

**Helena Township Board of Supervisors**  
**5 Year Road Study Review Meeting Minutes**  
Minutes of December 14, 2022 | New Prague Fire Hall

**Call to Order**

Workshop Monthly Meeting was called to order by Chairman Edward Nytes at 5 p.m. and the Pledge of Allegiance was recited.

**Present**

Chairman Edward Nytes, Supervisor Duane Deutsch, Supervisor John Wermerskirchen, Clerk Heather Taylor DuCharme, Treasurer Nathan Hutton, Road Overseer Jeff Haag, Township Attorney Robert Ruppe, and Township Engineer Andrew Vistad.

**5 Year Road Study Report Review.** Vistad reviewed the 2022 5 Year Road Study report with the board orally and with a PowerPoint Presentation. Vistad stated he would email the PowerPoint presentation to Taylor DuCharme to provide to the Board and residents.

1. The roads are overall in really good shape because the Township follows through with its improvement projects as scheduled and recommended.
2. Road ratings have improved for roads and the ride quality has increased.
3. The Board asked if the road reconstruction fund should be built up so that future projects might not need assessments or as large of assessments to be funded. Vistad advised some townships do that and some lower levies and assess later. Vistad advised to keep a healthy road reconstruction fund for unexpected projects. The Board discussed continuing to levy to increase road reconstruction fund for future projects. Ruppe advised continuing to levy to build up fund for emergency projects and possibly increase amount Township pays for projects at some point in the future when feasible. Vistad advised that costs of road projects likely to double in the next fifteen years.
4. **2023.**
  - a. Koeper/Mark/Lucy Project. This project will improve the lowest rated road in the Township (Koeper).
  - b. Sealcoating/chip sealing.
  - c. Crackfilling MarDen and Juniper along with other bituminous roads as needed.
  - d. WCLD. Crackfilling likely to be needed around 2026.
  - e. Discussion of types of crackfilling that Township can/should do between contractor completed crackfilling. Vistad advised crackfilling one of the best ways to maintain roads.
  - f. Chip sealing/sealcoating discussion regarding best practices. Typically one coat done 1-5 years after road project. Best not do 2<sup>nd</sup> coat.
  - g. Faithpoint. Still need to complete final chip coat/sealcoat. Discussion of additional escrow to complete.
5. **2024.**
  - a. Crackfill as necessary on Mark and Lucy. Check Koeper and WCLD for crackfilling.
  - b. Other sealcoating/chip sealing.

- c. Complete updated road ratings (not entire street study).
6. **2025.**
    - a. Overlay for 255<sup>th</sup> and Willow Court Good condition but aging and will need additional structural support. Act before real distress to road condition.
    - b. Sealcoat/chip seal Koeper, Mark, Lucy. May need to mill some spots in Mark and Lucy for hole repair – this is expected.
    - c. Check bituminous roads for possible crackfilling. Raven Stream likely to need crackfilling.
    - d. Discussion of backfilling with clay for pipes/culverts. Wermerskirchen asked for specs from Vistad related to this issue. Vistad this would be best for full reconstruction. For existing corrective action, using fabric over aggregate is less costly than digging out and replacing sand with clay.
  7. **2026.** Crackfill 255<sup>th</sup> and Willow Court
  8. **2027.**
    - a. Overlay for Silver Maple Drive, Maple Court, Hunters Ridge
    - b. Sealcoat/chip seal 255<sup>th</sup> and Willow Court
    - c. Crackfill WCLD and Koeper
  9. **Remaining.** Willow Lane. It is in good shape now. Could deteriorate and degrade like Koeper at some point. May need overlay by 2030.
  10. **Crackfilling.** Typically every 3-5 years as needed. Blow and go an option (recommended) before sealcoating/chip sealing to blow out old crackfill and replace. Definitely needed if cracks visible through chip seal/sealcoating.
  11. **Microsurfacing.**
    - a. Newer treatment, but still 30 years old.
    - b. Similar to chip seal/sealcoat but provides structural improvement
    - c. Cost just over halfway between sealcoat and overlay
    - d. Quicker to design and construct
    - e. Good at 11-12 year mark on bituminous roads and for cup cracks and rutting.
    - f. Typical schedule: pave, wait 3-5 years then chip seal/sealcoat, wait 11-12 years and microsurface, wait 11-12 years and overlay, wait 3-5 years and chip seal/sealcoat
    - g. Typically done in MN May through October (temperature not below 45-50 degrees
    - h. Color still pretty black
    - i. 1<sup>st</sup> year after microsurfacing – road is still a little rough – good for traction – good to microsurface after chip seal/seal coat because of similar texture
    - j. Cures in 30-45 minutes
    - k. Hardens over first couple of months
    - l. A little more brittle – will need crackfilling
    - m. Not a good choice for SMD, MC, Hunters Ridge – they are a little too old (about 20 years) – overlay still recommended for those roads
    - n. Good for reclaiming pavement later and potholes
    - o. Only ¼ inch – no real effect on driveways/mailboxes
    - p. Vistad advised Board he would send them a list of nearby roads that have been microsurfaced in other townships to review in spring

- q. Specialized equipment. Only one contractor in MN – Aztec. One in SD (Sioux Falls) and one in WI (Eau Claire). Aztec typically costs less than SD and WI contractors.

12. Pavement research discussion.

**Adjourn.** Motion to adjourn at 6:15 p.m. by Wermerskirchen/Deutsch; carried unanimously.

Respectfully submitted



Heather Taylor DuCharme, Clerk

Approved



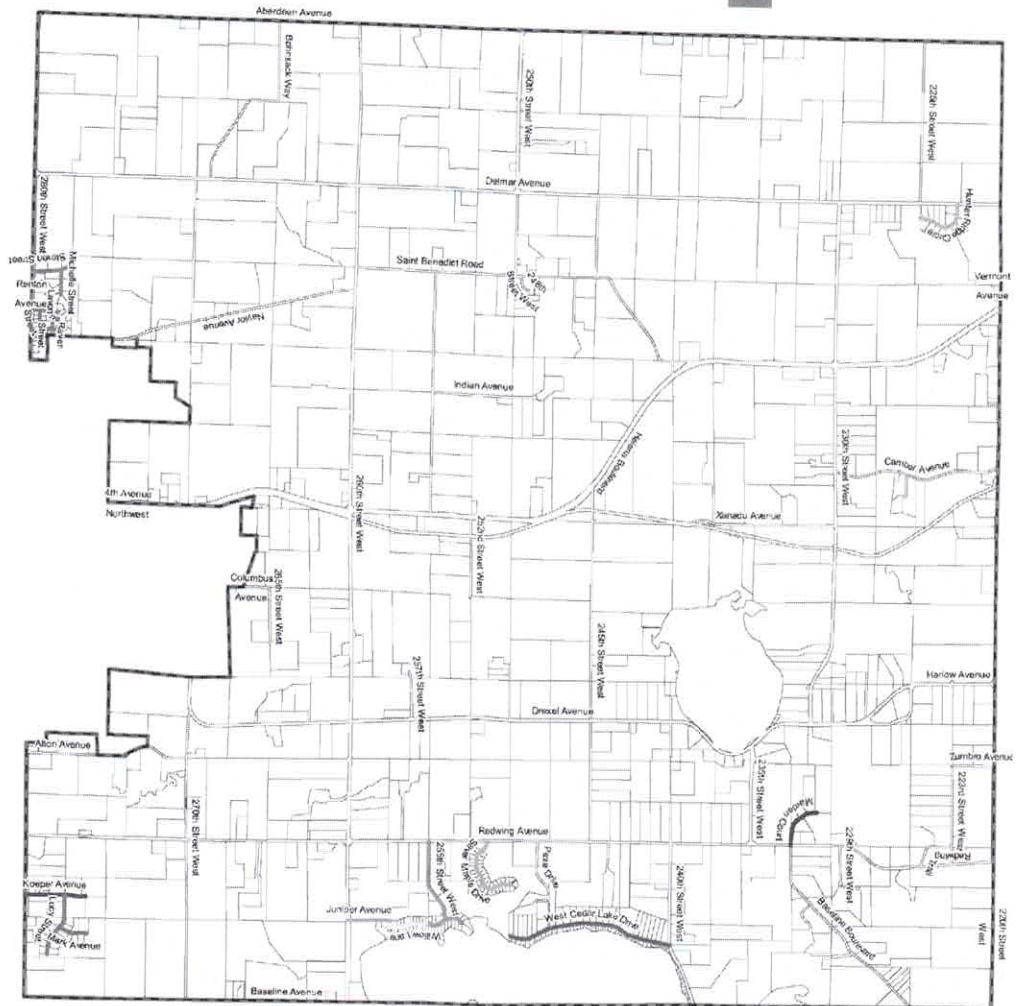
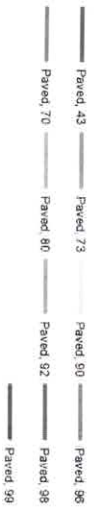
John Wermerskirchen, Chairperson

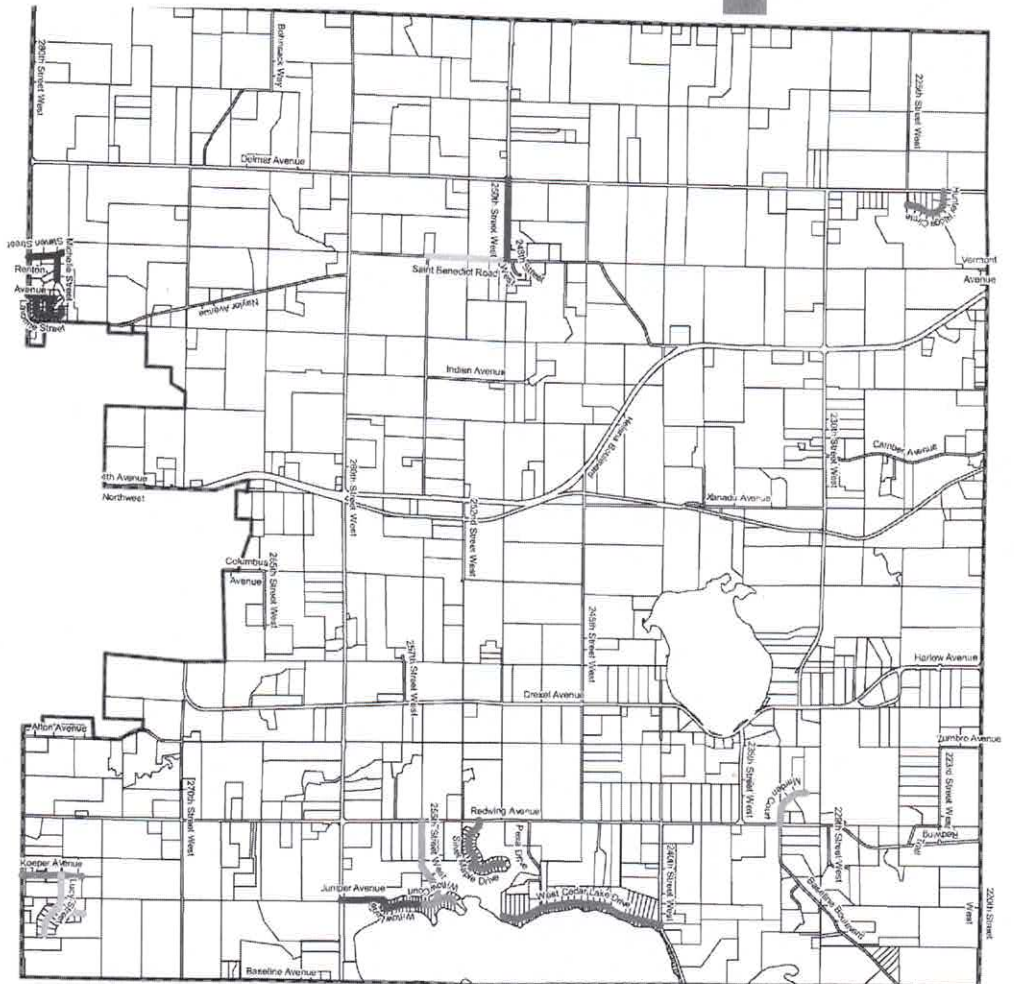
# 2022 Helena Township Road Study

Presented By: Andrew Vistad, P.E. Town Engineer

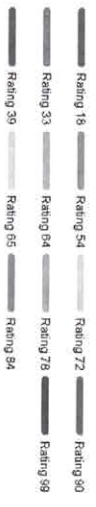
## Appendix A

### 2022 Helena Township Road Ratings





Appendix A  
2020 Helena Township Road Ratings



# Background

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- Helena Township maintains 5.31 miles of bituminous paved roads
- Maintenance and improvement projects have increased the ratings of the township roads.
- Major improvement projects in the future may become fewer but maintenance activities will remain important.

# 2023

- ❑ Improvement Project in progress for 2023 construction
- ❑ Costs appear to be holding in line with feasibility estimate
- ❑ Will improve the lowest rated road in the township
- ❑ Crack Filling select roads that were recently improved
  - ❑ Marden Court & Juniper
  - ❑ Check remaining bit roads and crack fill new cracks
- ❑ Recommend crack filling before completing seal coat

# 2024

- ☐ Will not have any major improvement project
- ☐ Seal coating recently overlaid and crack filled roadways
  - ☐ Seal coating after Crack filling will help the crack filling as well as provide a more aesthetically pleasing road for residents
- ☐ Crack filling Lucy & Mark. Check Koeper & WCCLD for crack filling.
- ☐ Recommended to complete road ratings

# 2025

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- Overlay on 255<sup>th</sup> & Willow Court
  - ▣ Good condition but pavement is aging and will need additional structure
  - ▣ Better to act before roadway shows signs of significant distress
- Seal Coat Lucy, Mark, & Koeper
- Check bituminous roads and crack fill new cracks
  - ▣ Raven Stream Developments will likely need some filled

# 2026

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- Crack Fill 255<sup>th</sup> & Willow Court
- ▣ Check other bit roads to fill newly formed cracks.

# 2027

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- ☐ Overlay for Silver Maple Dr, Maple Court, & Hunter Ridge
- ☐ Seal Coat 255<sup>th</sup> & Willow Court
- ☐ Crack Fill West Cedar Lake Driver & Koeper

# Remaining Road

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- ☐ Willow Lane at the time of the street study appeared to be in good condition and does not appear to need any maintenance.
- ☐ This could change rapidly or remain unchanged over the next 5 years.
- ☐ Continue observing the road for appearance of cracks and fill

# Crack Filling

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- Typically completed every 3-5 years on roads that have not had a recent surface improvement.
- Recommended to complete a “blow and go” after previous crack filling is 3-5 years old

# Microsurfacing

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- ☐ Microsurfacing is a newer surface treatment
- ☐ Similar to seal coat but provides structural improvement
- ☐ Cost is between seal coat and overlay
- ☐ Projects are quick to design and construct

# Pavement Research

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- A significant amount of money is spent on our State Highway system every year ~ \$2.5 B
- MnDOT designates 0.5% of the total allocation each year on research to ensure the construction money is well spent
- **Typically budget is ~ \$3M - \$4M annually on research**

# Pavement Research



## 2020 Minnesota Highway Users Tax Distribution Fund

Motor Fuel Tax  
\$386,100,000

Motor Vehicle Registration Tax  
\$555,900,000

Motor Vehicle Sales Tax (50.74%)  
\$255,680,000

Other  
\$211,410,000

TOTAL HIGHWAY USERS TAX DISTRIBUTION FUND  
\$1,448,080,000

July 1st thru October 31st actual  
November 1st thru June 30th estimated

9% Distribution  
\$128,327,200

62%  
\$897,809,600

9%

95% Distribution  
\$128,327,200

29%

**TOTAL Bridge Account**  
Total Bridge funds are approved to be used for bridge construction, repair, and maintenance. Special Town Bridge funds are approved on a project by project basis.

\$19,620,800	Total Available
\$184,700	Adjustment for Actual vs. Estimated
\$19,775,500	Net Available
\$55,802,850	Special Town Bridge Allocation
\$13,642,244	Net Town Bridge Allocation

30.5%

**TOTAL Road Account**  
Appropriated to maintain and improve the state's road network. Funds are used for road construction, repair, and maintenance. Funds are also used for bridge construction, repair, and maintenance. Funds are also used for other transportation projects.

\$37,402,150	Total Available
\$234,630	Adjustment for Actual vs. Estimated
\$37,597,080	Net Town Road Allocation

53.5%

**Flexible Highway Account**  
Total Available: \$64,744,305  
(includes adjustment for actual vs. estimate)

\$0	Used for the reduction of former Truck Highway funds have been transferred to the municipalities and been designated a MARS.
\$59,124,305	For reduction of former Truck Highway funds have been transferred to the municipalities and been designated a MARS.
\$0	For reduction of former Truck Highway funds have been transferred to the municipalities and been designated a MARS.

TOTAL HIGHWAY USERS TAX FUND AVAILABLE FOR DISTRIBUTION  
\$1,448,080,000

County Share Allocation Fund - MARS  
\$458,870,000

County Share Allocation Fund - MARS  
\$216,221,216

Manufactured Gas and Other Fund  
\$208,697,500

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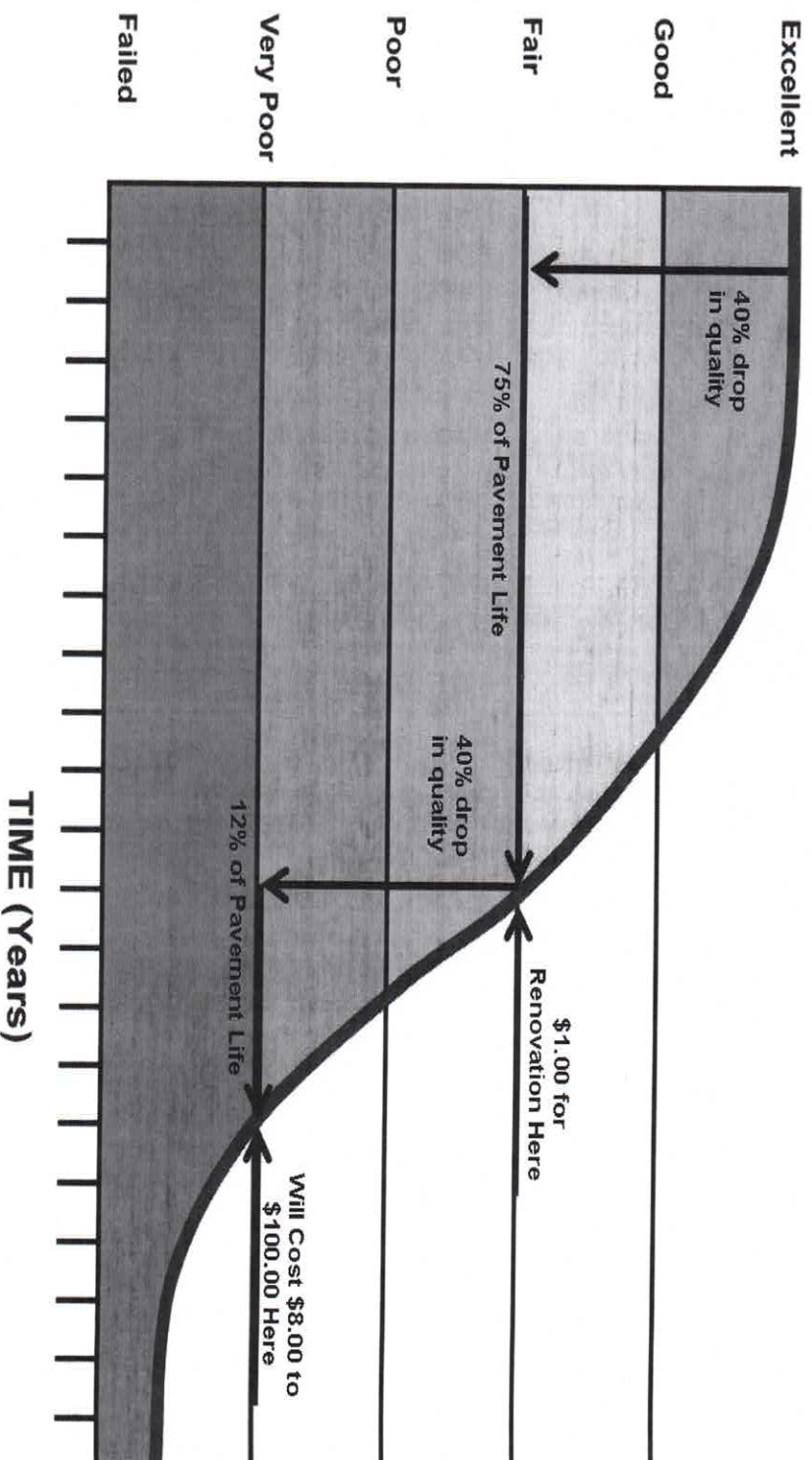
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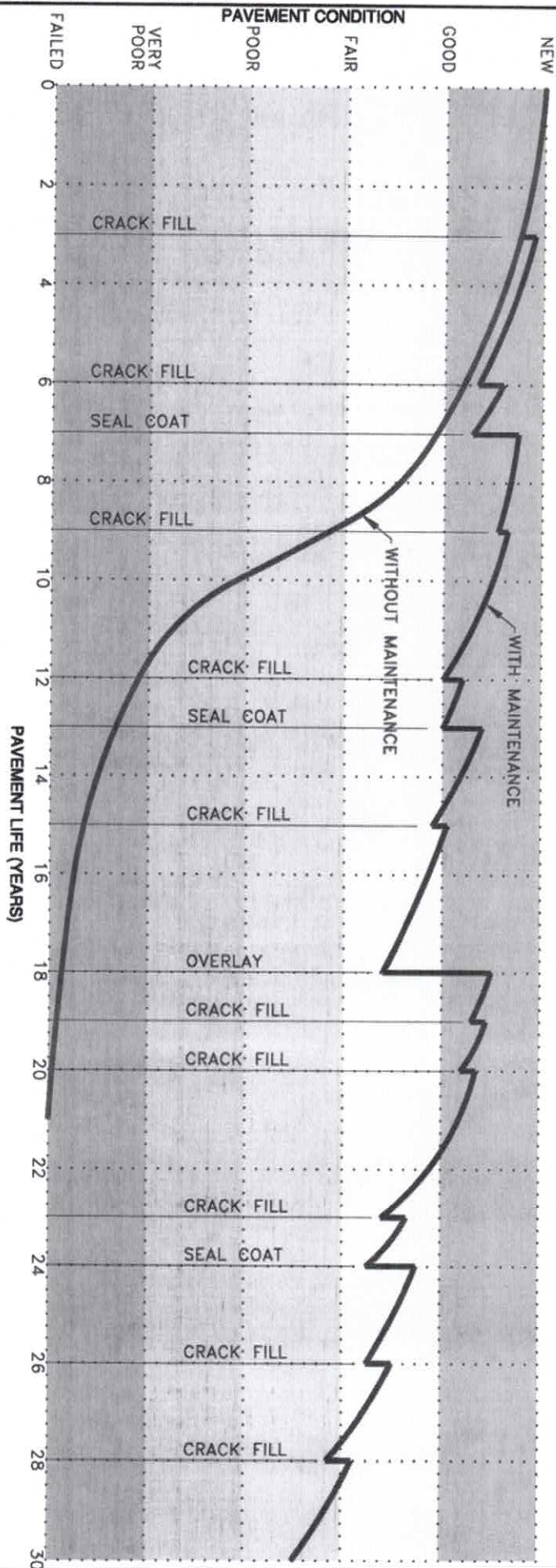
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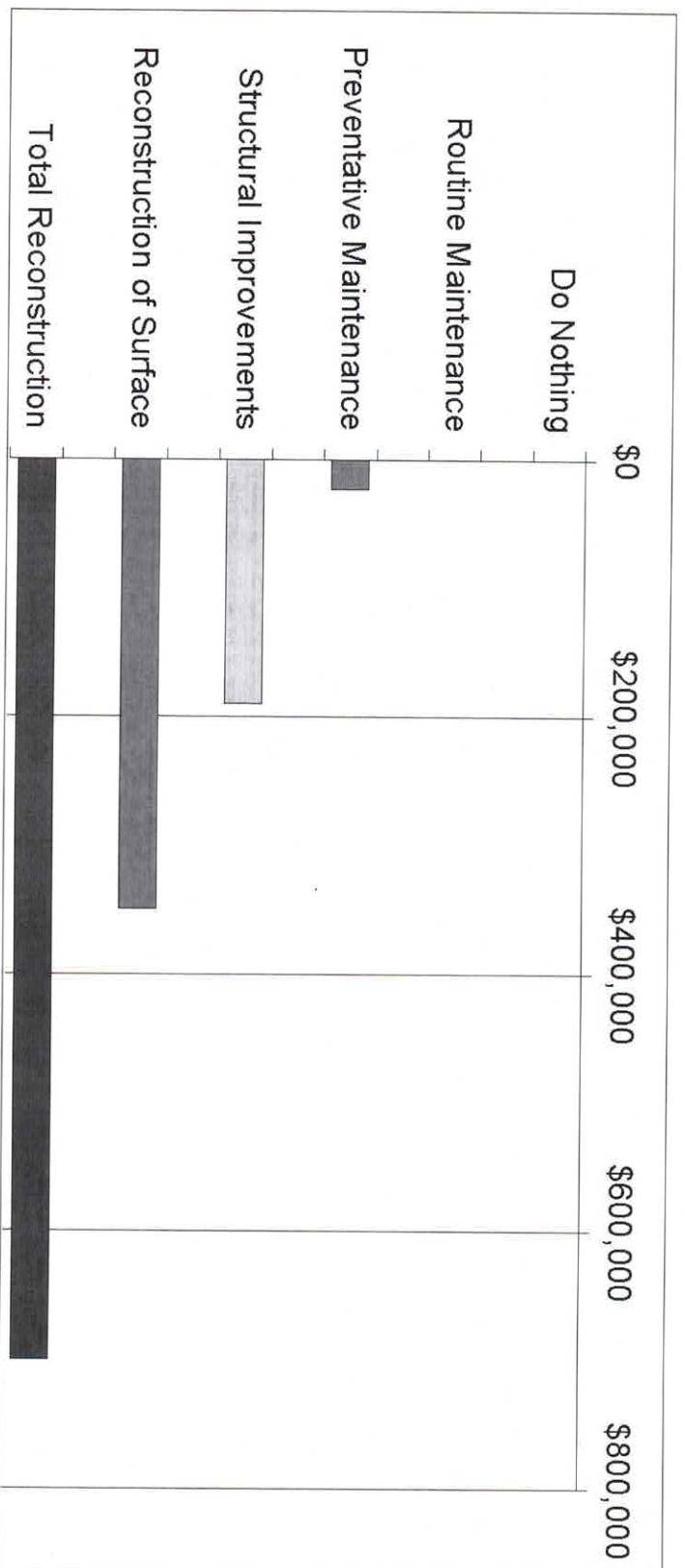
# Figure 1 Typical Pavement Deterioration Curve



# TYPICAL PAVEMENT DETERIORATION CURVE WITH SCHEDULED MAINTENANCE



**Figure 3**  
**Treatment Band Costs**



# Questions / Comments

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Please be recognized by the Chair, state  
your name and address for the record