2021 UNIFIED TRANSPORTATION PROGRAM (UTP) AND REGIONAL 10-YEAR PLAN UPDATE

Surface Transportation Technical Committee

September 25, 2020

North Central Texas
Council of Governments
Transportation Department

BACKGROUND

- The updated Regional 10-Year Plan project listing was approved by the Regional Transportation Council (RTC) on June 11, 2020.
- Approved changes included addressing cost overruns on existing projects with Category 2 and/or 4 funds and requesting Category 12 funds from the Texas Transportation Commission (TTC).
- The TTC approved the 2021 UTP at its August meeting.
- In the 2021 UTP, all Category 2 and 4 requests were funded, but only $112M of new Category 12 funding was awarded to the region for the IH 30 Canyon project (From IH 35E to IH 45).

FUNDING CHANGES MADE SINCE RTC APPROVAL

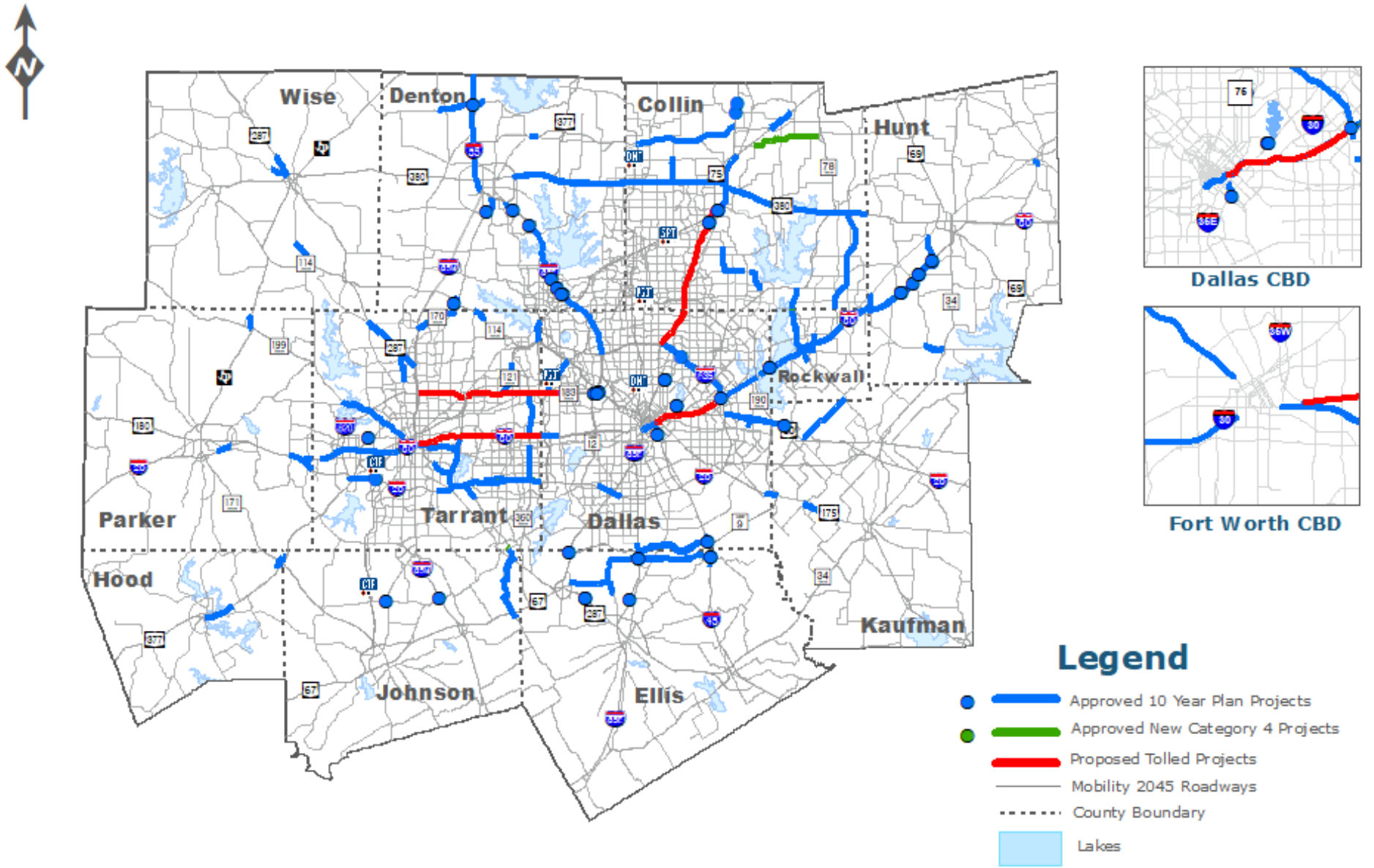
- **New Projects**
  - FM 545 from FM 2933 to BS-78D (Collin County) – Project funded with $22,859,947 of Category 4 in the UTP
- **Category 2 Funding Changes**
  - US 380 from SH 5 to FM 75 (Collin County) – Funding decreased from $320,000,000 to $278,000,000
  - FM 2642 from FM 35 to SH 66 (Hunt County) – Funding increased from $5,500,000 to $7,314,160
  - FM 157 from 8th Street to South of CR 109 (Johnson County) – Funding increased from $3,227,157 to $4,500,000
  - FM 157 from US 67 to 8th Street (Johnson County) – Funding increased from $4,124,338 to $6,800,000

FUNDING CHANGES MADE SINCE RTC APPROVAL (CONT'D)

- **Funding Changes**
  - IH 20 from FM 1187/FM 3325 to Tarrant/Parker County Line (Parker County) – Category 4 funding increased from $7,200,000 to $29,000,000
  - SH 199 from West Fork of Trinity River to IH 820 (Tarrant County) – Funding increased from $68,661,515 to $100,000,000 (will be reduced next UTP cycle due to lower than anticipated construction cost)
  - BU81-D from North of CR 1160 to North of CR 2090 (Wise County) – Funding increased from $3,000,000 to $3,600,000
- **Projects with Funding Category Changes**
  - US 80 from Lawson Road to FM 460 (Kaufman County) – Category 12 request funded with Category 11 funding instead

Dallas-Fort Worth Regional 10 Year Plan Projects

FY 2017 - FY 2030



NEXT STEPS

- TxDOT recently initiated discussions regarding development of the next UTP for FY 2022
- NCTCOG will continue to coordinate with TxDOT on the next round of 10-Year Plan changes, including continuing efforts to re-fund projects that had funding removed in previous 10-Year Plans
  - Anticipate very few new projects
  - Funding targets will likely not be available until after a draft project list is due to TxDOT Austin

PROPOSED 2022 UTP SCHEDULE

MEETING/TASK	DATE
TxDOT Funding Analysis	Oct. 2020-Feb. 2021
Initial Draft List Due to TxDOT	January 2021
Anticipated Receipt of Funding Targets	February 2021
NCTCOG Public Meeting	April-May 2021
STTC Action	April-May 2021
RTC Action	May-June 2021
TxDOT Public Meetings for 2022 UTP	June-August 2021
Anticipated TTC Approval of 2022 UTP	August 2021

REQUESTED ACTION

- Recommend RTC approval of:
  - The updated 2020 Regional 10-Year Plan project listing
  - Administratively amending the Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program (STIP) and amending other planning/administrative documents to incorporate these changes.

CONTACT/QUESTIONS?

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Calls for Projects to Reduce Diesel Emissions

Surface Transportation Technical Committee

September 25, 2020

Jason Brown

Principal Air Quality Planner

North Central Texas Council of Governments

Air Quality Emphasis Areas

High-Emitting Vehicles/Equipment	✓
Low Speeds	
Idling	✓
Vehicle Miles of Travel	
Energy and Fuel Use	✓
Cold Starts	
Hard Accelerations	

Available Funding

Funding Source: Environmental Protection Agency (EPA) National Clean Diesel Funding Assistance Program

Calls for Projects	Project Types	Available Funding
Clean Fleets North Texas (CFNT) 2020	Replace Heavy-Duty Diesel Vehicles and Equipment	$659,820*
North Texas Emissions Reduction Project (NTERP) 2020	Replace High-Use Diesel Vehicles/Equipment, Rail/Switch Yard Idle Reduction Technologies	$2,350,000
North Texas Freight Terminal Electrification (NTFTE) 2020	Installation of Transport Refrigerated Unit Electrified Parking Spaces, Connection Kits, Power Monitoring	$960,225

* Available from a prior EPA award. Some funding was previously awarded through CFNT 2018 and CFNT 2019 Calls for Projects.

Previous and Proposed Calls for Projects

	Clean Fleets North Texas		North Texas Emissions Reduction Project	North Texas Freight Terminal Electrification	
Year	2019	2020	2020	2019	2020
Award Type	Subaward		Rebate	Subaward	Rebate
Minimum Grant Award	$50,000	No Minimum	No Minimum	$100,000	No Minimum

Subaward:

- Federal Procurement Compliance Applies
- Federal Property Management Requirements Apply

Rebate:

- Less Administrative Burden
  - Federal Procurement Compliance Does Not Apply
  - Federal Property Management Requirements Do Not Apply

Applicant Eligibility

	Clean Fleets North Texas 2020	North Texas Emissions Reduction Project 2020	North Texas Freight Terminal Electrification 2020
Applicants	Local Governments; Private Companies who Contract with Local Governments	Private Fleets and Companies	Freight Terminals and Distribution Centers
Clean Fleet Policy	Must Adopt RTC Clean Fleet Policy or Similar		
Geographic Area	10-County Nonattainment Area	12 Counties (10-County Nonattainment + Hood & Navarro)	10-County Nonattainment Area

Project Eligibility

<table>
<tr><th></th><th>Clean Fleets North Texas 2020</th><th>North Texas Emissions Reduction Project 2020</th><th>North Texas Freight Terminal Electrification 2020**</th></tr>
<tr><td rowspan="2">Eligible Activities</td><td colspan="2"><u>Replace On-Road Diesel Trucks</u>*
16,001 GVWR and Up;
Model Year 1996-2006;
(Also Model Year 2007-2009 if Replacing with Electric)
<u>Replace Non-Road Diesel Equipment</u>*
Must Operate >500 Hours/Year;
Eligible Model Years Vary</td><td rowspan="2">Transport Refrigerated Unit Electrified Parking Spaces (EPS), Power Monitoring Equipment, Electric Power Kit</td></tr>
<tr><td></td><td>Rail and Switch Yards Idling Control Technology Installation</td></tr>
<tr><td rowspan="2">Funding Threshold</td><td colspan="2">45% Cost if New is Electric;
35% Cost if New is Powered by Engine Certified to CARB Optional Low-NO_X Standards
(Both Natural Gas and Propane Engines Currently Available);
25% Cost for All Others</td><td rowspan="2">30% of unit cost</td></tr>
<tr><td></td><td>40% Cost Coverage</td></tr>
</table>

*All old vehicles/equipment must be scrapped; other model years eligible on case-by-case basis. California Air Resources Board (CARB); Gross Vehicle Weight Rating (GVWR)

**All equipment and installation must be completed by EPA SmartWay Verified Technology Vendor.

Eligibility and Selection

	Clean Fleets North Texas 2020	North Texas Emissions Reduction Project 2020	North Texas Freight Terminal Electrification 2020
Eligibility	Operate in Required Geographic Area		
	Clean Fleet Policy Adoption Purpose: Reserve Funding for Fleets that are Engaged Beyond Grant Opportunities; Consistent with RTC Adoption of Clean Fleet Policy		
Scoring Criteria	Cost Per Ton NO_X Emissions Reduced 75% Purpose: Maximize Emissions Reductions		
	Subrecipient Oversight Criteria 25% Purpose: Balance Project Benefits with Administrative Burden		Location and Oversight Criteria 25% Purpose: Balance Project Benefits with Administrative Burden

Schedule

Milestone	Estimated Timeframe
STTC Action to Recommend Opening CFPs	September 25, 2020
RTC Approval of Recommended Opening of CFPs	October 8, 2020
CFPs Open	October 9, 2020
Application Deadline (Rolling 90-Day Application Deadline Until Fully Awarded)	January 8, 2021
Staff Funding Recommendations Finalized	January-February 2021
STTC Action	March 2021
RTC Action	April 2021
Executive Board Authorization	April 2021
Project Implementation Deadline	March 31, 2022

Action Requested

Recommend RTC Approval Of:

Call for Projects Details
- Eligibility Screens
- Selection Criteria

Schedule
- Calls for Projects Estimated Open: October 9, 2020
- Rolling 90-Day Application Deadline to Fully Award Funds

Clean Fleets North Texas 2020 Call for Projects

North Texas Emissions Reduction Project 2020 Call for Projects

North Texas Freight Terminal Electrification 2020 Call for Projects

For More Information

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COMPUTER EQUIPMENT AND HARDWARE

Action: Request Regional Transportation Council Local Funds due to Federal Buy America Requirements

Computer Turnover, Software, & New Employees*	**$390,000**	**(Budgeted as TPF)**
COVID-19 Hybrid Office**	**$260,000**	**(New + $390,000)**
Total:	**$650,000**	**RTC Local Funds**

***Funds will be reprogrammed to other activities.**

****Equipment and Hardware will be cycled into regular use as COVID-19 restrictions are relieved, reducing future purchases. This is an approximate number that is currently being refined.**

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS' STRATEGIC TRAFFIC SIGNAL PROGRAM

Surface Transportation Technical Committee

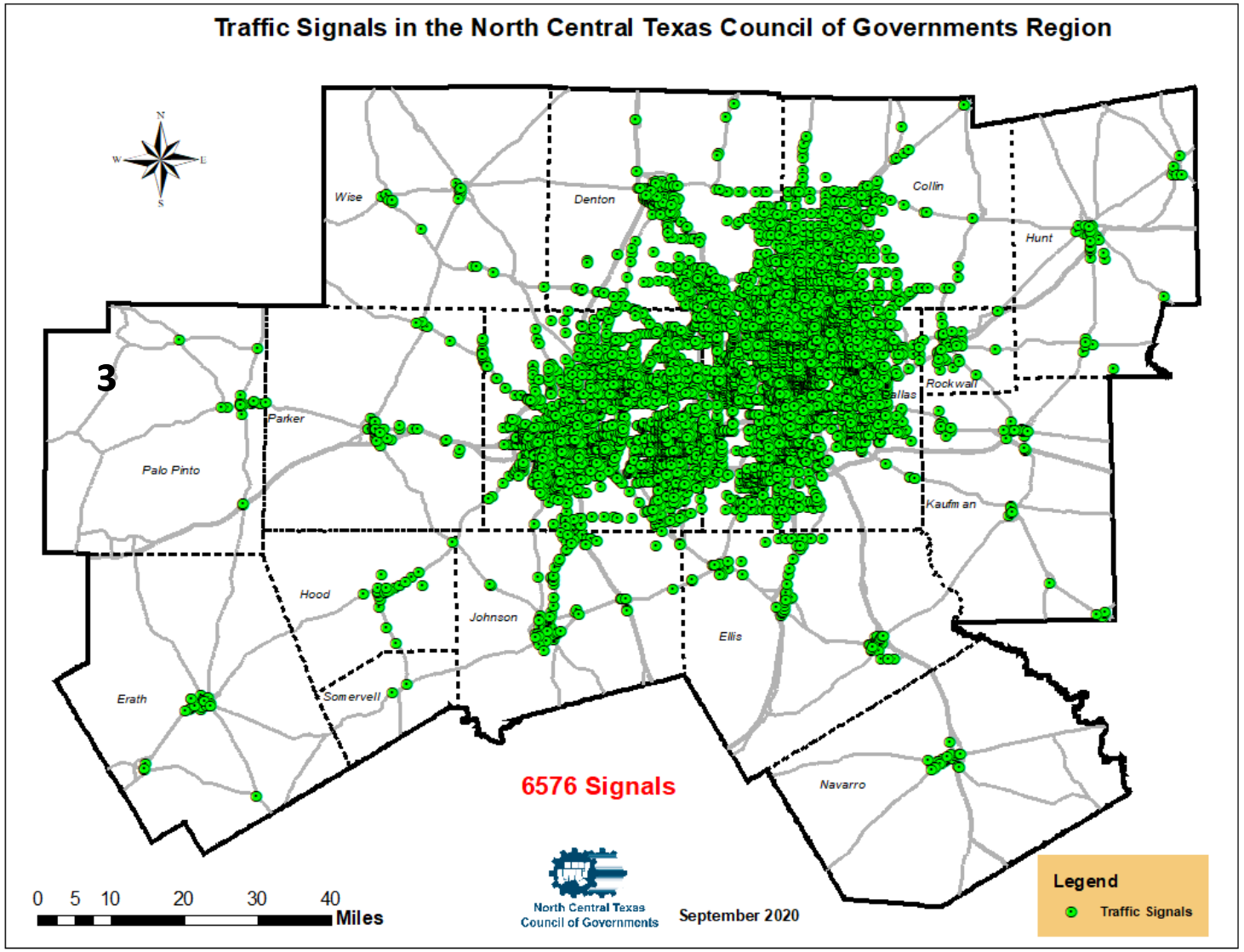
Marian Thompson, P.E.

September 25, 2020

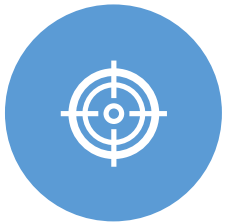
Current Traffic Signal Retiming Program

- Call for Projects
- Selection based on volume, environmental justice, communication, multi-modal, multi-jurisdictional, data cloud, number of locations, etc.
- Data collection – before and after conditions
- Utilize contractors to develop traffic signal timing plans
- Offered separate program for equipment upgrades
- Track traffic signal layers in GIS

Traffic Signal Map

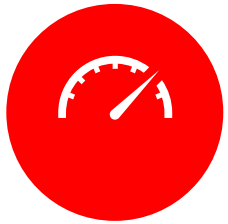


Proposed Approach

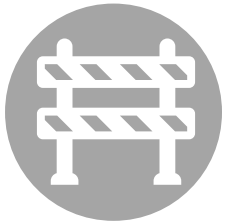


Establish Regional Minimum Standards, Policies, and/or Goals

Traffic Signal Assessment by Signal



Traffic Signal Performance Evaluation



Identify Traffic Signals that Need Improvements

Continue Monitoring and Maintenance

Fund Improvements

Regional Standards, Policies, and/or Goals

Phase 1

- Traffic Signal Equipment Minimum Standards
- Minimum Maintenance Standards

Future Phase:

- Communications
- Data Sharing
- Cycle Lengths
- Clearance Times
- Joint Operations
- Eliminate Left Turns / Michigan Left
- Flashing Yellow Arrow
- Others

Traffic Signal Assessment by Signal

1. Assets at Each Signal Intersection
2. Based on Minimum Equipment Standards
3. Develop Survey
4. Develop Live Web Interface with Log-In
5. City Staff or Consultant Assistance
6. Allows for Continuous Updates

Traffic Signal Performance Measures

Region-Wide Data - Pilot to Test Platforms and Evaluate

1) Safety
    - Crashes

2) Performance
    - Intersection Delay
    - Ratio of Arrival on Red/Green
    - Travel Times
    - Origin/Destination
    - Multiple Jurisdictional Pass Thru Traffic
    - Others

Fund Improvements

Traffic Signal Equipment + Traffic Signal Performance = Identify Need

1. Signal Retiming
2. Signal Equipment
3. Signal Software
4. Capacity Improvement
5. Others

Funds to Continue to Operate and Maintain

Traffic Signal Data and Monitoring

- Integrate System to Share Data
- Monitor Assets
- Monitor Performance
- Set Triggers
  - Maintenance
  - Operations
  - Capacity
  - Jurisdictional Incompatibility

Existing Funding – Staff / Existing Consultant

Develop Traffic Signal Minimum Equipment Standards

Develop Survey Questions

Develop Online Interface

Timeframe: Fall 2020 – Spring 2021

Future Funding (FY 2021 and 2023)

Evaluate Performance Monitoring Platforms – Pilot

Set Thresholds

Apply to Survey and Performance Monitoring

Select and Fund Improvements

Continue to Monitor and Maintain

Timeframe: Summer 2021 and Beyond

Complementary Pilot Projects

Emergency Vehicle Pre-emption

- Impact of Emergency Vehicle Pre-emption on Traffic Signal Operations
- Submitted TxDOT Research Statement
- If Not Accepted, Identify Other Funding

Optimized Freight Movement Project

- Freight Hubs Linked to Expressway Through Improved Traffic Signal Operations
- $5 Million to Review and Implement
- Findings Feed Into Regional Traffic Signal Program

Questions, Feedback, Other Ideas

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Enhancing Freight and Passenger Rail Coordination: Clear Path™ Technology

Surface Transportation Technical Committee
September 25, 2020

Jeff Hathcock, Program Manager
NCTCOG Transportation Department

A HISTORY OF COLLABORATION

Regional Rail Partner Coordination

Grade Crossing Separations/Grade Crossing Closings

Major Track Projects (Tower 55)

Project Coordination

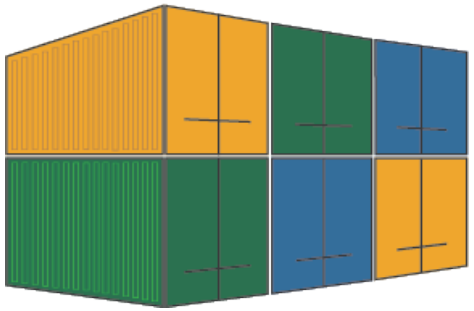
Rail Studies

Technology Solutions (PTC)

Grant Submittals

BUILD Grant Award $25 Million, includes $2.5 Million for Clear Path™

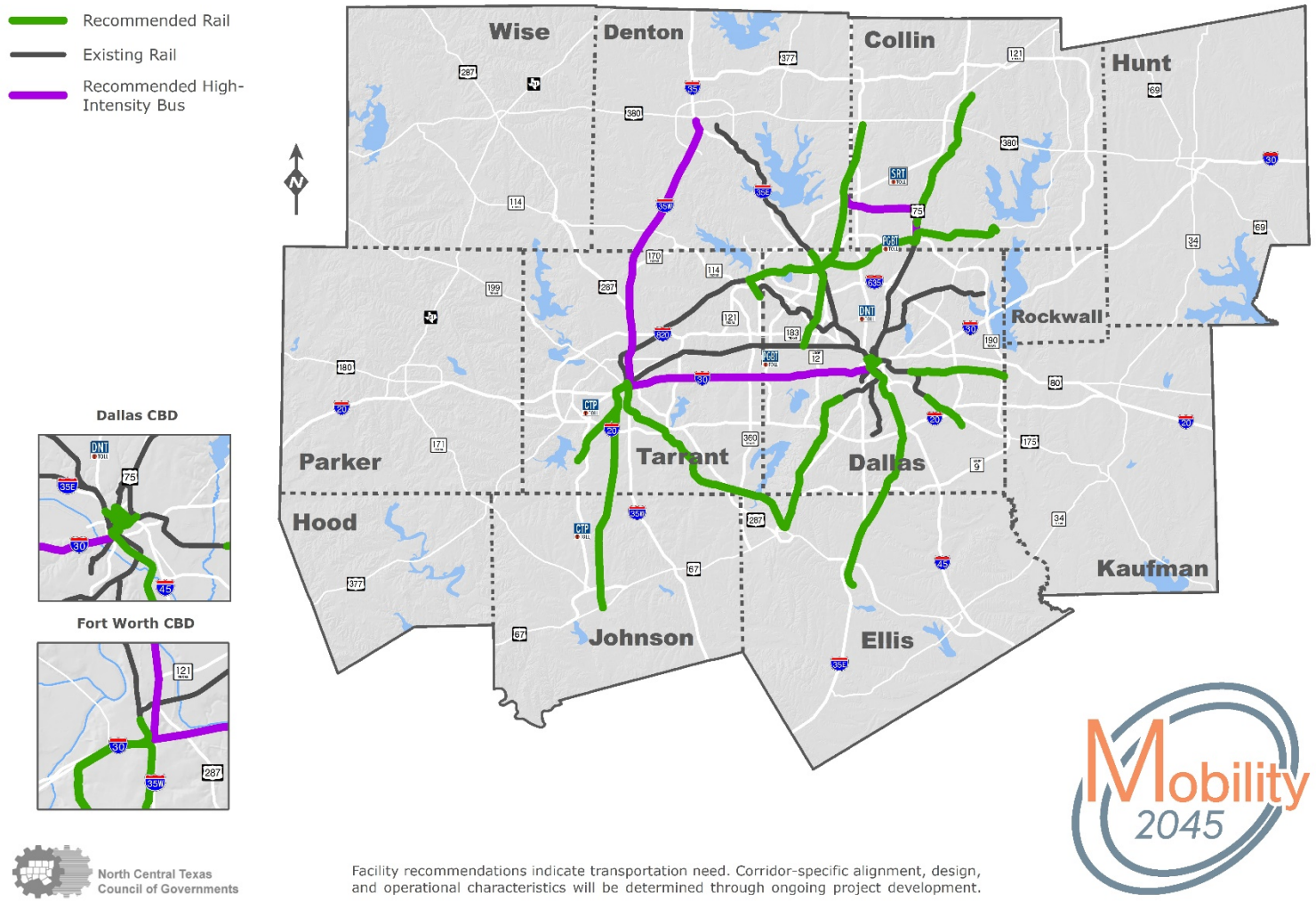
FREIGHT NORTH TEXAS



Regional Freight Advisory Committee

COORDINATION VISION

Major Transit Corridor Recommendations



CLEAR PATH™ TECHNOLOGY

Implementation of Clear Path™ Technology

In use in the Greater Chicago Area

Innovative response to maximizing operational efficiency

Will enable all rail agencies to exchange timely, accurate, and actionable information

Courtesy of Railinc

CURRENT AND FUTURE CONSIDERATIONS

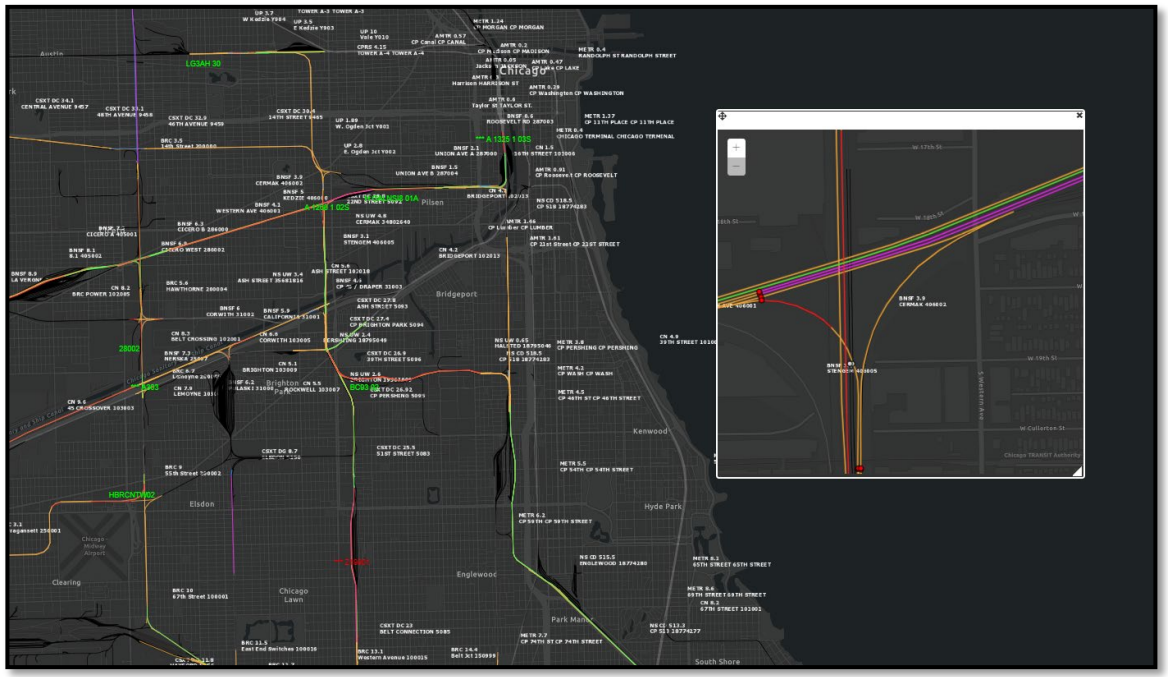
Clear Path™ Technology would:

Assist with Freight and Passenger Train Interactions

Increase Planned Freight and Passenger Rail Growth

Identify Rail Bottlenecks

Enhance Long-Term Mobility Plan Projects – Road and Rail interactions



Courtesy of Railinc

NEXT STEPS

Current Tasks

Coordinate with senior leadership to establish guidelines and parameters for implementing Clear Path™ Technology

Request Action from RTC in October

Rail Agencies
DART
Trinity Metro
DCTA
TRE
BNSF Railway
Union Pacific Railroad
FWWR
DGNO
KCS

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CHANGING MOBILITY

DATA, INSIGHTS, AND DELIVERING INNOVATIVE PROJECTS DURING COVID RECOVERY

Surface Transportation Technical Committee
September 2020

Michael Morris, PE
Director of Transportation

POLICY METRICS: CHANGING MOBILITY

METRIC 1: Travel behavior response to COVID-19

METRIC 2: Financial implications to traditional revenue sources

METRIC 3: Benefits of travel behavior responses to areas of RTC responsibility

METRIC 4: Prioritization of infrastructure improvements that offset unemployment increases

Metric 1:

TRAVEL BEHAVIOR RESPONSE TO COVID-19

TRAVEL BEHAVIOR BY MODE

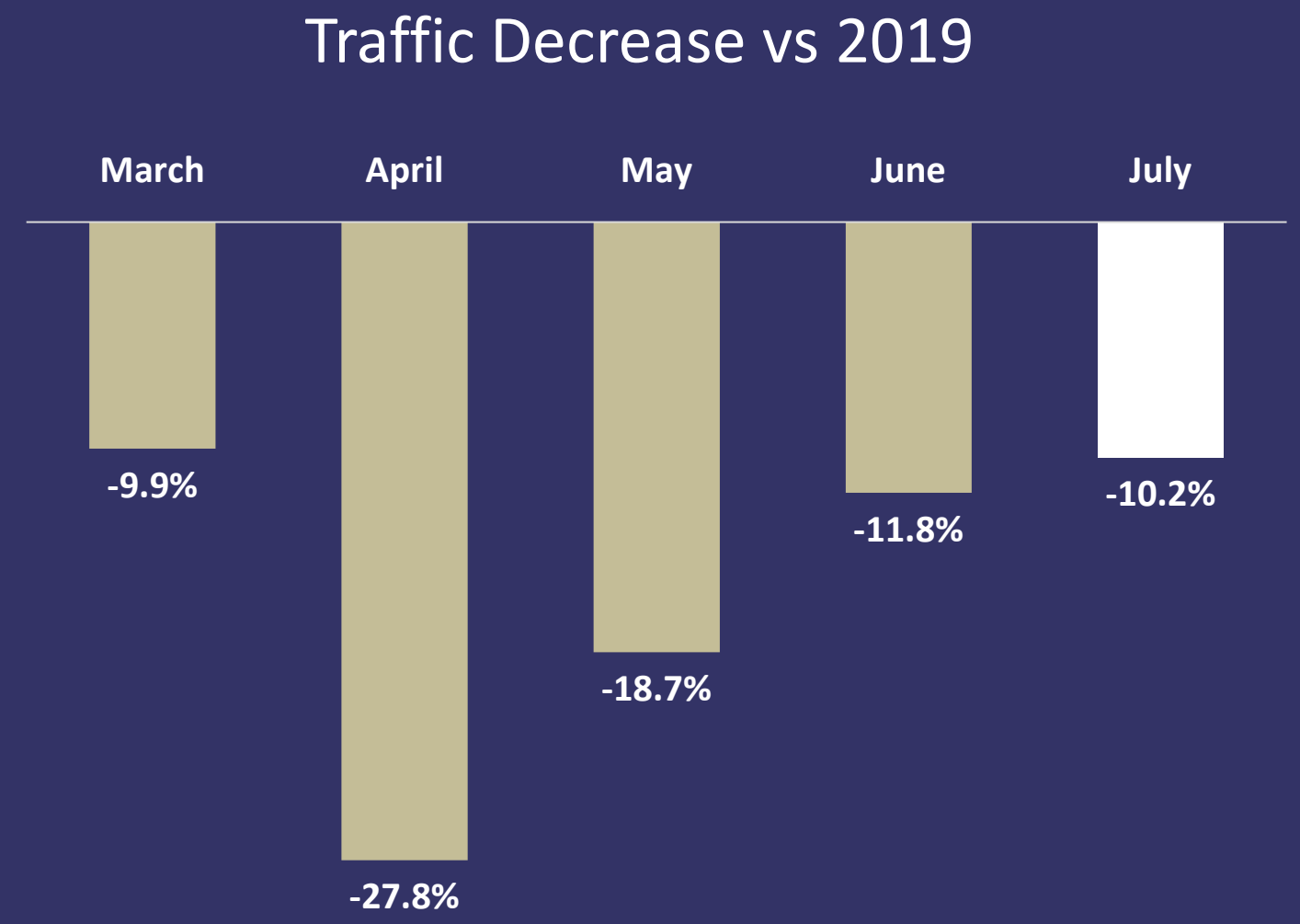
Bicycle/Pedestrian (22%, July)

0

Freeway Volumes (-10%, July)
Toll Road (-27%, June)
Transit Ridership (-55%, July)
Airport Passengers (-60%, July)

ROADWAY TRENDS

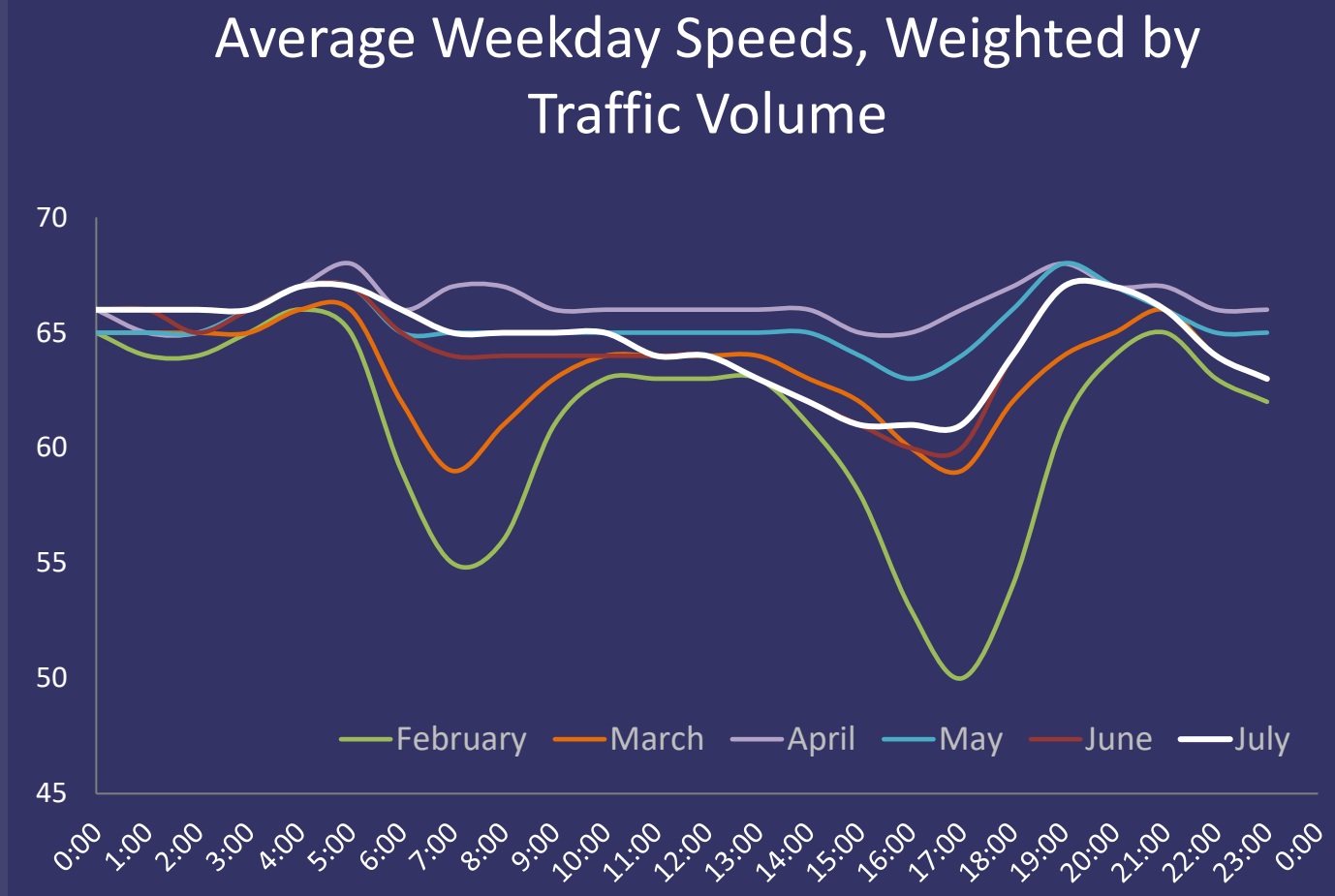
Average Weekday Freeway Volumes



Source: TxDOT Dallas/TxDOT Fort Worth Radar Traffic Counters

ROADWAY TRENDS

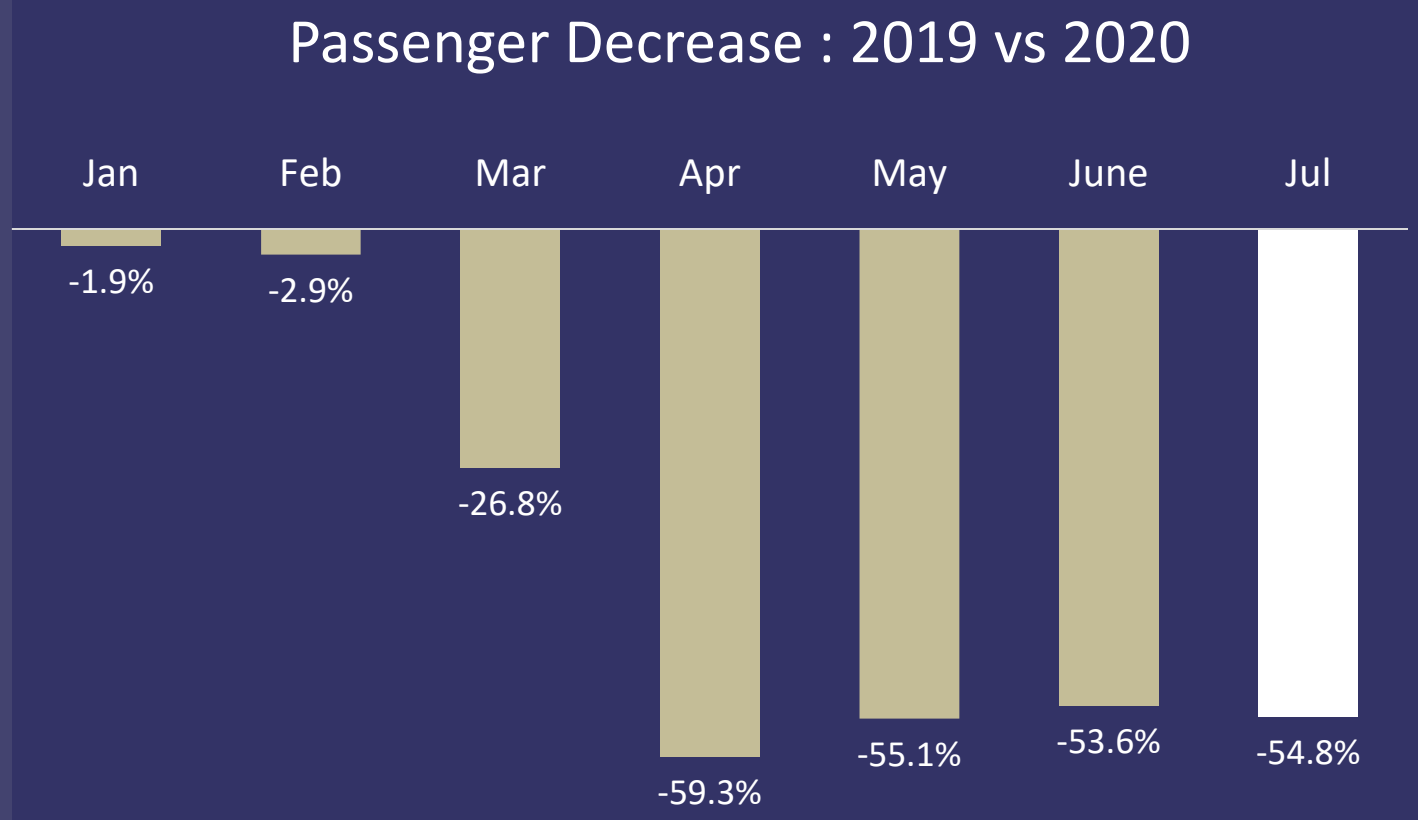
Regional Average Freeway Speeds



Source: TxDOT Sidefire Devices

TRANSIT IMPACTS

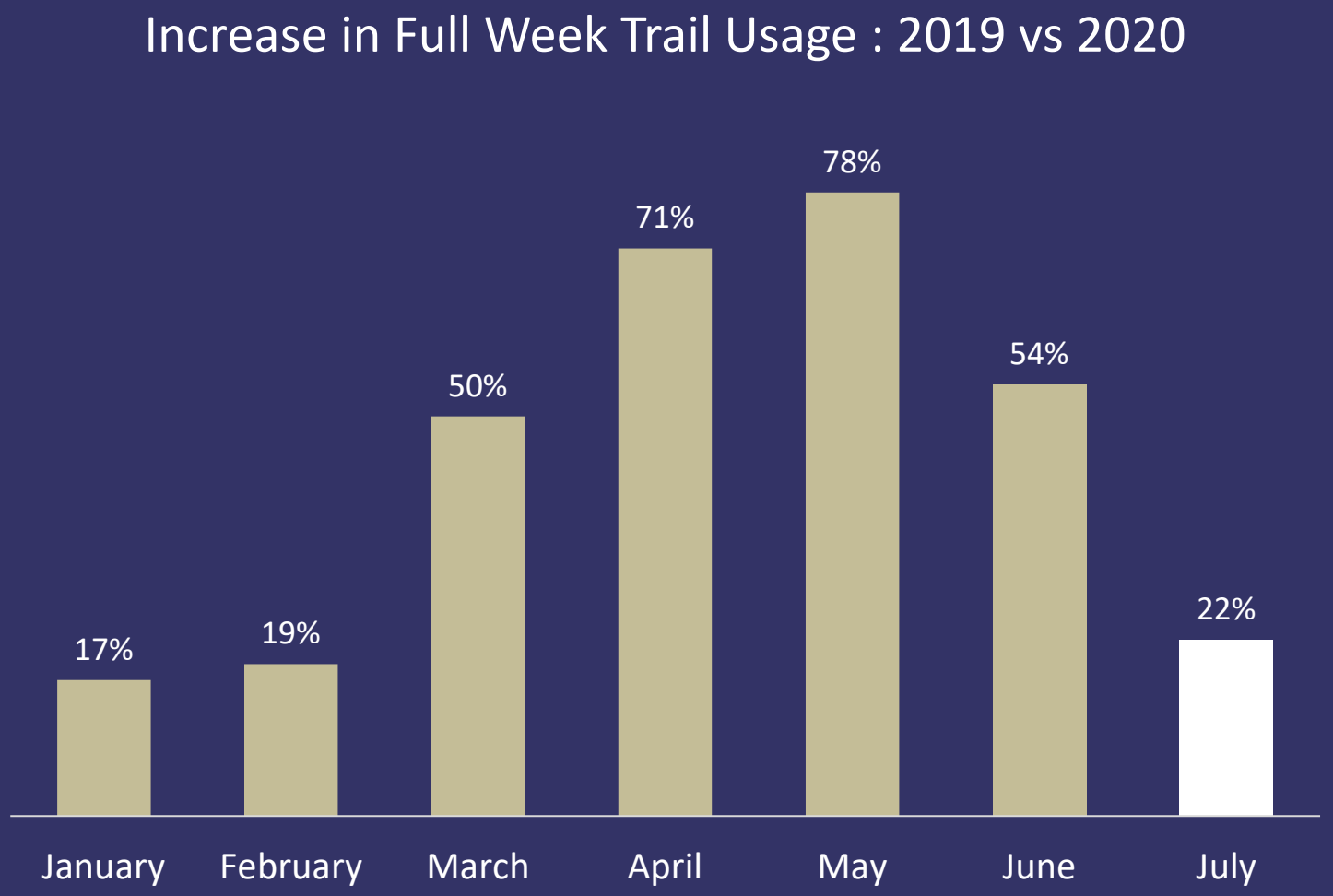
Weekday Ridership



Source: DART, DCTA, and Trinity Metro

BICYCLE AND PEDESTRIAN IMPACTS

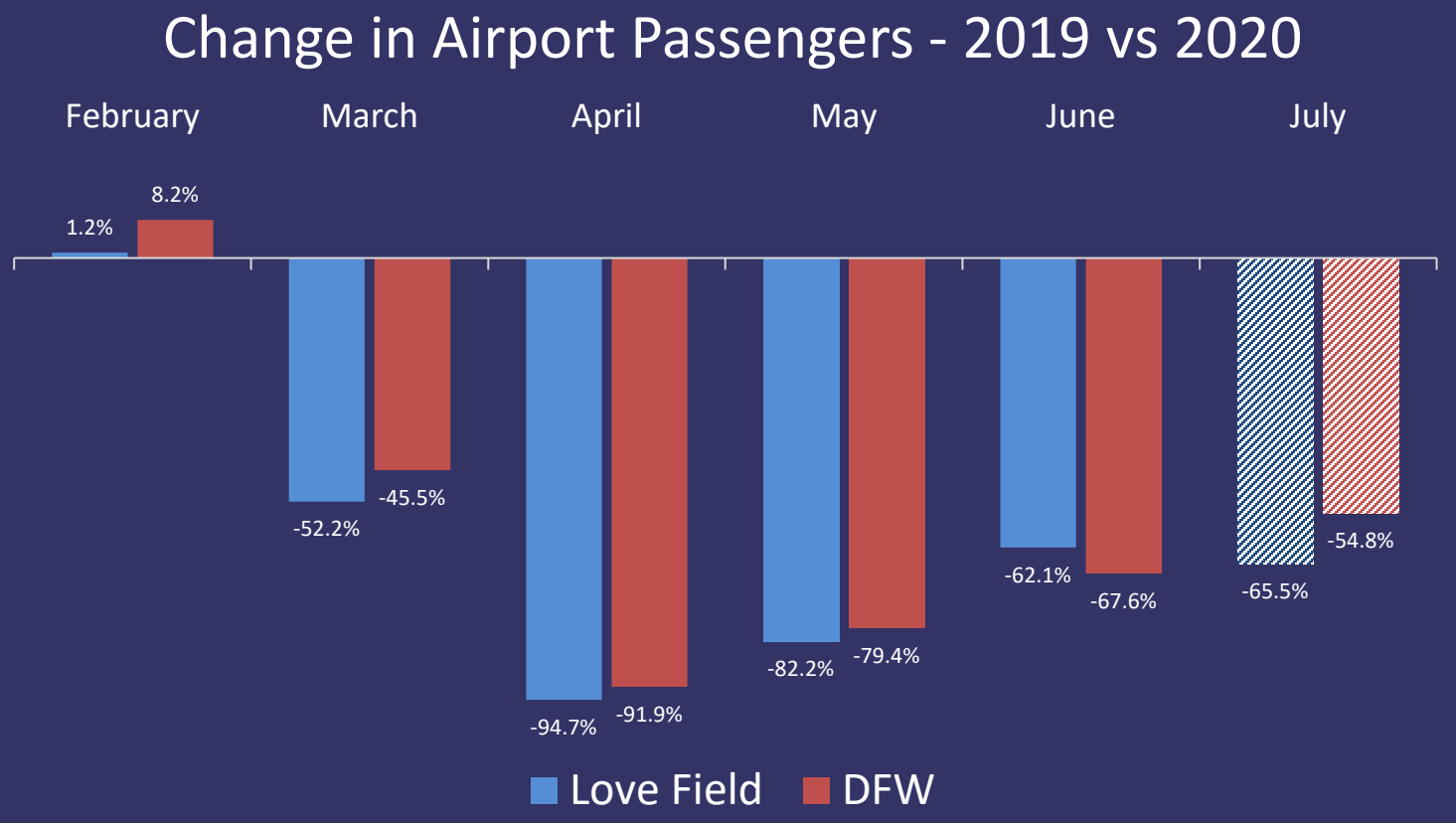
Trail Counts



Source: NCTCOG - collected at 8 sites located in Plano, North Richland Hills, Denton, Dallas, Fort Worth, and Allen.
Note: No adjustments for weather were applied.

AIRPORT TRENDS

Passengers



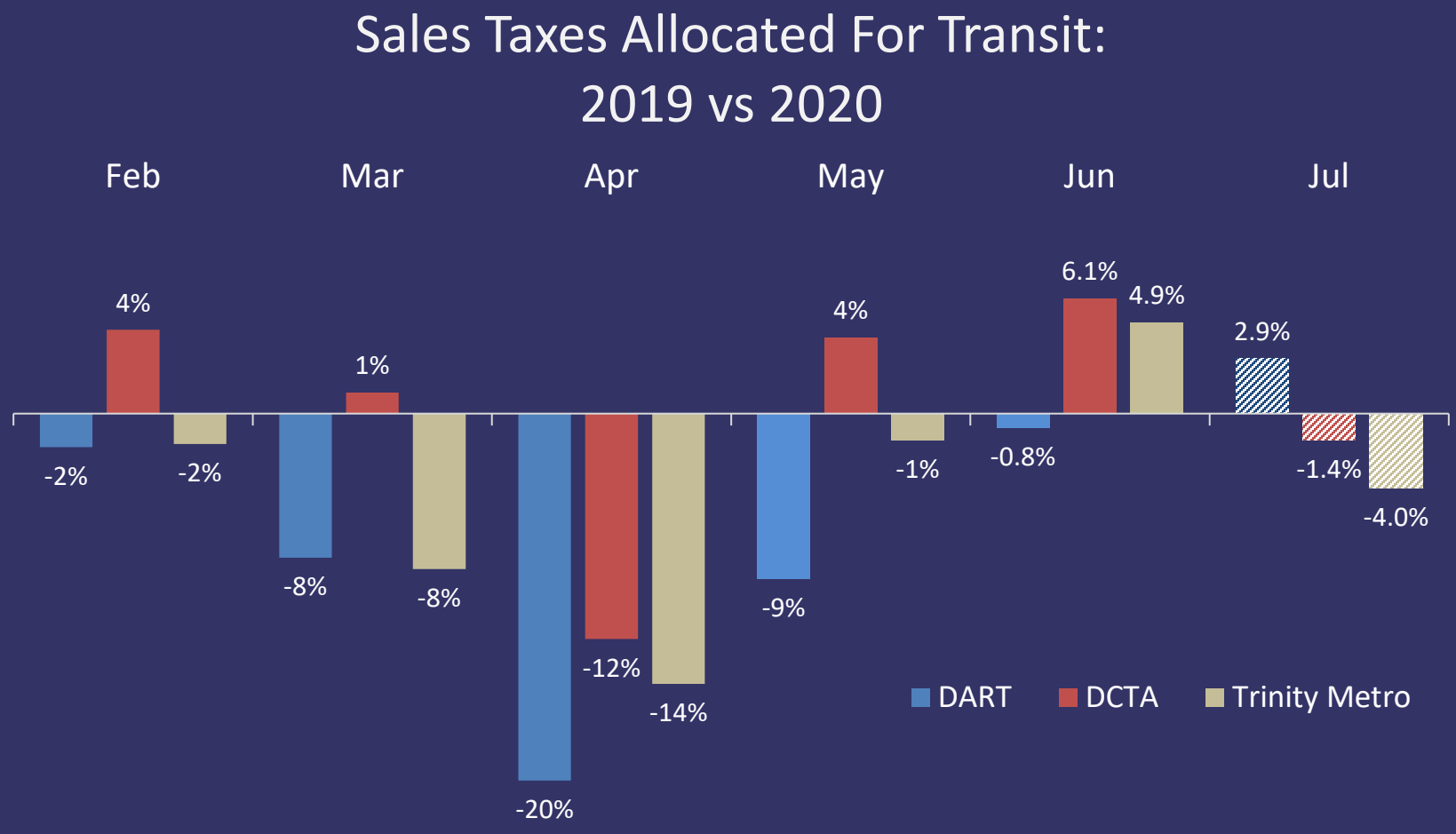
Source: Dallas Love Field Website and DFWIA data

Metric 2:

FINANCIAL IMPLICATIONS TO TRADITIONAL TRANSPORTATION REVENUE

FUNDING IMPACT

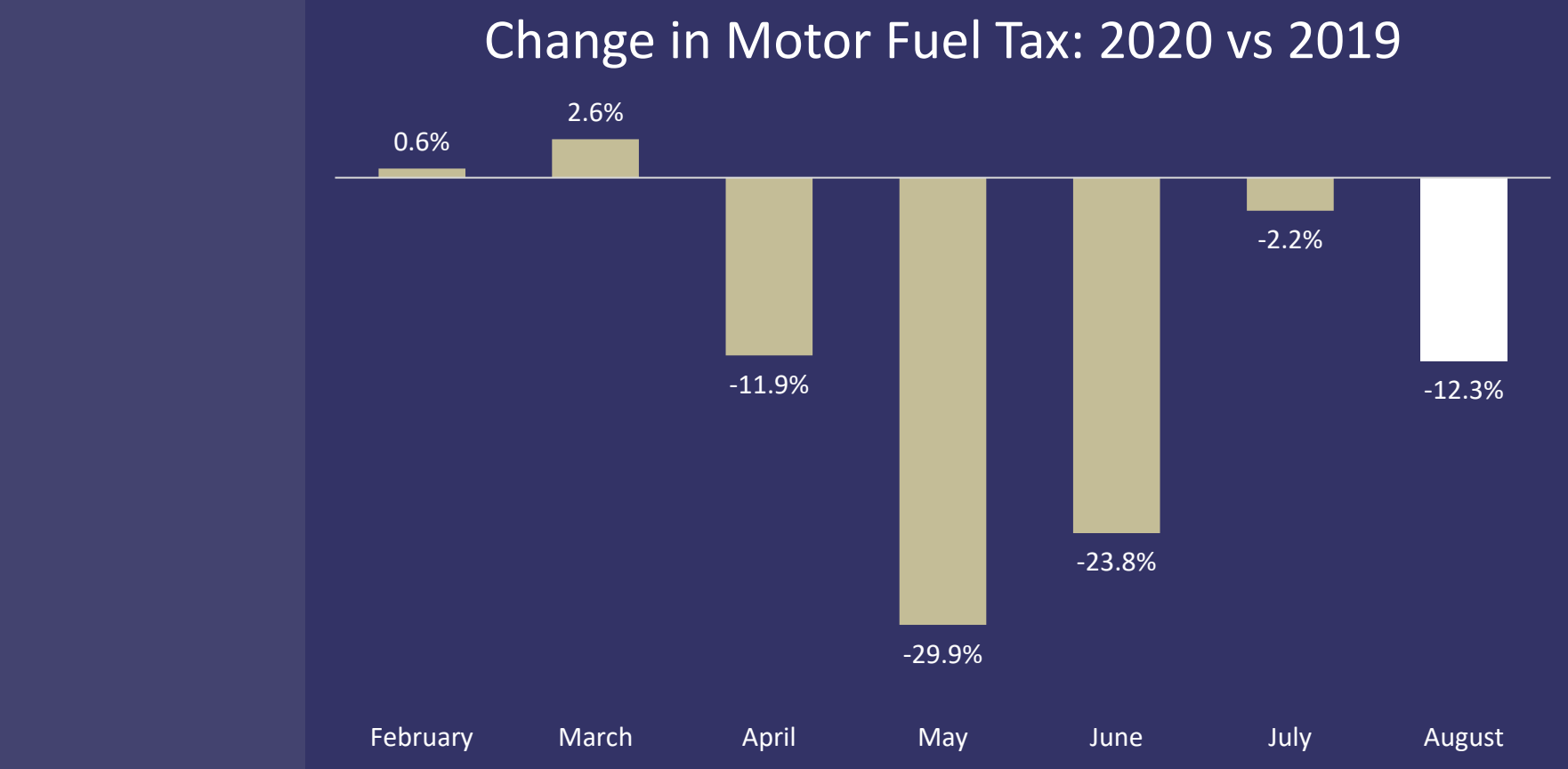
Transit - Sales Tax Allocations



Source: DART, DCTA, and Trinity Metro

FUNDING IMPACT

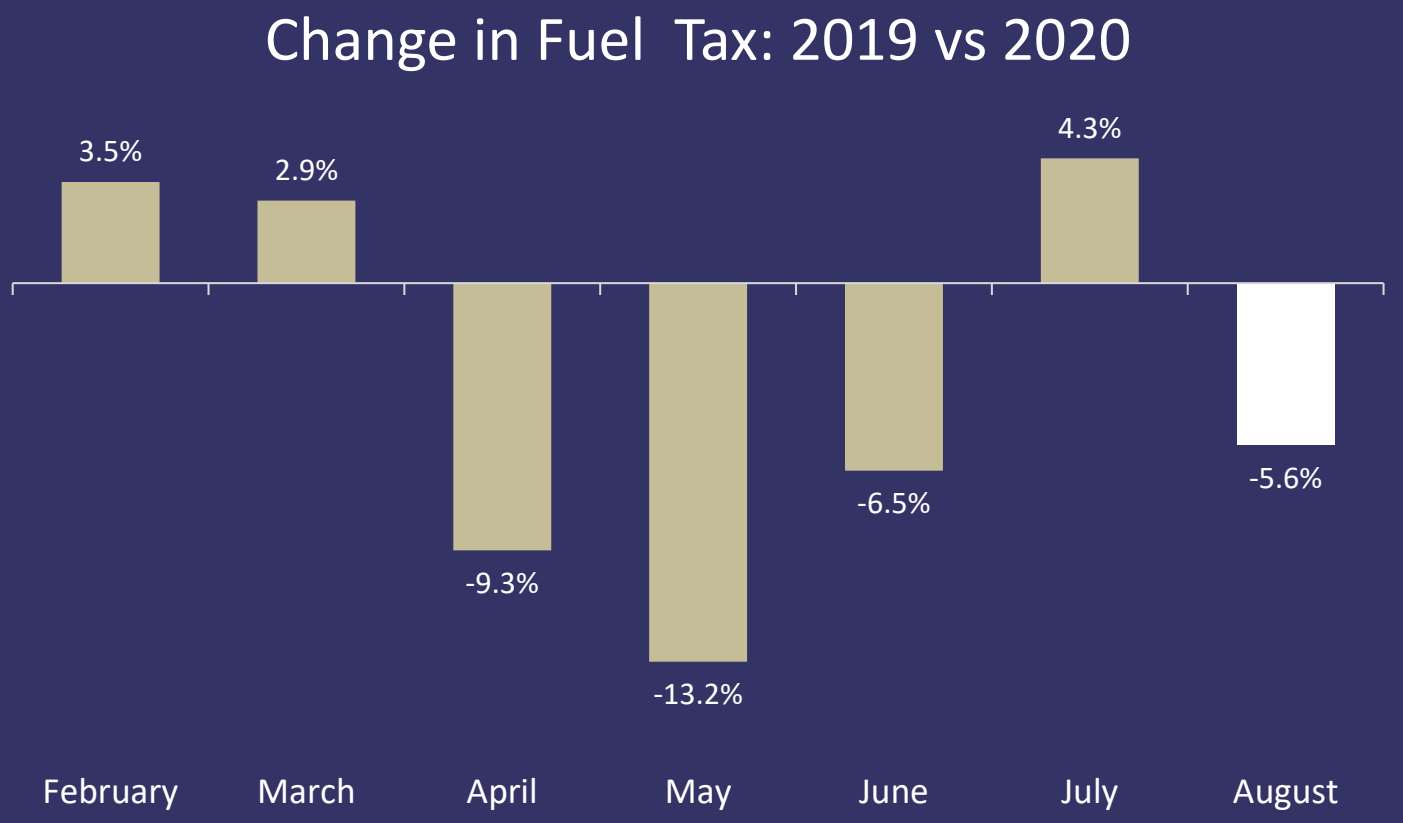
Motor Fuel Tax Decrease



Source: Texas Comptroller of Public Accounts
Month reflects reporting data, not collection date

FUNDING IMPACT

Sales Tax (Component of Proposition 7[1])



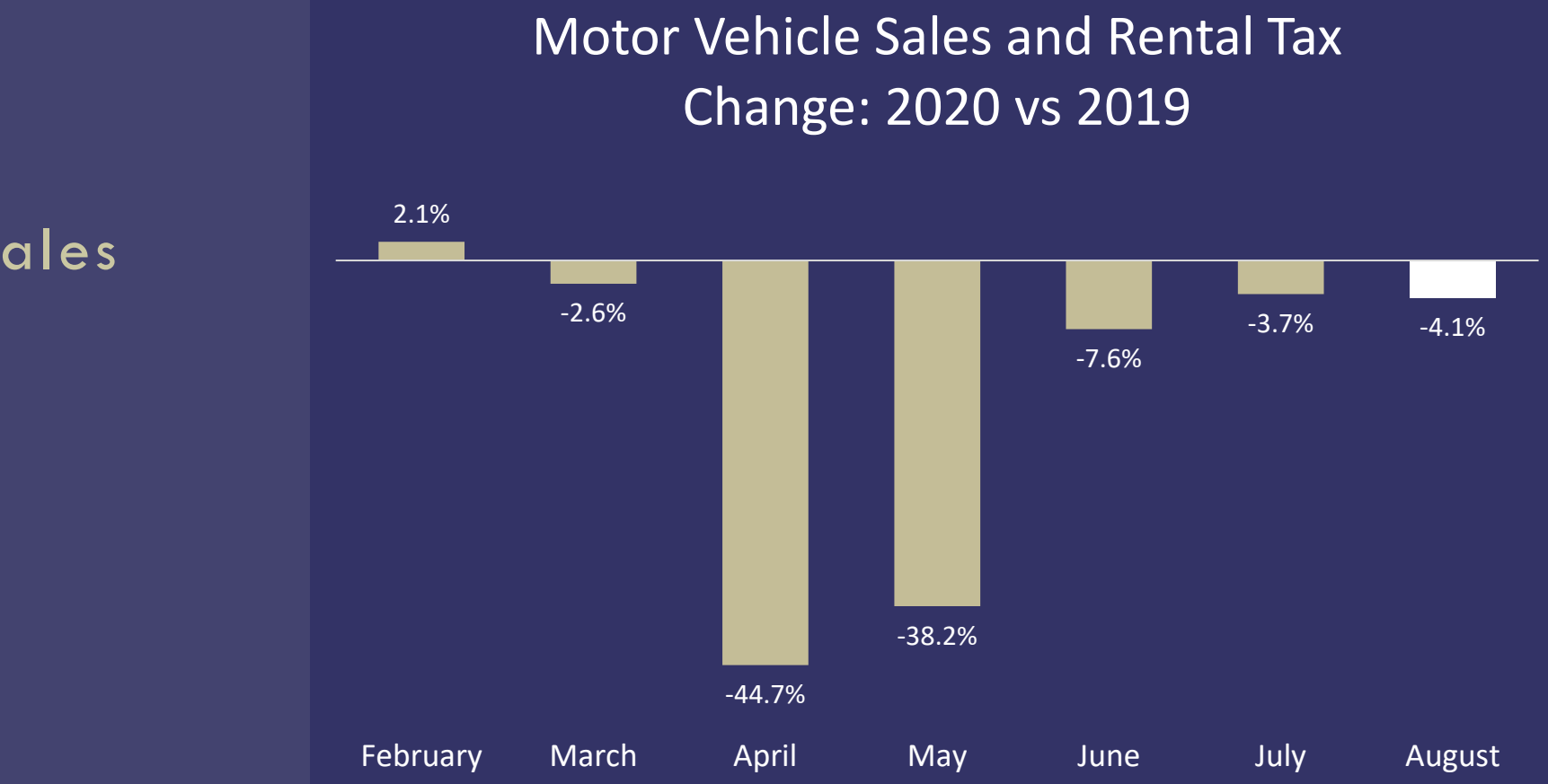
Source: Texas Comptroller of Public Accounts

[1] Proposition 7 includes General State Sales Tax and Motor Vehicle Sales Tax

Month reflects reporting date, not collection date

FUNDING IMPACT

Motor Vehicle Sales and Rental Tax (Component of Proposition 7[1])

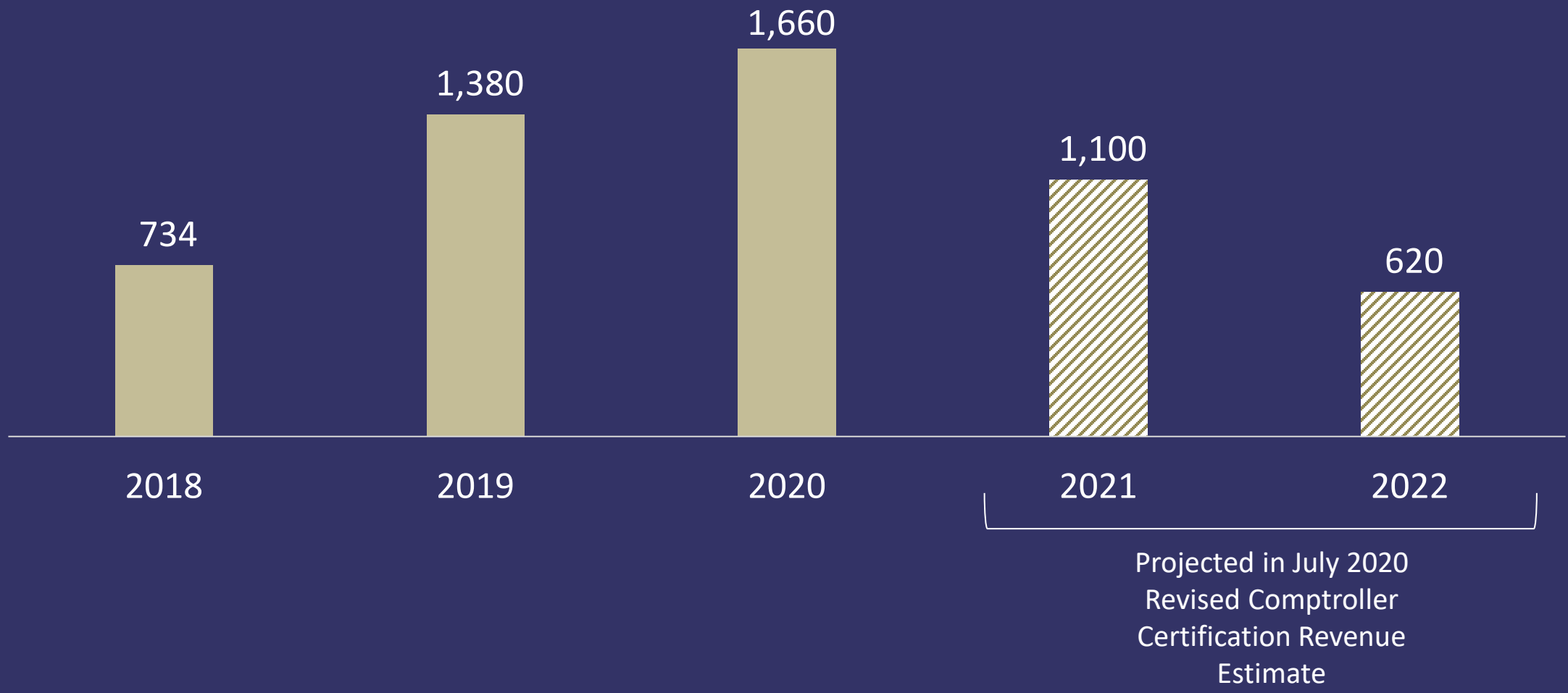


Source: Texas Comptroller of Public Accounts

[1] Proposition 7 includes General State Sales Tax and Motor Vehicle Sales Tax

Month reflects reporting date, not collection date

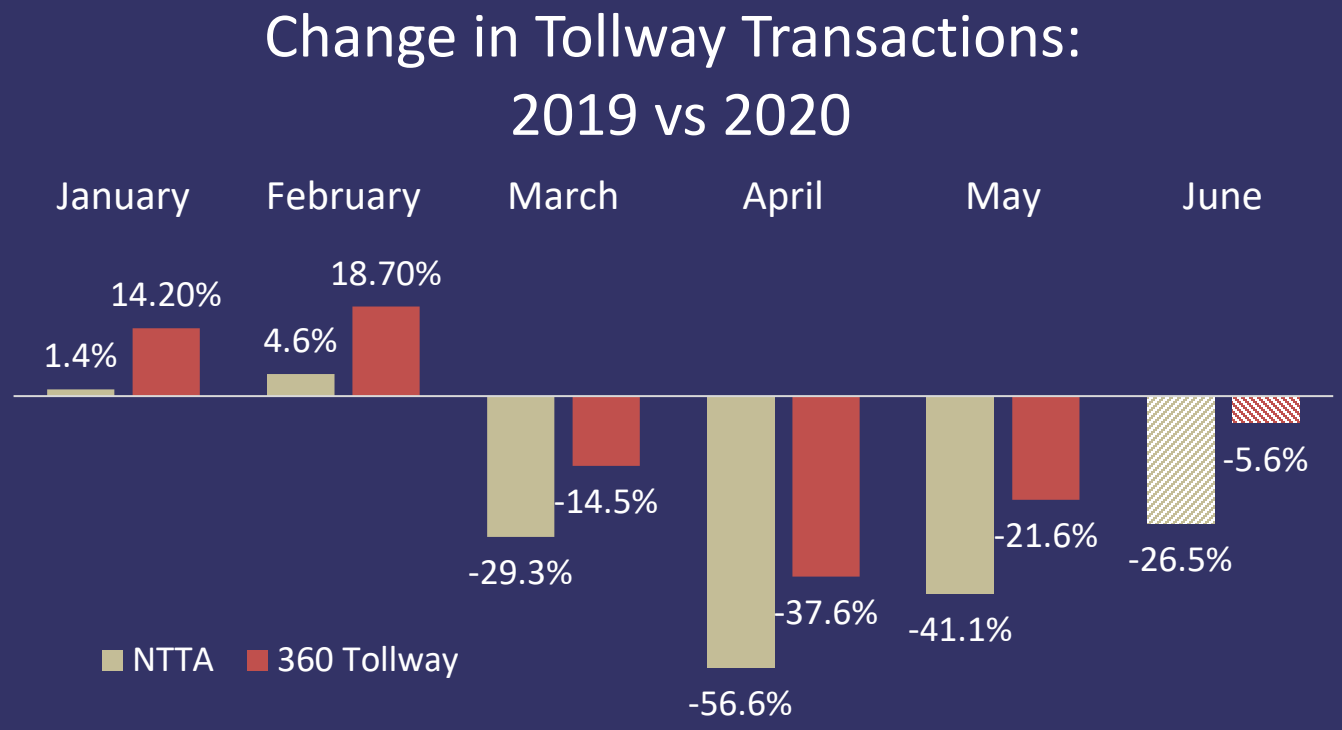
Proposition 1 (Oil & Gas Severance Tax)
Transfers to the State Highway Fund, Millions



Source: Texas Comptroller of Public Accounts

FUNDING IMPACT

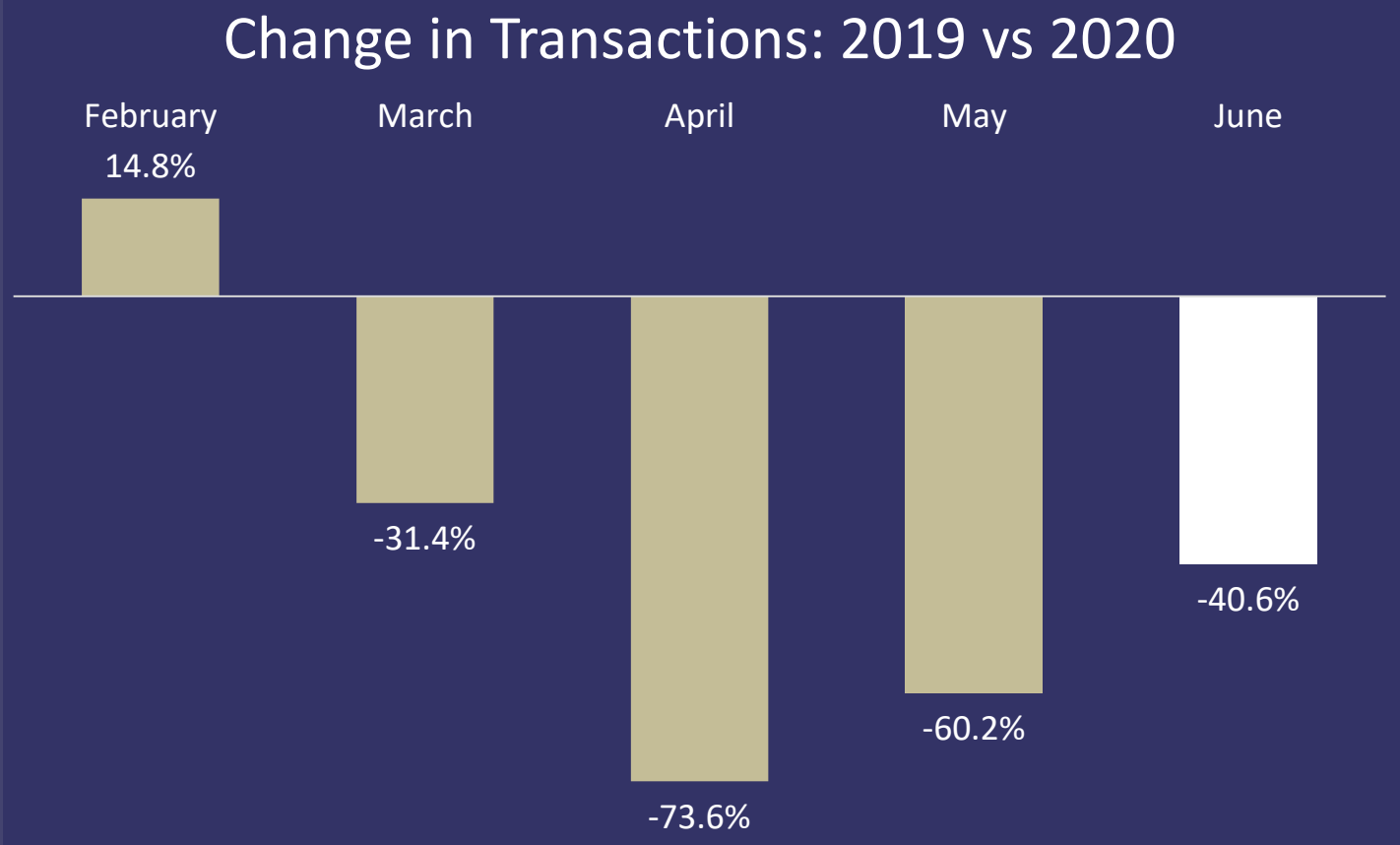
NTTA Transactions, Including SH 360



Source: NTTA
Note: Change for NTTA includes 360 Tollway
Additional Note: Despite decline in transactions, the revenues are sufficient to meet debt service for SH 360. No current impact to RTC backstop expected.

FUNDING IMPACT

I-35E TEXpress Lane Transactions

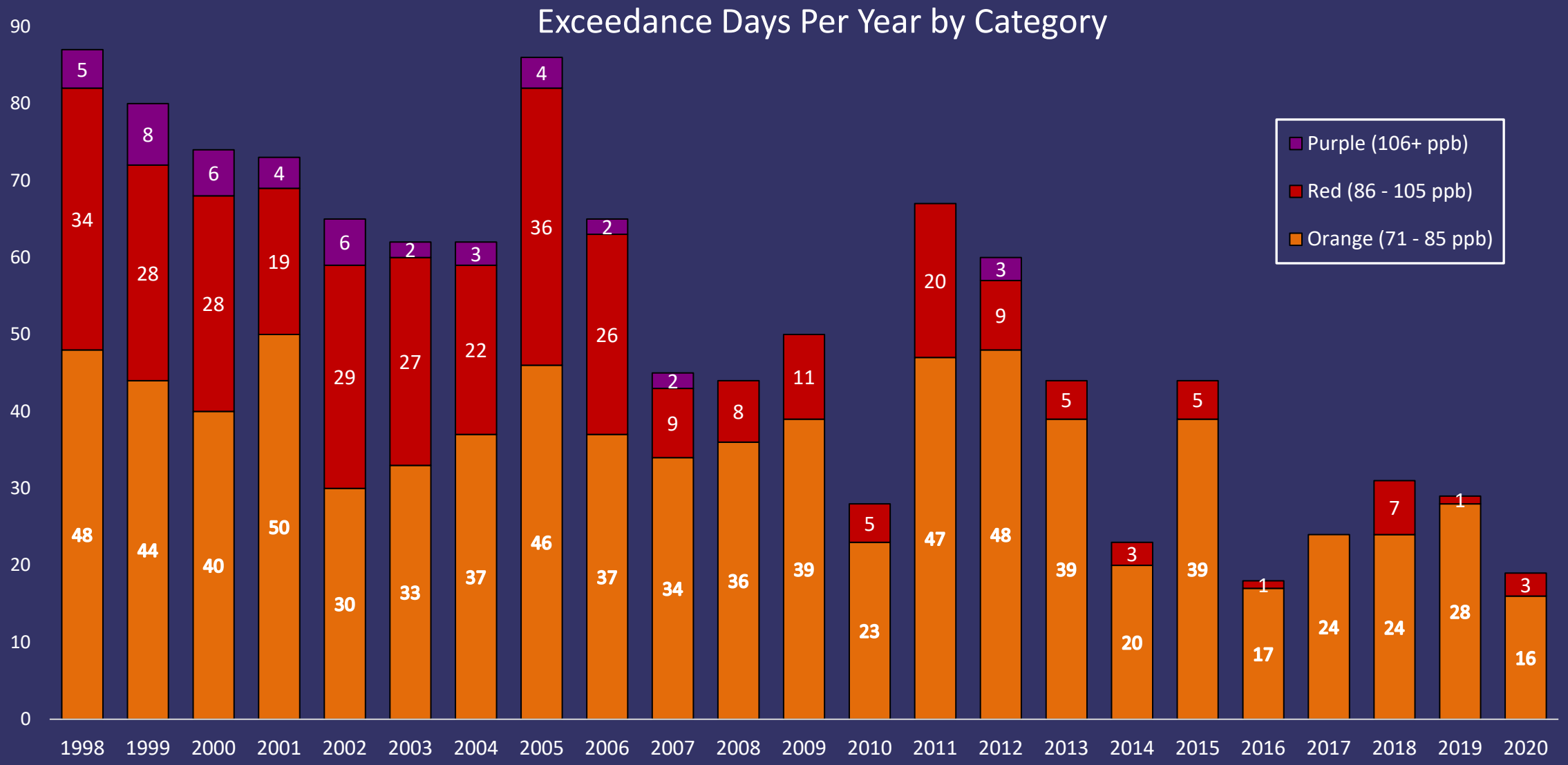


Source: TxDOT
Note: TIFIA loan not impacted at this time as interest only payment period does not begin until May 2022

Metric 3:

Benefits of Travel Behavior Responses to Areas of RTC Responsibility

8-HOUR OZONE NAAQS HISTORICAL TRENDS



Source: Texas Commission on Environmental Quality
Exceedance Level indicates daily maximum eight-hour average ozone concentration as of August 18, 2020.
Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 70 ppb.

Metric 4:

Prioritization of infrastructure improvements that offset unemployment increases

Transportation impact on the economy

$1 billion in transportation investment = 12,000-15,000 jobs

No conclusive evidence of different types of construction projects generating more/fewer jobs

For a long-term unemployment event, need near-term and long-term transportation investment for maximum benefit

Sources: Federal Highway Administration, McKinsey & Company

CANDIDATE PROJECTS

High Speed Rail: Dallas to Houston

High Speed Rail: Dallas to Fort Worth

Autonomous Transit (Tarrant, Midtown)

Technology (Freeway Induction Loops)

State Highway 183 (Section 2E+)

Y Connector (IH820/IH20)

COVID-19 #00X Program

North Texas Center for Mobility Technologies:

Research Project Funding Standards

Thomas Bamonte, Senior Program Manager
Automated Vehicles Program

Surface Transportation Technical Committee
September 25, 2020

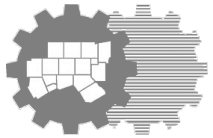
Background

February 2020: RTC approves $2.5M in seed funding for university research projects in mobility technologies

- Goal: Provide R&D network for mobility-related companies (e.g., Hyperloop)
- North Texas universities have deep and wide-ranging research capabilities

North Texas Center for Mobility Technologies (NTCMT) formed

- Comprised of DFW major research universities (UTA, UNT, UTD, SMU)
- Organized by Texas Research Alliance
- NCTCOG will sit on NTCMT advisory committees
- NTCMT will recommend research projects for NCTCOG funding
- Goal is for NTCMT to become self-sustaining initiative



NTCMT Functions

R&D network for mobility-related companies and public agencies

Attract industry and academic talent to North Texas

Develop mobility-related university research capabilities in DFW

Facilitate communication and collaboration among universities

University-public sector partnerships on mobility-related projects

Workforce development

Model for similar North Texas university networks in other industries

Proposed Evaluation/Reporting Process

1. NTCMT submits research project proposal to NCTCOG for funding consideration, following NTCMT advisory board evaluation
2. NCTCOG staff subject matter expert(s) evaluate proposal
3. Transportation Director makes final decision on research project funding request
4. Funded research projects described in Director's Report (STTC and RTC)
5. Description includes NCTCOG contribution amount and how project meets selection criteria

Proposed Selection Criteria for Research Projects Advanced by NTCMT

Project must be:

1. Sponsored by an outside party (e.g., industry);
2. Related to mobility technology;
3. Supported by contributions from industry sponsor and university; and
4. Advance a regional goal:
    - Improved access to jobs and other destinations
    - Environmental protection/resiliency
    - Economic development
    - Equity
    - Technology innovation leadership

Questions | Contact Information

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@TomBamonte

NATIONAL DRIVE ELECTRIC WEEK: VIRTUAL EVENTS AND LOCAL SUCCESSES

Surface Transportation Technical Committee
September 25, 2020

Bethany Hyatt
Air Quality Planner

North Central Texas Council of Governments

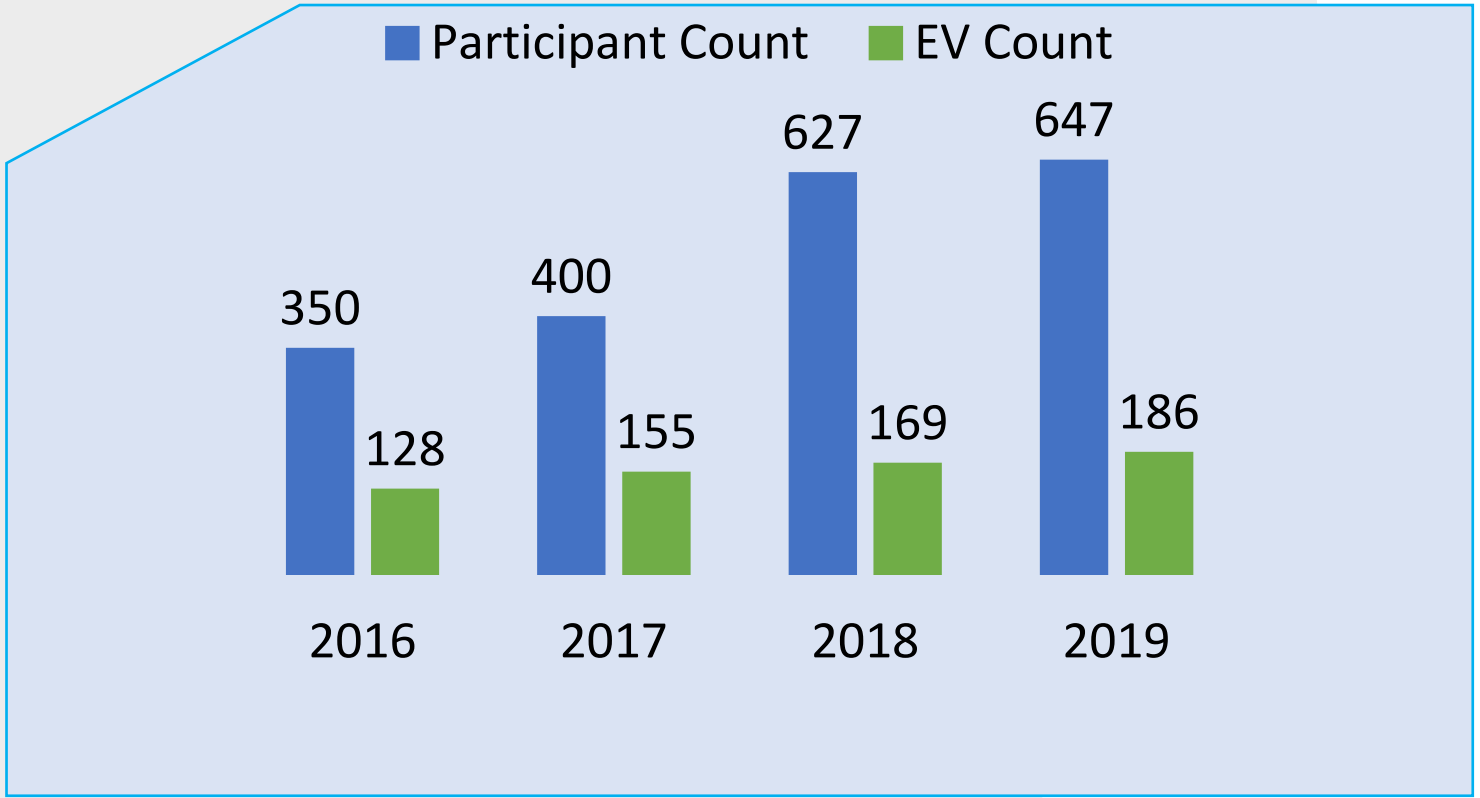
Dallas-Fort Worth CLEAN CITIES

NATIONAL DRIVE ELECTRIC WEEK PAST SUCCESS

- Raising Awareness & Education of Electric Vehicles
- Providing Opportunities for Direct Conversation with EV Owners
- Creating Opportunities for Ride and Drives
- 2nd Largest Event Nationwide

Source: Ken Oltmann/Coserv

Source: NCTCOG



NATIONAL DRIVE ELECTRIC WEEK 2020 – FEATURE EVENT

September 26, 2020 at 1 pm

2-Hour "Live" Virtual Event will Include:

- EV 101 Pioneers Panel
- Video Message From Dallas Mayor Eric Johnson
- EV Driver-Produced Testimonials
- Video Highlighting Trinity Metro's DASH Bus
- Video From Race Car Driver and EV Advocate Leilani Munter

www.driveelectricdfw.org

NATIONAL DRIVE ELECTRIC WEEK 2020: ADDITIONAL EVENTS

Second Annual Oncor EV Road Rally – Various Dates/Times

- Courses/Timing Determined by Participating Local Governments
  - Confirmed Participants: Allen, Dallas, Irving, Jacksonville, and Southlake
- EV Drivers Travel a Series of Waypoints, Snap Photos, Log Time
- Oncor Awards Cash Prize to the Winning Team (Most “Correct” Time)

Local Government Fleet EV Roundtable – Thursday, October 1, 10:30am - 12pm

Questions and Discussion On:

- EV Implementation Experiences
- EV Potential Savings
- Potential EV Applications Right for your Fleet

Using Clean Cities Tools to Implement EV and EV Infrastructure Goals – Thursday, October 1, 2-4 pm

- Find Number of EVs Registered to City/County/Zip
- Use Online Tools to Locate Existing Charging Stations
- Determine Additional Charging Stations Needed to Support EV Growth
- Discuss Key Considerations for Siting EV Stations

Source: Oncor

NORTH TEXAS ELECTRIC VEHICLE REGISTRATION TRENDS

NCTCOG EV Registration Tools:

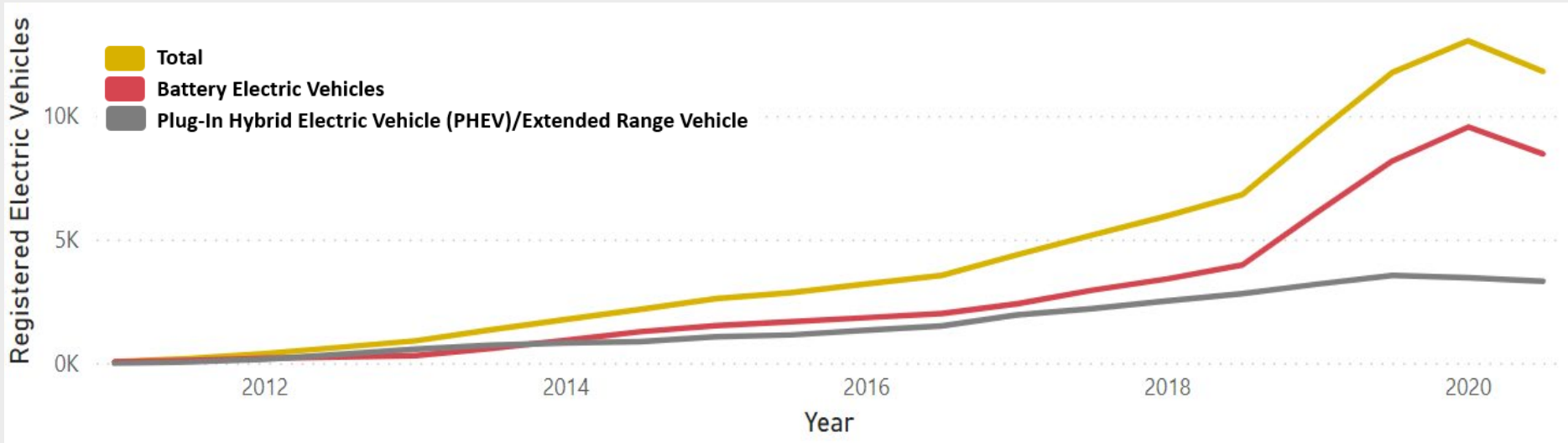
[North Texas]
[Statewide]
[Historic Trendline]

12,821 EVs
In North Texas as of September 2020

35%
2019 North Texas EV Growth Rate

North Texas EV Fleet Composition
72% BEV / 28% PHEV

Historic Texas EV Registration Tool



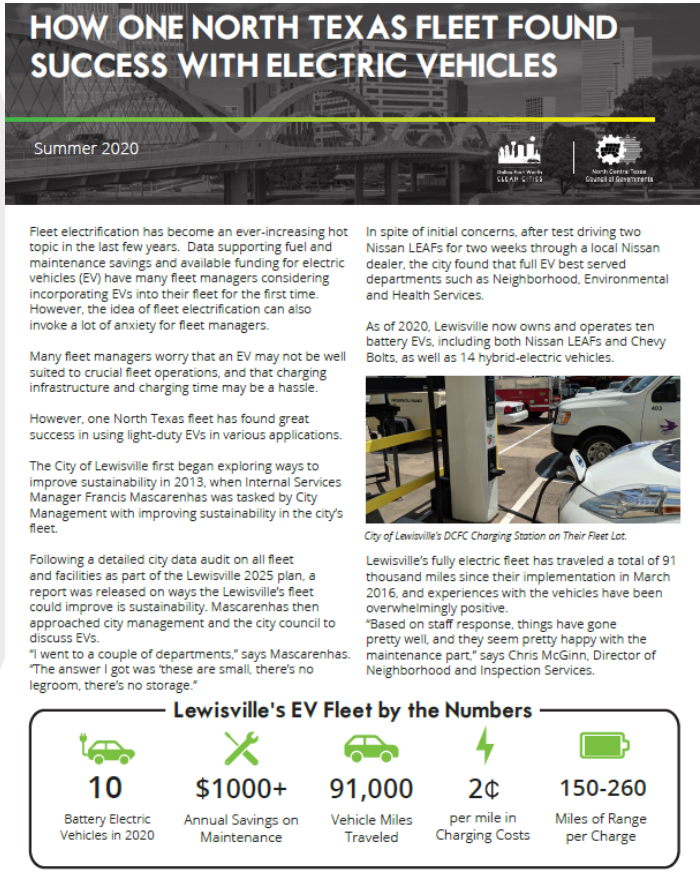
Tools: [www.dfwcleancities.org/evnt]

LOCAL ELECTRIC VEHICLE SUCCESSES

Municipalities with EVs	
Arlington	Benbrook
Carrollton	Cedar Hill
Coppell	Dallas
Denton	Euless
Farmers Branch	Frisco
Garland	Grapevine
Irving	**Lewisville**
McKinney	Mesquite
North Richland Hills	Plano
Richardson	Southlake
Addison	Flower Mound

Lewisville Case Study

- 10 BEVs
- 14 HEVs
- Saves $1,000 annually on Maintenance
- 2 Cents per mile in Charging Costs
- 150-260 miles of Range per charge.



HOW ONE NORTH TEXAS FLEET FOUND SUCCESS WITH ELECTRIC VEHICLES

Summer 2020

Fleet electrification has become an ever-increasing hot topic in the last few years. Data supporting fuel and maintenance savings and available funding for electric vehicles (EV) have many fleet managers considering incorporating EVs into their fleet for the first time. However, the idea of fleet electrification can also invoke a lot of anxiety for fleet managers.

Many fleet managers worry that an EV may not be well suited to crucial fleet operations, and that charging infrastructure and charging time may be a hassle.

However, one North Texas fleet has found great success in using light-duty EVs in various applications.

The City of Lewisville first began exploring ways to improve sustainability in 2013, when Internal Services Manager Francis Mascarenhas was tasked by City Management with improving sustainability in the city's fleet.

Following a detailed city data audit on all fleet and facilities as part of the Lewisville 2025 plan, a report was released on ways the Lewisville's fleet could improve is sustainability. Mascarenhas then approached city management and the city council to discuss EVs.
"I went to a couple of departments," says Mascarenhas. "The answer I got was 'these are small, there's no legroom, there's no storage."

In spite of initial concerns, after test driving two Nissan LEAFs for two weeks through a local Nissan dealer, the city found that full EV best served departments such as Neighborhood, Environmental and Health Services.

As of 2020, Lewisville now owns and operates ten battery EVs, including both Nissan LEAFs and Chevy Bolts, as well as 14 hybrid-electric vehicles.

City of Lewisville's DCFC Charging Station on Their Fleet Lot.

Lewisville's fully electric fleet has traveled a total of 91 thousand miles since their implementation in March 2016, and experiences with the vehicles have been overwhelmingly positive.
"Based on staff response, things have gone pretty well, and they seem pretty happy with the maintenance part," says Chris McGinn, Director of Neighborhood and Inspection Services.

Lewisville's EV Fleet by the Numbers

10	$1000+	91,000	2¢	150-260
Battery Electric Vehicles in 2020	Annual Savings on Maintenance	Vehicle Miles Traveled	per mile in Charging Costs	Miles of Range per Charge

https://www.dfwcleancities.org/successstories

LOCAL ELECTRIC VEHICLE SUCCESSES

Transit Electric Vehicle Successes:

DART:

- 7 Heavy-Duty Electric Transit Buses
- Reduced 255 pounds Nitrogen Oxides and 116 Tons GHGs in 2019

Source: NCTCOG

Trinity Metro:

- 4 Heavy-Duty Electric Transit Buses
- Reduced 95 pounds Nitrogen Oxides and 43 Tons GHGs in 2019

Source: NCTCOG

Everman ISD:

- 3 Electric School Buses - First in Texas
- Expected to Reduce 51 pounds of Nitrogen Oxides and 18 Tons GHGs per Year
- Received Texas Volkswagen Environmental Mitigation Program Grant of $969,295

Source: Everman ISD

Emissions Reduction Calculation: https://afleet-web.es.anl.gov/afleet/

LOCAL ELECTRIC VEHICLE DATA COLLECTION PROGRAM

Electric Vehicle Widescale Analysis for Tomorrow's Transportation Solutions (EV-WATTS)

- Collect Real-World Use Data from EVs and EV Charging Stations
- Share Aggregated & Anonymized Data with Department of Energy, National Laboratories, and the Public
- Leverage Local Clean Cities Coalitions for Local Fleet and Driver Connections

EV WATTS

Contact
bmuller@nctcog.org
for More Information

Requirements To Participate:

- Own/Operate EVs (Both Battery-Electric and Plug-In Hybrid Desired)
- Share Existing Telematics Data OR Allow Installation of Free Data Loggers
- Share Data from Networked EV Charging Stations (Must Have Data Rights)

chargepoint
Columbia - Willamette Clean Cities
Clean Fuels Ohio
ENERGETICS A Division of Akimeka, LLC
Dallas-Fort Worth Clean Cities
Chicago Area Clean Cities
SAWATCH
Tennessee Clean Fuels
Virginia Clean Cities
Palmetto Clean Fuels
Denver Metro Clean Cities Coalition
Accelerating Maryland's Clean Cities Transportation Future
Kansas City Regional Clean Cities
Empire Clean Cities

ELECTRIC VEHICLE FUNDING

Up to $7,500	Plug-In Electric Drive Vehicle Tax Credit
Up to $2,500	Texas Light-Duty Motor Vehicle Purchase or Lease Incentive Program
Up to $2,500, Not to Exceed 70% Per Activity	Texas Volkswagen Environmental Mitigation Program Now Accepting Applications for Level 2 Charging Stations

AQ Funding Website: https://www.nctcog.org/aqfunding

FOR MORE INFORMATION:

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Dallas-Fort Worth
CLEAN CITIES

North Central Texas
Council of Governments

CURB MANAGEMENT REGIONAL PLANNING GUIDE

Surface Transportation Technical Committee

Shawn Conrad

September 25, 2020

North Central Texas
Council of Governments

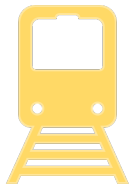
What is Curb Management?

Any intentional practice to bring order to the curb and determine specific priorities for space.

Ranges from signage/striping distinguishing the public ROW to permanent curb changes, geofencing, or designated pickup/drop-off areas.

Why is Curb Management Important?

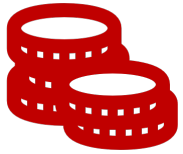
Can make access more equitable



Improves level of service for multiple competing modes

Facilitates data collection for planning

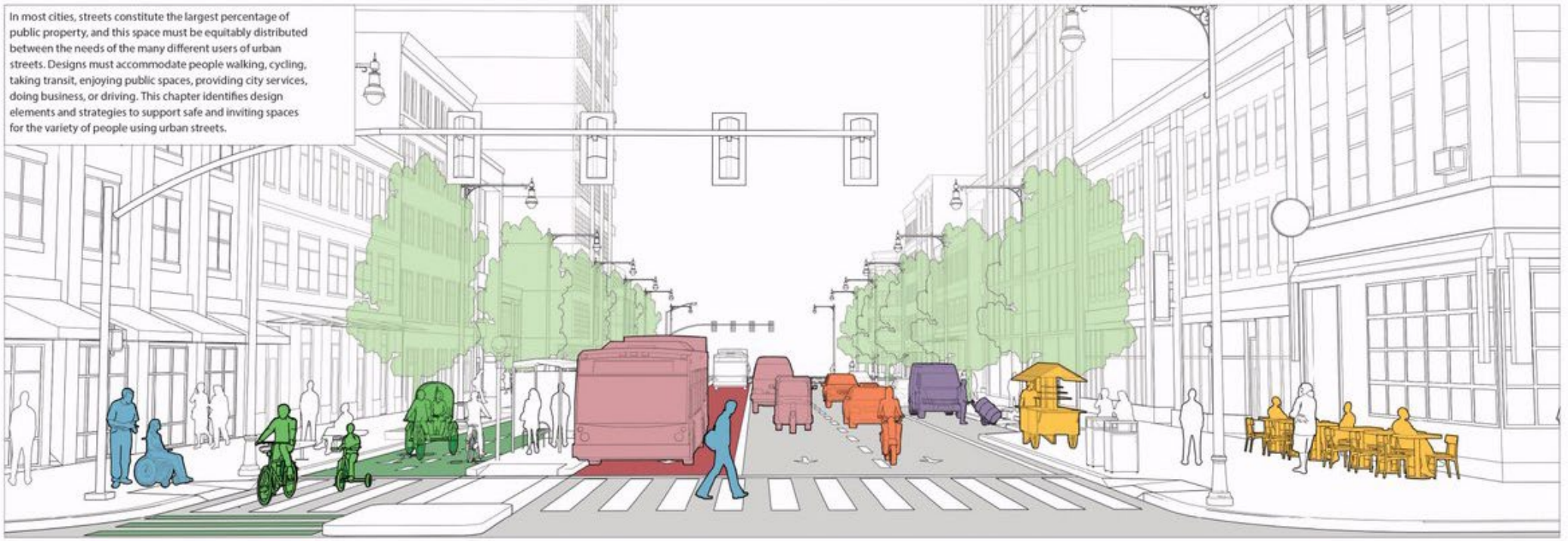
Enables planning for new technologies using the curb



Can facilitate monetizing the curb

Balancing Competing Curb Uses

In most cities, streets constitute the largest percentage of public property, and this space must be equitably distributed between the needs of the many different users of urban streets. Designs must accommodate people walking, cycling, taking transit, enjoying public spaces, providing city services, doing business, or driving. This chapter identifies design elements and strategies to support safe and inviting spaces for the variety of people using urban streets.



Pedestrians

Pedestrians include people of all abilities and ages, sitting, walking, pausing, and resting within urban streets. Designing for pedestrians means making streets accessible to the most vulnerable users. Design safe spaces with continuous, unobstructed sidewalks. Include visual variety, engage building frontages, design for human scale, and incorporate protection from extreme weather to ensure an enjoyable street experience.

Cyclists

Cyclists include people on bicycles, cycle-rickshaws, and cargo bikes. Facilities should be safe, direct, intuitive, clearly delineated, and part of a cohesive, connected network to encourage use by people of all ages and confidence levels. Cycle tracks that create an effective division from traffic, are well coordinated with signal timing, and are incorporated in intersection design form the basis of an accessible and connected cycle network.

Transit Riders

Transit riders are people using collective transport such as rail, bus, or small collective vehicles. This sustainable mode of transportation dramatically increases the overall capacity and efficiency of the street. Dedicated space for transit supports convenient, reliable, and predictable service for riders. Accessible boarding areas promote safe and equitable use. The space dedicated to a transit network should be aligned with demand, meeting service needs without sacrificing streetscape quality.

Motorists

Motorists are people driving personal motor vehicles for on-demand, point-to-point transportation. This includes drivers of private cars, for-hire vehicles, and motorized two-and three-wheelers. Streets and intersections must be designed to facilitate safe movement and manage interactions between motor vehicles, pedestrians, and cyclists.

Freight Operators and Service Providers

Freight operators and service providers are people driving vehicles that move goods or conduct critical city services. These users benefit from dedicated curb access and allocation of space for easy loading and unloading as well as dedicated routes and hours of operation. Emergency responders and cleaning vehicles need adequate space to operate, which must be accommodated while ensuring the safety of all other street users.

People Doing Business

People doing business include vendors, street stall operators, and owners or renters of commercial storefronts. These users provide important services that support vibrant, active, and engaging street environments. Adequate space should be allocated to these uses. Provide regular cleaning, maintenance schedules, power, and water to support commercial activity and improve local quality of life.

Global Designing Cities Initiative NACTO

NCTCOG Curb Management Workshop

Held February 5, 2020 with attendees from across the region

Topics:

- Importance of curb management
- Planning for a dynamic curb
- Planning for curb in a variety of settings

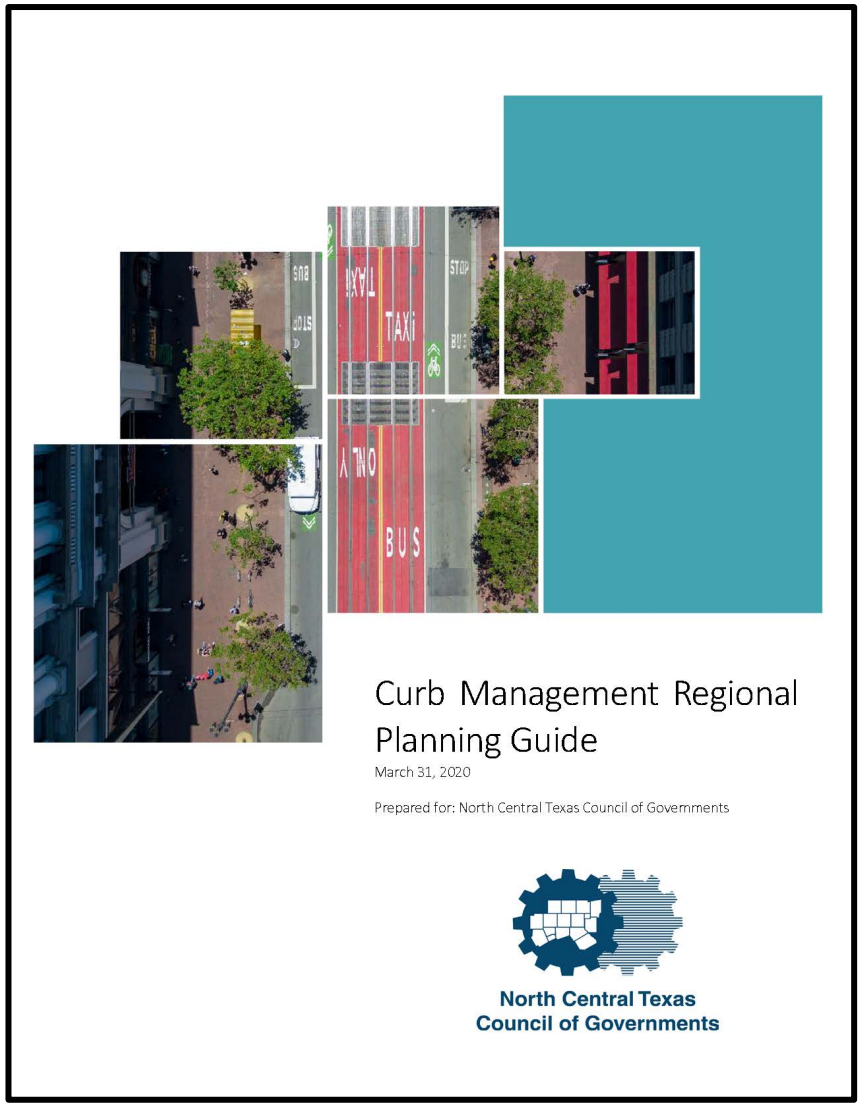
Workshop materials online at:
www.nctcog.org/parking ➡ Parking Events and Symposiums

Curb Management Regional Planning Guide

Completed March 2020

Includes:

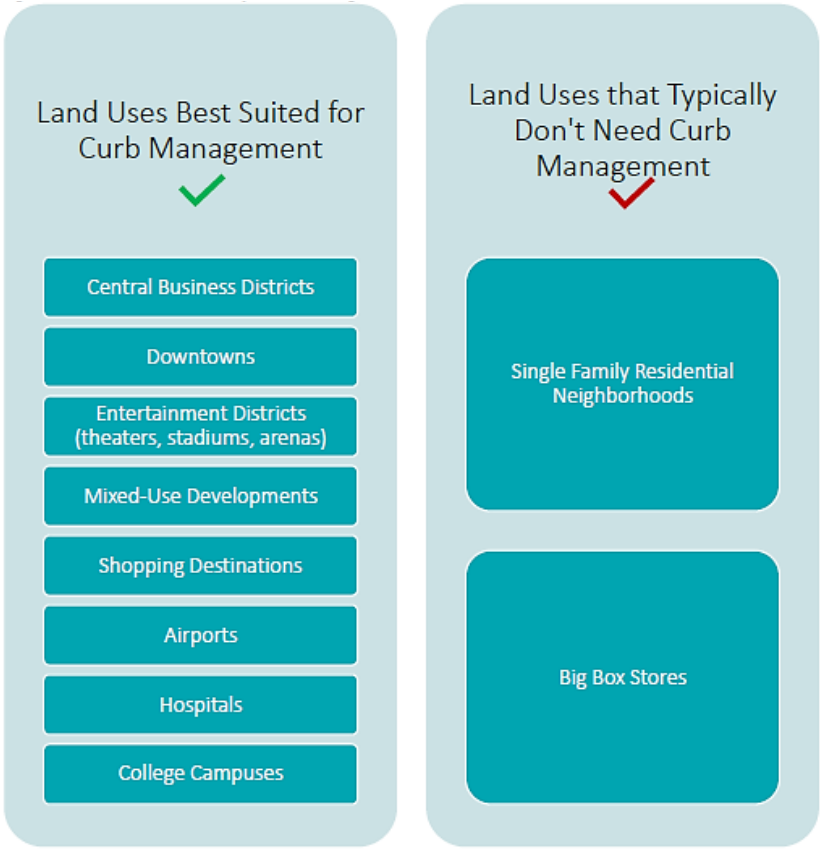
- Curb management best practices
- Tools for planning in a variety of contexts, assigning priorities, and evaluating tradeoffs
- Data collection and evaluation guidance



Curb Management Regional Planning Guide

Curb Management Regional Planning Guide

Curb Management Regional Planning Guide



Who are the primary user groups?

- Pedestrians
- Cyclists
- Transit (bus or rail)
- Vehicles
- Delivery

What types of land uses are present?

- Commerical, retail, offices
- Restaurants, bars, cafes
- Mixed-use developments

What are the primary activities occuring at the curb?

- Transportation and mobility
- Social gathering: street furniture, public art, parklets, street festivals, food trucks
- Retail & shopping: restaurants, outdoor dining, cafes, shops
- Pickup/drop-off: TNCs, deliveries
- Parking

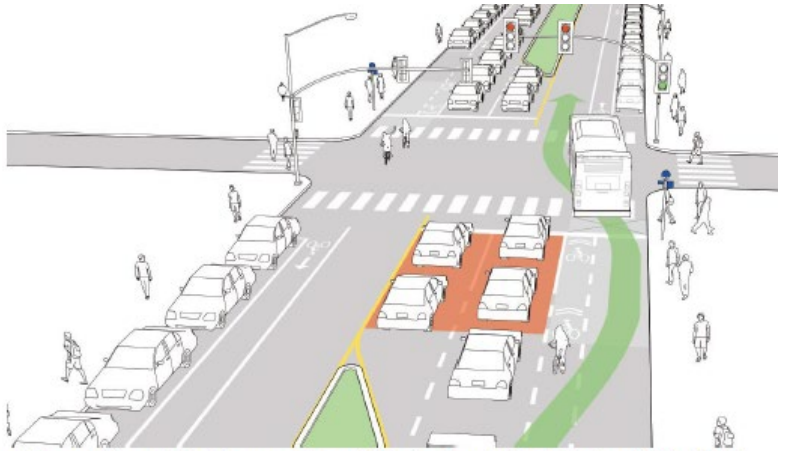
What are the communities' goals for the curb? Consider city-wide mobility & planning goals.

- Reduce single occupancy vehicle mode share
- Improve pedestrian walkability
- Increase transit service
- Reduce vehicle congestion
- Accommodate pickup/drop-off activities
- Improve safety for bike and pedestrian activity
- Reduce conflicts between various modes and activities
- Provide on-street parking for surrounding land uses
- Reduce on-street parking
- Increase turnover of on-street parking
- Encourage economic development
- Provide space for social gathering
- Bringing order and safety

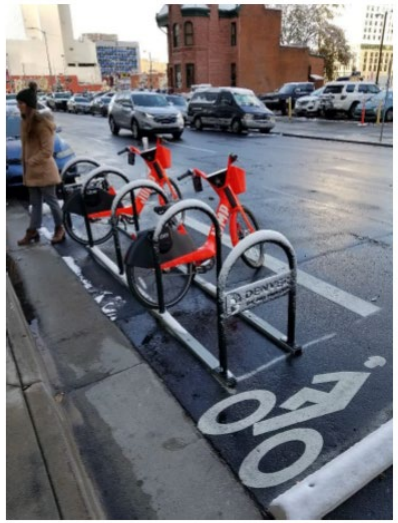
Curb Management Regional Planning Guide

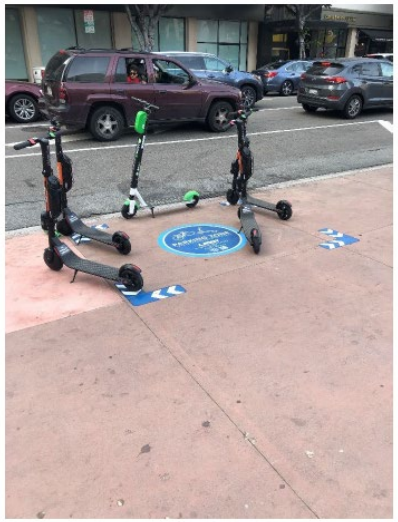
Available online at

www.nctcog.org/parking



Source: National Association of City Transportation Officials, *Transit Street Design Guide*, 2016





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