

TRB/IBTTA HOV Declaration and Enforcement Webinar

It's not about
Enforcement.
It's about
Verification.

Dan Lamers, P.E.

NCTCOG

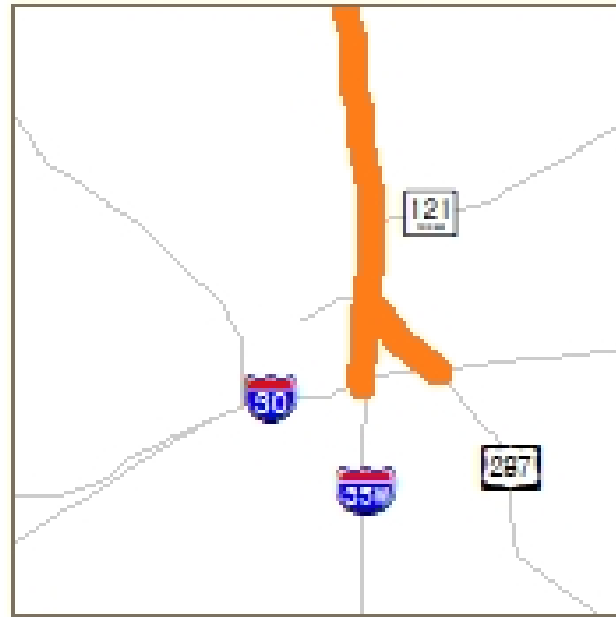


Managed Lane System

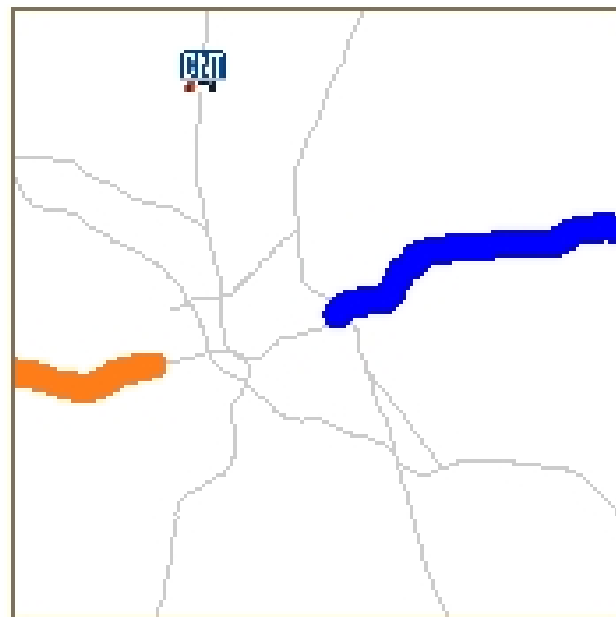
Current Express/HOV + New Managed Lanes

-  Current Express/
HOV Lanes
-  Current TEXpress
Managed Lanes
-  TEXpress Managed Lanes
Under Construction
-  Major Roadways

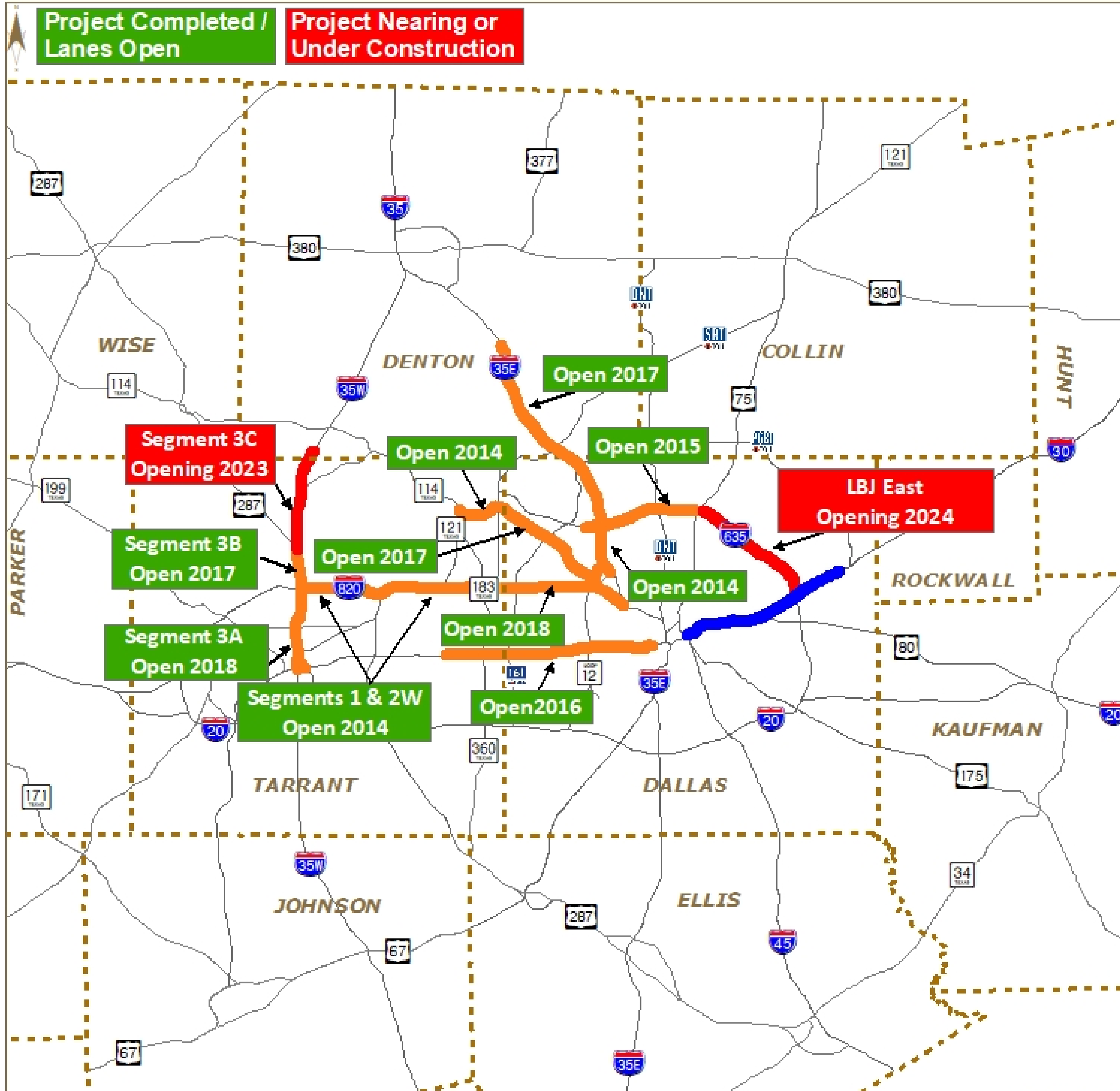
Fort Worth CBD



Dallas CBD



**North Central Texas
Council of Governments**



October 27, 2020

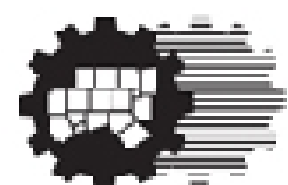
Managed Lane Enforcement



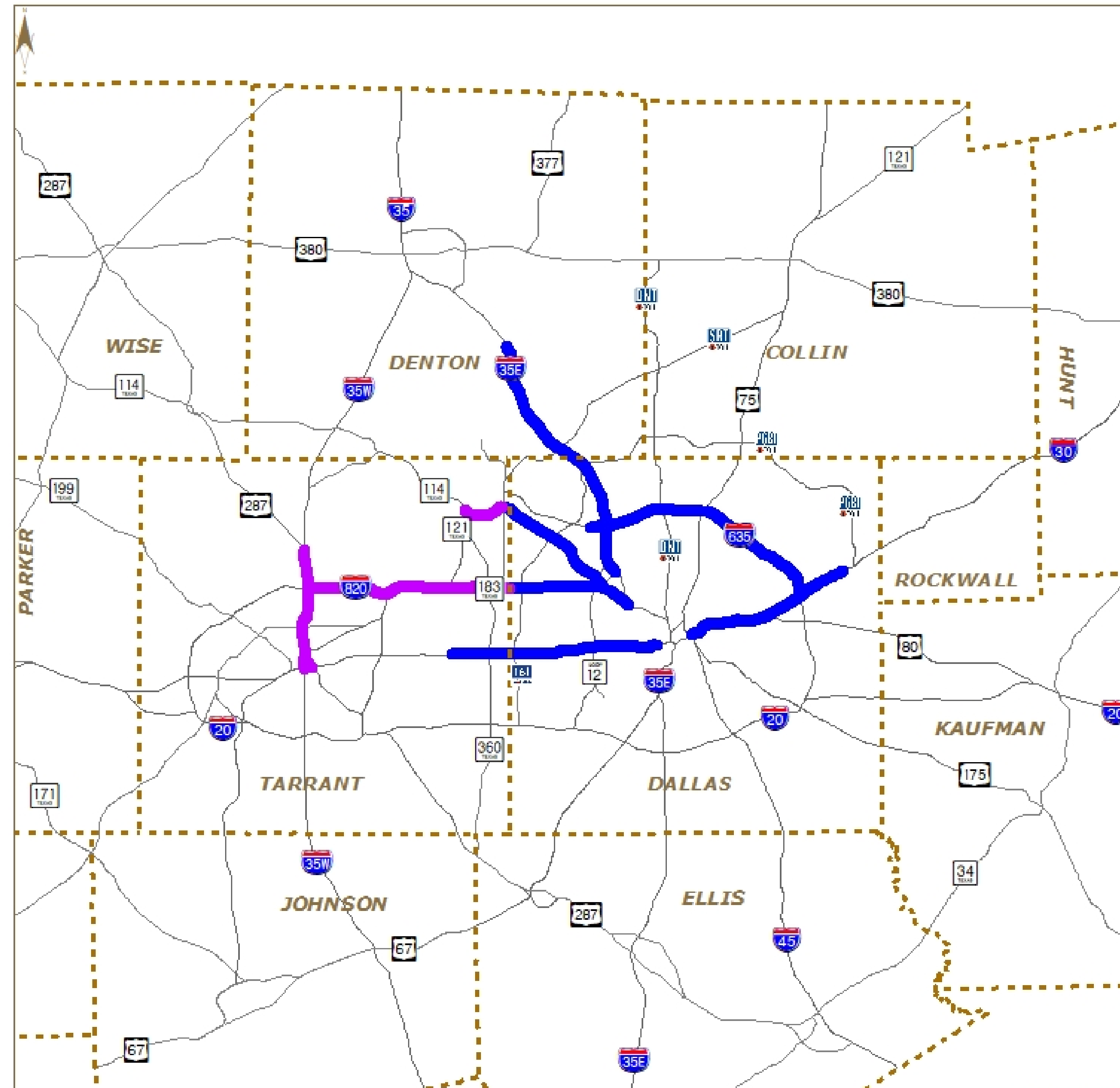
Fort Worth CBD



Dallas CBD



**North Central Texas
Council of Governments**



Challenges to Former HOV Enforcement Structure

HOV ENFORCEMENT CHARACTERISTICS	CHALLENGES
HOV Registration	15-minute pre-registration required
Monitoring of Lanes	<ul style="list-style-type: none">• Too costly• Lack sufficient number of enforcement officers
Manual HOV Counting	Difficulty in accurately counting number of occupants in high-speed HOV corridors
Maintaining Safe Operations	<p><u>High speeds</u> and <u>limited R.O.W.</u> create dangerous conditions for:</p> <ul style="list-style-type: none">• Officers• Pulled-over HOV users• Other HOV users passing by
Reliability of Operations	<ul style="list-style-type: none">• Purpose of HOV facilities to allow entire corridor to flow more consistently• Officer HOV enforcement slows all traffic, negatively affecting corridor reliability
Violation Rate	<ul style="list-style-type: none">• More vehicles in violation than officers enforcing HOV compliance• Dallas County reported 30% violation rate on US 75• District Attorneys not prosecuting violations

Transition from Enforcement to Verification



Get the GoCarma App

Each person in the car has the GoCarma app on their phone.



Setup a GoCarma Pass

A small Bluetooth device that you keep in your car's glove box.



Drive in a TEXpress Lane

The app automatically verifies the number of people in the car.



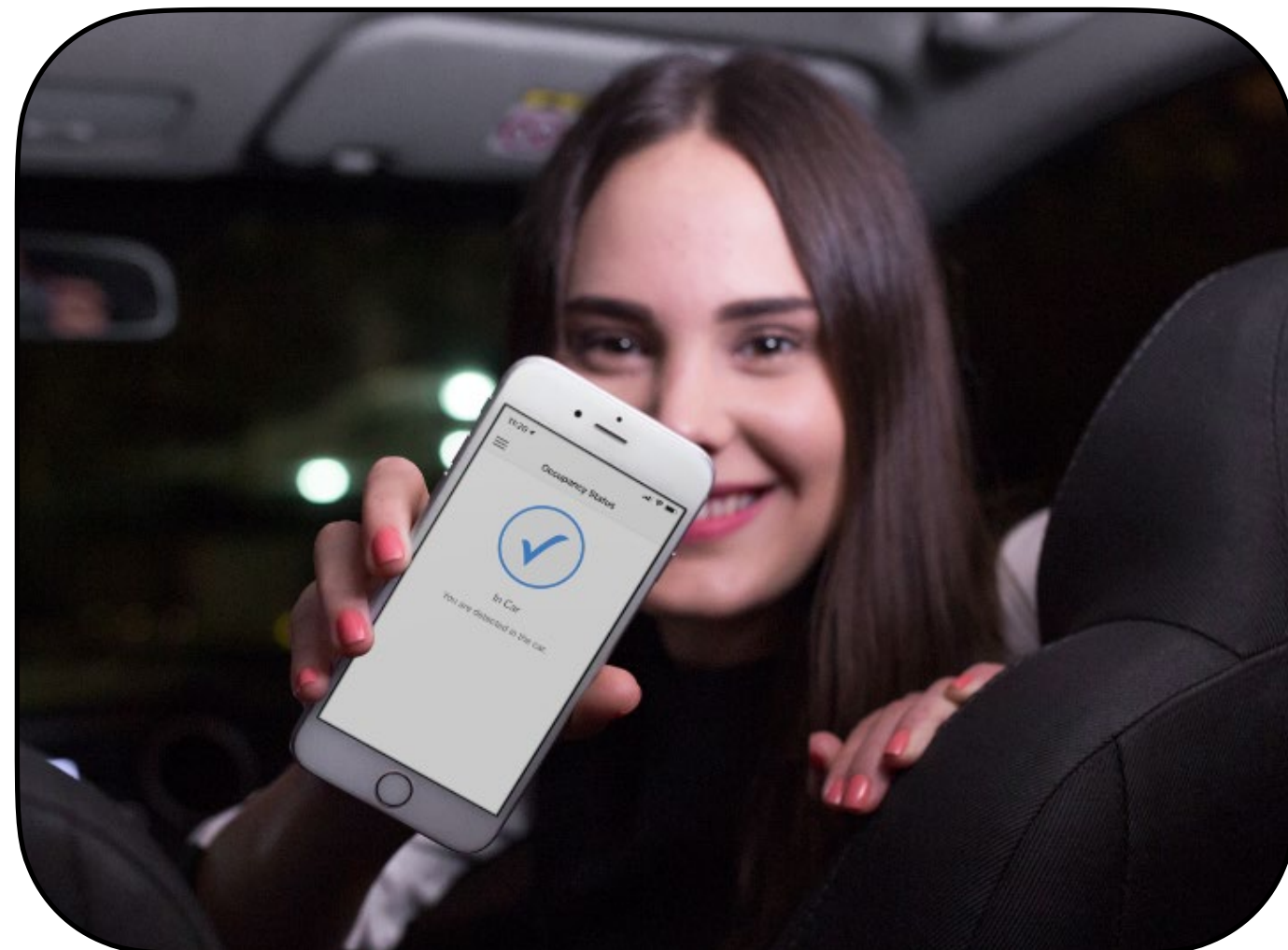
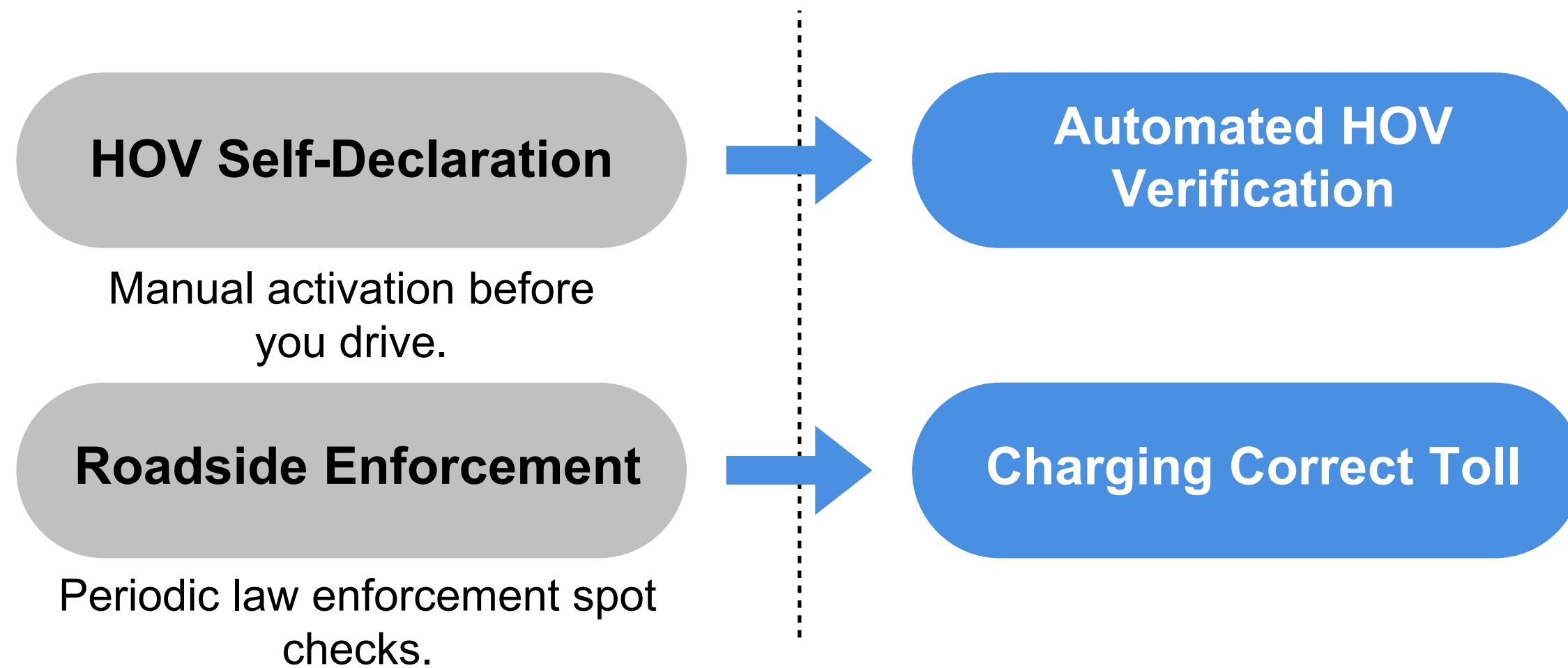
Earn HOV Discounts

Each HOV transaction will result in a discount being applied by NTTA.

Transition to GoCarma



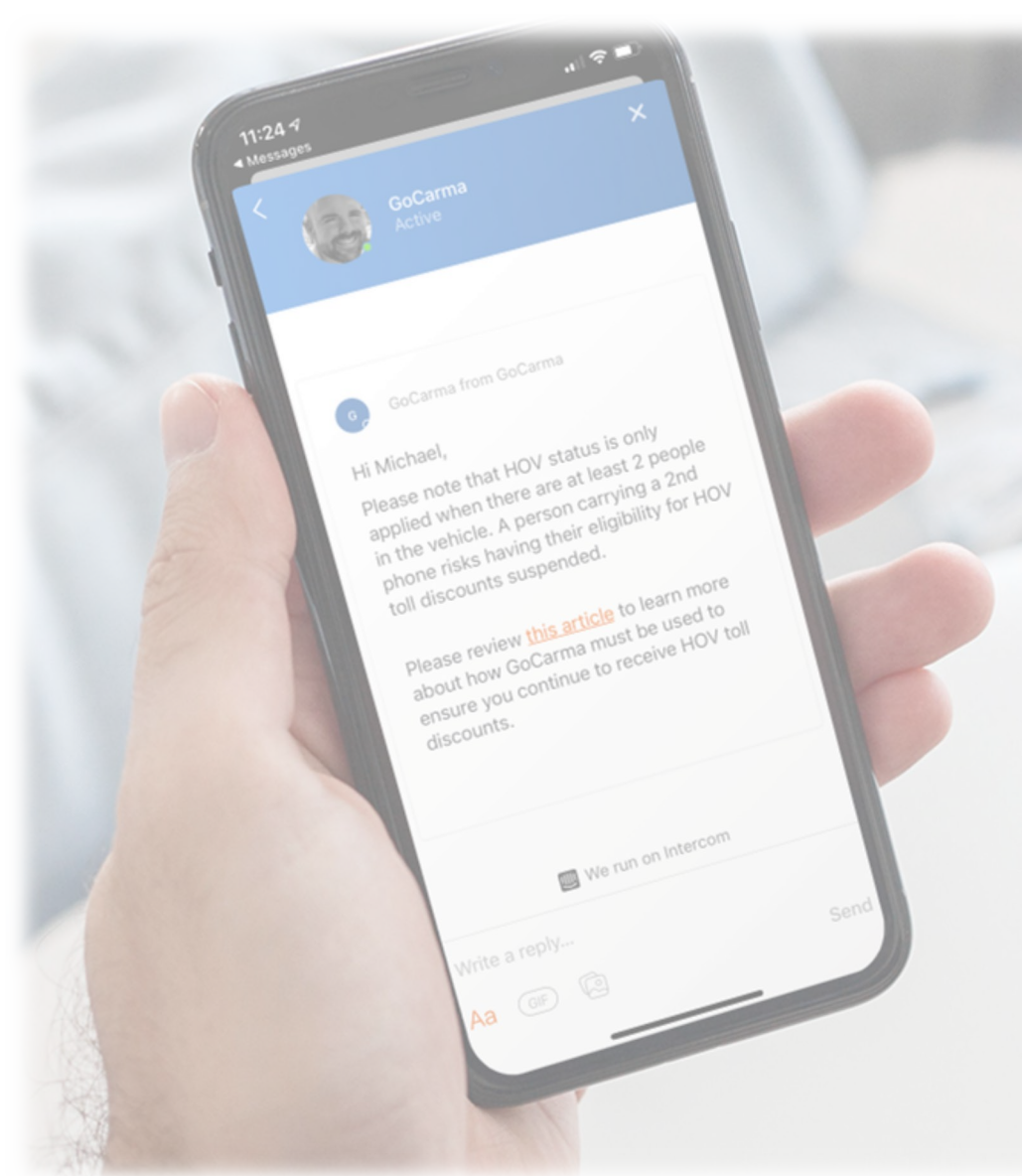
January 24, 2020



Results in the first 9 months:

- 35,000 Users
- 30,000 Vehicles
- 800,000 Transactions
 - 40 average per active driver
 - 1.5 average vehicle occupancy
- 12,750 GoCarma support tickets
 - 4m 44s median response time
 - 21m 42s median time to close
 - 83.2% very satisfied

App Usage Violations



How It Works:

- Automated identification
 - Usage data analysis
 - ▶ data related to coordinated proximity, movement, account/device information, etc.
 - Atypical usage flagged over time
 - ▶ e.g. continuous coordinated presence of 2nd phone
- Suspension of HOV eligibility
 - Following 5 escalating in-app communications

Violation Results:

- 35,000 verified users
 - Verified by phone, email, TVL
- 2.7% app usage violation rate
 - 99% change behavior upon receiving communications
 - ▶ 23% after 1 communication
 - ▶ 51% after 2 communications
 - ▶ 73% after 3 communications
 - ▶ 99% after 4 communications
- <1% app suspension rate
 - 0 appeals submitted

Verification – not Enforcement

People willing to pay toll if HOV
discount convenient to acquire

Enables enforcement officers
to attend to other duties

Reduces demand
on court system

High user
satisfaction

Contact Us

Dan Lamers, P.E., Senior Program Manager

dlamers@nctcog.org

Natalie Bettger, Senior Program Manager

nbettger@nctcog.org