

PERFORMANCE MEASURES: ROADWAY SAFETY AND TRANSIT ASSET MANAGEMENT

Regional Transportation Council

Natalie Bettger

North Central Texas Council of Governments

Action Item

December 14, 2017

Background

Federal legislation specifies quantitative performance measures that must be tracked and reported annually

Today's presentation requests action for two performance areas:

- Highway Safety Improvement Program (PM1)

- Transit Asset Management

Two additional performance areas will be presented in Spring 2018:

- Infrastructure Condition (PM2)

- System Performance/Freight/Congestion Mitigation and Air Quality (PM3)

Proposed targets were prepared in coordination with the State and regional partners

NCTCOG Safety Target Recommendations

Safety Performance Targets	TxDOT 2018 Targets	NCTCOG 2018 Targets
No. of Fatalities	3,704	665
Fatality Rate	1.432	0.96
No. of Serious Injuries	17,565	3,612
Serious Injury Rate	6.74	5.18
No. of Non-motorized Fatalities and Serious Injuries	2,151	560

Targets are based on five-year averages and will be revisited annually.

Two percent reduction achieved by the year 2022.

Regional Safety Position: Even one death on the transportation system is unacceptable. Staff will work with our partners to develop projects, programs, and policies that assist in eliminating serious injuries and fatalities across all modes of travel.

NCTCOG Safety Projects and SHSP Emphasis Areas

NCTCOG Programs and Projects	TxDOT Strategic Highway Safety Plan Emphasis Areas						
	Distracted Driving	Impaired Driving	Inter. Safety	Older Road Users	Bike/Ped Safety	Rdwy. & Lane Depart.	Speeding
Driver Behavior Social Marketing Campaign	X	X		X	X		X
Inter. Safety Imp. Plan (ISIP)			X	X	X		
Traffic Signal Retiming Prog.			X				
Traffic Signal/Intersection Improvement Prog.			X				
WWD Mitigation Prog.		X	X	X		X	
Traffic Signal Cloud Data	X	X	X	X			
Look Out Texans					X		
Reg. Pedestrian Safety Plan					X		
Technical Training/Workshops	X		X		X	X	
Safety Spot Improvement Prog.					X		
Trans. Alternative Funding					X		
Emerging Technology Investment Prog.	X		X			X	
Freeway Management and HOV Enforcement Prog.	X	X				X	X

Transit Asset Management



Images: DART, DCTA, FUTA, and NCTCOG

Proposed Regional Targets for 2018



Asset Category	Target	Metric
Rolling Stock (transit vehicles)	0%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark
Infrastructure (rail track)	0%	Rail track segments with performance restrictions
Equipment (transit support vehicles)	0%	Vehicles that meet or exceed the industry standard, defined as the Federal Transit Administration's Default Useful Life Benchmark
Facilities (buildings, stations, park and rides)	0%	Transit facilities rated below "Adequate" (3.0) on the industry standard Transit Economic Requirements Model (TERM) scale.

Timeline

Action	Date
STTC Information	October 27, 2017
RTC Information	November 9, 2017
Public Meetings	November 2017
STTC Action	December 8, 2017
RTC Action	December 14, 2017
Target-Setting Deadline: Transit Asset Management	December 27, 2017
Target-Setting Deadline: Roadway Safety	February 27, 2018

Requested Action

Approval of regional targets for roadway safety and transit asset management as shown.

Direction to continue coordination with transit providers to standardize regional transit asset management approach.

Approval of aspirational goals for roadway safety.

“Even one death on the transportation system is unacceptable. Staff will work with our partners to develop projects, programs, and policies that assist in eliminating serious injuries and fatalities across all modes of travel.”

Contact

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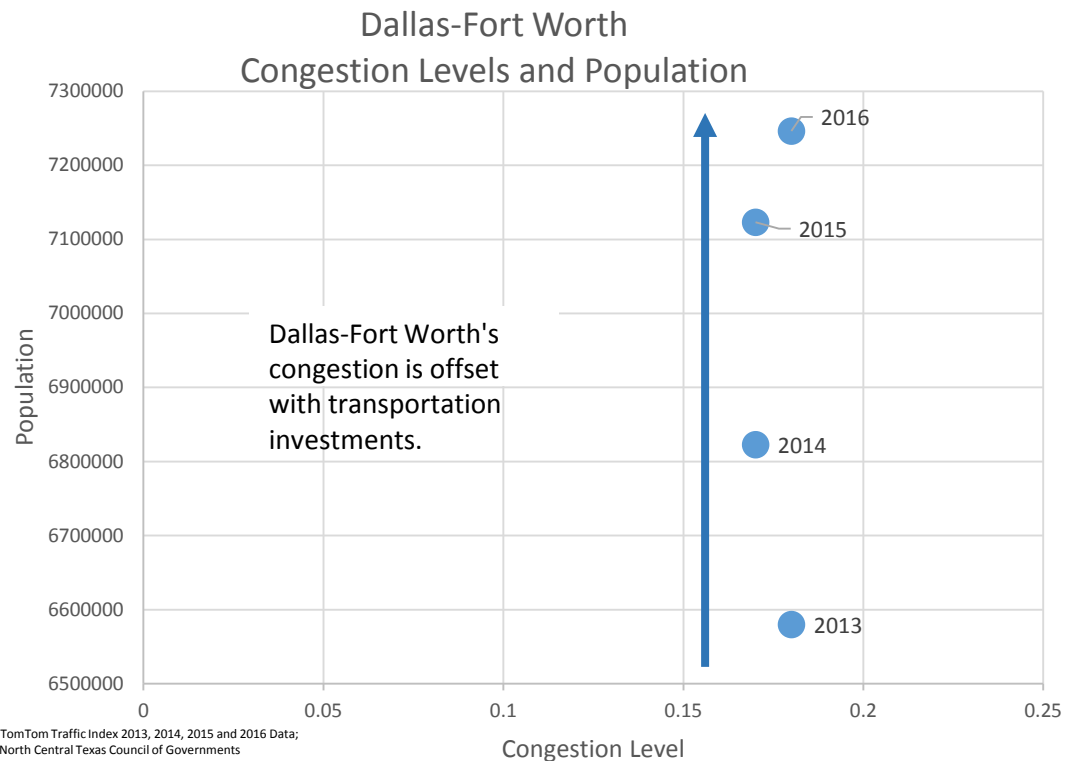
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RTC SUCCESS

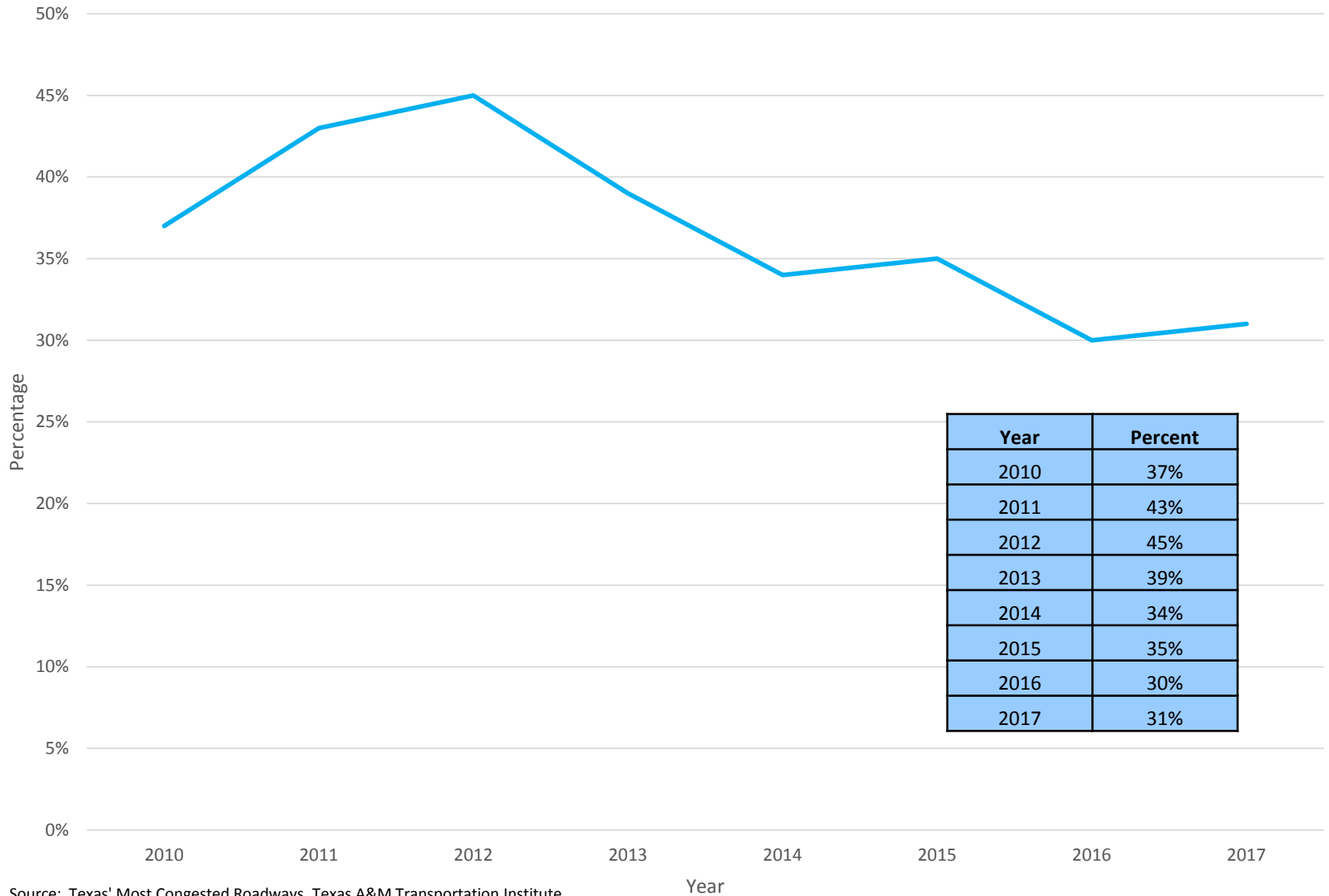
\$28 Billion in Construction Since the Year 2000

Leading State in Transportation Delivery in Partnership with TxDOT and NTTA

Successful Mobility Outcomes (Air Quality, Reliability and Safety)

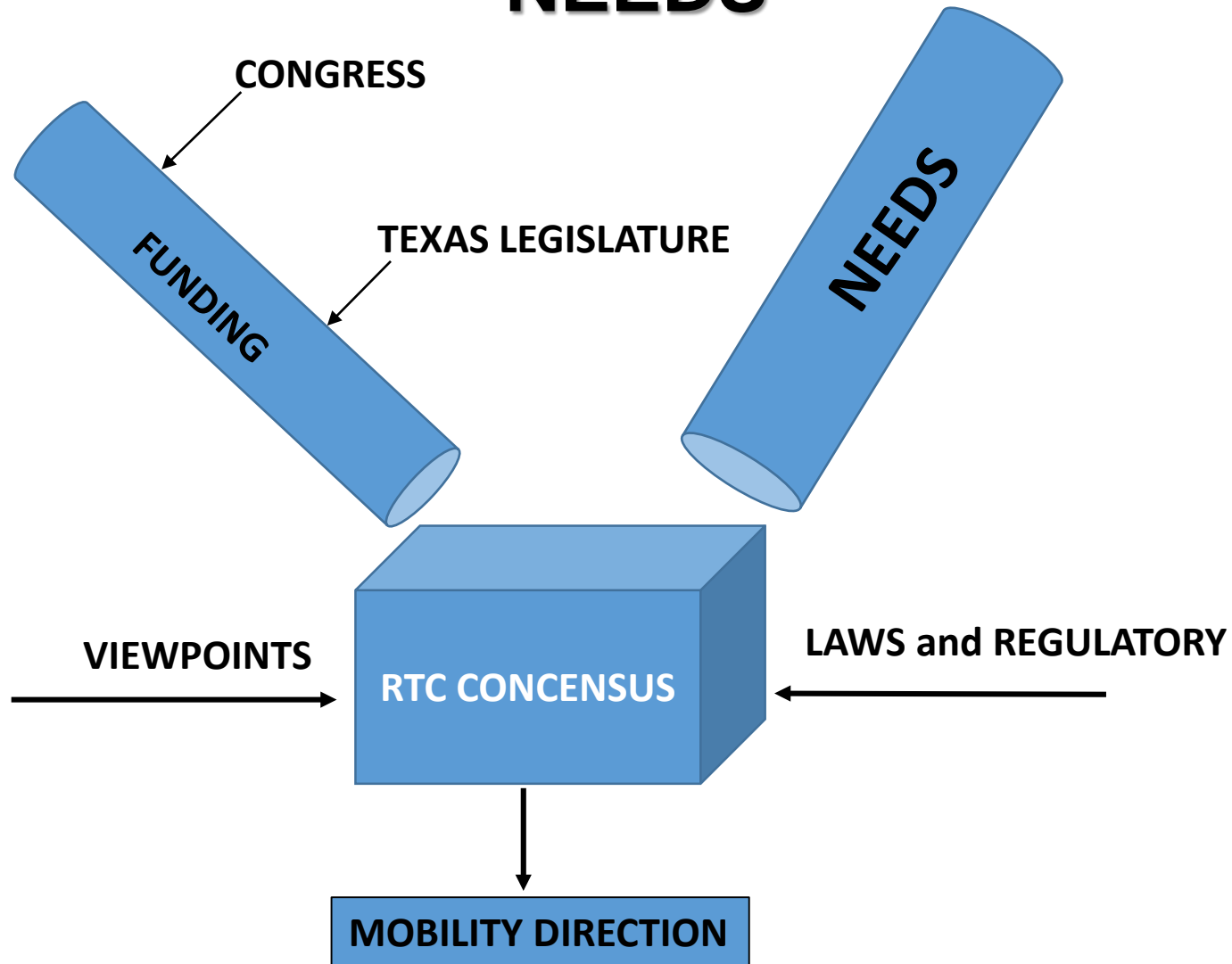


Percentage of 100 Most Congested Corridors in DFW Region



Source: Texas' Most Congested Roadways, Texas A&M Transportation Institute

SUPPLY/DEMAND RELATIONSHIP OF TRANSPORTATION REVENUES AND NEEDS



RE-ENGAGE STATE LEGISLATURE

WORK WITH CONGRESS

1. Why don't we collect revenue smarter?
2. Why is Texas sending money to other states?
3. Why is Texas being short changed using old formulas?
4. Why isn't everyone paying taxes?
5. Why can't we pilot test the new federal program, especially since we are one of a few donor states?

RE-ENGAGE STATE LEGISLATURE

WORK WITHIN TEXAS

6. Why don't we collect revenues smarter?
7. Why isn't everyone paying taxes?
8. Why can't TxDOT borrow funds when cost of construction is greater than the cost of money?
9. Why can't TxDOT use the credit rating of Texas and pay lower interest?
10. Why did the legislature reduce TxDOT's construction revenues by changing TxDOT interest payments?

RE-ENGAGE STATE LEGISLATURE

WORK WITHIN TEXAS (Cont.)

11. Why can't the legislature give TxDOT more reliable authority on new revenue sources?
12. Why does the legislature restrict transit choices that lower the need for freeway capacity, toll managed lanes and toll road lanes?
13. Why does Texas let tax dollars leak to neighboring states for entertainment choices?
14. Why does Texas resist local option revenue generation?
15. Why can't the legislature support new institutional structures to deliver next generation technology, rail, people mover and transportation reward programs?

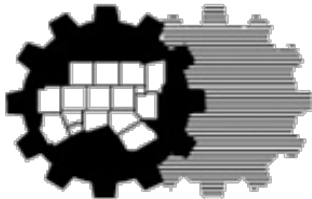
ACTION

Approve Legislative Program Advancing 15 or
so Revenue Ideas

Transportation, Housing and Urban Development Floor Amendment: Rescission of Contract Authority

Regional Transportation Council

December 14, 2017



Amanda Wilson, AICP

North Central Texas Council of Governments

Federal Legislative Update

Fiscal Year 2018 Appropriations Continuing Resolution

- Extended through December 22
- Continues FY17 Funding Levels

Fiscal Year 2018 Appropriations

- House Passed a FY18 Bill (H.R. 3353)
- Senate Committee Passed a FY18 Bill (S. 1655)

Tax Bill Negotiations

- House and Senate each Passed a Tax Bill, Conference Committee Negotiations Ongoing

Fiscal Year 2018 Appropriations

SENATE APPROPRIATIONS

Provides USDOT with \$1.5B more funding than 2017

Restores TIGER grants (\$550M)

Funds transit Capital Investment Grants (CIG) program

No funds for Automated Vehicle (AV) research

HOUSE APPROPRIATIONS

Provides USDOT with \$1.1B less funding than 2017

Cuts all funding for TIGER

Cuts to transit CIG program

\$100 million for AV research

\$800M Highway contract authority rescission, Woodall Amendment

Highway Authority Rescission

Woodall Amendment

- Approved and Included in House Bill in September
- Strikes the language that prevents the current highway rescission from applying to safety programs and to sub-allocated Surface Transportation Block Grant Program (STBG) funds
- Strikes the proportionality clause
- Allows states more flexibility in implementing the \$800 million rescission

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AIR QUALITY UPDATE

Regional Transportation Council

December 14, 2017

**Chris Klaus
Senior Program Manager**

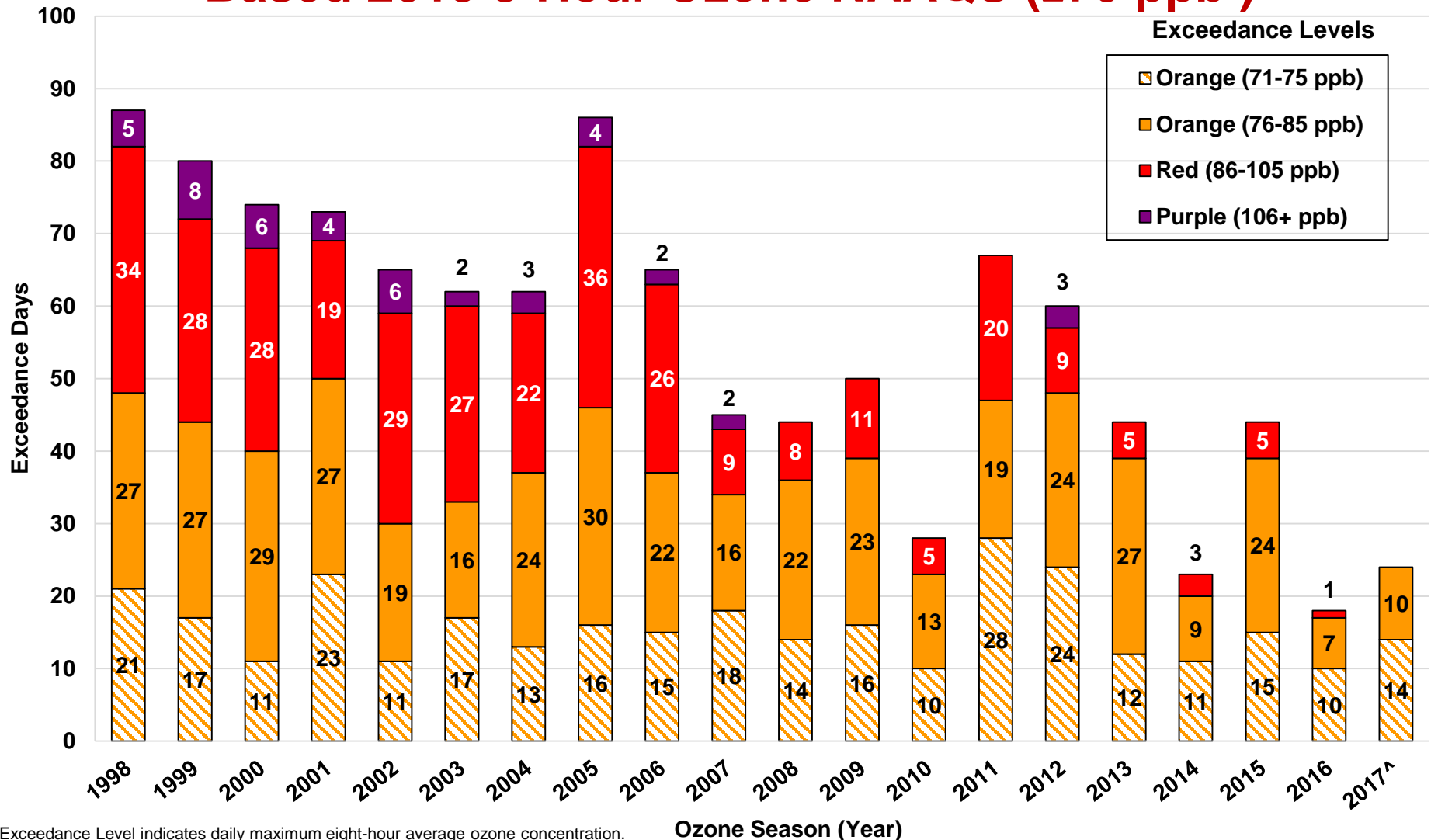


North Central Texas
Council of Governments



8-HOUR OZONE NAAQS HISTORICAL TRENDS

Based 2015 8-Hour Ozone NAAQS (≤ 70 ppb)



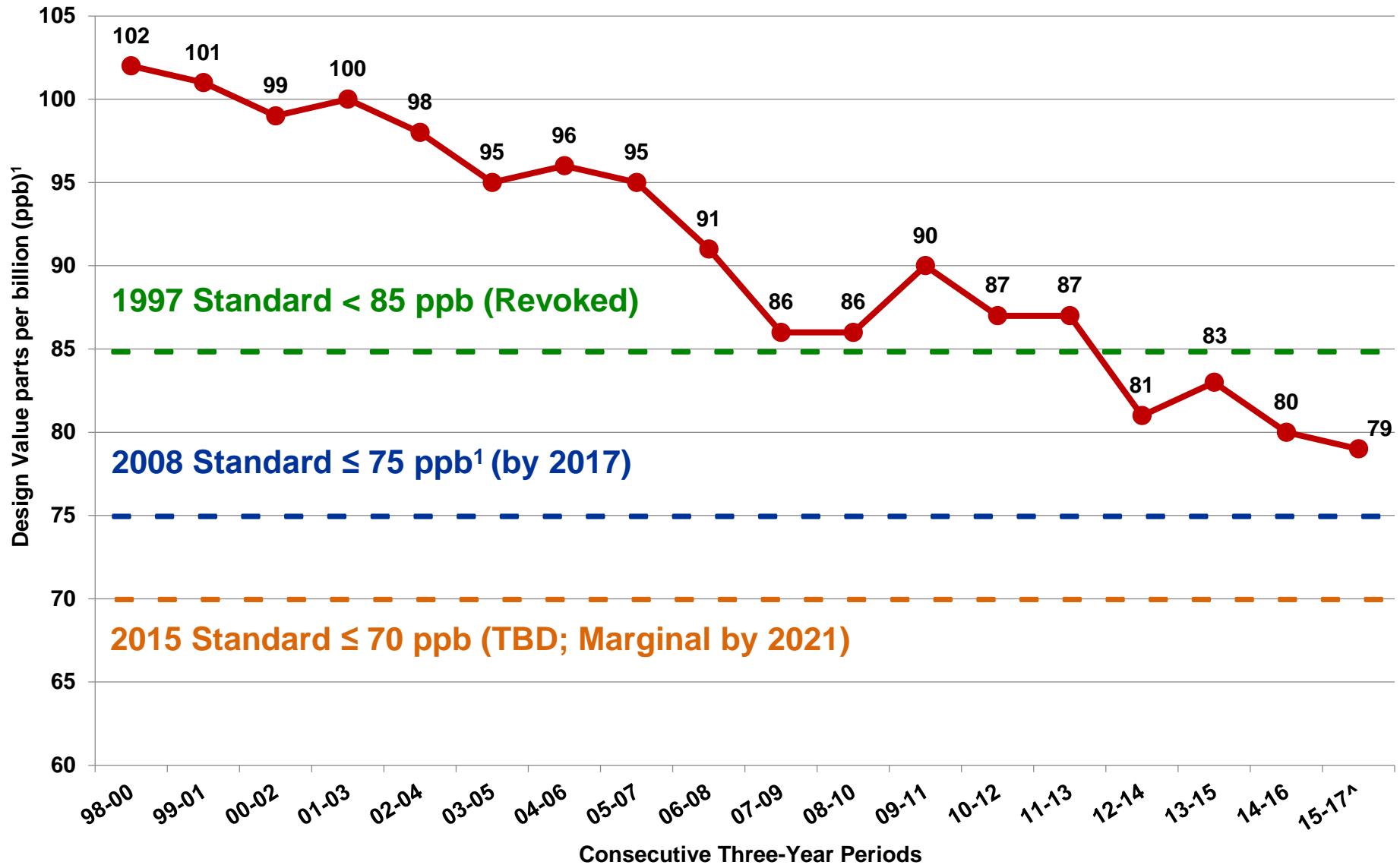
Exceedance Level indicates daily maximum eight-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

Ozone Season (Year)

^AData not certified by TCEQ

Source: TCEQ, http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl
ppb = parts per billion

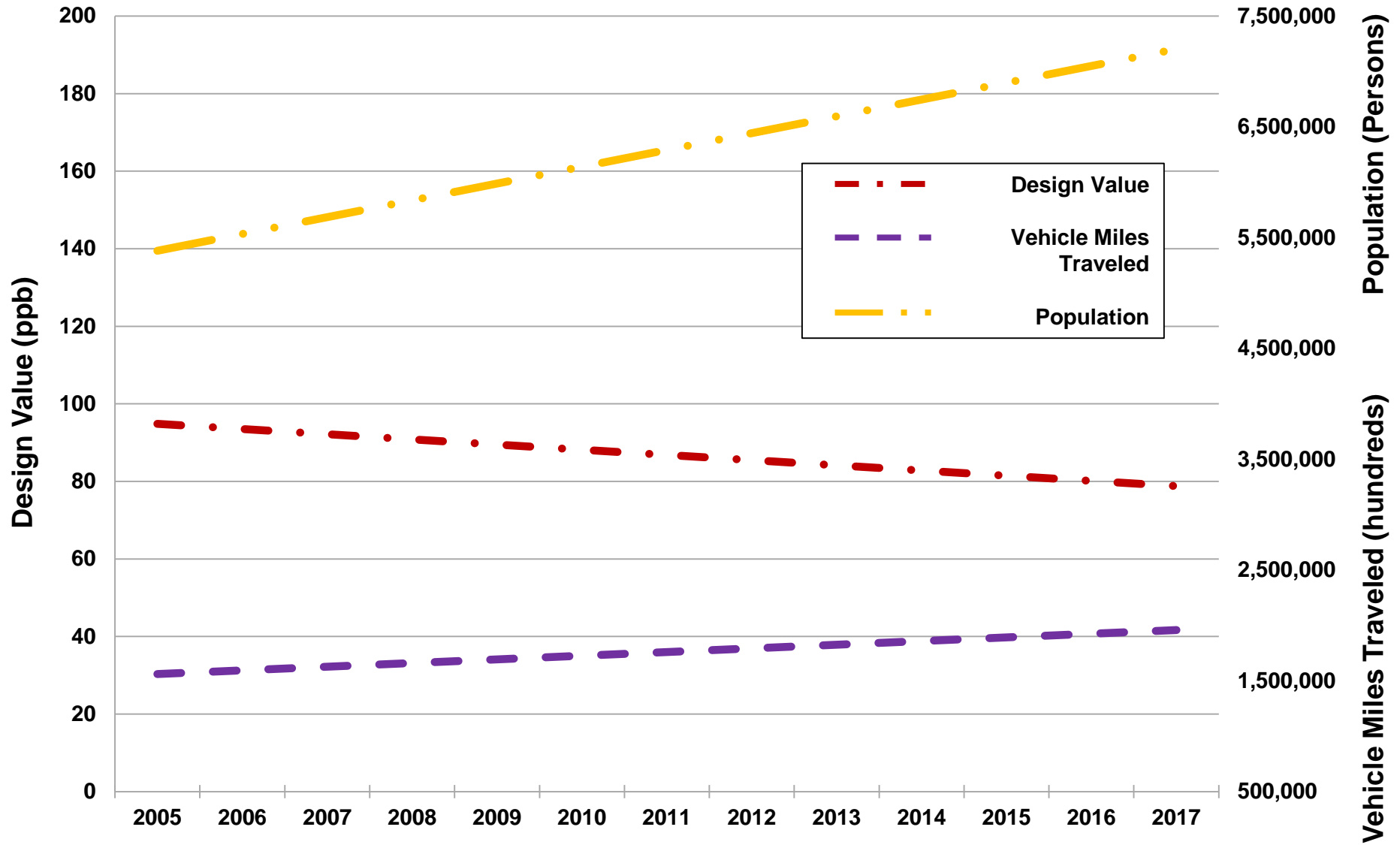
8-HOUR OZONE NAAQS HISTORICAL TRENDS



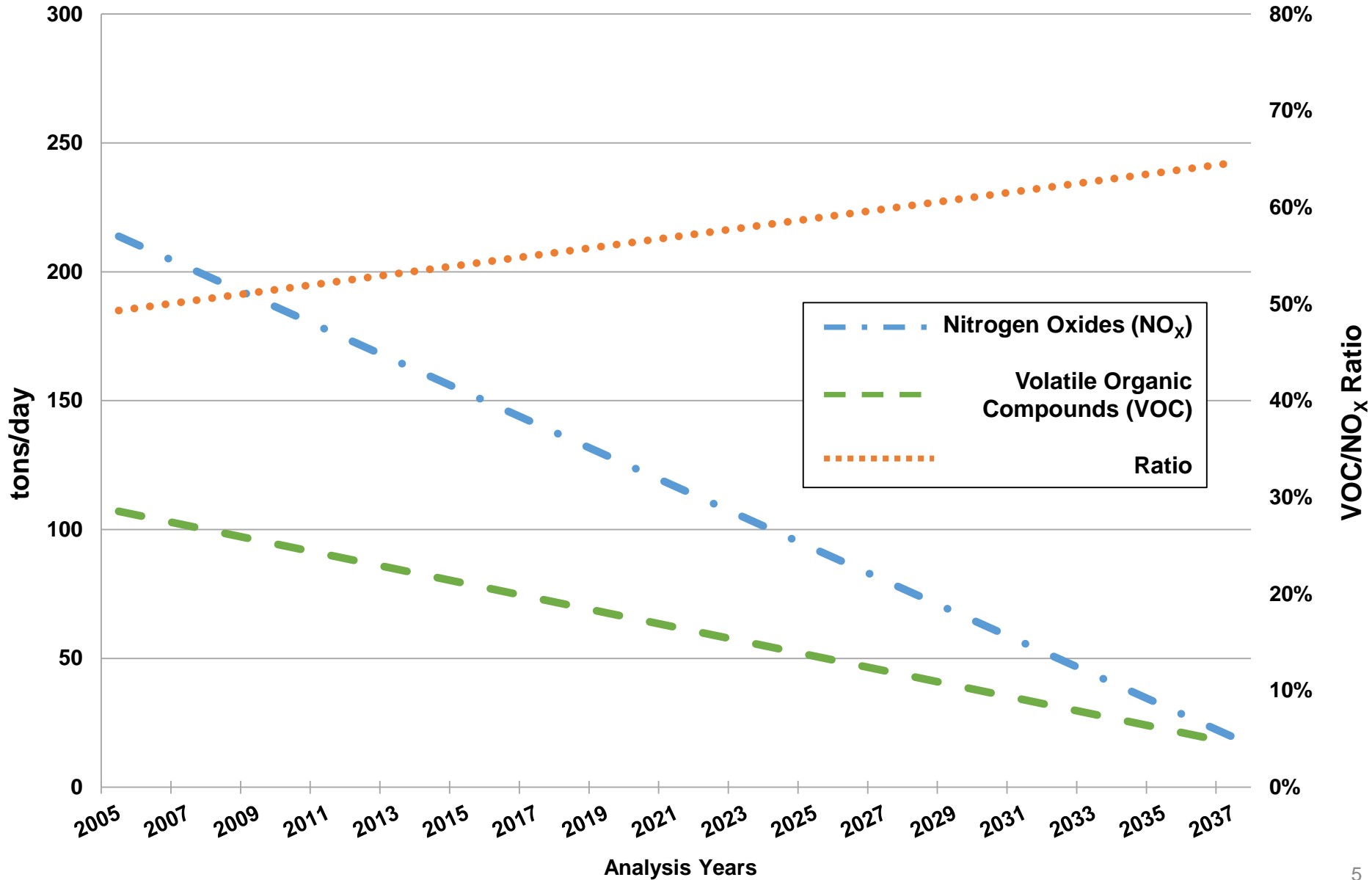
¹Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the *Design Value* (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

[^]Data not certified by TCEQ.

DEMOGRAPHIC AND DESIGN VALUE HISTORICAL TRENDS

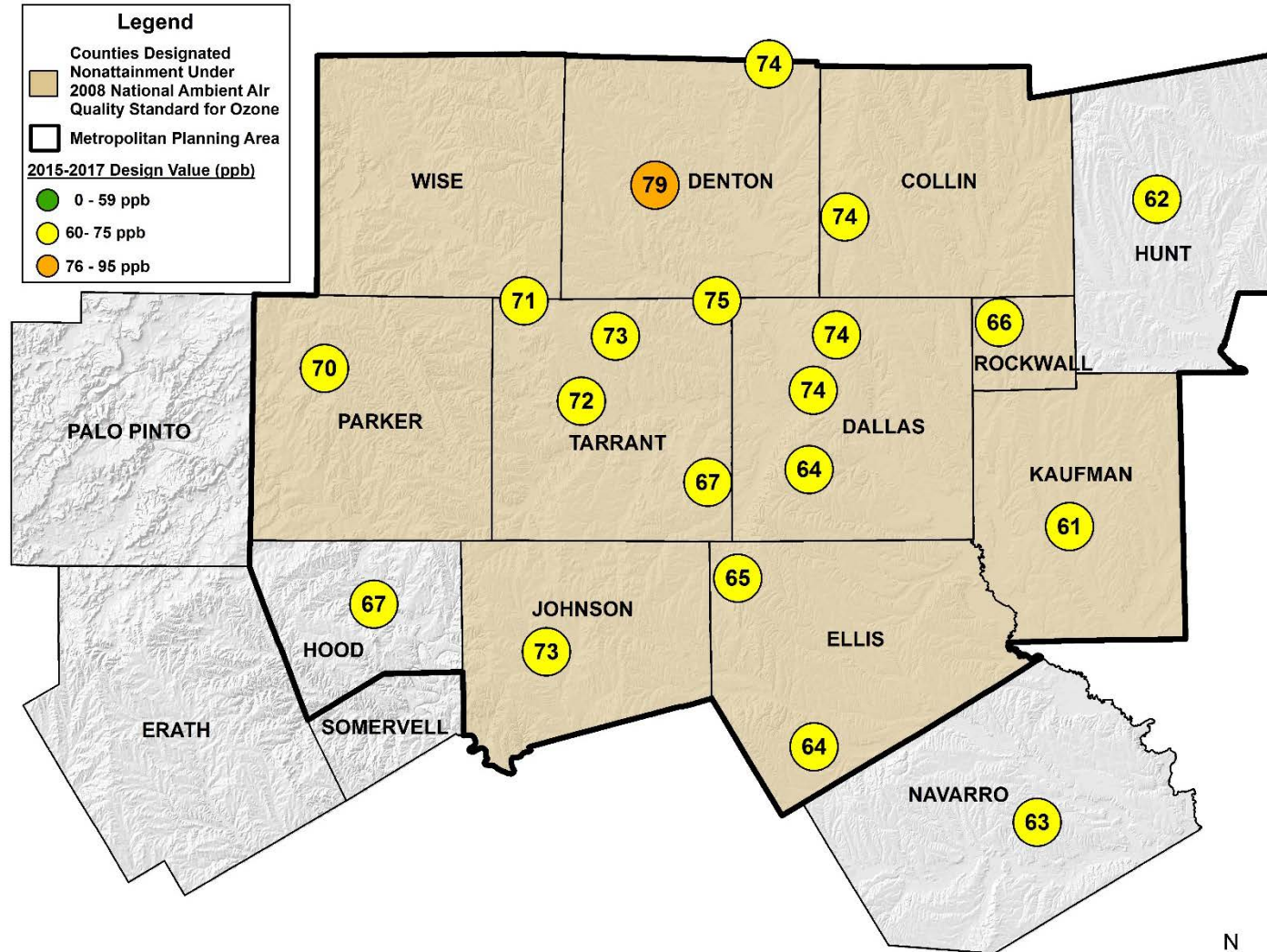


NO_x AND VOC ON-ROAD MOBILE TRENDS



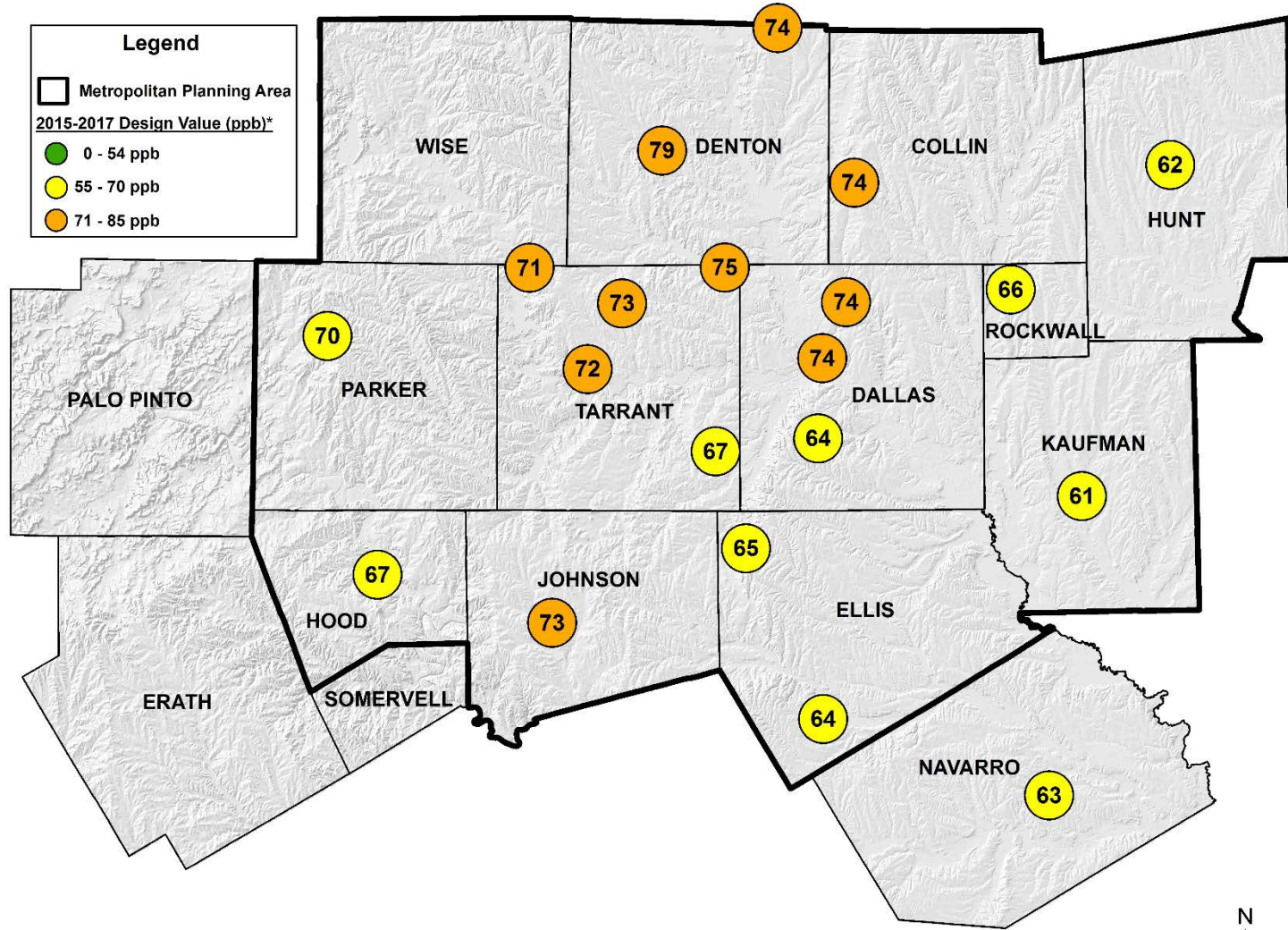
MONITOR EXCEEDANCES

2008 8-Hour Ozone NAAQS (≤ 75 ppb)



MONITOR EXCEEDANCES

2015 8-Hour Ozone NAAQS (≤ 70 ppb)



2015 8-HOUR OZONE NAAQS

Air Quality Designations for the 2015 NAAQS for Ozone

November 16, 2017:	EPA designated 2,646 counties as Attainment/Unclassifiable and three counties as Unclassifiable. <i>(Note: Hood and Hunt Counties were not included in this list)¹</i>
January 16, 2018:	Final Rule Effective Date
TBD:	Final Rule Designating Nonattainment Counties

¹<https://www.gpo.gov/fdsys/pkg/FR-2017-11-16/html/2017-24640.htm>

LOOKING FORWARD

Monitoring Next Steps Associated to the Region's Design Value being Higher than the 75 ppb Standard

Monitoring EPA's Final Designations and Associated Rules to the 70 ppb Standard

Conducting a Transportation Conformity Analysis on Mobility 2045

Enhancing the Regional Communications Plan

Continuing to Develop and Implement Mobile Source Emission Reduction Programs

Composing Letter to TCEQ on NO_x and VOC Ratios

REFERENCES

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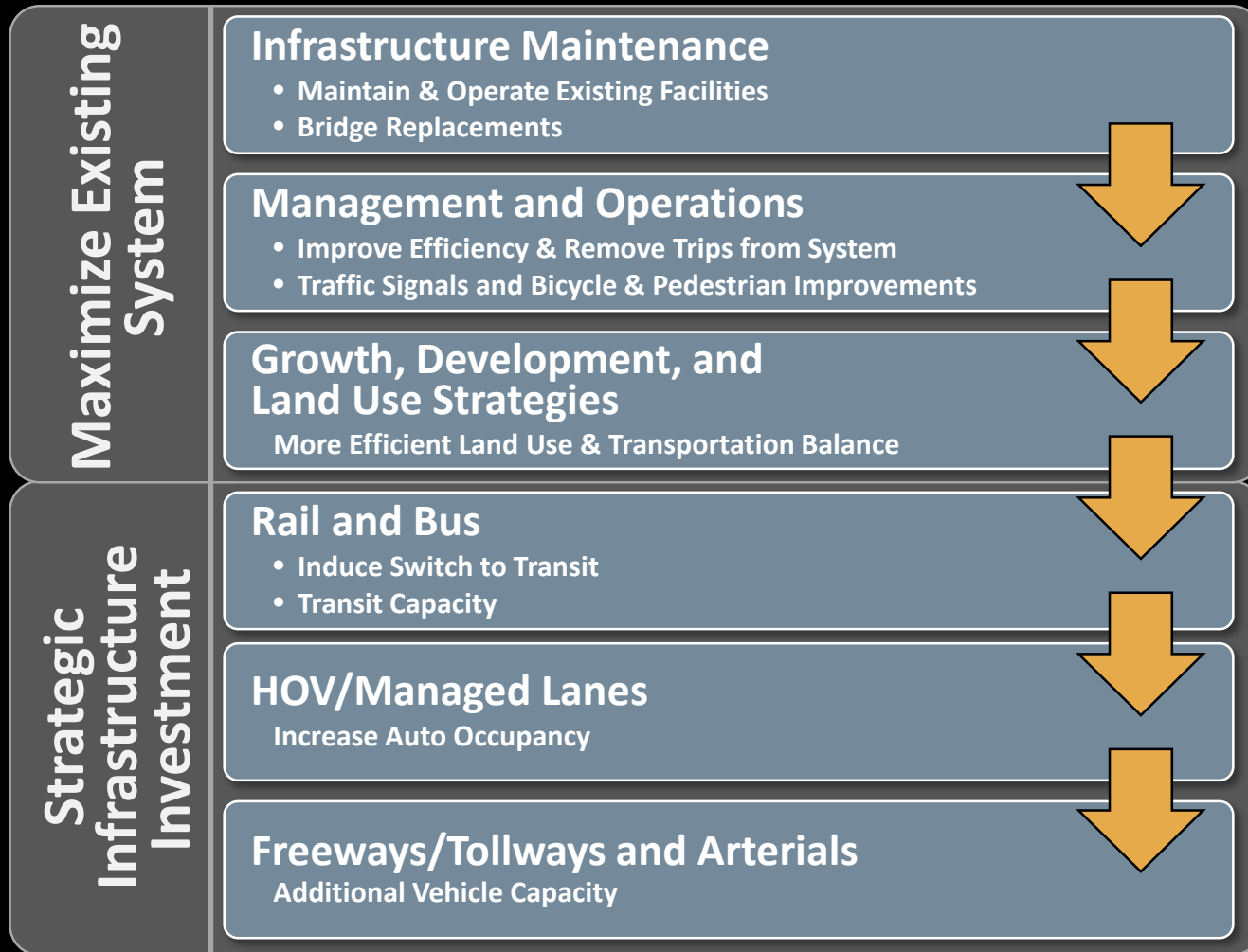
Mobility 2045 Update

Regional Transportation Council

December 14, 2017



Mobility Plan Development Process



Mobility 2045 Schedule

Milestone	Date
DRAFT Projects to RTC	December 14
DRAFT Programs and Policies to RTC	January 11
DRAFT Final Plan – RTC Workshop	February 8
RTC Action – Take DRAFT Plan to Public	March 8
Official 60-Day Comment Period Begins	April 9
Mobility 2045 – STTC Action	May 25
Mobility 2045 – RTC Action	June 14





Major Project Recommendations



Process Overview

Builds Upon Mobility 2040 Process

Consistent with HB 20 Process

Enhanced Criteria and Analysis

All Tools Available

Consistent with MAP-21 and FAST Act Goals

Continuous, Coordinated, and Comprehensive
Process



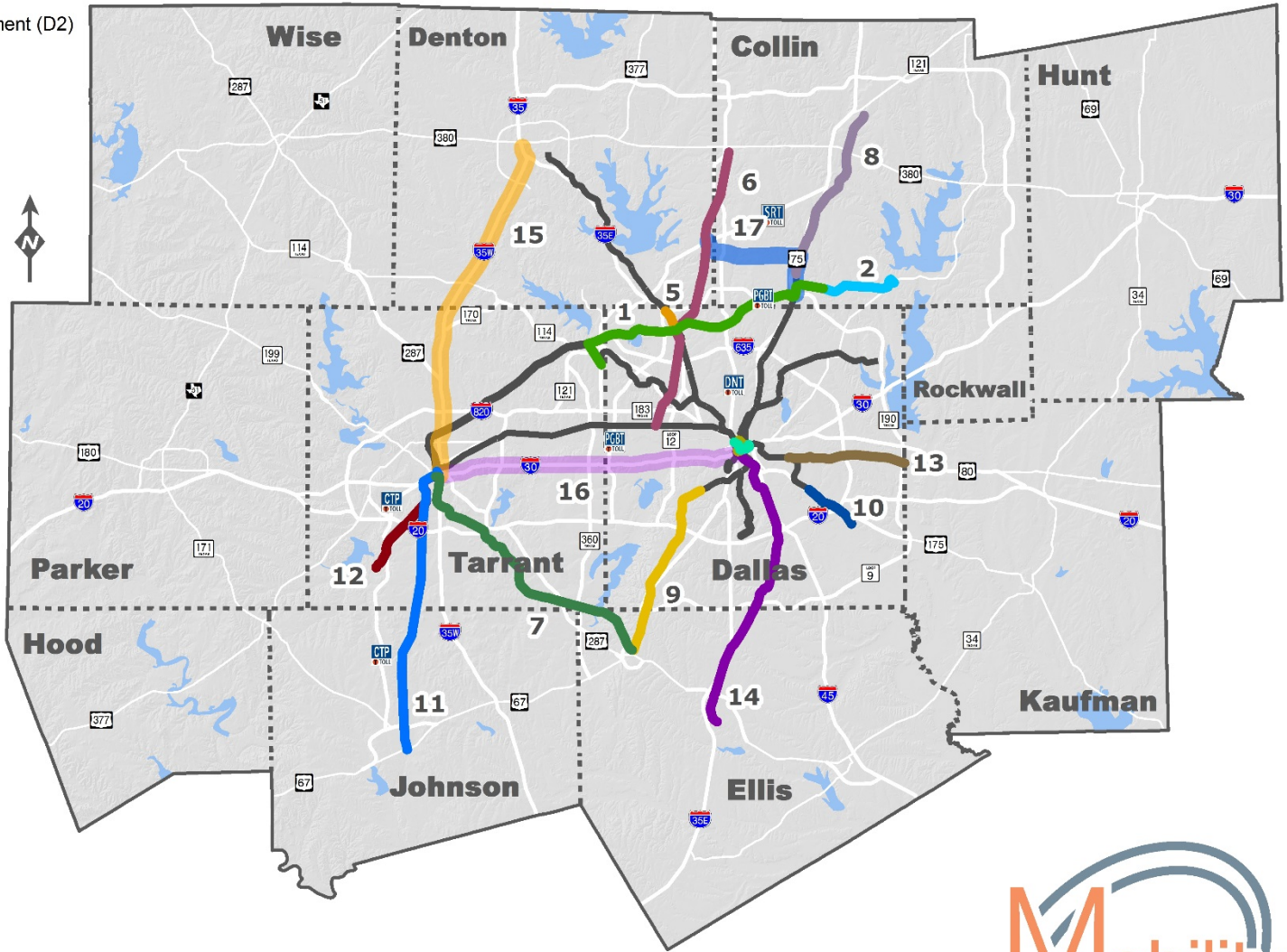
DRAFT Transit Corridor Projects

Rail

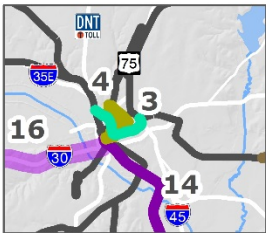
- 1 - Cotton Belt
- 2 - Cotton Belt East Extension
- 3 - Downtown Dallas 2nd Alignment (D2)
- 4 - Dallas Streetcar
- 5 - A-train Extension
- 6 - Frisco Line
- 7 - Mansfield Line
- 8 - McKinney Line
- 9 - Midlothian Line
- 10 - Green Line Extension
- 11 - Cleburne Line
- 12 - Southwest TEX Rail
- 13 - Scyene Line
- 14 - Waxahachie Line

High-Intensity Bus

- 15 - IH 35W Express
- 16 - IH 30 Express
- 17 - Spring Creek Parkway
- Existing Rail



Dallas CBD



Fort Worth CBD



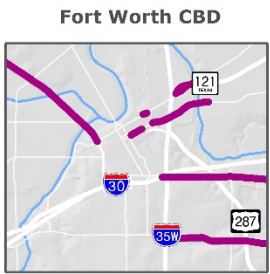
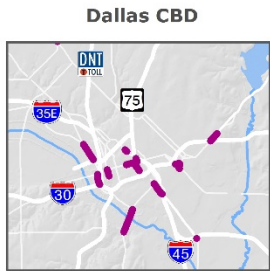
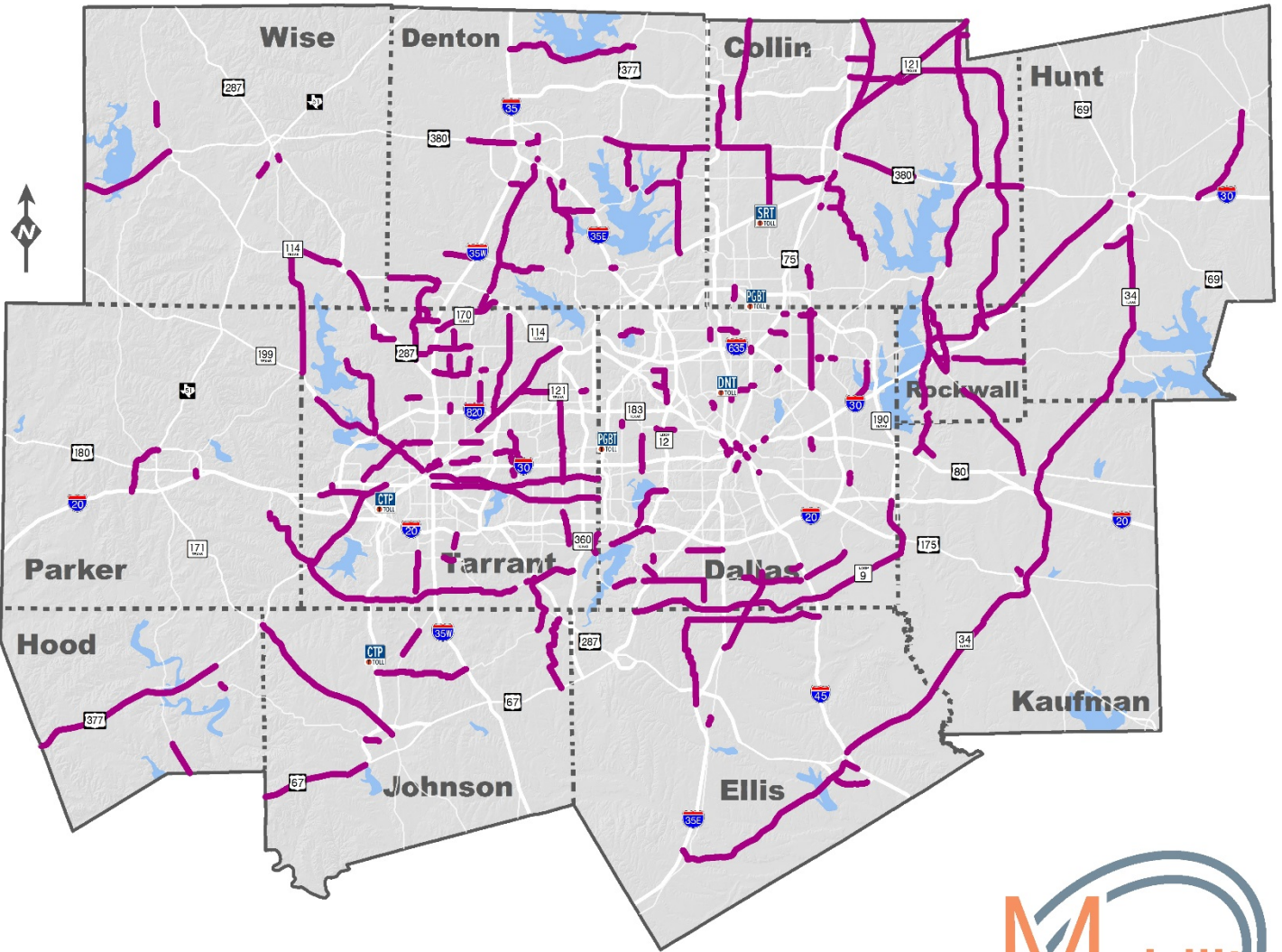
DRAFT



Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.

Major Arterial Recommendations

Capacity Improvements



DRAFT



Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.

Arterial System Needs Assessment

Change in Population Density

Change in Employment Density

Arterial Spacing

Congestion on Arterials

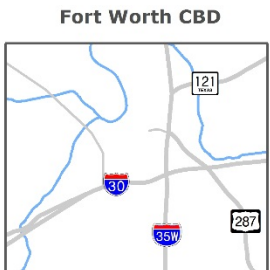
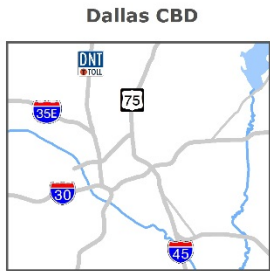
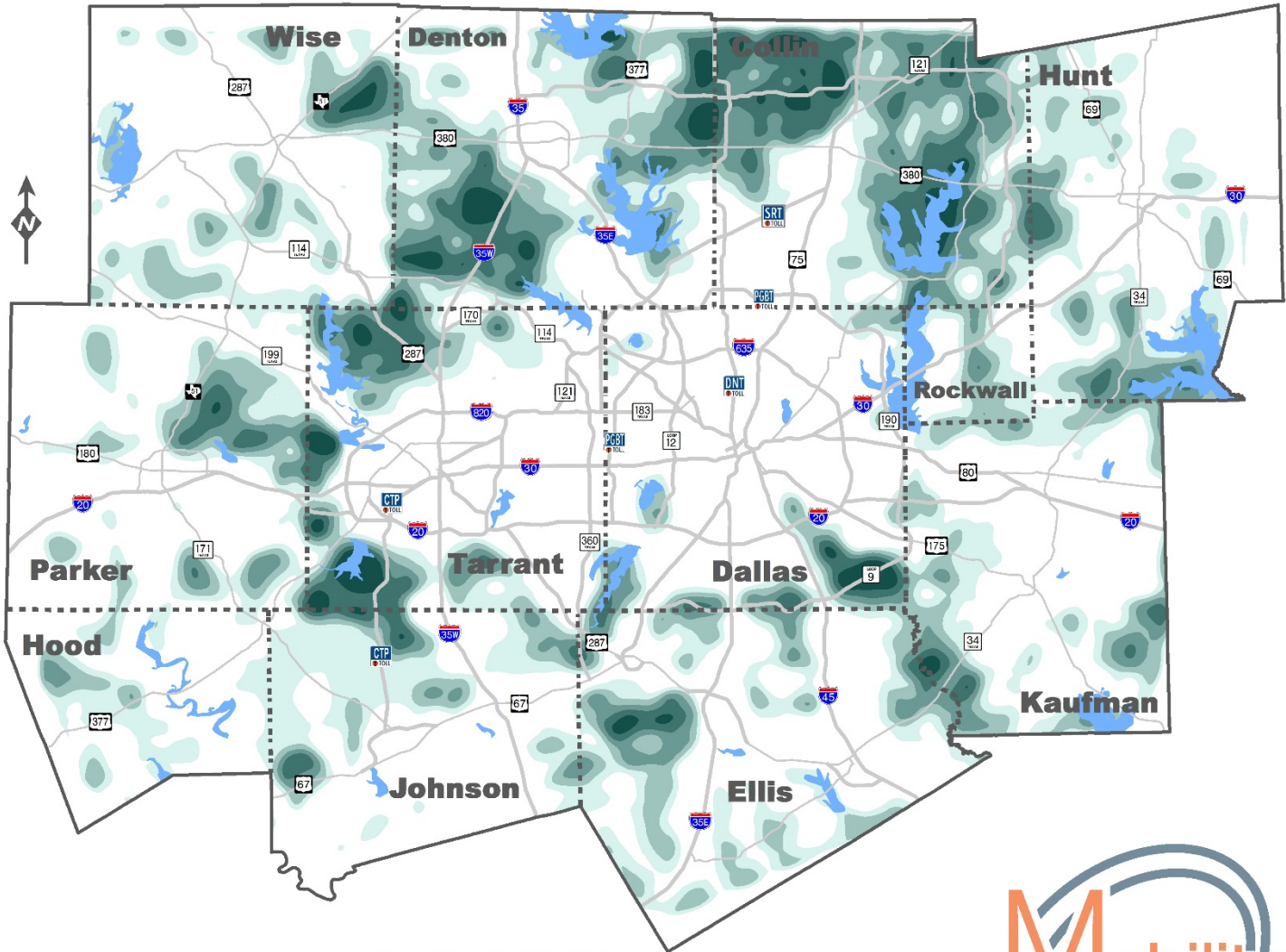
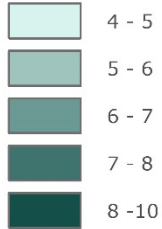
Congestion on All Facilities

Arterial Connectivity



Existing Arterial Network Deficiency Areas

Arterial Needs Analysis Total Weighted Score






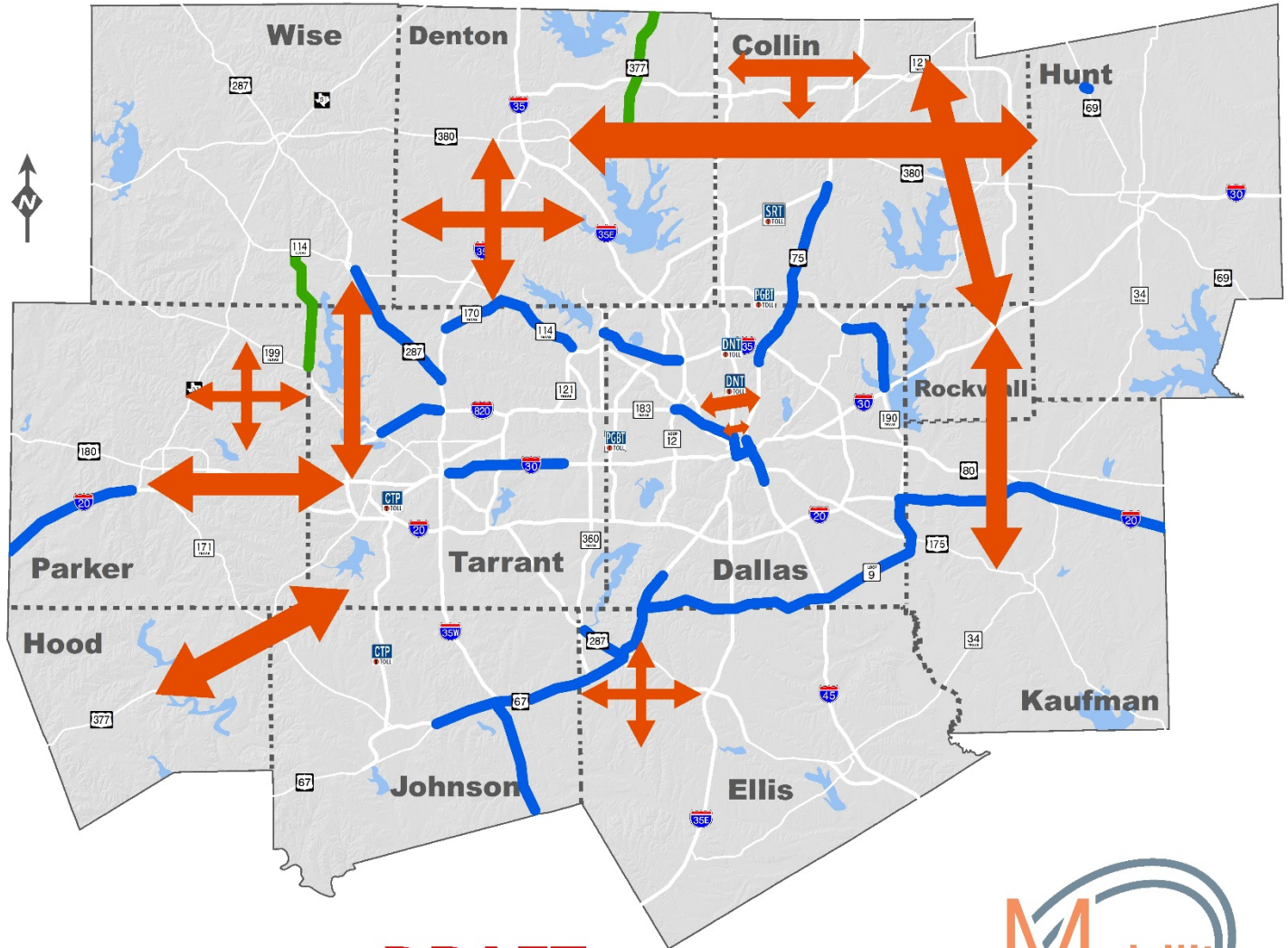
DRAFT

Shaded areas are not project recommendations. These areas have population/employment growth, congestion, and deficiencies in the existing arterial network that may warrant further study for arterial improvements. Higher scores depict areas of greater arterial need. Maximum possible score is 10.



Illustrative Roadway Corridors for Future Evaluation

-  Corridors for Future Evaluation
-  Study Needs
-  Arterial Improvements






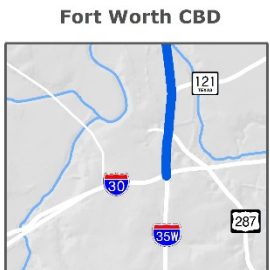
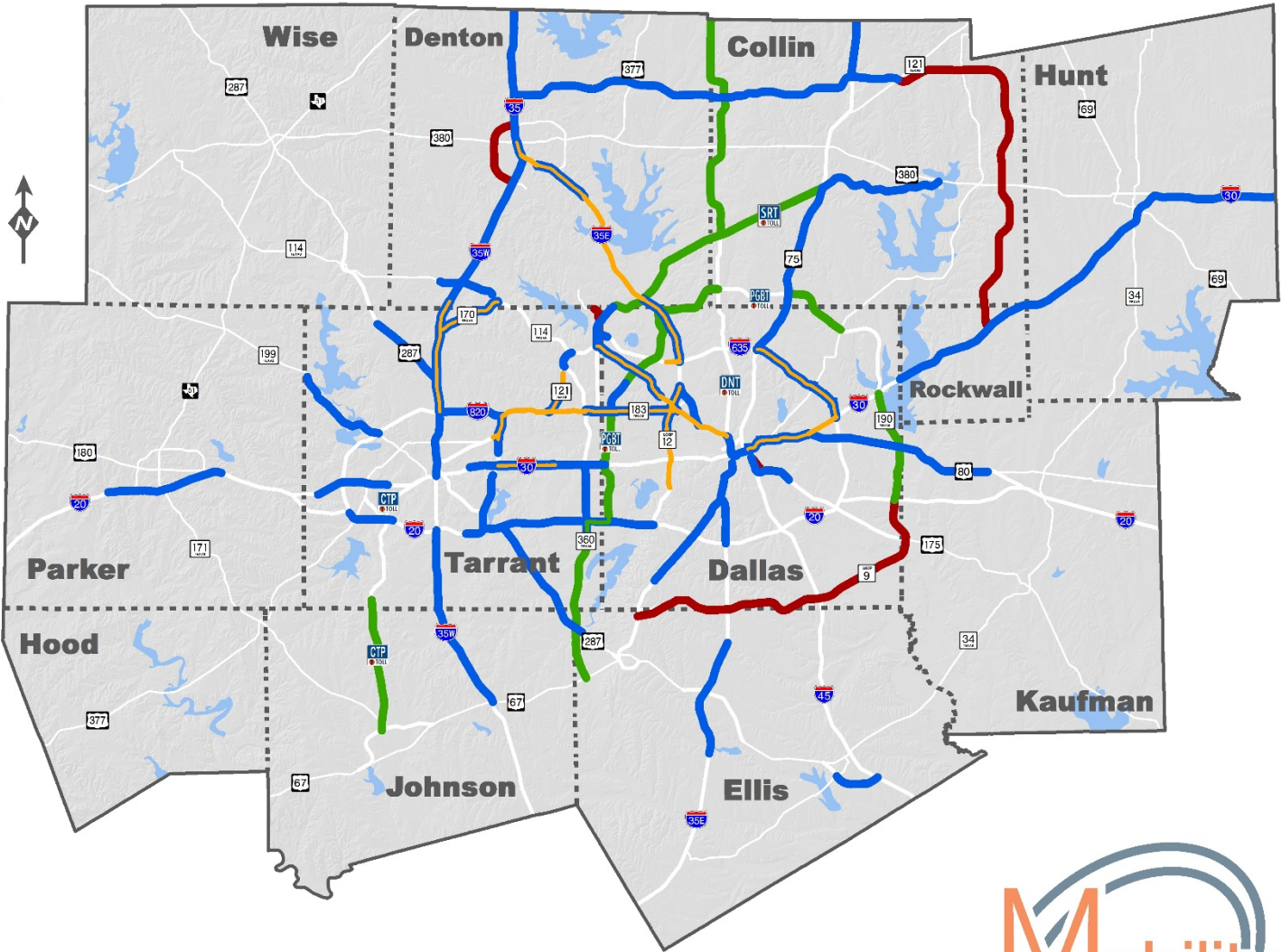
DRAFT



Illustrative roadway corridors indicate an identified transportation need and do not represent recommendations or specific alignments. Recommendations may be developed for future MTPs through feasibility analyses, thoroughfare plans, and environmental studies.

Major Roadway Recommendations

-  New or Additional Freeway Capacity
-  Additional Freeway Capacity and New Tolled Managed Lanes
-  New or Additional Managed Lane Capacity
-  New or Additional Toll Road Capacity
-  Staged Facility (Frontage Roads)



DRAFT



Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.

Questions

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TECHNOLOGY AND PRIVATE SECTOR TRANSIT REVOLUTION: WHO AND HOW

	Public Sector	Public Sector Through Private Sector Contract	Private Sector
For Hire Taxi		✓ ←	✓
Transportation Network Company/Automated		✓ ←	Uber, Lyft
Bicycle Share		✓ ←	Bcycle, LimeBike, etc.
Car Share/Automated		✓ ←	Zipcar
On-Demand Network Shared-Ride	→	Arlington	
Elderly and Disabled	✓	✓	
Buses	✓		
“Guaranteed Transit”		RTC Pilot (IH 30, IH 35W)	
Air Taxi			Uber Elevate

TECHNOLOGY AND PRIVATE SECTOR TRANSIT REVOLUTION: WHO AND HOW (Cont.)

	Public Sector	Public Sector Through Private Sector Contact	Private Sector
Rail	✓		
People Mover (People and Goods)	? →	?	?
High-Speed Rail/Mag. Lev.		?	✓

GoPass, the mobile ticketing app for DART, DCTA, and FWTA, will be upgraded in the near future to include access to most of these services through a single app, called GoPass 2.0.

ARLINGTON'S INSTITUTIONAL COMMITMENT

Test Track @ GM

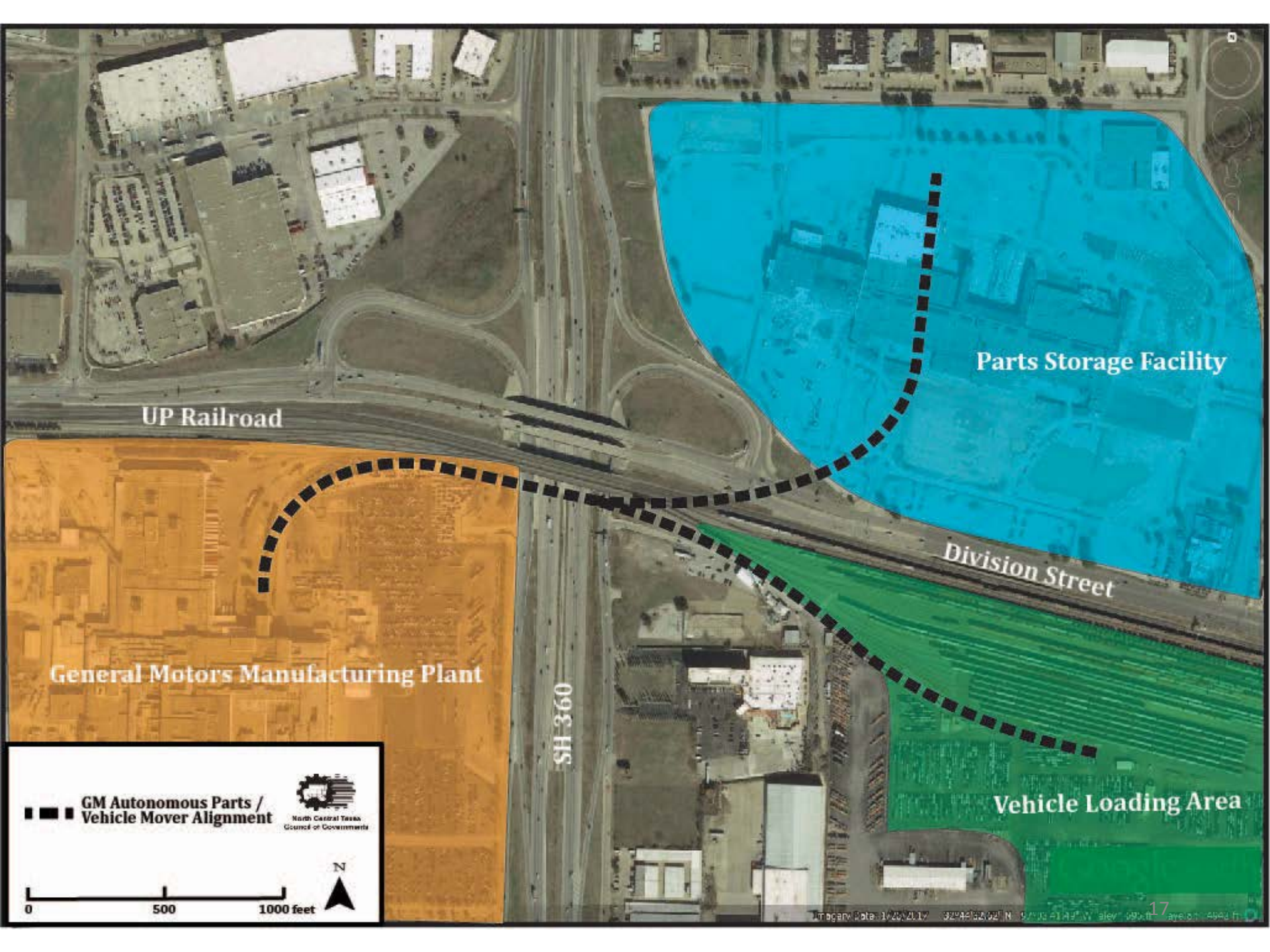


Three Station High-Speed Rail
(Plan, EIS)

February 1, 2018

People Mover to CentrePort
and DFW

February 1, 2018



UP Railroad

Parts Storage Facility

Division Street

General Motors Manufacturing Plant

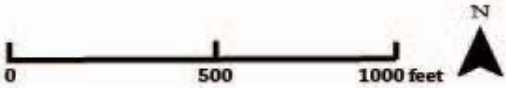
SH 360

Vehicle Loading Area

GM Autonomous Parts / Vehicle Mover Alignment



North Central Texas Council of Governments





Conceptual Drawing

Pedestrian / Bicycle Bridge
Over SH 360 for Access to
TRE Centreport Station
(View is Looking North)



Conceptual Drawing

General Motors
Freight Mover System
Bridge Over SH 360
(View is Looking North)

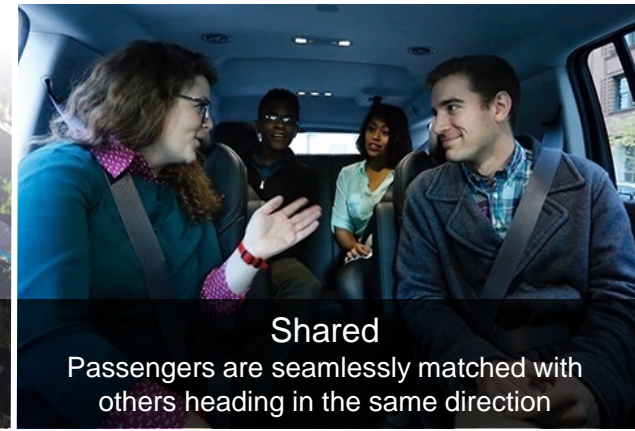
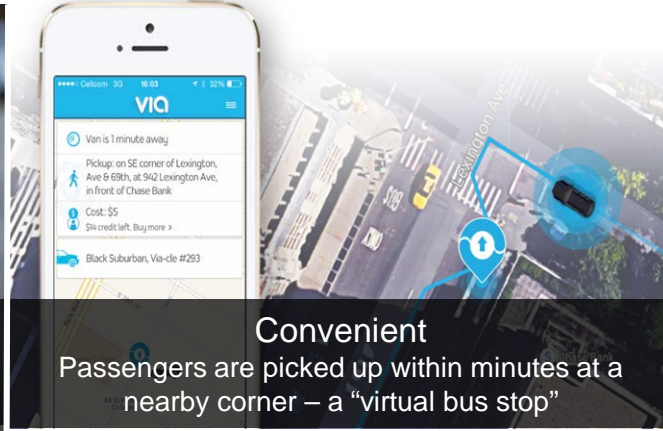
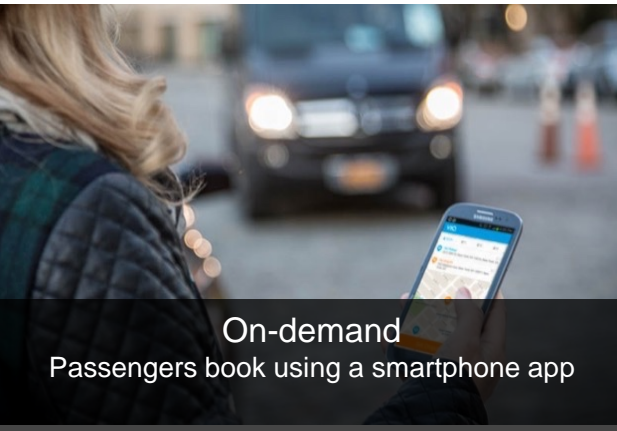


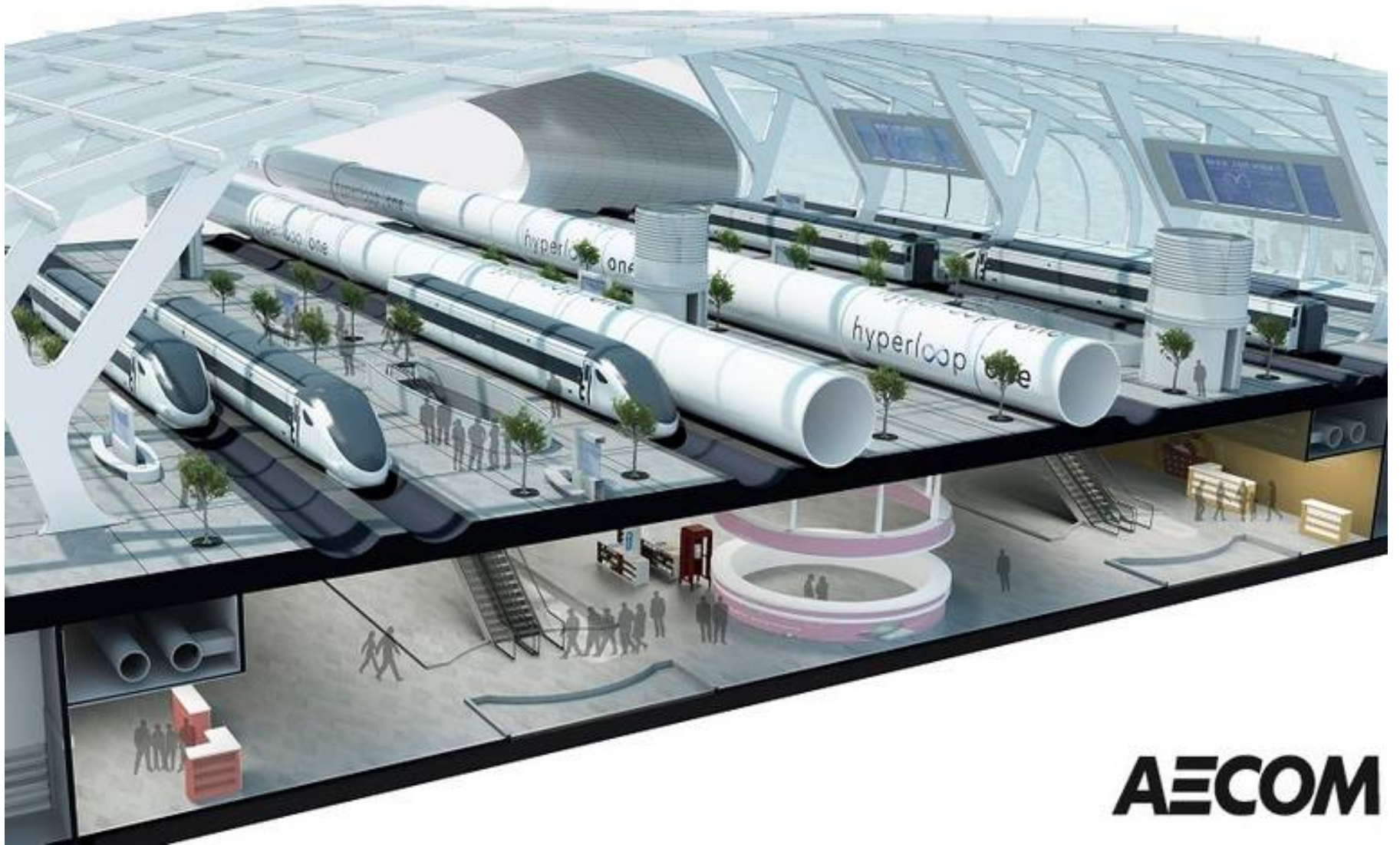
Demand Response RIDESHARE

Addresses mobility needs through the use of a dynamic micro-transportation system with no fixed schedules, no fixed routes and an infinite number of on-demand stops.



How Does It Work?





AECOM

RISE IN FRAUDULENT TEMPORARY VEHICLE REGISTRATION TAGS

**Regional Transportation Council
December 14, 2017**

**Chris Klaus
Sr. Program Manager**



**North Central Texas
Council of Governments**

SINGLE STICKER HISTORY

Inspection Certificate

Separate windshield inspection certificate used prior to March 2015
Counterfeit certificates and fraudulent inspections proliferated

House Bill 2305

Fully implemented March 2016
Eliminated inspection certificate
Tied inspection to registration

Effects

Enhanced motorist convenience
Elimination of counterfeit inspection certificate fraud
Surge in counterfeit and improper temp tags



Source: Dallas County

TEMPORARY TAG EXAMPLES

TEXAS BUYER
THE VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #

42F8851
EXPIRES **07-18-2008**
1999 DODGE
VIN 1B7MC3362XJ633176
SELLER: Garza Used Cars

TEXAS DEALER
VEHICLE OWNED BY GARZA USED CARS
THE VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #

14L9590
EXPIRES **07-02-2008**
1999 FORD
VIN 1FAFP42X8XF207434
For Transit

TEXAS BUYER - INTERNET
THE VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #

80H7277
EXPIRES

		-			-				
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VIN

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SELLER: Garza Used Cars

TEXAS DEALER
VEHICLE OWNED BY GARZA USED CARS
THE VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #

12M9737
EXPIRES **07-12-2008**
Authorized Agent Tag
Demonstration

TEXAS 30 DAY PERMIT
THE VEHICLE TEMPORARILY REGISTERED WITH STATE UNDER TAG #

80H7277
Date: 03-31-2016 08:36:00 AM
EXPIRES: **04-30-2016** 11:59:00PM
2008 HONDA
VIN: 1JDLC49CN489237 ISSUED BY: TARRANT COUNTY

LAW ENFORCEMENT

Enforcement Challenges

Large volume of temporary tags

Many types of tags with different layouts/content

Criminal Enterprises Profit from Fraudulent Temp Tags

Organized crime involvement

Sold online, at flea markets and other locations

Leads from on-road enforcement praised by federal law enforcement in pursuit of serious crimes

Funding Issues

Local Initiatives Projects (LIP) allows funding for on-road enforcement of temp tag crimes

Veto of LIP funding for FY 2018-2019 has led to cease in on-road enforcement efforts



Source:
NCTCOG

IMPACTS

Air Quality

Vehicles circumventing emissions inspection requirements impede region's ozone attainment efforts

Safety

Vehicles that cannot pass annual safety inspection pose a danger to all



Financial

Tolling authority unable to collect for use of facilities

Vehicle inspection and repair facilities experience loss of revenue

State and local jurisdictions lose revenue from lack of registration and inspection fees

Source: NCTCOG

REVENUE LOSS PER REGISTRATION

State Highway Fund.....	\$50.75
Other State Fees.....	\$8.25
County Fees.....	\$16
<hr/>	
Total Loss.....	\$75

MOVING FORWARD

Analysis

Quantify problem

Investigate other states

Law Enforcement Training

Academy training

Individual agency training

Visual training aids for law enforcement

Restore Funding

Legislative Action

Explore types of tags needed

Standardize tag appearance

Add security features

Enhance penalties



Source: NCTCOG

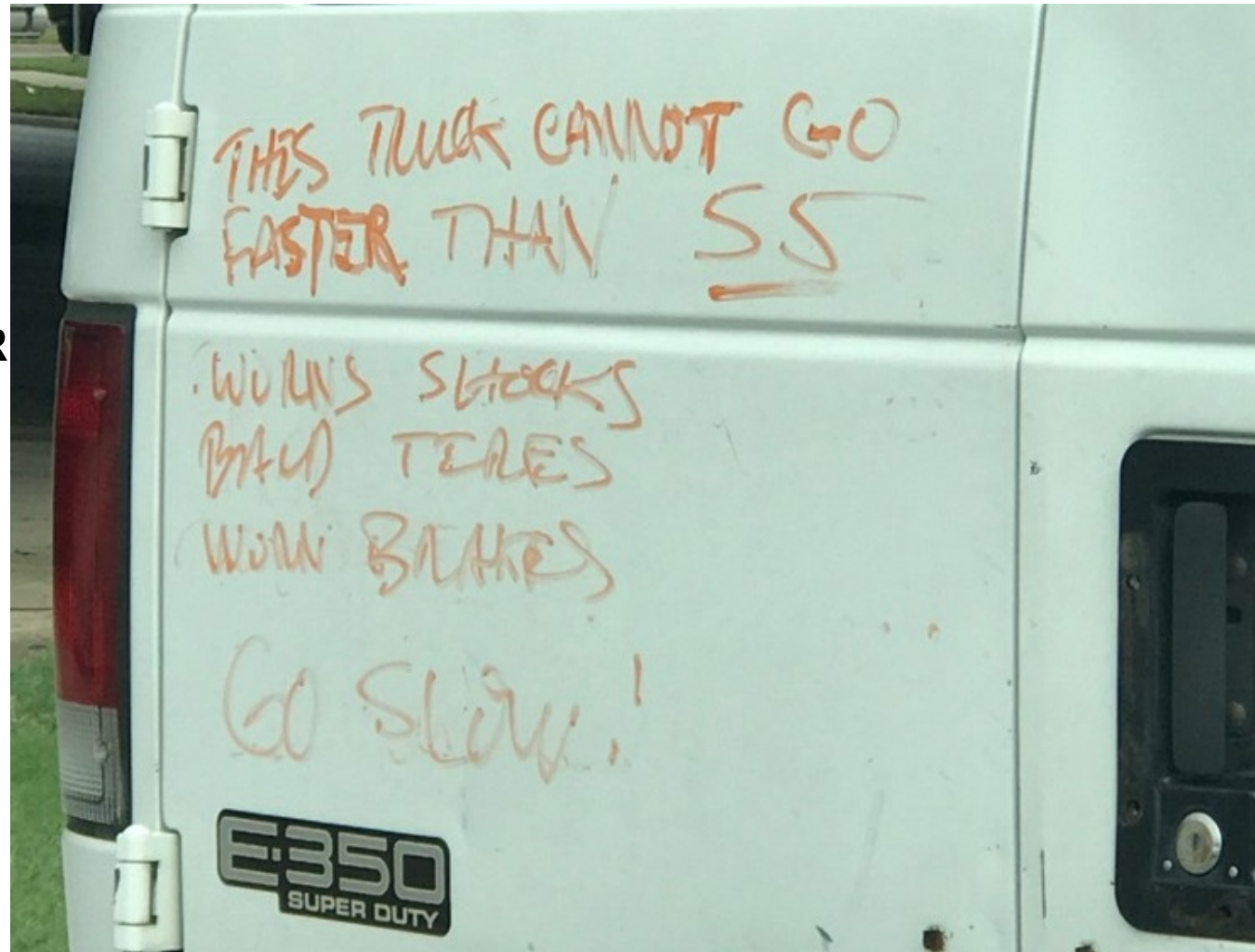


COLD, HARD TRUTH

**“THIS TRUCK
CANNOT GO FASTER
THAN 55”**

**WORN SHOCKS
BALD TIRES
WORN BRAKES**

GO SLOW!”



FOR MORE INFORMATION

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