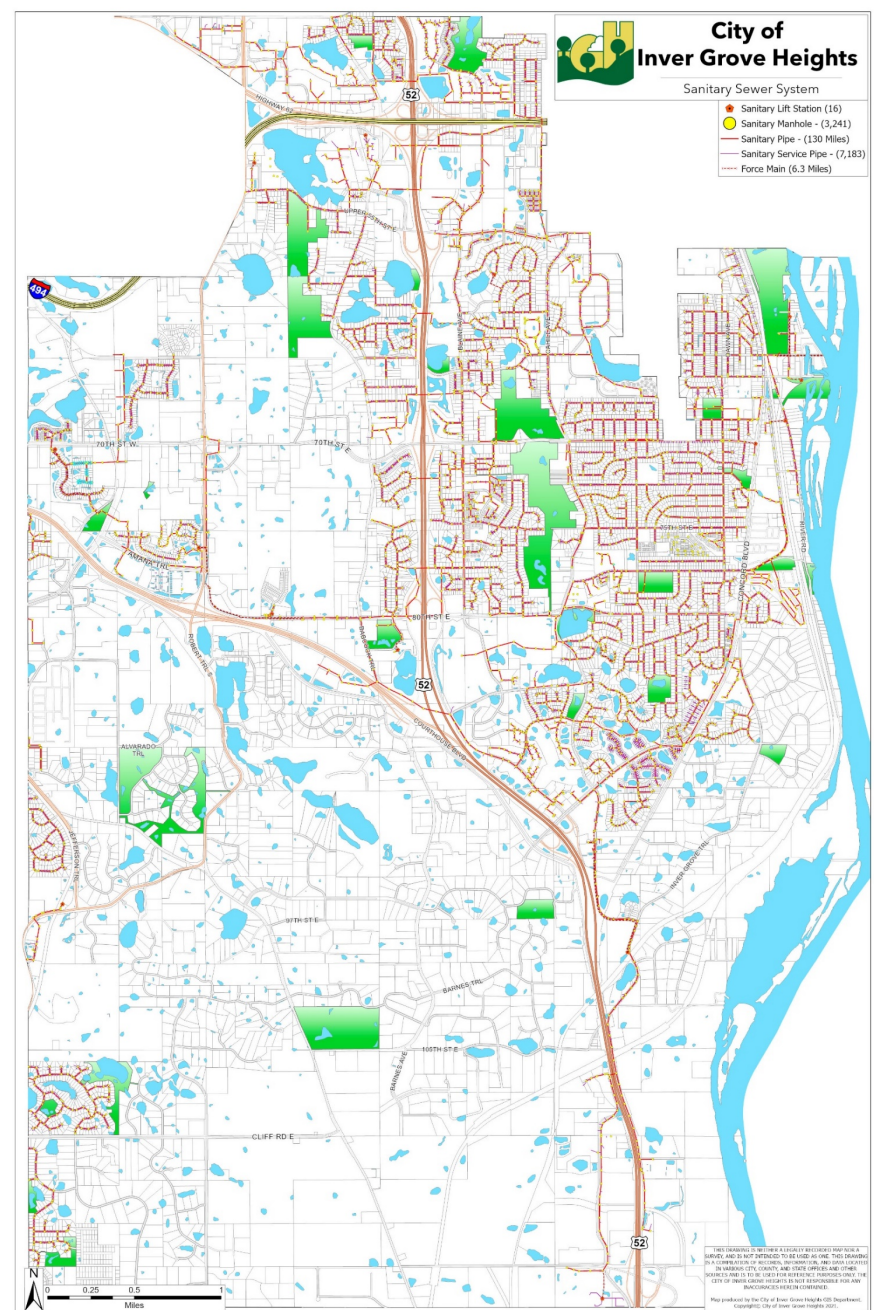
## Trail Gap Study

Figure 2: Trail and Sidewalk Gap Map

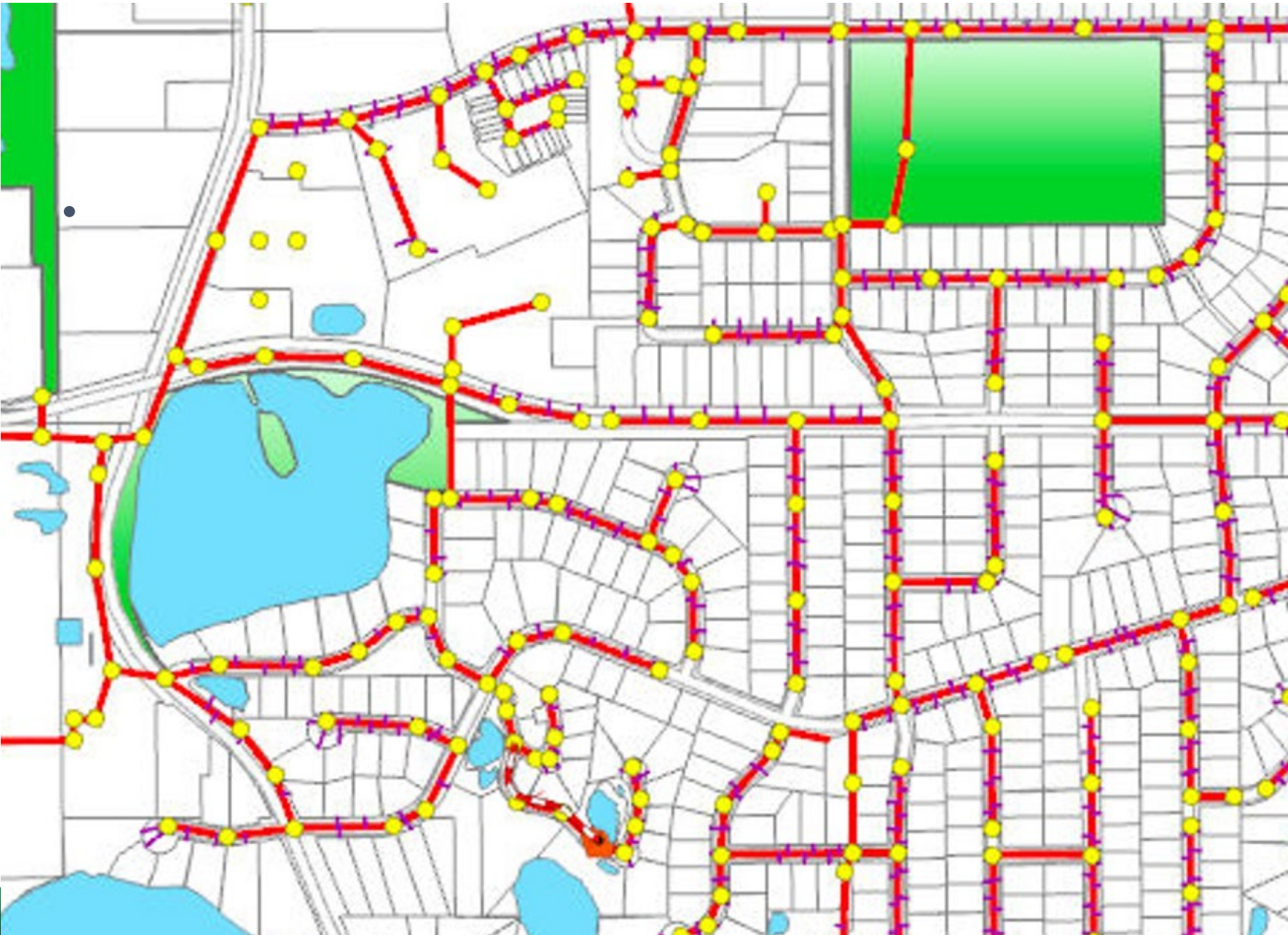


## Sanitary Sewer System

- Sewer Utility \$\$\$
- MCES Trunk Sewer
- Pigs Eye Plant
- Lift Stations (11)
- Sanitary Pipe (130 miles)
  - lining
- Sanitary Manholes (3,241)
- Sanitary Services (7,183)
  - private
- Forcemain (6.3 miles)



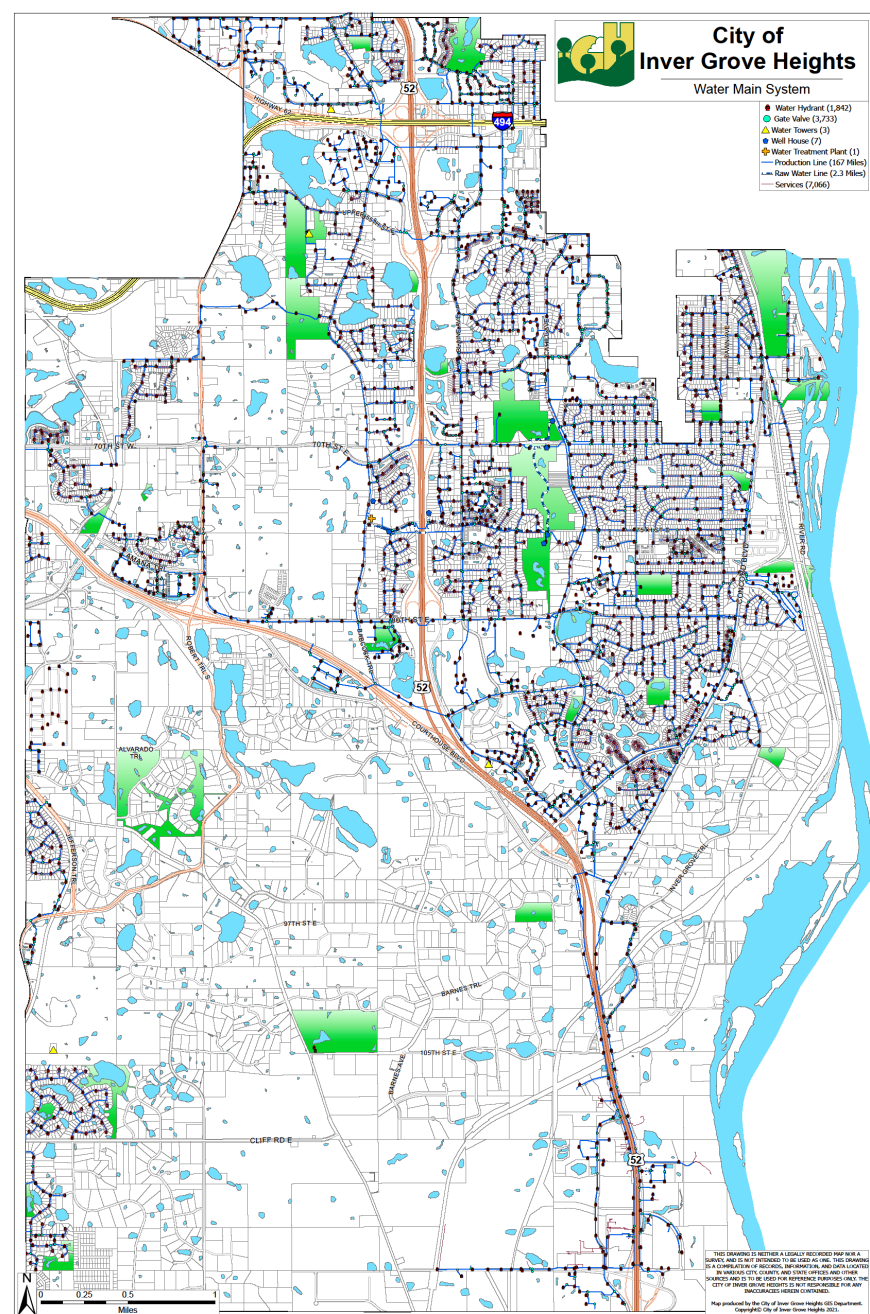
# INTRASTRUCTURE 101



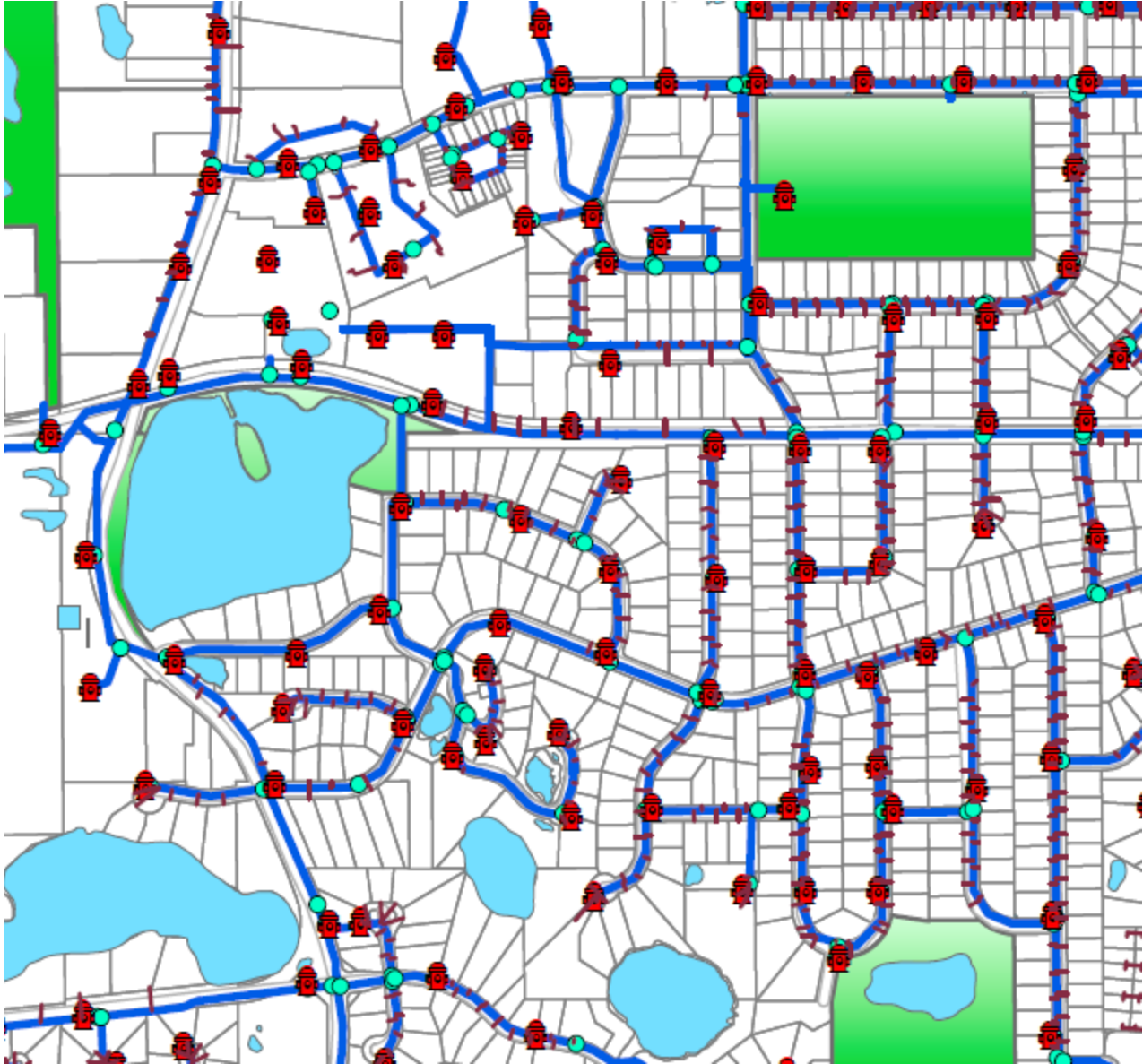
# INTRASTRUCTURE 101

## Watermain System

- Water Utility \$\$\$
- Water Treatment Plant
- Water Towers (3)
- Well House (7)
- Watermain (167 Miles)
  - Trunk/Lateral
- Water Services (7,066)
- Hydrants (1,842)
- Gate Valves (3,733)

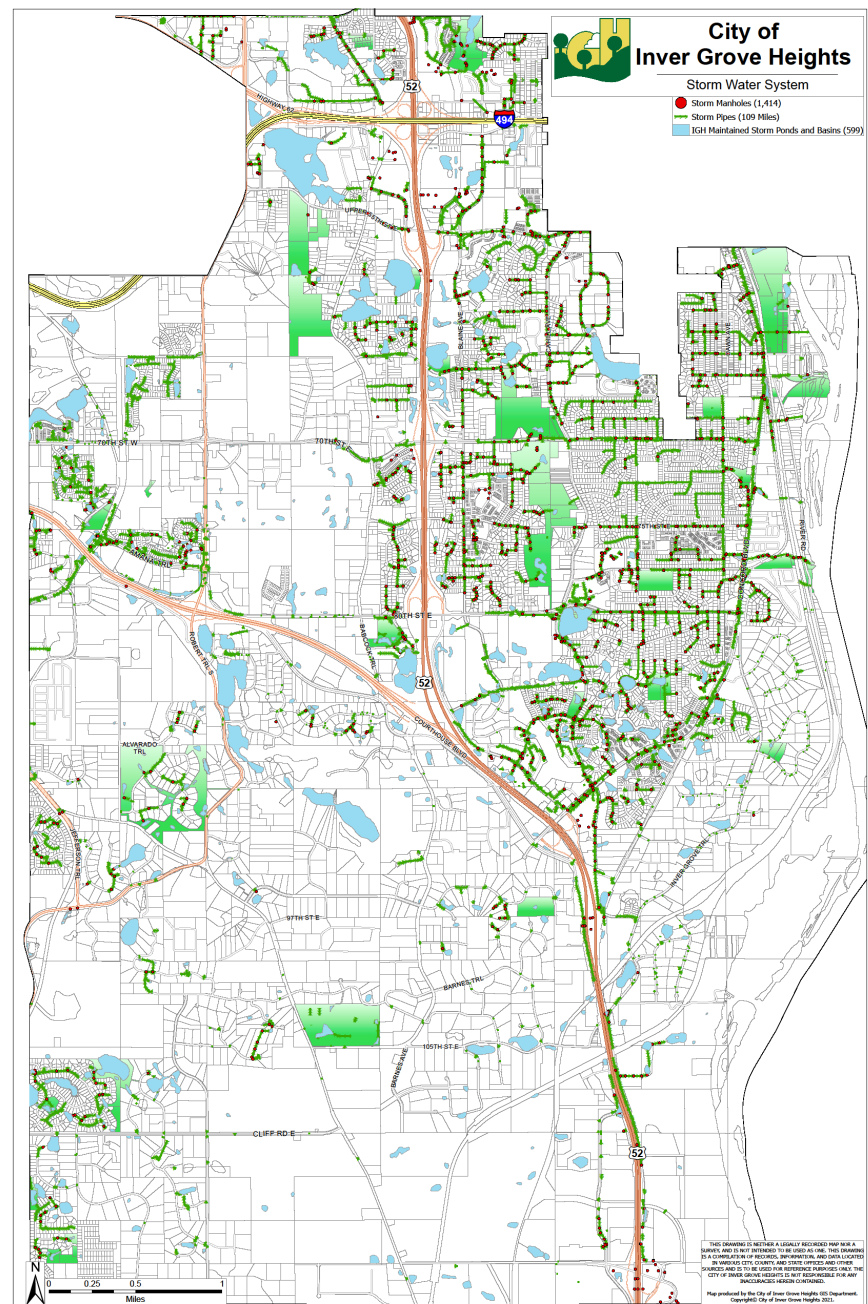


# INTRASTRUCTURE 101



## Storm Water System

- NWA Storm Fund \$\$\$
- Storm Water Utility \$\$\$
- PMP/Assessments \$\$\$
- Storm Water CIP
  - \$17M need
- Storm Manholes (1,414)
- Storm Pipes (109 Miles)
- Storm Ponds/Basins (599)
- Storm L.S./Forcemain





# INTRASTRUCTURE 101

## Watersheds

- Subwatersheds
- NWA Storm Water Manual
- 4<sup>th</sup> Generation SWMP

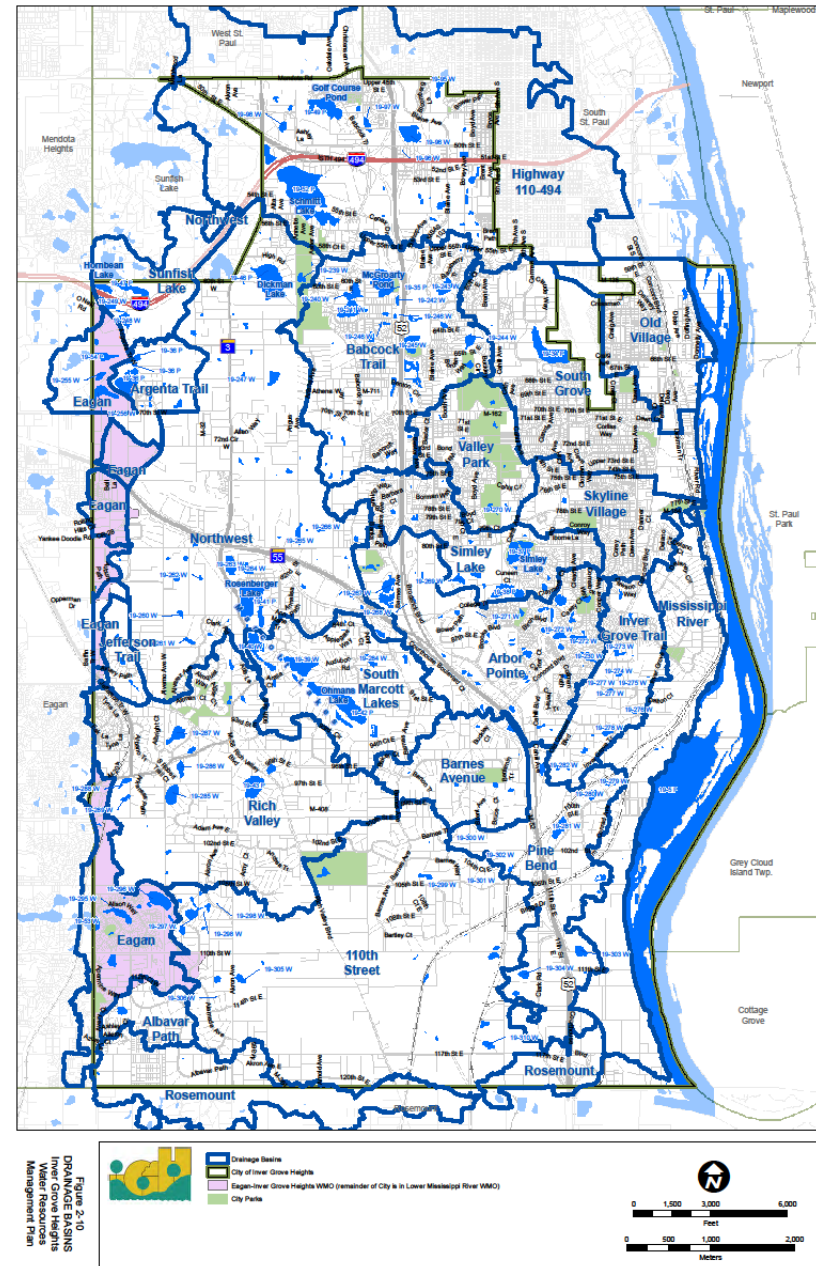
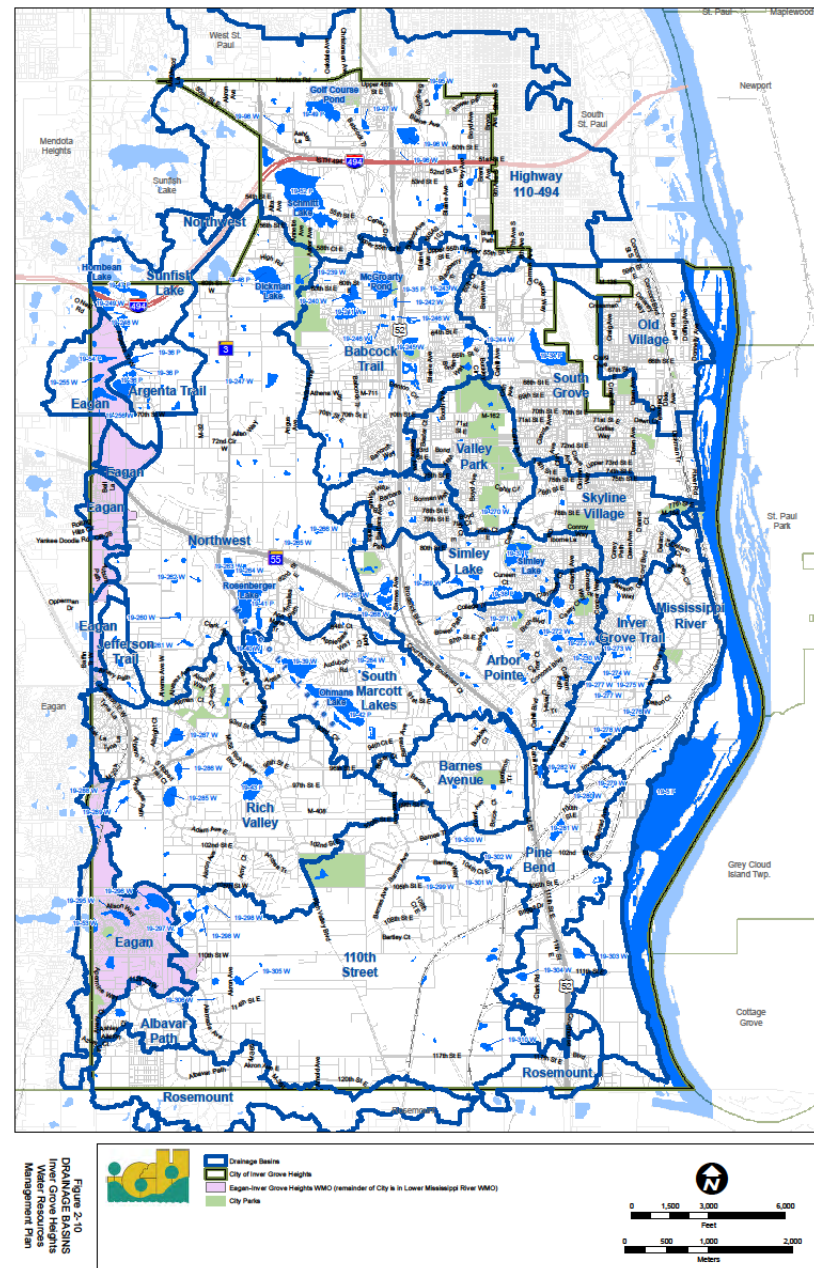
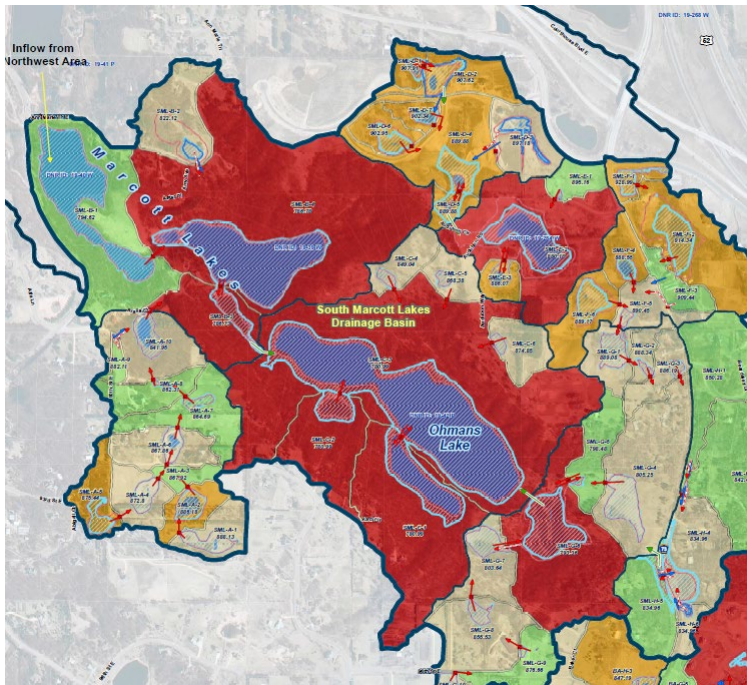


Figure 2-10  
DRAINAGE BASINS  
Inver Grove Heights  
Management Plan

# INTRASTRUCTURE 101

## Watersheds

- Subwatersheds
- NWA Storm Water Manual
- 4<sup>th</sup> Generation SWMP





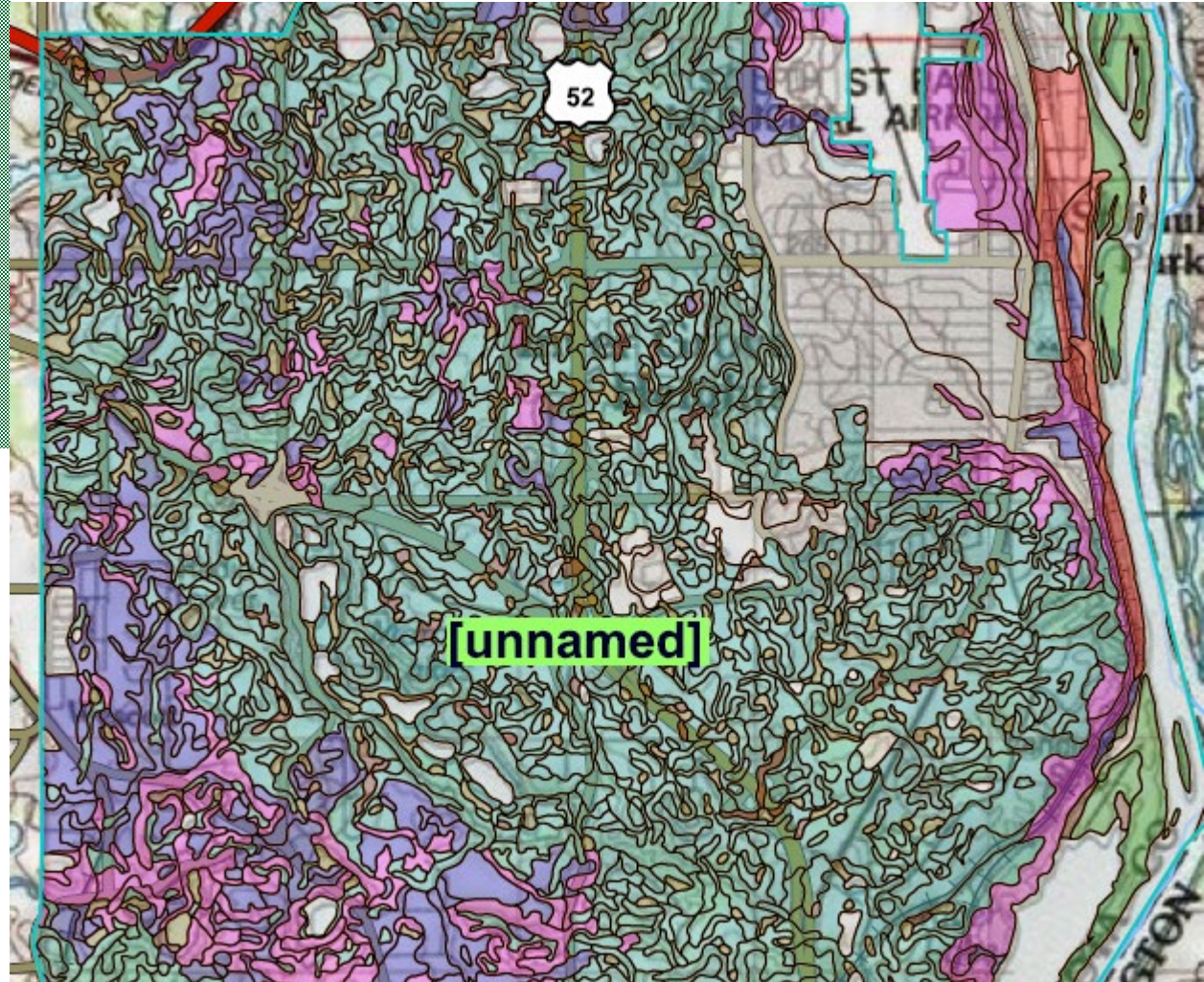
# INTRASTRUCTURE 101

## Soils

- Glacial Outwash
- Mostly Clay and Silty
- Not good road material

### Soil Rating Polygons

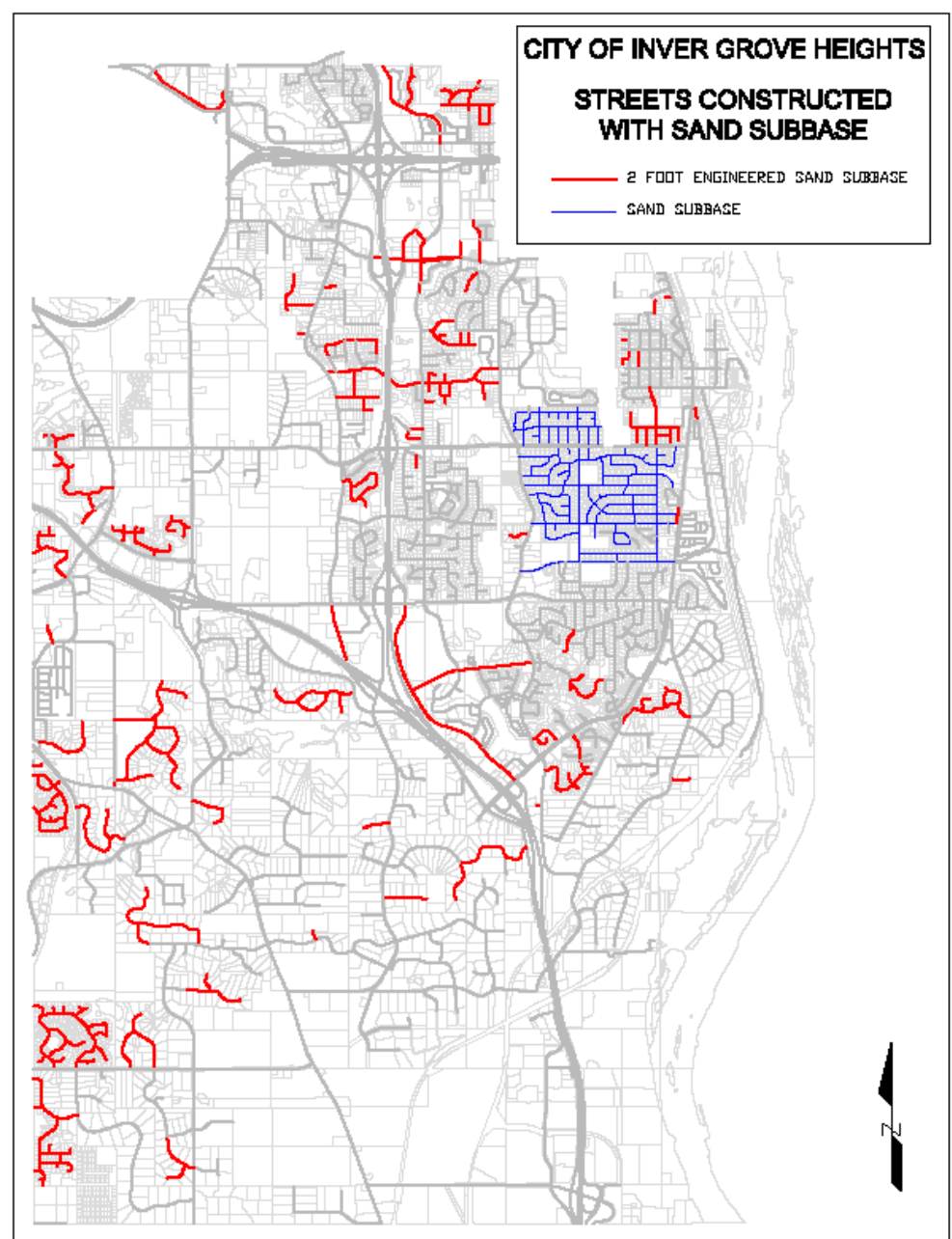
	A
	A/D
	B
	B/D
	C
	C/D
	D
	Not rated or not available



# INTRASTRUCTURE 101

## 2' Sand Subbase

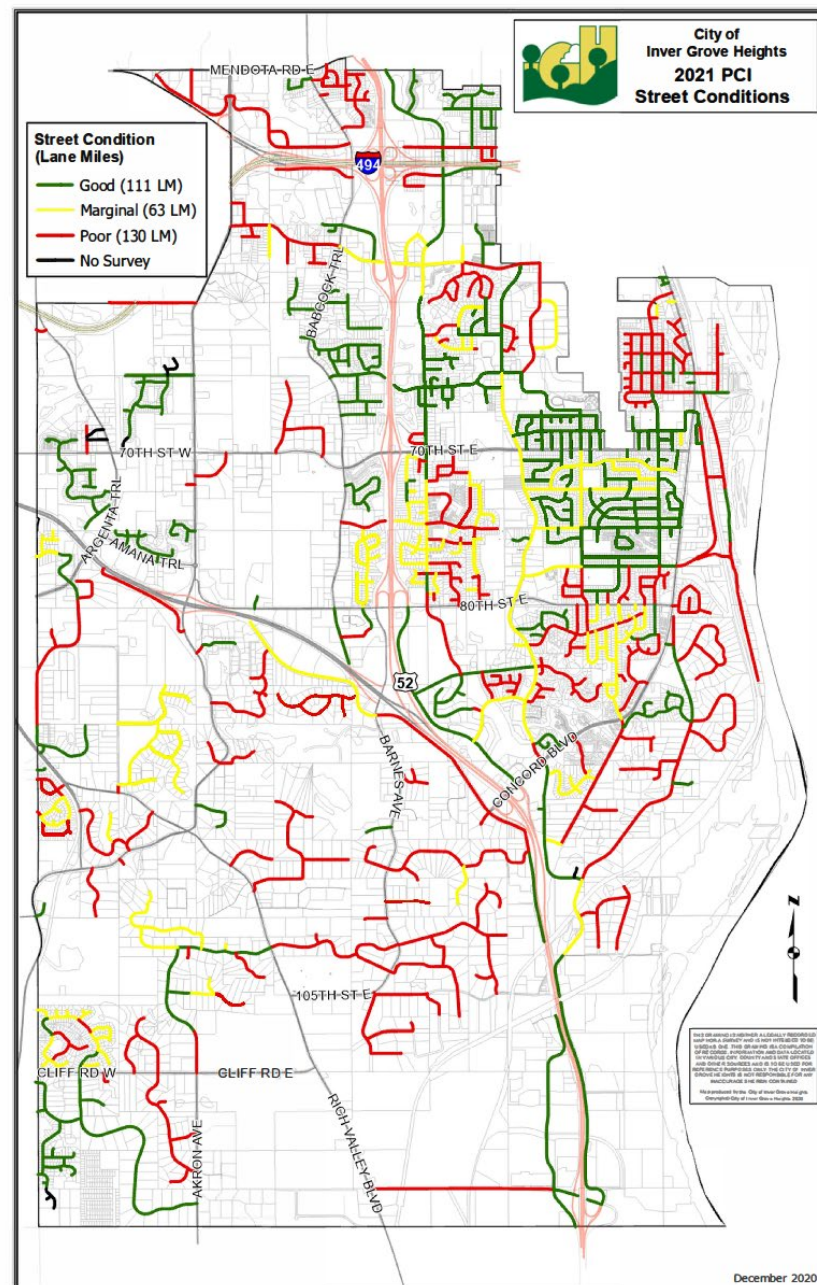
- New Developments
- Reconstructed Streets
- Most Streets on poor, frost susceptible soils



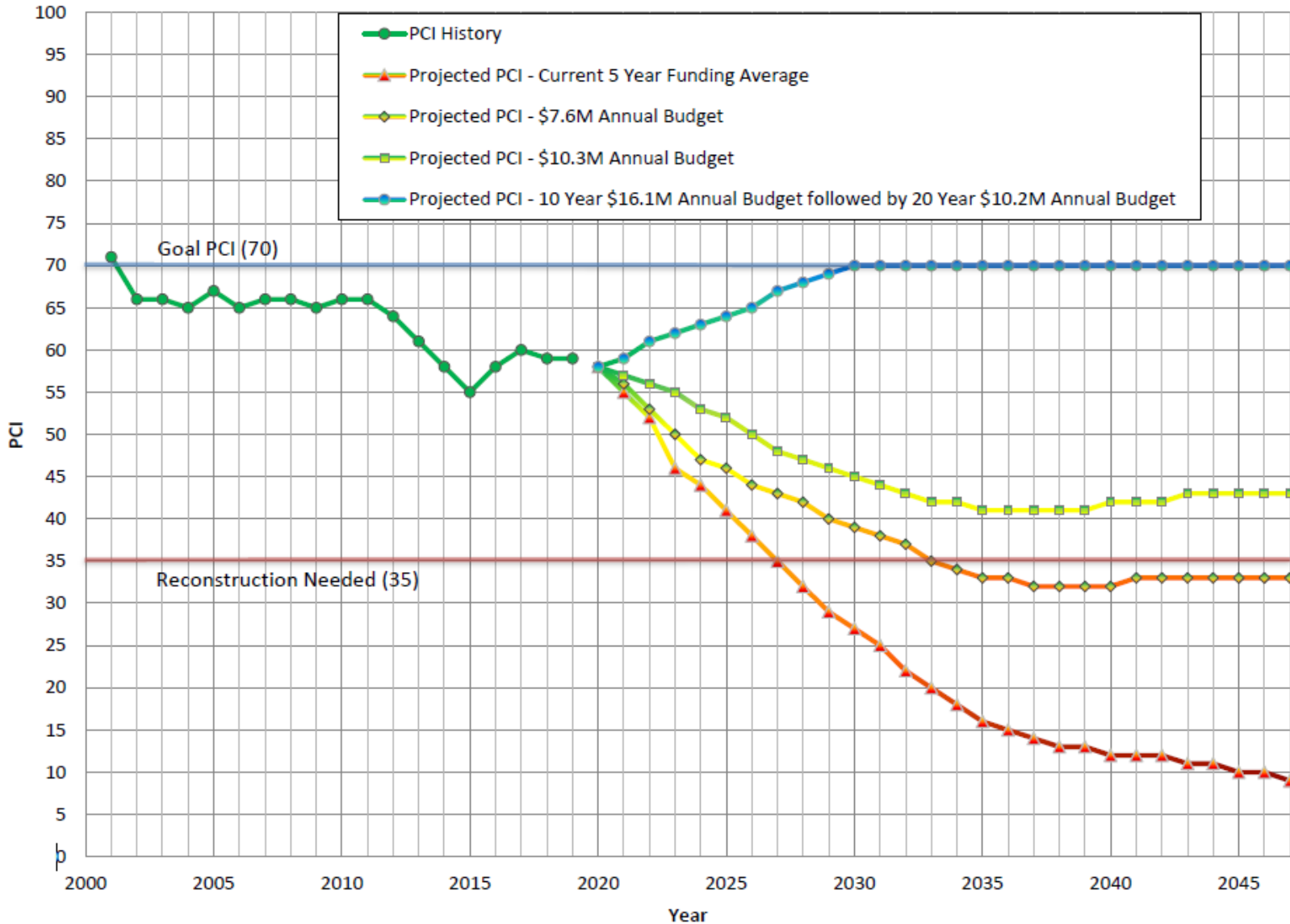
# INTRASTRUCTURE 101

## PCI (Pavement Rating)

- ICON Program
- Inspect Streets Annually
- Most Streets on poor, frost susceptible soils
- Good 110 Lane Miles
- Marginal 63 Lane Miles
- Poor 130 Lane Miles



## PAVEMENT CONDITION INDEX (PCI) HISTORY AND FUTURE PROJECTIONS



### Typical Project Timeline (Council)

#### 5-year Capital Improvement Program

- March: Approves **Preparation of Feasibility Study**
  - *Review all infrastructure conditions and needs*
- July: Receives Feasibility and **Schedule Improvement Hearing**
- August: Hold Public Hearing and **Order Project**
- December: Receive Plans and **Authorize Add for Bids**
- January: Receive Bids and **Schedule Assessment Hearing**
- March: Hold Public Hearing and **Levy Assessments**
- April: **Award Bid**
- May-Sept: **Construct Improvements**
- Project team: Staff, Engineering Consultant(s) and Appraiser

### Public Engagement

- March: **Notification Letter to Residents (questionnaire?)**
- June: **Open House with Residents**
  - Obtain resident feedback
  - Share preliminary assessment information
- July/August: **Information Meeting with Residents (Improvement Hearing)**
- December: Complete Easement Acquisitions
- February/March: **Information Meeting with Residents (Assessment Hearing)**
- May-September: **Construct Communication**
  - Website Page
  - Notify Me (text and email)
  - Project Start Letter
  - Tree Letter (if applicable)
  - Project Curb Letter
  - Project Acceptance of Turf Establishment



# Questions?



**CITY ADMINISTRATION**

8150 Barbara Avenue  
Inver Grove Heights, MN 55077  
651-450-2500

**COMMUNITY DEVELOPMENT**

8150 Barbara Avenue  
Inver Grove Heights, MN 55077  
651-450-2545

**FINANCE DEPARTMENT**

8150 Barbara Avenue  
Inver Grove Heights, MN 55077  
651-450-2519

**FIRE DEPARTMENT**

9200 Courthouse Boulevard  
Inver Grove Heights, MN 55077  
651-455-5082

**PARKS & RECREATION**

8055 Barbara Avenue  
Inver Grove Heights, MN 55077  
651-450-2585

**POLICE DEPARTMENT**

8150 Barbara Avenue  
Inver Grove Heights, MN 55077  
651-450-2525

**PUBLIC WORKS DEPARTMENT**

8168 Barbara Avenue  
Inver Grove Heights, MN 55077  
ENGINEERING: 651-450-2570  
STREETS & UTILITIES: 651-450-4309

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Minnesota  
**GreenStep Cities**





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**Pavement Management Citizen Task Force Meeting Notes  
October 21, 2021**

Attending: Kelly Kayser (C), Cassie McKenna (VC) Kerry Karinen (VC)  
Jason Bryant, Brenda Dietrich, Rick Ellis, Dan Haak, Craig Kromrey, Paul Mandell, John Murphy, Kevin Sethre, Lisa Snell, Mary T’Kach, Ted Zochert  
Absent: Kelton Glewwe  
Staff/Consultants: Kris Wilson (Administrator), Steve Dodge (Asst. City Eng.), Rebecca Kiernan (City Clerk), Klay Eckles (PWD/consultant)

**Open meeting law (Minnesota State Statutes, Chapter 13D)**

- Meetings will be noticed and open to the public
- Do not communicate via email chains or by using “Reply all” on email communication
- Do not discuss task force business in a group outside of noticed meetings
- Group communication and decision making should be in-person only

**Role of members and participation**

- Respect the process by being patient and allowing discussions to unfold in harmony with the tentative schedule provided in the initial packet
- Ask questions of clarity
- Participate in group discussions
- Honor fellow task force members by waiting to be called on
- Represent yourself by sharing your individual thoughts/feelings and avoiding generalizations

**Decision Making**

Decisions/recommendations will be formed by consensus

**Potential attendees and presenters at future meetings**

- City Staff (Public Works, Finance, etc.)
- Consultants (WSB, Ehlers)

**CTF Elected a Chairperson and two Vice-chairs**

The CTF determined it best if a non-council member serve as Chair. Kelly Kayser was elected Chair. Cassie McKenna and Kerry Karinen were elected as Vice Chairs.

**Proposed charter**

A draft Charter of the responsibility and objective of the CTF was presented. Possible approval next meeting after further review. Discussion of “road diets” (bullet point 6): Measure(s) that could be taken by the City to decrease cost and/or increase efficiency — Example: narrowing a street when it is reconstructed

**Meetings**

- One or two meetings per month over approximately six months
- Upcoming meetings include November 4, 18, and a meeting in early/mid-December.

**Homework**

- Mull over the proposed charter and email any additional thoughts/suggestions to Klay Eckles
- Watch pavement management video(s) if sent by Klay
- Review other materials in the white folder

**Additional notes**

Consultant WSB will prepare final report to be presented to City Council by the Task Force/Chairperson

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