



# I-39 Rubblization Project

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# Construction History

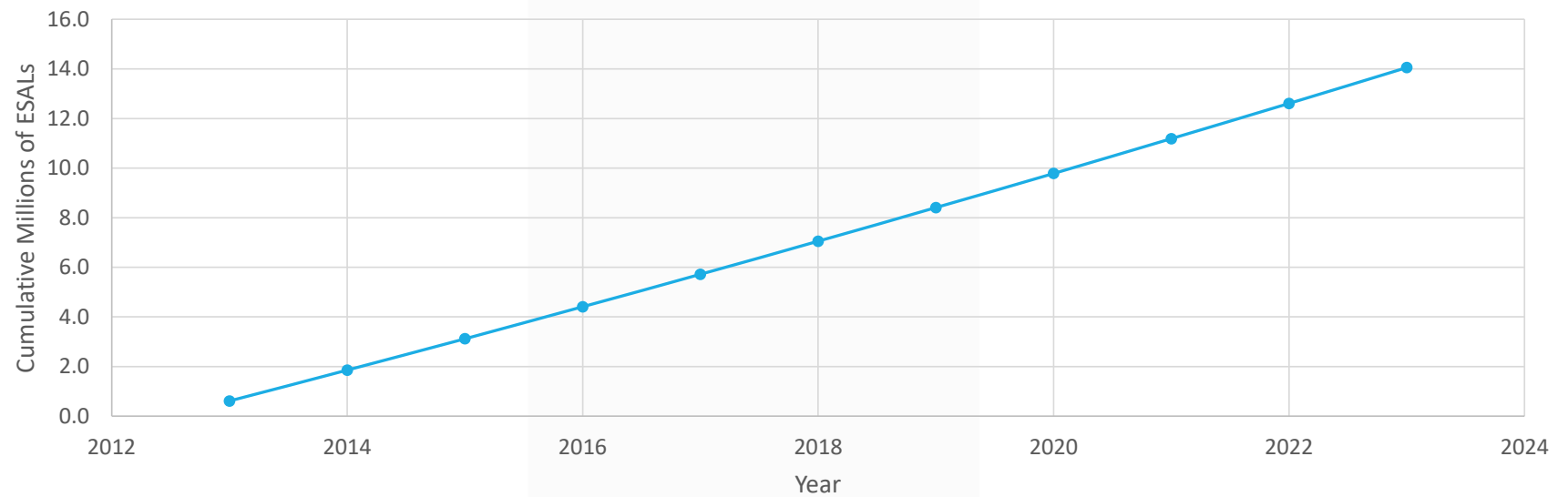
- 1989 10.75" Hinge-Jointed PCC, MP 0-2.58
- 1990 10" CRCP, MP 2.58-5.37
- Original PCC pavement started showing early signs of distress – ASR
- First and only PCC pavement to be rubblized before rehabilitation treatment applied
- 2013 8" HMA Pavement over Rubblized 10.75" Hinge-Jointed PCC, MP 0.24-2.91 SB
- 2014 8" HMA Pavement over Rubblized 10" CRCP, MP 3.62-4.92 SB
- 2014 8" HMA Pavement over Rubblized PCC, MP 0.13-4.92 NB

# HMA over Rubblization Design Inputs

- Designed for 5 years and then 3.75" HMA overlay was to be placed to complete the 20 year design
- Design life at 95% Reliability – 4.3 Million ESALs
- HMA Mix Temp – 77 F
- Design HMA mix modulus – 630 ksi
- HMA strain – 79.5 microstrain

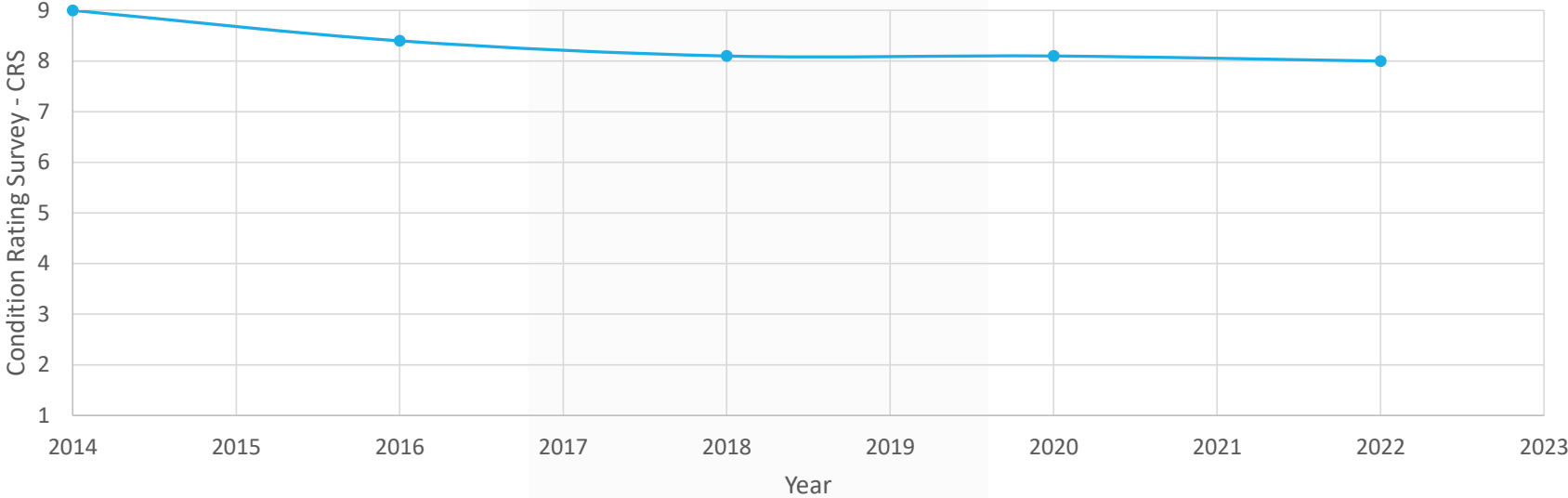
# Traffic to date

Cumulative Traffic for I-39 HMA over Rubblized PCC



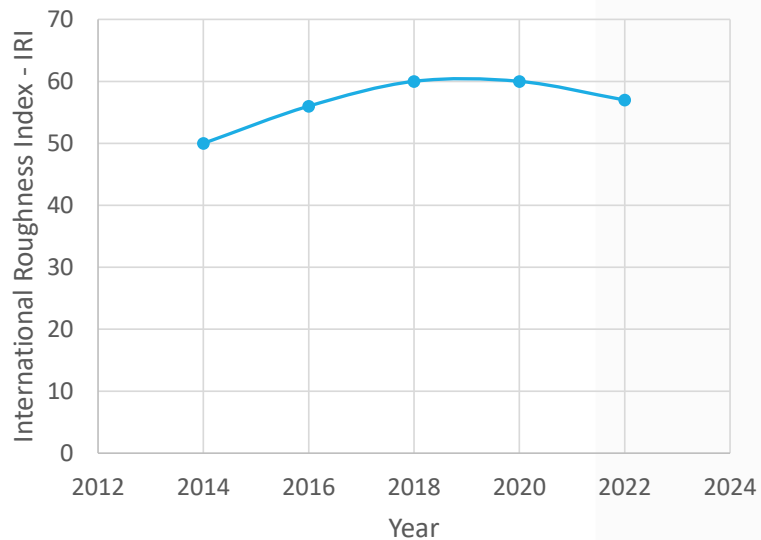
# Performance

I-39 HMA over Rubblized Performance

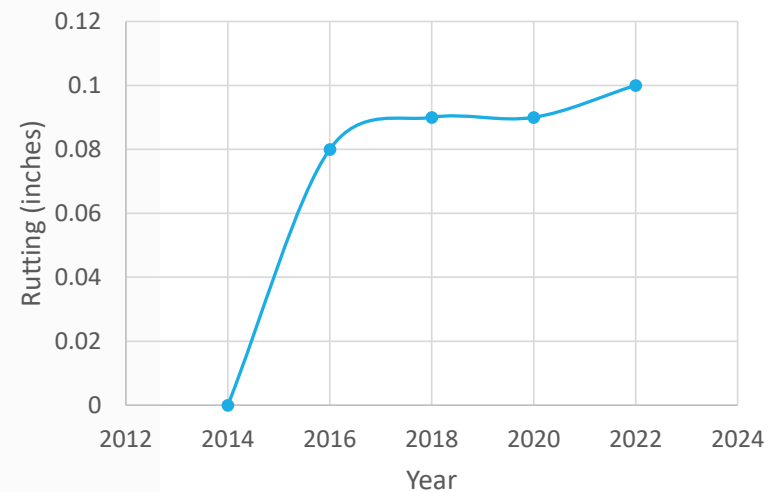


# Other performance metrics

I-39 HMA over Rubblized PCC - IRI



I-39 HMA over Rubblized PCC - Rutting





**Photo from 2014**





**Photo from 2015**





**Photo from 2023**

# Questions – Thank you



**Illinois Department  
of Transportation**

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