

# MDOT

# Capital Preventive Maintenance

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# MDOT Capital Preventive Maintenance

CPM focuses on cost effective treatments that preserve the functional condition of the system without substantially increasing structural capacity

In FY 2022 MDOT spent \$107M and improved 637 miles of roads in CPM at ~\$168k/lane mile

- HMA Crack Sealing/Filling
- Surface Sealing
  - Chip Seals
  - UTBWC
  - Microsurface
  - Ultra-thin (Thin lays)
  - PCP Grinding/Grooving
  - DB Retrofit
  - Asphalt Repair Mastic
- Function Enhancements
  - HMA Resurfacing
  - PCP Patching



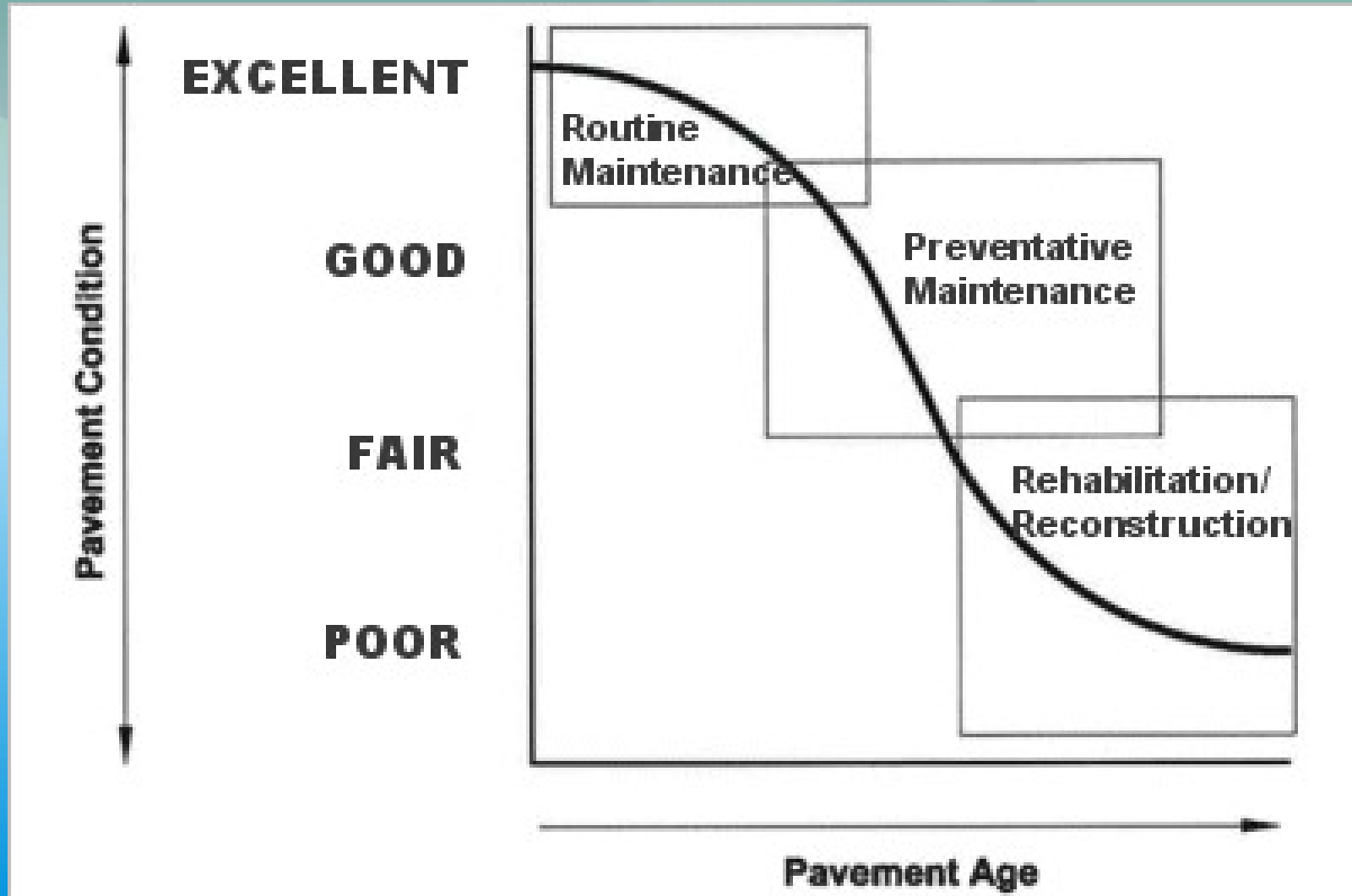
## CAPITAL PREVENTIVE MAINTENANCE MANUAL

December 2020

CONSTRUCTION FIELD SERVICES  
DIVISION

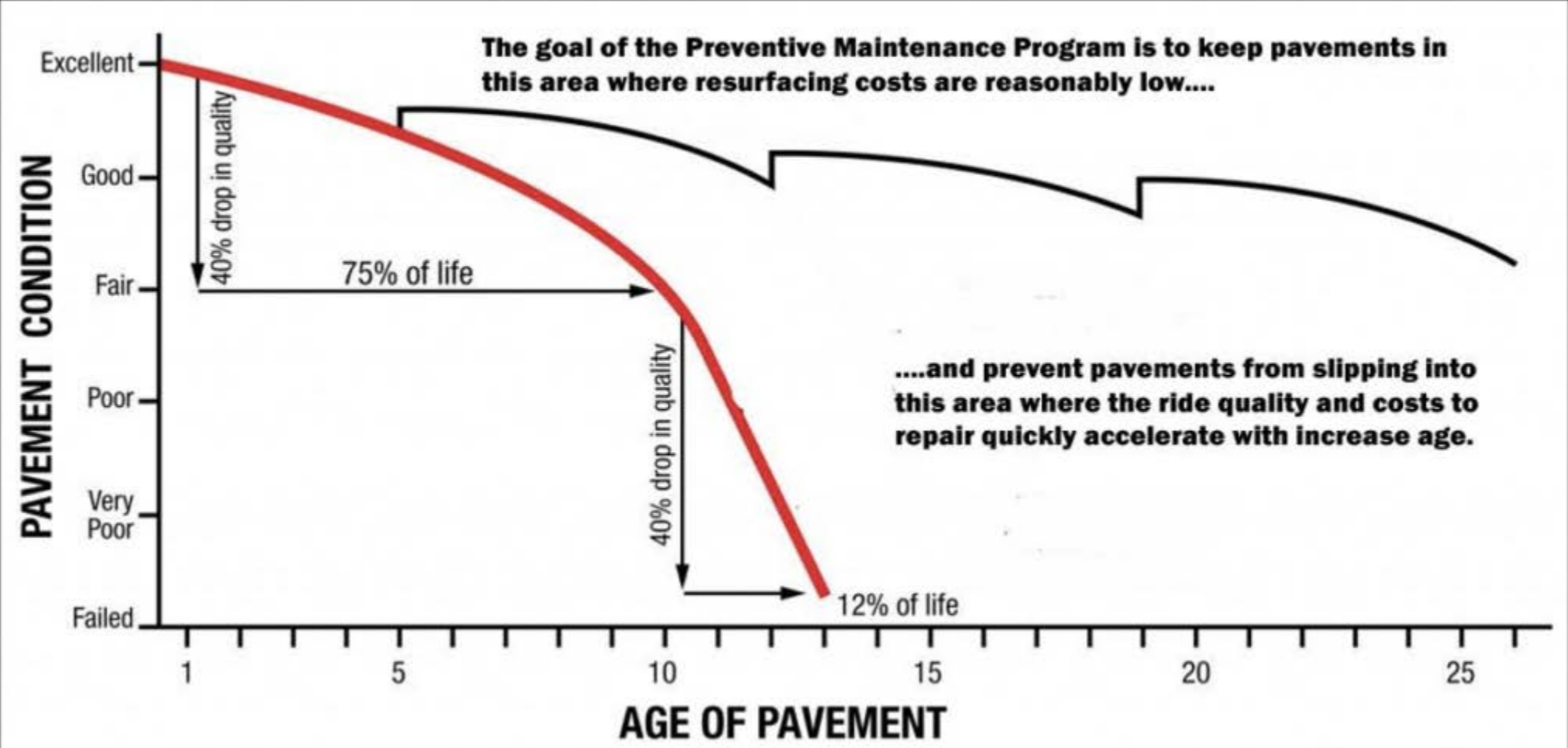


# Pavement Life



# Life Extension

## PAVEMENT CONDITION INDEX

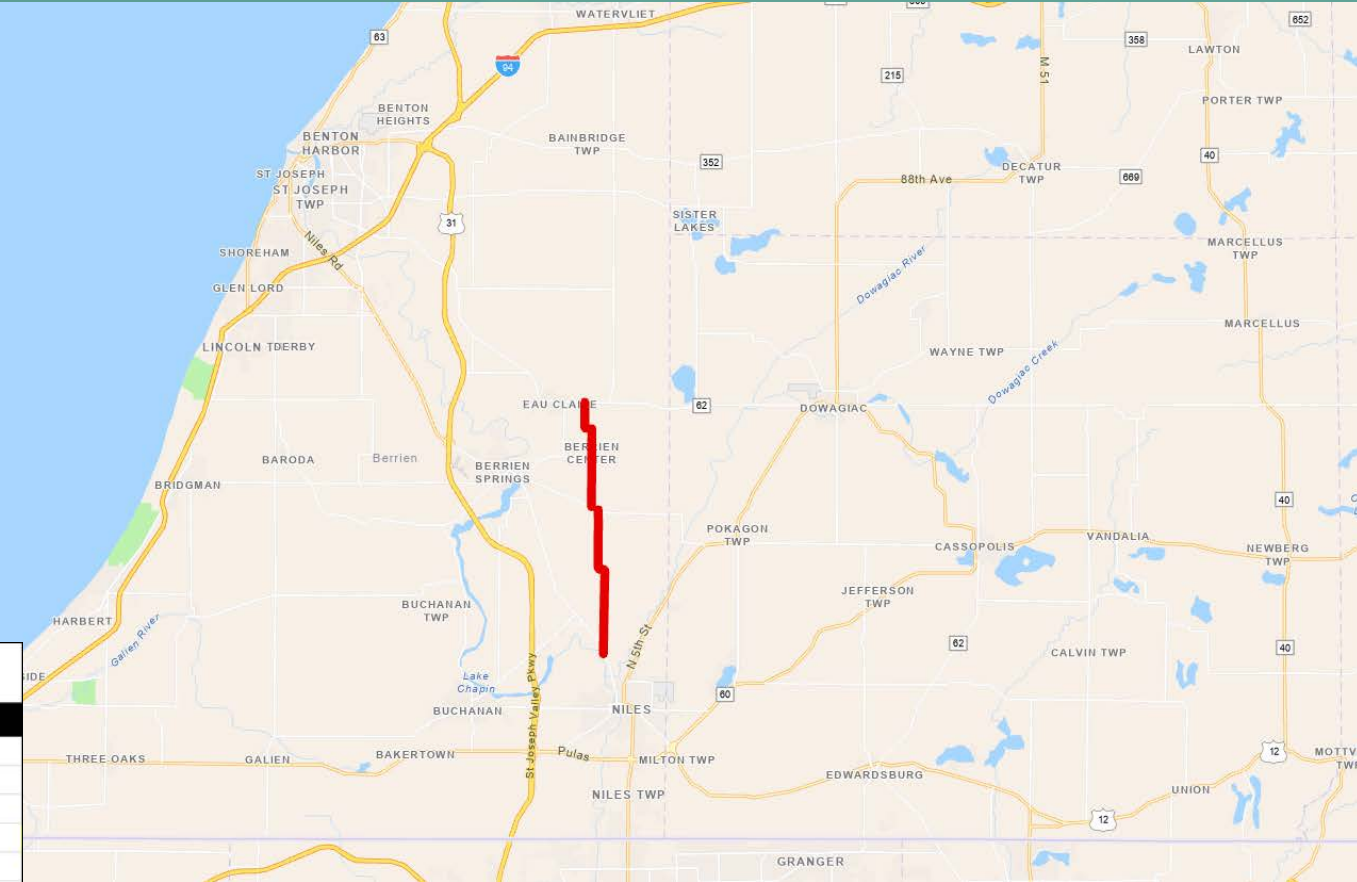


PP = Pavement Preservation    RM = Reactive Maintenance

# M-140 from M-139 to M-62, Berrien County, MI

## M-140 Background

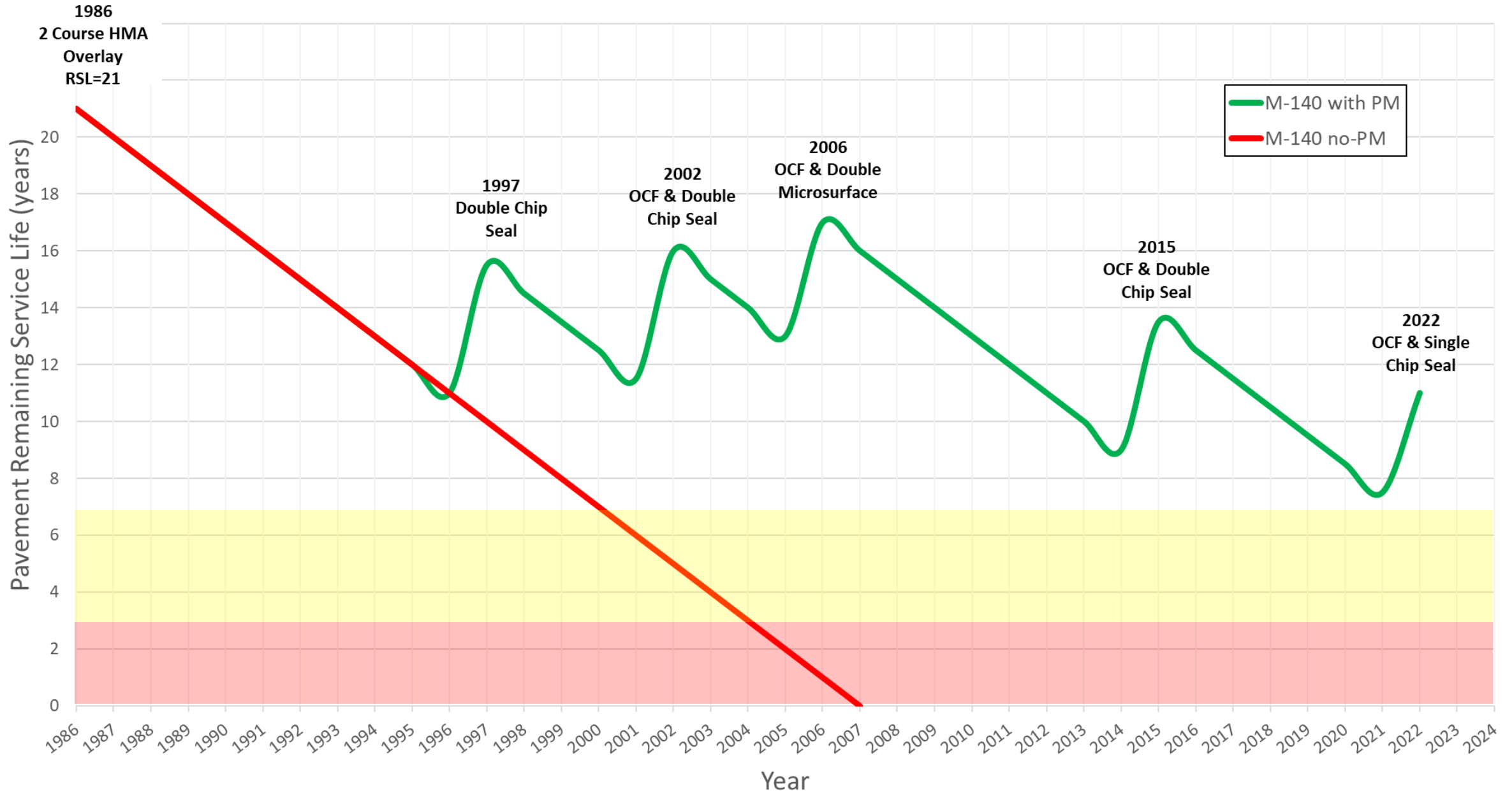
- 1934 – 23 mile long southerly extension from M-139 (then Bus US-31) north to Watervliet completed
- 9.5 mile segment
- Last project history in PHD
  - 1986 two course HMA overlay (2.5”) using Marshall Mix No. 1100
- AADT ≈ 1500, CAADT ≈ 100



ID	Pavt Age	IRI	DI	Year	Location or Remark or Fix	CS	BMP	EMP	JN
M-139 to M-62									
137				1986	M-140	11074	0.000	9.385	23898
	8		20.6	1994					
	10		36.8	1996					
	11			1997	Double Chip Seal		0.022	9.539	44156
	12		12.3	1998					
	14		61.9	2000					
	16			2002	OCF & Double Chip Seal		0.028	9.398	57887
	16		0.3	2002					
	18		64.5	2004					
	20			2006	OCF & Double Micro		0.000	9.490	83984
	20	86	0.9	2006					
	22	92	62.8	2008					
	24	92	61.9	2010					
	26	99	74.4	2012					
	28	106	90.6	2014					
	29			2015	OCF & Double Chip Seal		0.000	9.490	124024
	30	98	1.3	2016					
	32	96	1.6	2018					



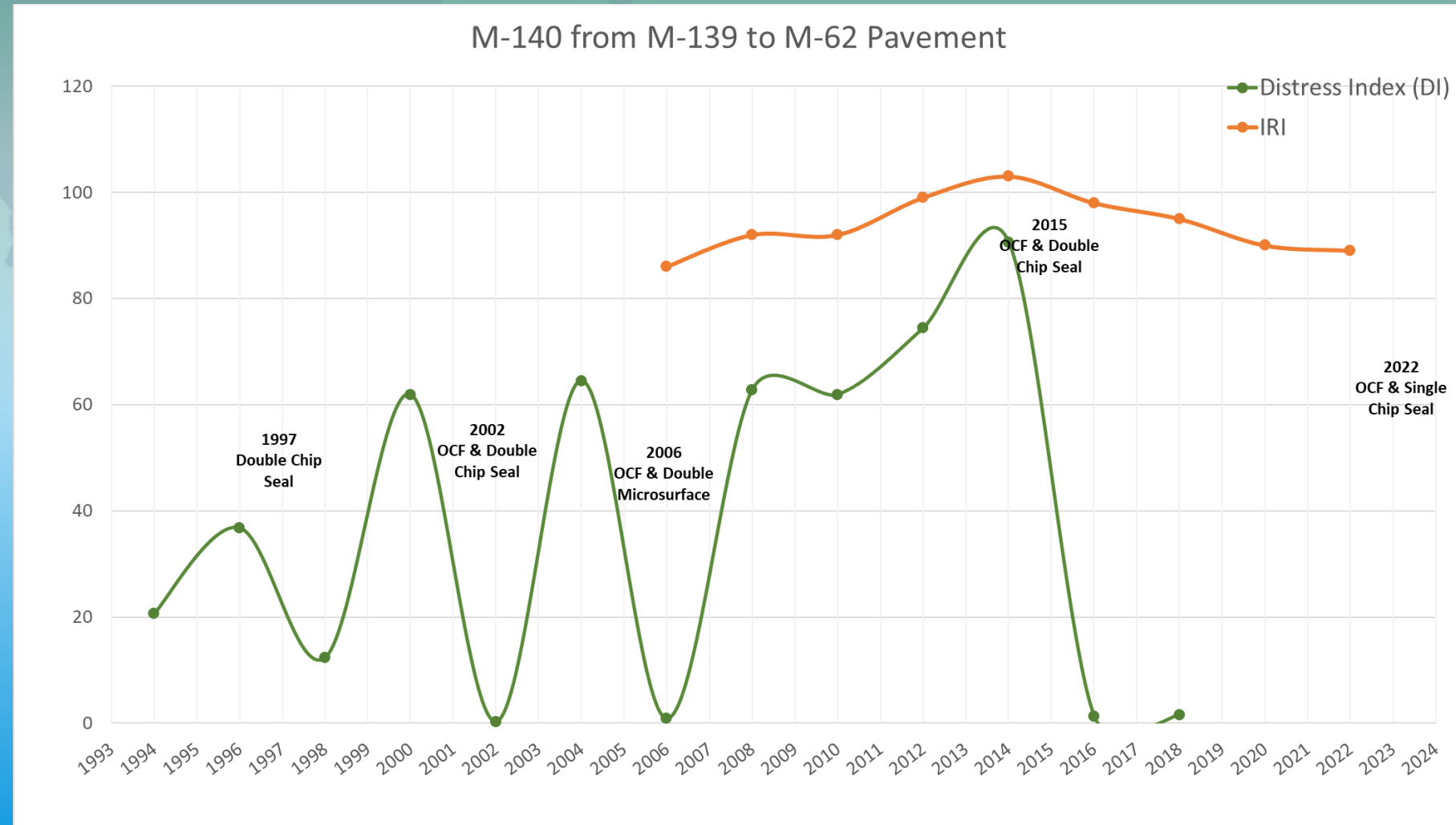
# M-140 from M-139 to M-62 Pavement



# M-140 from M-139 to M-62, Berrien County, MI

- PCM (2022) = Good
- IRI (2022)  $\approx$  89 (good)
- Rut (2022)  $\approx$  0.16" (good)
- HPMS Cracking (2022) = 1.4% (good)
- Remaining Service Life 2022 (RSL) = 10 years
- DI (2018) = 2 (good)

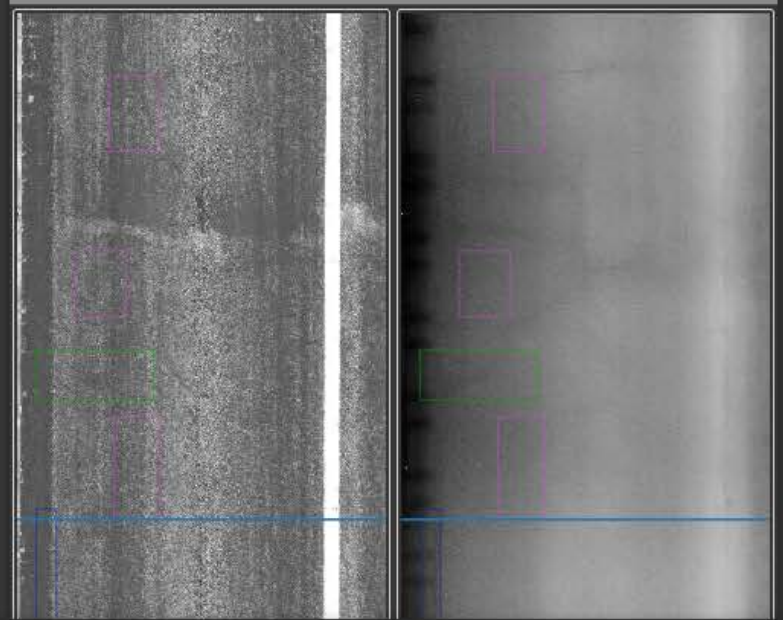
**The power of  
pavement  
preservation!**



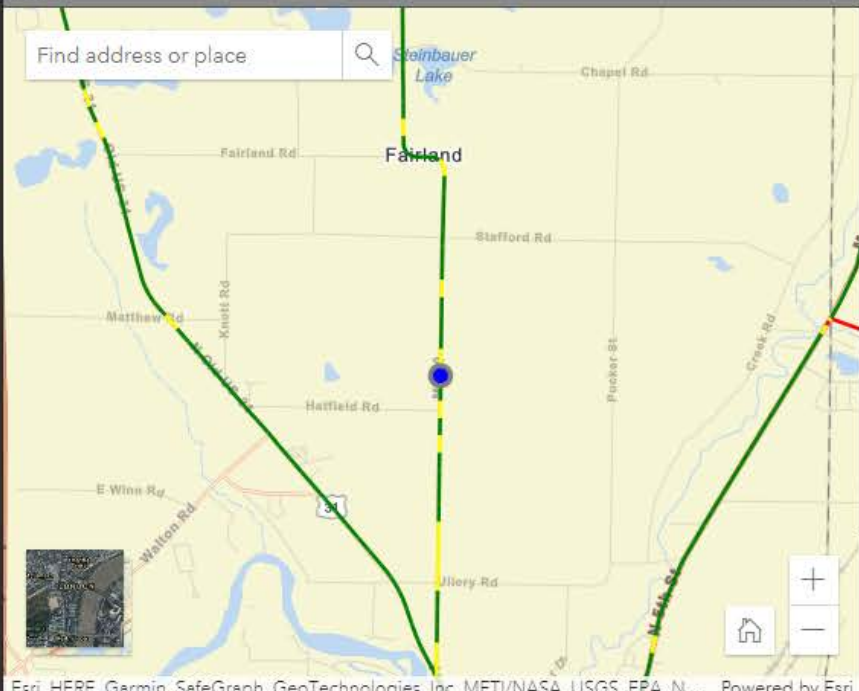
Forward View



Surface View

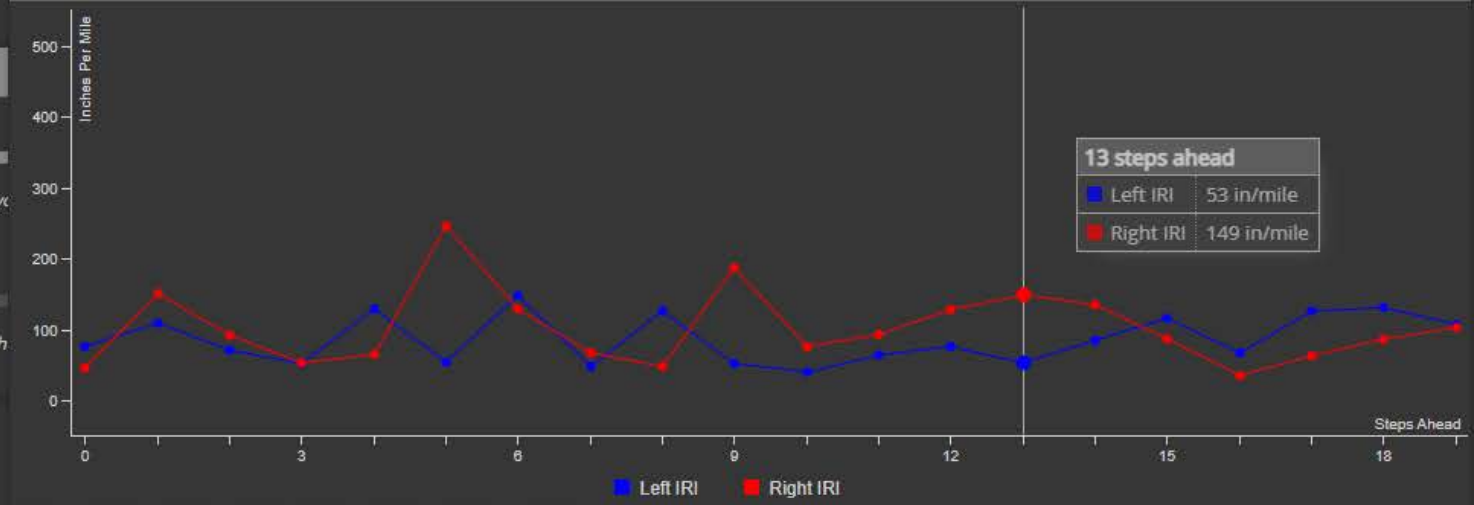


Map



Official: 1.751 Speed: 54.8 MPH Date: 05/17/2022

IRI Graph



13 steps ahead  
Left IRI 53 in/mile  
Right IRI 149 in/mile

Left Rut: 0.11"

Right Rut: 0.34"





# Contacts

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HEY...  
I know who to call!!