Iowa DOT

Cold-in-Place Recycling

&

HMA Stress Relief Course

Goal:

Slow crack migration to the pavement surface to delay the need for crack seal treatment and help extend pavement life

Iowa 78

2001 Rehab. - 4” CIP/3.5” HMA
(7.5” HMA Pavement)

August 2014
1600 ADT, 15% Trucks

Iowa 175

2004 Rehab. - 4” CIP/3” HMA
(9” HMA Pavement)

July 2013
1600 ADT, 15% Trucks

Iowa 210

2007 Rehab. - 4” CIP/3” HMA
(7.5” HMA Pavement)

June 2013
3500 ADT, 8% Trucks

Iowa 210

US 34

2006 Rehab. - 3” CIP/3.5” HMA
(9” PCC, 3” HMA Pavement)

July 2014
5000 ADT, 12% Trucks

Iowa 14

2007 Rehab. - 4” CIP/4” HMA
(7” PCC, 7.5” HMA Pavement)

June 2015
3700 ADT, 10% Trucks

Iowa 92

2008 Rehab. – 3” CIP/3” HMA
(7” PCC, 9” HMA Pavement)

July 2014
1600 ADT, 15% Trucks

US 6

2009 Rehab. - 3” CIP/3” HMA
(7” PCC, 5.5” HMA Pavement)

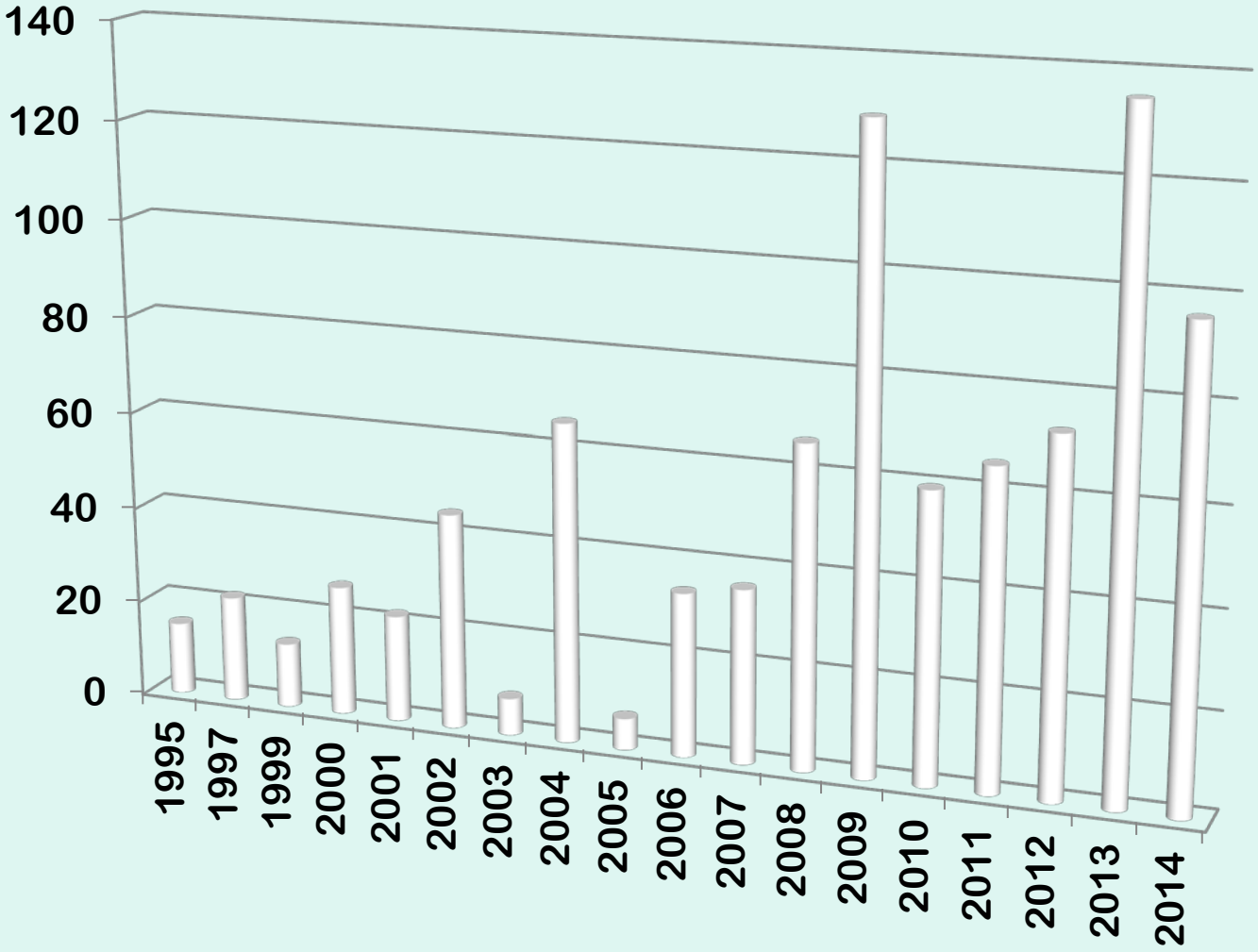
June 2014
2270 ADT, 13% Trucks

US 30

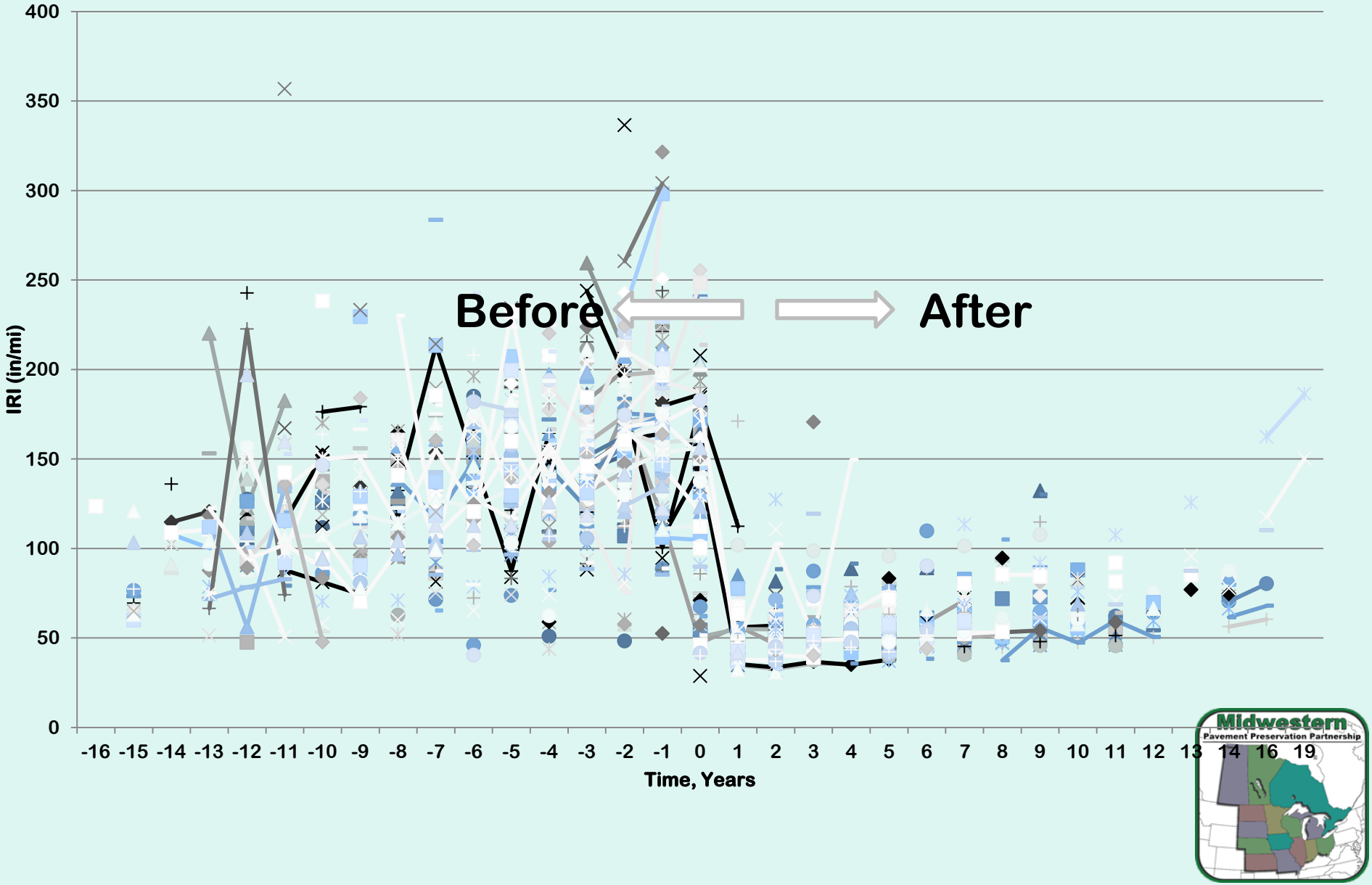
2010 Rehab. - 4” CIP/4” HMA
(7”-13” PCC, 7.5” HMA Pvmt.)

August 2013
5100 ADT, 16% Trucks

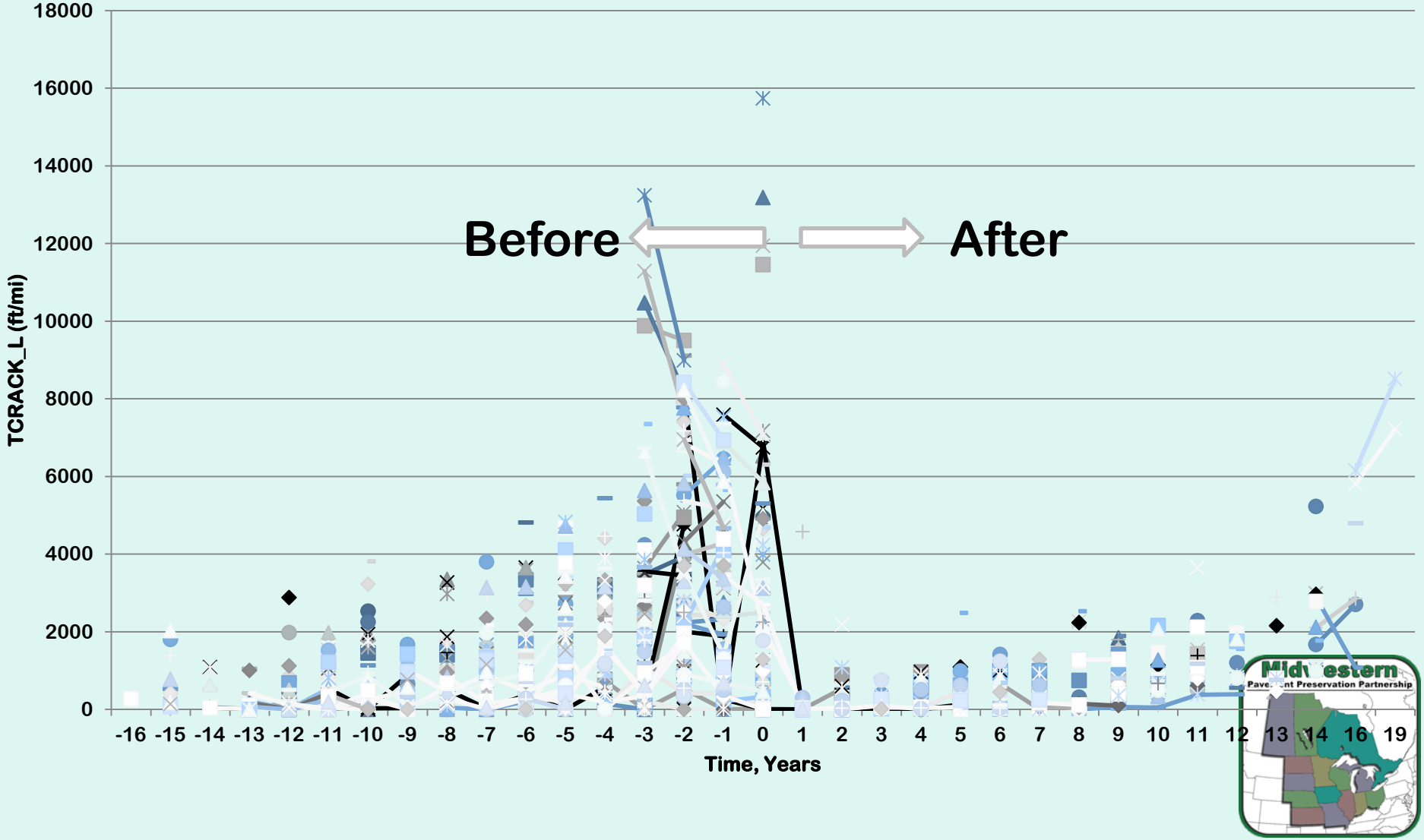
CIR Miles


140
120
100
80
60
40
20
0
1995
1997
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014

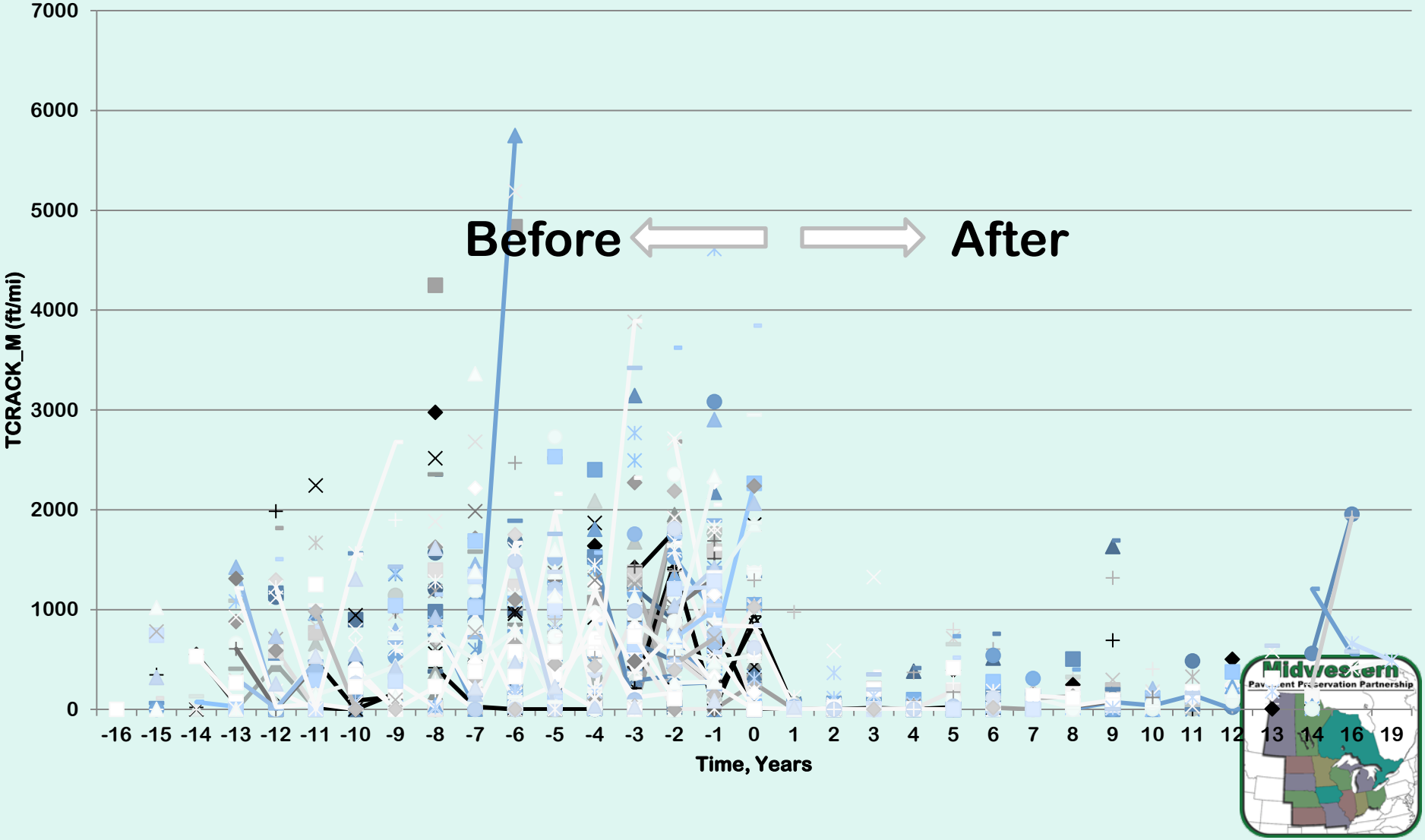
IRI


400
350
300
250
200
150
100
50
0
IRI (in/mi)
Before
After
-16 -15 -14 -13 -12 -11 -10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 19
Time, Years
Midwestern
Pavement Preservation Partnership

Low Severity Transverse Cracking



Medium Severity Transverse Cracking



Reflective Crack Delay System

I - 35

- 2012 Resurfacing (Southbound)
- 3” HMA
- 9500 ADT, 28% Trucks

I - 35

- 2012 Resurfacing (Northbound)
- 1” HMA Stress Relief Course, 3” HMA