

Vision for the Northeastern Illinois Expressway System

May 16, 2019

Vision overview

Modern

Performs well for all users

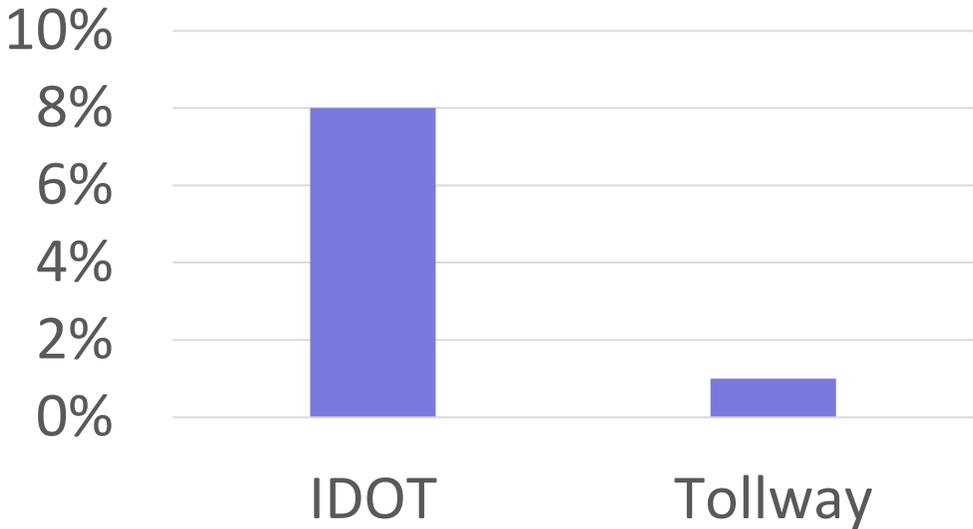
Financially sustainable

Modern

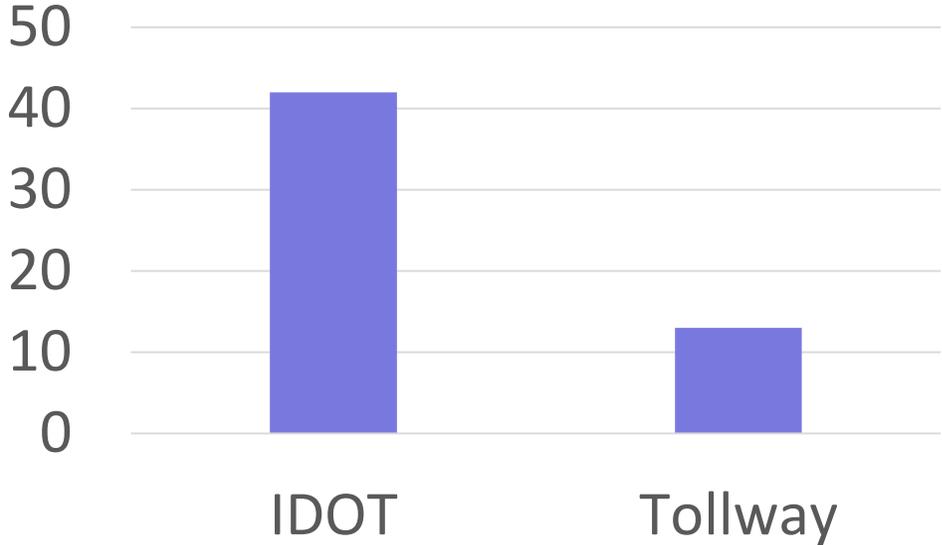


IDOT and Tollway system condition

Percent of bridges in poor condition



Average age of pavement (years)



Sources: Jacobs Engineering, Chicago Metropolitan Agency for Planning.

Expressway Vision recommended IDOT reconstruction schedule, by decade

- 2020s
- 2030s
- 2040s
- Other expressways
- Toll highways

Source: Chicago Metropolitan Agency for Planning.

**Vision: Reconstruct,
toll, add 10% to
capacity on IDOT
expressways by 2050**



Benefits

Expressway
congestion

↓ 32%

Expressway crashes
per day

↓ 24%

Truck expressway
congestion

↓ 81%

Notes: *Expressway, arterial, and truck congestion is measured as congested vehicle hours traveled, i.e., the total time all vehicles spend driving in congested conditions. ** Gross Regional Product is a measure of economic output. ***The forecast change in 2050 emissions on improved facilities with and without Expressway Vision improvements. "Fine particulates" are grams of PM2.5 from U.S. Environmental Protection Agency's MOVES model using CMAP travel demand models. **** Forecast change in expressway vehicle hours traveled in excess of 50th percentile with and without Expressway Vision improvements. CMAP travel demand models using SHRP2 S2-L03-RR-1 methods.

Source: Chicago Metropolitan Agency for Planning, 2019.

Benefits

Gross Regional Product**

↑ \$28b

Expressway fine particulate pollution***

↓ 18%

Unreliable expressway travel****

↓ 34%

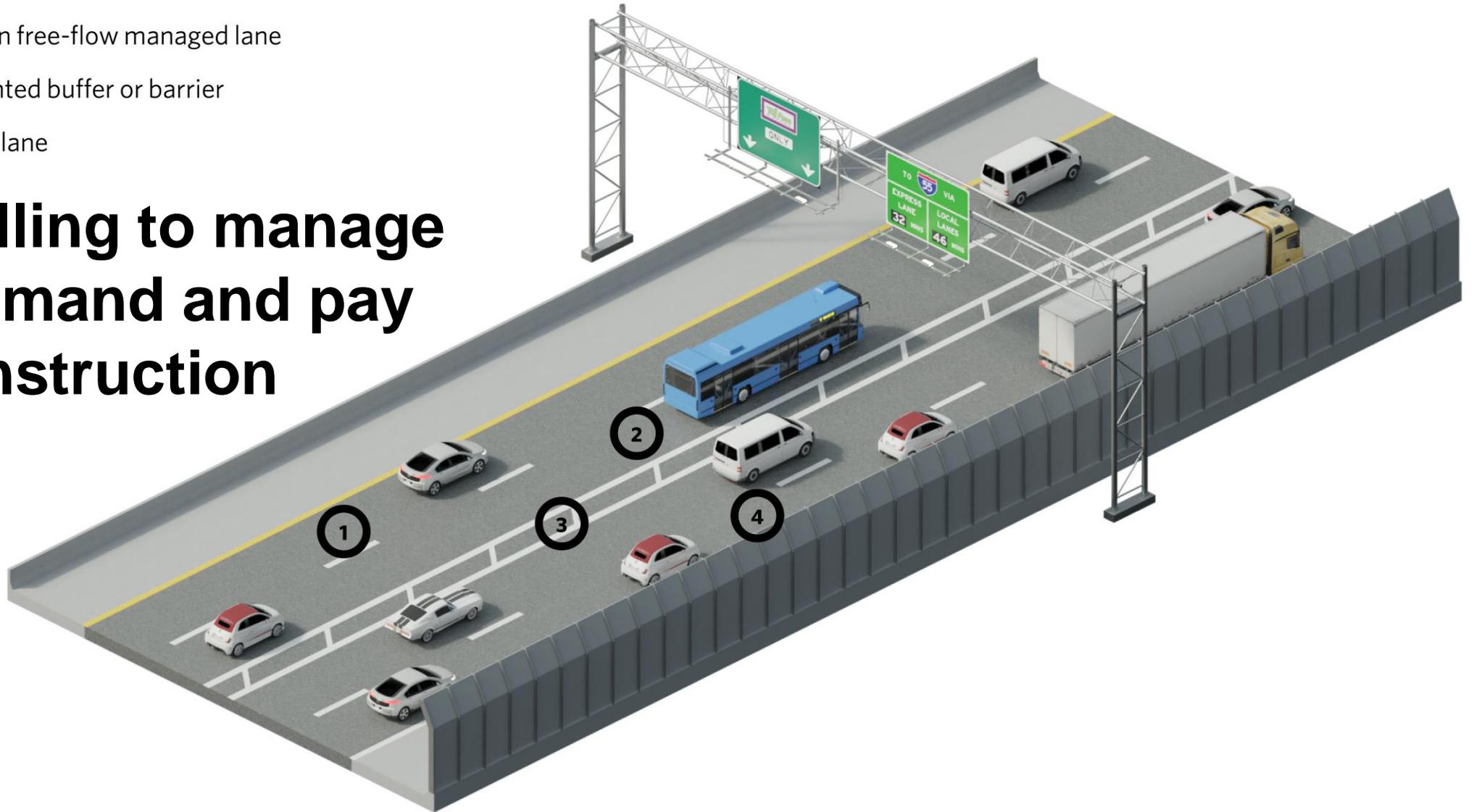
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Source: Chicago Metropolitan Agency for Planning, 2019.

Managed lane features

1. Price-managed lane for speed and reliability
2. Transit operates in free-flow managed lane
3. Separated by painted buffer or barrier
4. General-purpose lane

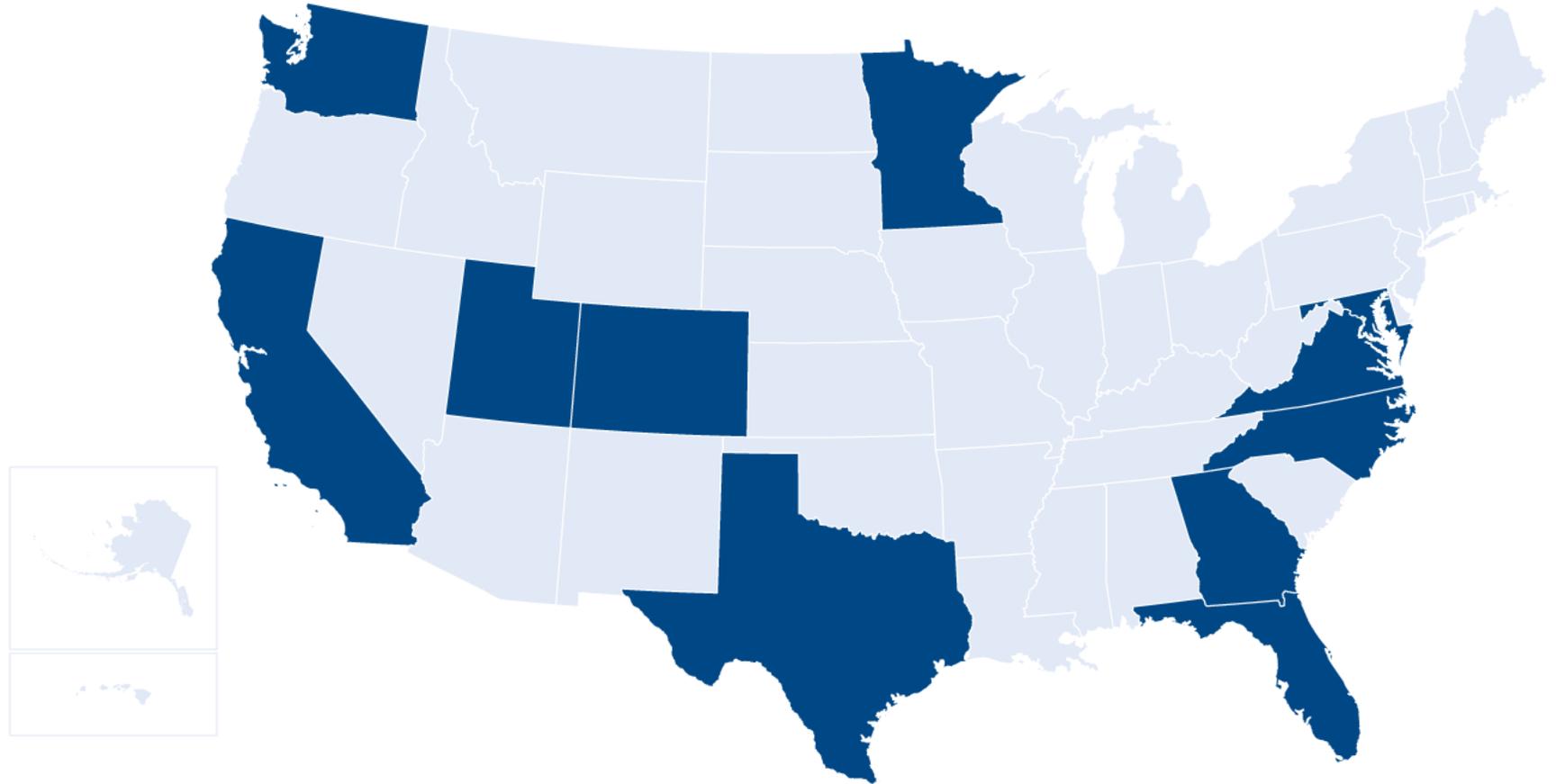
Using tolling to manage travel demand and pay for reconstruction



States using priced managed lanes on expressways

- Currently operational or under construction

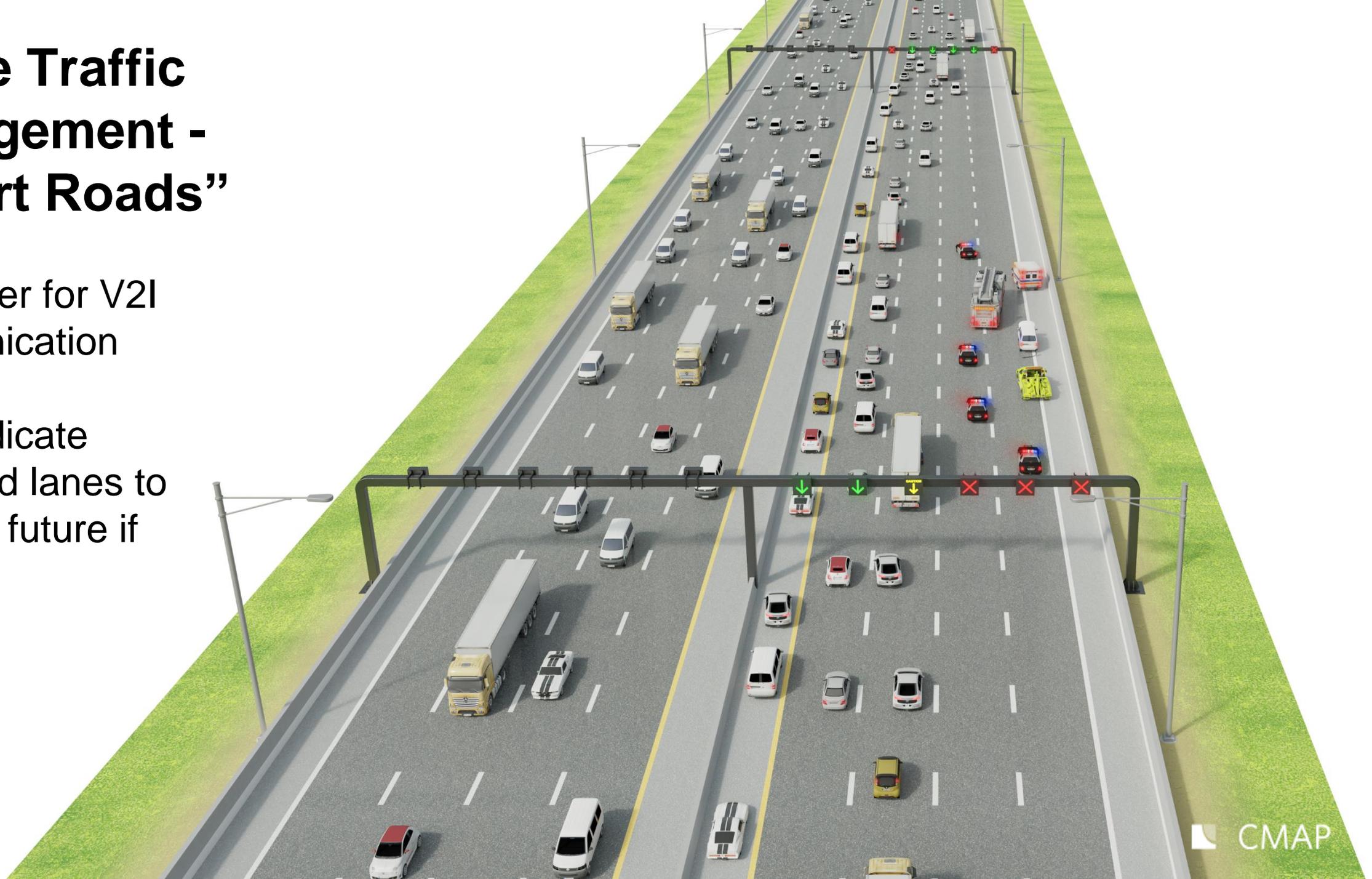
Source: Chicago Metropolitan Agency for Planning, 2018.



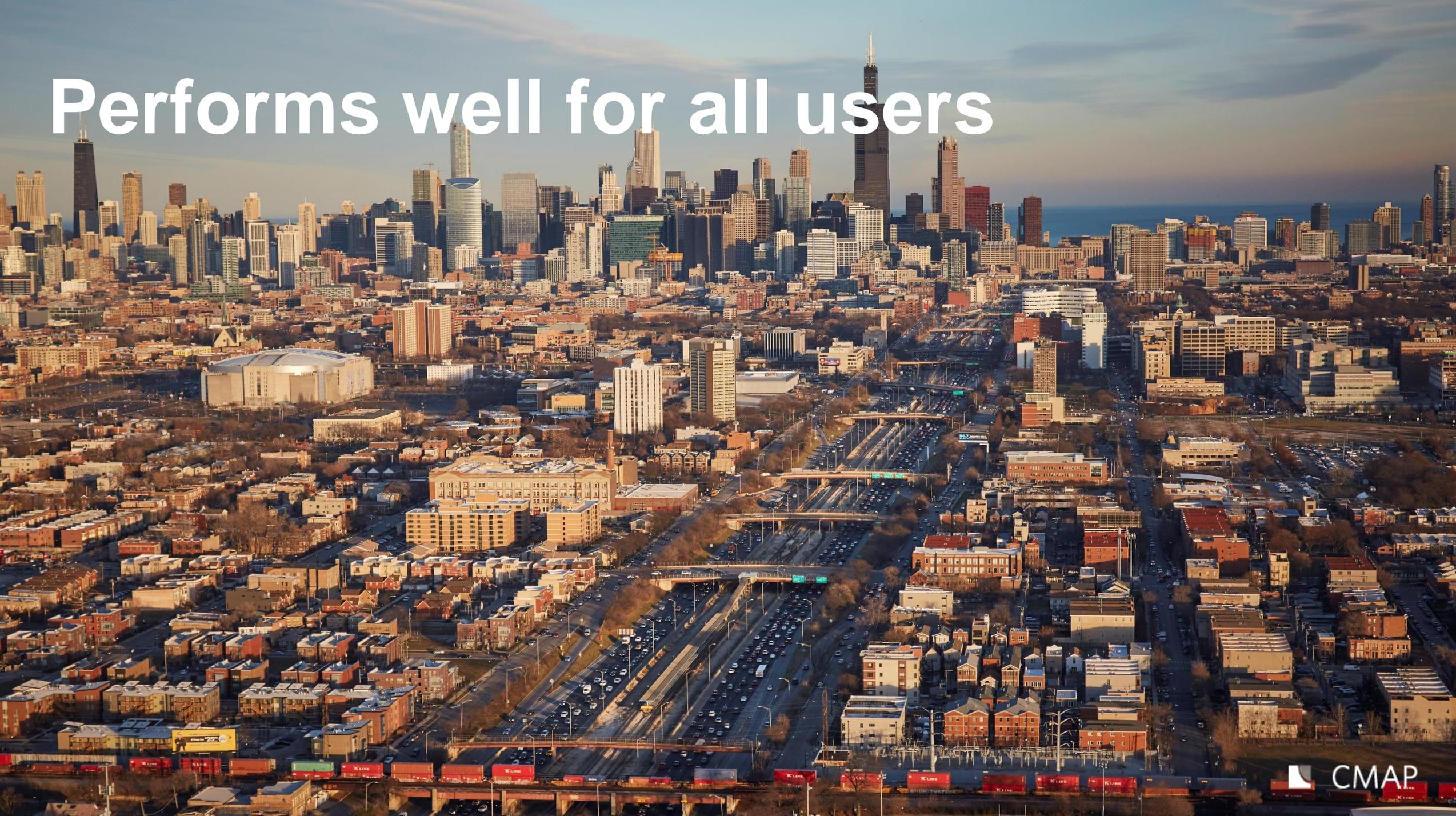
Active Traffic Management - “Smart Roads”

More fiber for V2I
communication

May dedicate
managed lanes to
CAVs in future if
needed



Performs well for all users



Off-system impacts

Daily arterial traffic†

↓ **2%**

Daily transit trips

↑ **11%**

Daily total traffic†

**No
change**

Notes: *Figures reflect change in 2050 forecast conditions comparing "Vision" to "baseline" scenarios, CMAP regional travel demand models.
†Traffic is measured as vehicle miles traveled.

Improve and integrate transit



Before



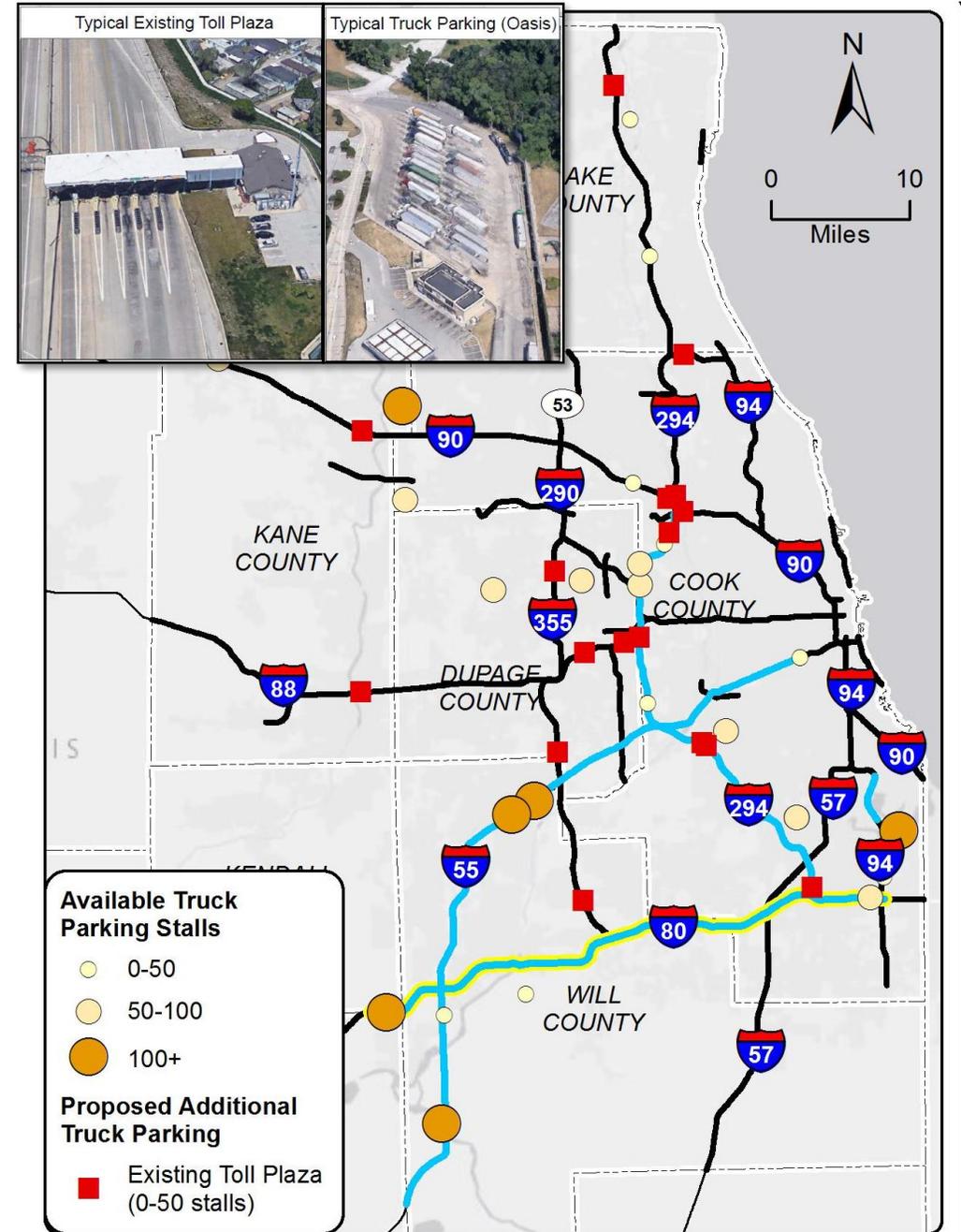
After

Improving freight movement

Add truck parking

Better access to intermodals

Prices encourage truck use of expressways (reduce toll multiplier 9x → 4x) and overnight travel



Assistance for low-income users

Apply discounts for low-income users

Apply dollar cap for off-peak tolls

Update toll policies: limit pursuit, use cash-options for transponders

Use some toll revenue for transit service

Financially sustainable



Financial summary

Toll schedule based on congestion: average of \$0.24 per mile for all vehicles (low of \$0.08 off-peak, high of \$0.40 for cars)

Cost of program through 2050: \$57B

Apply same rates to both IDOT and Tollway system: contribution from increased rates on Tollway: \$5 B

Non-toll capital infusion needed in first decade of program: \$6.4B

Project delivery and governance

Illinois Tollway assumes ownership and operation of IDOT expressways as they are reconstructed

IDOT retains ownership of its expressways and improves them through P3s

IDOT retains ownership of its expressways and works with Tollway to deliver individual projects



www.cmap.illinois.gov/onto2050

Tom Murtha

312.386.8649

tmurtha@cmap.illinois.gov