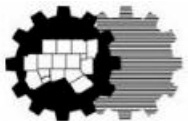


# 2021-2024 TRANSPORTATION IMPROVEMENT PROGRAM DRAFT LISTINGS

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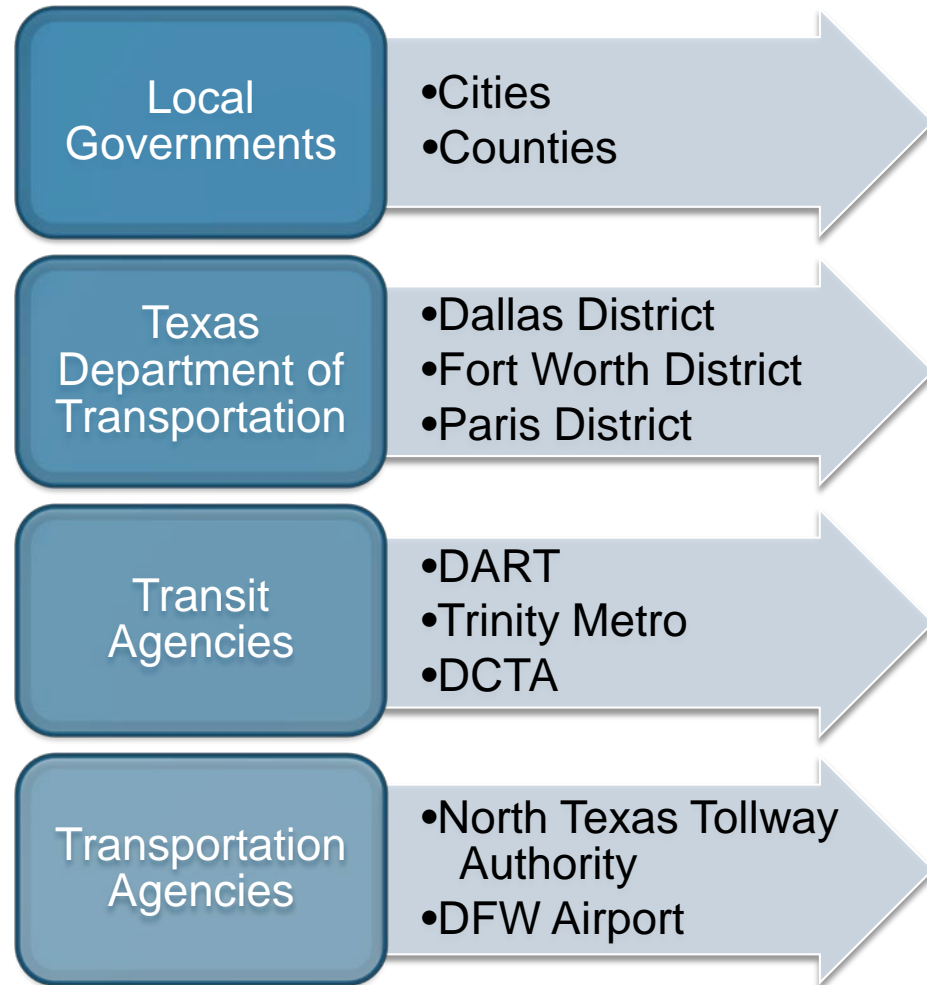
Surface Transportation Technical Committee

May 22, 2020



North Central Texas  
Council of Governments  
Transportation Department

# TRANSPORTATION FUNDING AND PROJECT IMPLEMENTATION: A COOPERATIVE EFFORT



**2021-2024  
Transportation  
Improvement  
Program**  
for North Central Texas

North Central Texas  
Council of Governments

# DEVELOPMENT PROCESS

- Review existing projects and gather information on additional locally funded projects
- Make needed revisions to existing project schedules, funding, and/or scope
- Develop revised project listings
- Financially constrain project programming based on estimated future revenues
- Conduct Mobility Plan and Air Quality conformity review
- Solicit public and Committee/Council input
- **Finalize project listings and submit to the Texas Department of Transportation (TxDOT) and Federal Highway Administration (FHWA)**

# SCOPE OF PROGRAMMING

- \$15.20 Billion in the 2021-2024 TIP (Roadway and Transit)
  - \$8.04 Billion in Federal Commitments
  - \$2.27 Billion in State Commitments
  - \$0.20 Billion in Regional Commitments
  - \$2.96 Billion in Local Commitments
  - \$1.73 Billion in Transit Commitments
- 958 Active Projects (Roadway and Transit)
- 64 Implementing Agencies (Roadway and Transit)

# REQUESTED ACTION

- Recommend RTC approval of:
  - The projects and project changes shown in the TIP project listings
  - Amending the Unified Planning Working Program (UPWP) and other planning/administrative documents as needed
- Only projects in FY 2021-2024 will be included in the new TIP
  - Projects in FY 2025+ will be included in Appendix D to allow project development activities to continue

# TIMELINE

May – November 2019	Conducted meetings with implementing agencies
August 2019 – February 2020	Data entry, develop listing, and financial constraint
February 2020	Present draft listings to STTC for Information
March 2020	Present draft listings to RTC for Information
March 2020	Conduct public meetings
April 9, 2020	Deadline for providing comments on draft listings
<b>May 2020</b>	<b>Present final listings to STTC for Action</b>
June 2020	Present final listings to RTC for Action Executive Board endorsement
July 2020	Transmit final document to TxDOT
September 2020	Anticipated approval of the STIP by Texas Transportation Commission
October/November 2020	Anticipated federal approval of the STIP

# QUESTIONS/COMMENTS

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# **SOUTHEAST DALLAS COUNTY FUNDING PARTNERSHIPS**

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SURFACE TRANSPORTATION TECHNICAL COMMITTEE

May 22, 2020



# PROPOSED PARTNERSHIP WITH BALCH SPRINGS

- The City of Balch Springs has requested assistance with improvements to Hickory Tree Road from Elam Road to Lake June Road.
- Staff proposes that the RTC fund the design of the project with \$500,000 of Surface Transportation Block Grant (STBG) funds.
- NCTCOG staff would work with City staff to develop a project that would mitigate congestion, but is also context-sensitive and facilitating future economic growth.
- This partnership would continue the RTC's investments in projects that would promote economic development and community revitalization, while also addressing a mobility issue.

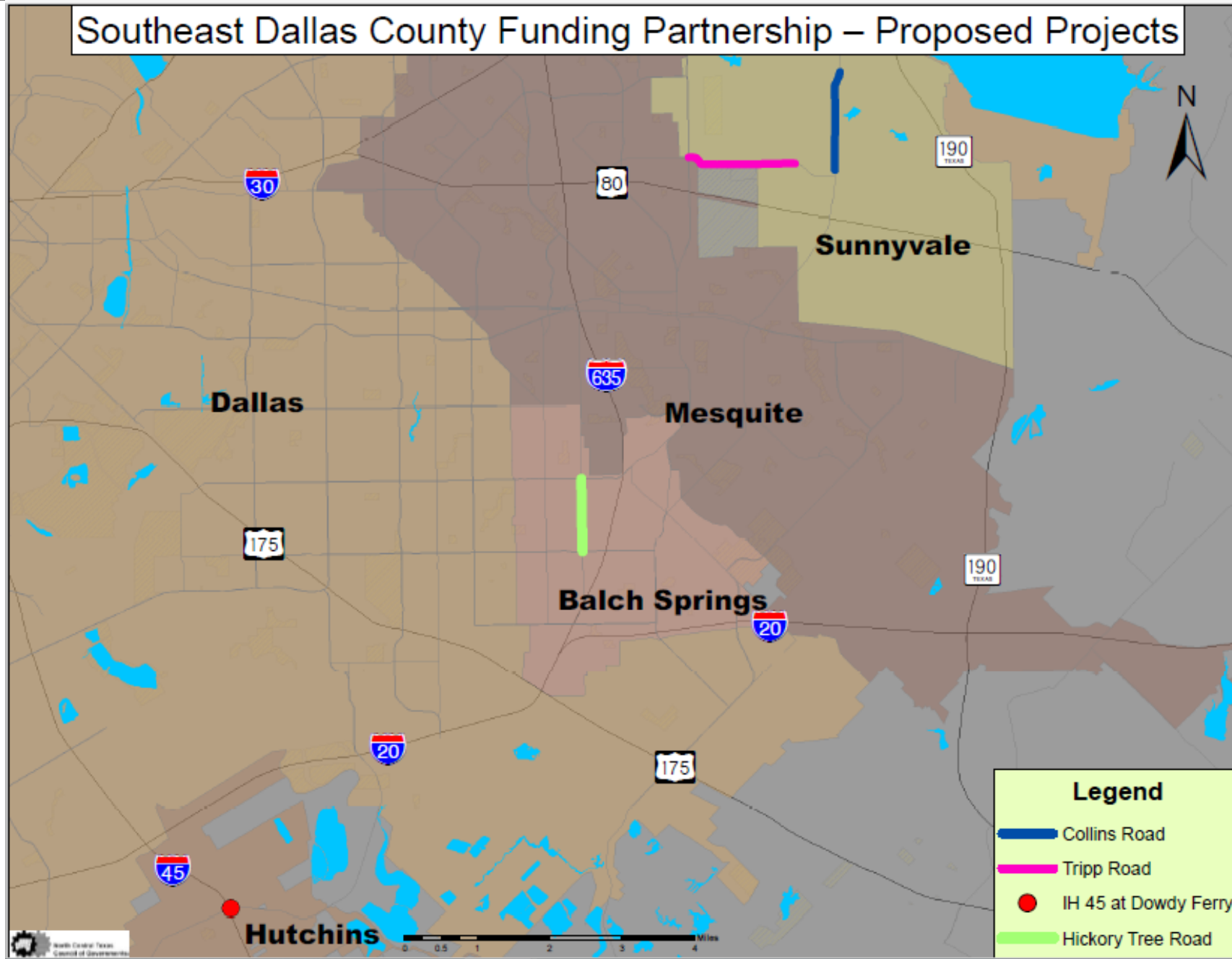
# PROPOSED PARTNERSHIP WITH SUNNYVALE

- The Town of Sunnyvale has requested assistance on two projects:
  - Collins Road from Tripp Road to Town East Blvd
    - \$450,000 in Regional Toll Revenue (RTR) funding for engineering
    - Scope: Reconstruct from 2 to 4 lane divided urban
  - Tripp Road from The Falls Drive to Belt Line Road
    - \$800,000 in RTR funding for construction
    - Scope: Reconstruct 2 lane to 2 lane rural roadway
- This partnership aids in community revitalization.
- Major partner in the George Bush Extension

# PROPOSED PARTNERSHIP WITH HUTCHINS

- The City of Hutchins has requested assistance for improvements at the intersection of IH 45 and Dowdy Ferry Road.
- This area is a major freight hub and this project would improve mobility.
- Staff proposes to fund this project through a partnership with the TxDOT Dallas District.
- The RTC would fund the project with \$3,700,000 of Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, (includes a State match from TxDOT) with TxDOT funding the design of the project.

# Southeast Dallas County Funding Partnership – Proposed Projects



# ACTION REQUESTED

- Recommend Regional Transportation Council (RTC) approval of:
  - The partnerships outlined in this presentation
  - Administratively amending the Transportation Improvement Program (TIP)/Statewide Transportation Improvement Program (STIP) and other administrative/planning documents as needed

# QUESTIONS?

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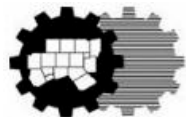
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# **2021 UNIFIED TRANSPORTATION PROGRAM (UTP) AND REGIONAL 10-YEAR PLAN UPDATE**

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**Surface Transportation Technical Committee  
May 22, 2020**



**North Central Texas  
Council of Governments  
Transportation Department**

# BACKGROUND

- Texas House Bill (HB) 20 requires that Metropolitan Planning Organizations (MPO) develop 10-Year Plans using performance-based planning and project selection methods
- Includes projects funded with Category 2 (MPO selected), Category 4 (TxDOT District selected), and Category 12 (Texas Transportation Commission selected)
- Regional 10-Year Plan was approved by the Regional Transportation Council (RTC) in December 2016
- Series of updates were made in August 2017, August 2018, and September 2019 in conjunction with the development of TxDOT's UTP



# ACTIVITIES UNDERTAKEN SINCE LAST UPDATE

- Texas Department of Transportation (TxDOT) staff have begun developing the 2021 UTP.
- NCTCOG staff have coordinated with the TxDOT Districts regarding project updates (e.g., costs/funding, environmental clearance and let dates) and potential new projects.
- Projects were scored by NCTCOG staff.
- To satisfy a January 31, 2020 deadline set forth by TxDOT, NCTCOG staff drafted a project listing that included project scores, project revisions, and potential new projects.
- The list was refined in February and March 2020 as a result of funding targets being received after the January 31<sup>st</sup> deadline.

# UPDATE TO THE 2020 UTP

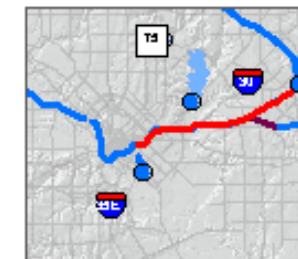
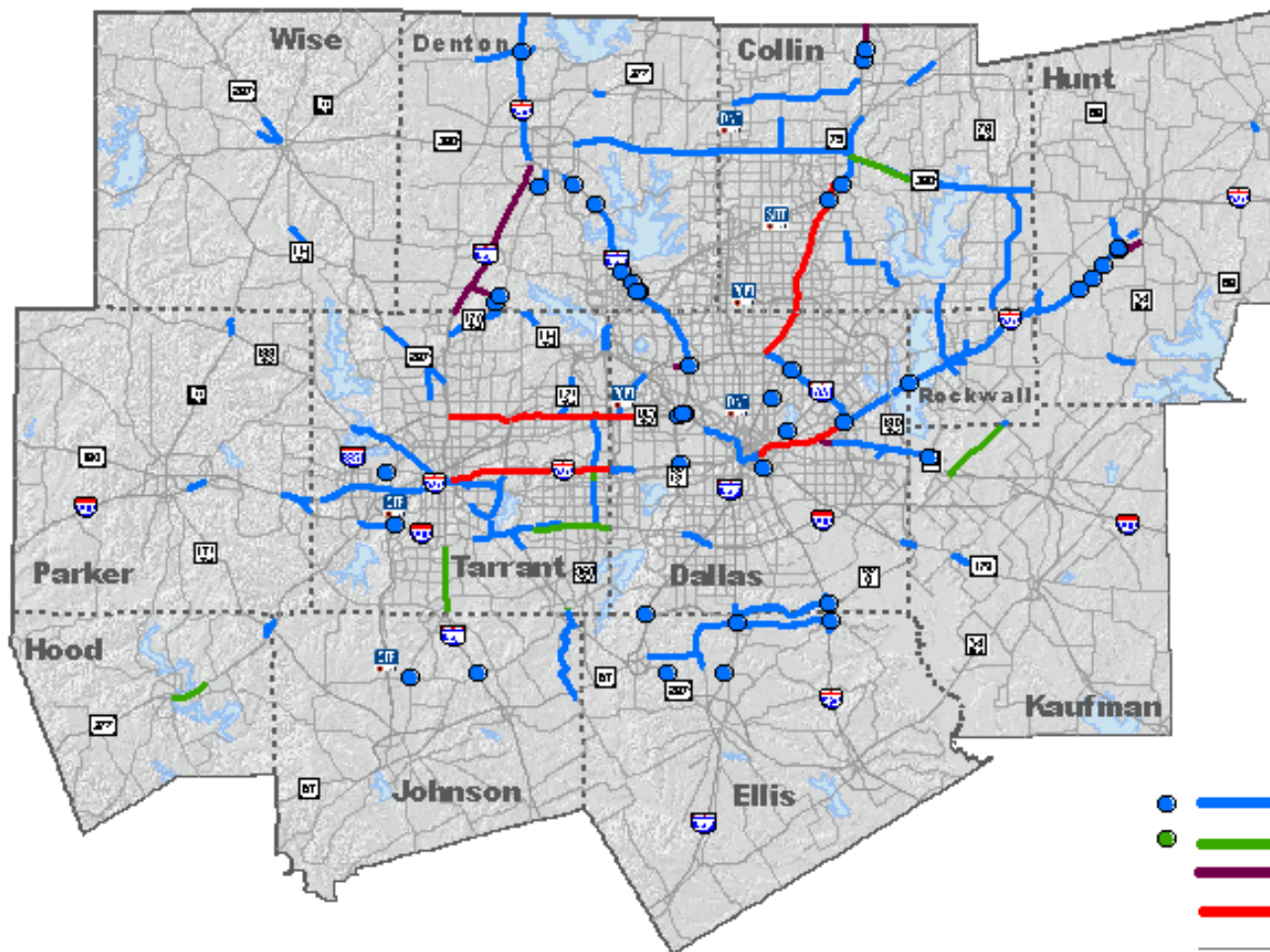
- In addition to developing the 2021 UTP, an update to the 2020 UTP was approved April 30, 2020 by the TTC.
- This update is being made to fund the IH 35 project in Austin.
- In order to fully fund that project, the TTC programmed Category 12 funds that otherwise could have been used for projects in other regions of the State, including Dallas-Fort Worth.
- This action, combined with lower than anticipated revenues, has led to a decline in the amount of funding coming to the region via the UTP.
- Existing projects are generally not impacted, but projects with cost overruns may not be able to be addressed and new projects were largely not able to be added.

# 2020 10-YEAR PLAN UPDATE

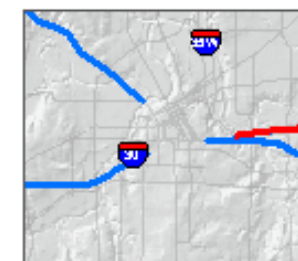
- The same project scoring process used for the 2019 10-Year Plan Update was used this year.
- Additional projects were submitted by TxDOT for inclusion in the Corridor Preservation Program. This program consists of projects that may be added to the 10-Year Plan in the future and need a preliminary commitment in order to commence pre-construction activities like right-of-way acquisition.
- Some projects that were previously part of this program are being proposed for construction funding through this latest update.

# Dallas-Fort Worth Regional 10 Year Plan Projects

FY 2017 - FY 2030



Dallas CBD



Fort Worth CBD

# DRAFT

## Legend

-  Previously Approved 10 Year Plan Projects
-  Proposed New Category 2 and 4 Projects
-  Proposed New Category 12 Projects
-  Proposed Tolled Projects
-  Mobility 2045 Roadways
-  County Boundary
-  Lakes



North Central Texas  
Council of Governments

Date: 5/15/2020

# PRINCIPLES FOR THE DEVELOPMENT OF THE REGIONAL 10-YEAR PLAN

- Project should be included in Mobility 2045
- Focus on system versus new, stand-alone projects
- Fully fund existing projects before funding new projects
- Ensure equity of county allocations
- Reintroduce toll lanes/toll managed lanes on selected corridors
- Re-fund affected projects, when possible
- Ensure all RTC projects are approved in 2021 UTP (including “placeholders”)
- Projects must be scored and should have a score sufficient to qualify for funding

# NEXT STEPS

- Finalize project selection/update efforts in coordination with TxDOT staff
- Await decisions by the TTC on Category 12 funding
- Bring listings to the RTC for approval
- Bring back any project changes to the STTC and RTC once the TTC weighs in and approves the UTP

# TIMELINE

<b>MEETING/TASK</b>	<b>DATE</b>
Initial draft list due to TxDOT	January 31, 2020
Funding Targets Received	February 2020
TxDOT Public Meeting for and Approval of 2020 UTP Update	April 2020
NCTCOG Public Meeting	May 2020
<b>STTC Action</b>	<b>May 22, 2020</b>
RTC Action	June 11, 2020
TxDOT Public Meetings for 2021 UTP	June/July 2020
Anticipated TTC Approval of 2021 UTP	August 27, 2020

# CONTACT/QUESTIONS?

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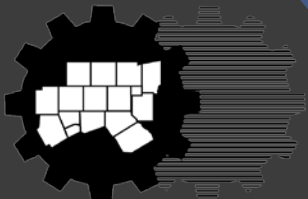
# Congestion and Asset Management

## Congestion Management Process Update

**Surface Transportation Technical Committee**

**May 22, 2020**

**Natalie Bettger**



# What is the CMP?

One of five federally-mandated planning documents  
(MTP, TIP, UPWP, Public Participation Plan, CMP)

**Required for urbanized areas with populations exceeding 200,000  
(also known as Transportation Management Areas)**

“A **regionally-accepted** approach for **managing** congestion that provides **up-to-date** information on **multimodal** transportation performance and **assesses** alternative strategies that meet state and local needs.”

*FHWA CMP Guidebook*

# What is Required in the CMP?

Regulations are not prescriptive towards the methods, approaches, and strategies in the CMP.

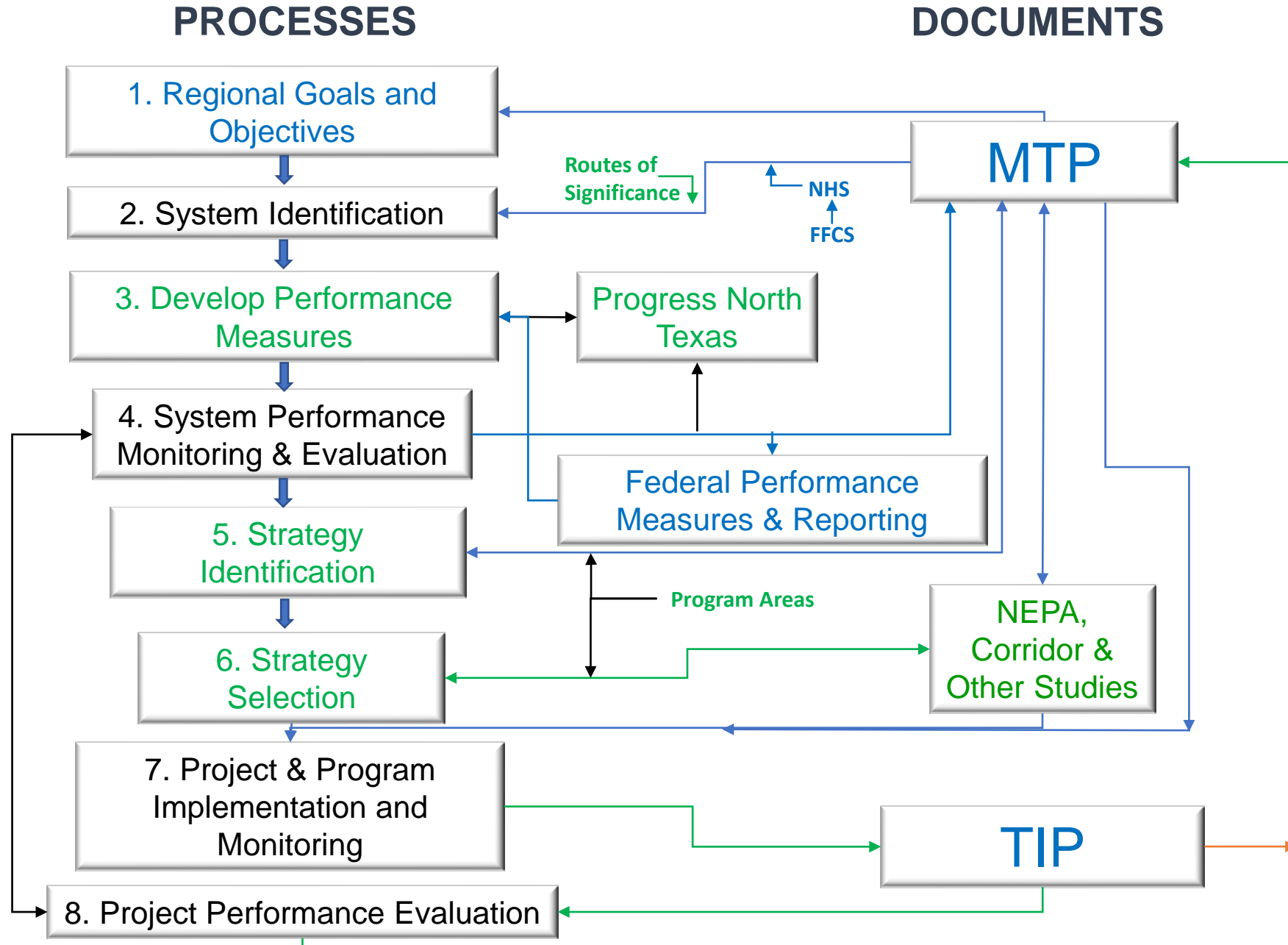
Congestion Management Strategies *should* include:

- Demand management strategies
- Traffic operational improvements
- Public transportation improvements;
- ITS technologies; and
- "Where necessary, additional system capacity"

**For nonattainment areas**, projects adding Single Occupant Vehicle (SOV) capacity *must* be evaluated and comply with the CMP by integrating congestion management strategies.

The CMP *shall* be developed, established, and implemented as part of the Metropolitan Transportation Planning Process.

# CMP Processes and Related Documents



# Regional Goals and Objectives

## Mobility

Increase available options, reduce congestion, increase efficiency, provide access

## Quality of Life

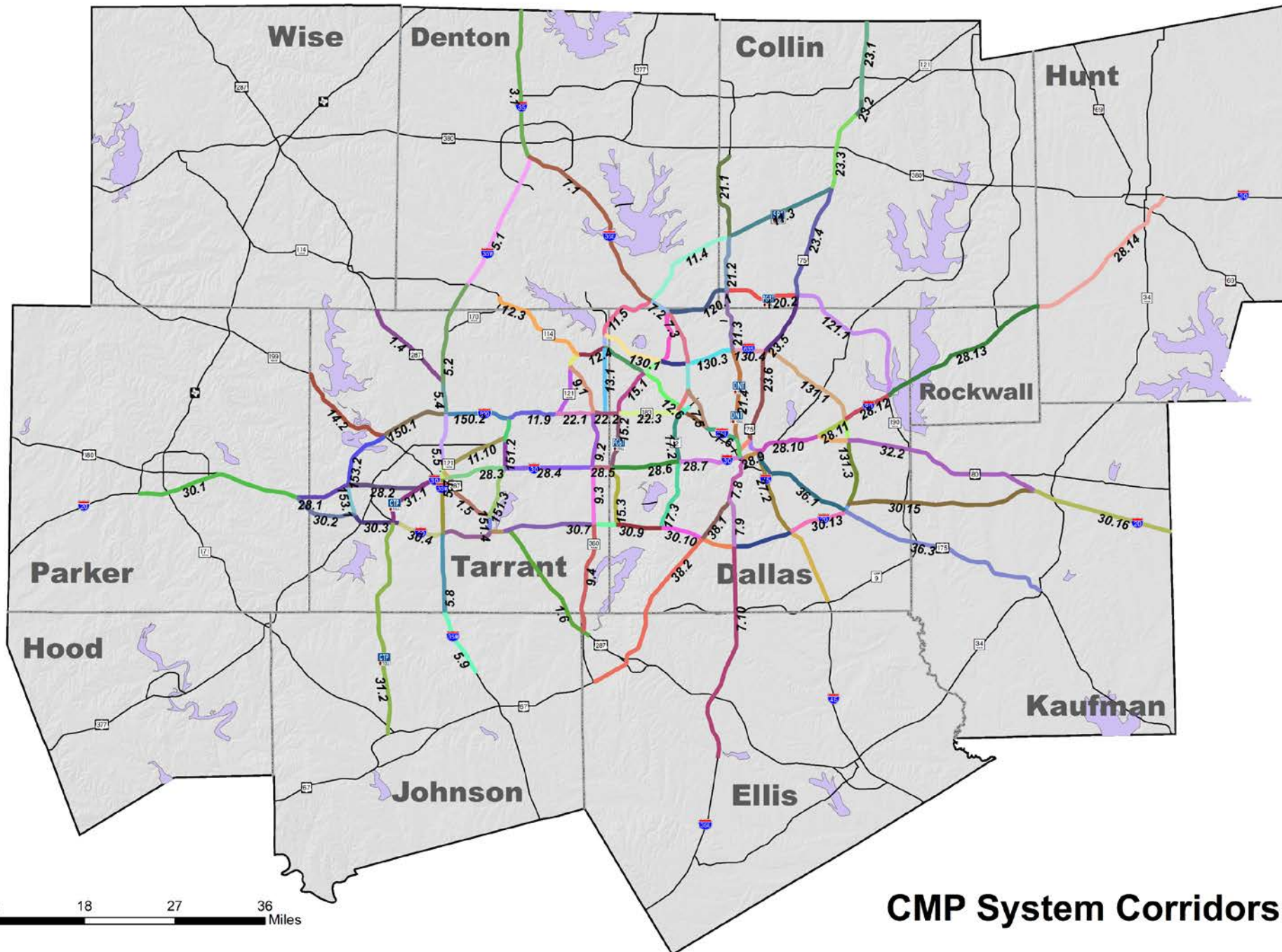
Preserve environment, improve air quality, promote active lifestyles, livable communities

## System Sustainability

Encourage and enhance maintenance, increase **safety** and reliability, invest long-term in existing system

## Implementation

Timely project planning; cost-effective solutions for construction, operations, and maintenance; leverage existing assets



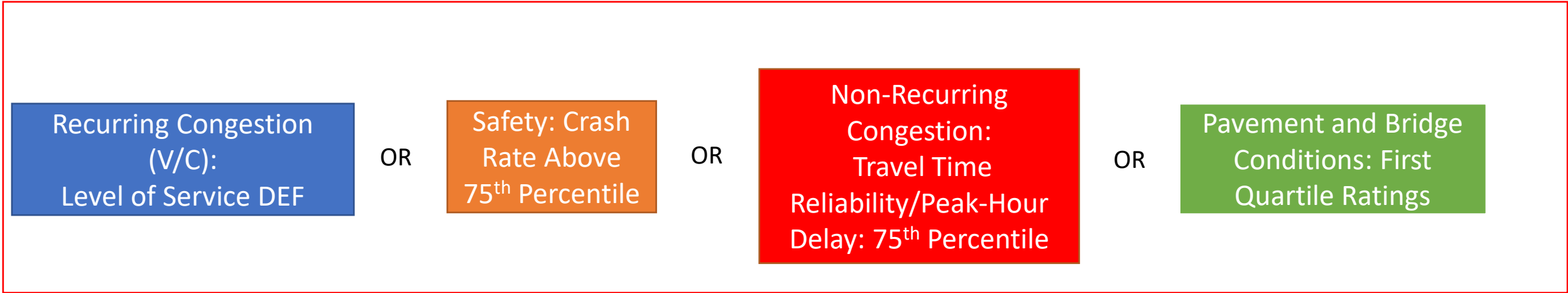
**CMP System Corridors (2019)**

# Corridor Performance Criteria

Construction  
Programmed in TIP?



If so, hold for  
evaluation after  
completion.



*Corridor Asset  
Inventory*

# Corridor Asset Inventory

## Critical Corridors

*Meets Initial Criteria*



Fact Sheet/  
Database Entry



Determine  
CMP Strategies



Asset Availability Data		
Infrastructure	Alternative Modes	Operational Assets
Parallel Arterials	Sidewalks	NHS
Managed Lane ROW	<b>Veloweb/ Multi-Use Paths</b>	Managed/HOV/ Express Lanes
Frontage Roads	Light Rail	ITS
Parallel Freeways	Dedicated Bus Lanes	Routes of Significance
Shoulders	Commuter Rail	<b>Hazmat Routes</b>
At-Grade Intersections	Bus Routes	Truck Lane Restrictions
At-Grade R/R Crossings	<b>Safe Routes to School</b>	Signalized Intersections
<b>Grade Separations (Arterials)</b>	Demand Response Coverage (GP)	Regional Freight Routes
Park-and-Ride Facilities		<b>TIM Attendance &amp; Coverage</b>



## Performing Corridors

*Does Not Meet Criteria/  
Construction programmed*



Fact Sheet/  
Database Entry



*Continue to Monitor  
Performance*

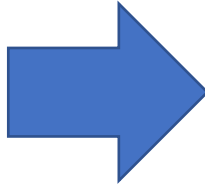


# Strategy Identification

<i>Critical Factors</i>	Recurring Congestion	Non-Recurring Congestion/Reliability	Safety	Pavement and Bridge Conditions
<b>One Factor</b>	Alternative Modes; Demand Management	Operational Improvements	Safety-Related Projects	Rehabilitation/ Asset Management Planning
<b>Two Factors</b>	Asset Optimization (maximize available capacity + no added Right-of-Way) or M&O			
		Operational Strategies	Safety Strategies	Pavement Rehabilitation
<b>Three Factors</b>	Possible Reconstruction (4R)			
	<i>Added Capacity and ROW as Necessary w/ Complimentary Alternative Modes</i>	Major Operations Studies and Commitments	Major Safety Studies and Commitments	<i>Complete Pavement/Bridge Replacement</i>
<b>Four Factors</b>	Possible Major Corridor Reinvestment (5R)			
	<i>Major Capital Investments in Transit, Active, and Highway Infrastructure in Corridor</i>	<i>Multimodal Operational Studies and Investments</i>	<i>Comprehensive Corridor Safety Action Plan</i>	<i>Long Life Pavement and Bridge Design</i>

# Strategy Selection

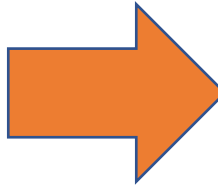
Corridor Need Improvements in Recurring Congestion



## Examples Strategies

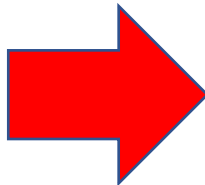
Promote and encourage usage of parallel roadways
Promote and encourage usage of available transit services
Promote and encourage usage of trip reduction programs

Corridor Need Improvements in Safety



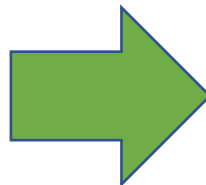
Bottleneck removal
Emergency vehicle routing
Mobility assistance patrols
Reduction in merging and weaving
Work zone management

Corridor Need Improvements in System Reliability



Increase deployment of Intelligent Transportation Systems	
Dynamic route guidance	Speed monitoring
Network surveillance (CCTV)	511
Promote Freeway Incident Management Training	
Improve incident response and clearance times	
Shoulder Utilization Program	

Corridors Need Improvements in Pavement and Bridge Conditions



Pavement and Bridge Rehabilitation
Replacement of Pavement and Bridges

# Example Project Performance Measures

- Before/After Speeds
- Before/After Volumes
- Before/After Crash Rate
- Transit Ridership/Mode Split
- Changes in Asset Inventory
- Changes in Asset Condition
- Changes in Criteria Performance Measures, Peak Hour LOS, Crash Rate, Travel Time Reliability

# Schedule

April 2020	30-Day Public Comment Period and Public Meeting**
May 22, 2020	STTC Info
June 11, 2020	RTC Info
September 25, 2020	STTC Workshop – Scoring, Ranking, Strategies and Implementation
September 2020	30-Day Public Comment Period and Public Meeting
October 23, 2020	STTC Info
November 12, 2020	RTC Info
December 4, 2020	STTC Action
December 10, 2020	RTC Action

# Questions?

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# **EFFECTS OF COVID-19 ON TRANSPORTATION: INFORMATION SYSTEM RTC4U**

Surface Transportation Technical Committee

May 22, 2020

Michael Morris, P.E.

Director of Transportation

# POLICY METRICS: RTC4U

1. Travel behavior response to COVID-19
2. Financial implications to traditional revenue sources
3. Benefits of travel behavior responses to areas of RTC responsibility (e.g., Congestion Management System, national performance measures, ozone standard)
4. Prioritization of infrastructure improvements that offset unemployment increases

# NORTH CENTRAL TEXAS AIR QUALITY IMPACTS AND FINDINGS

Emissions from vehicles reduced

Lowest frequency of high-level, unhealthy, exposure days to ozone

Cleaner air = blue(r) skies

Leading to a healthier populous (under review)

Future sustainability (to be determined)

Electric and fuel cell vehicles

Travel Demand Management (telecommunicating)



# NORTH CENTRAL TEXAS AIR QUALITY ANALYSIS

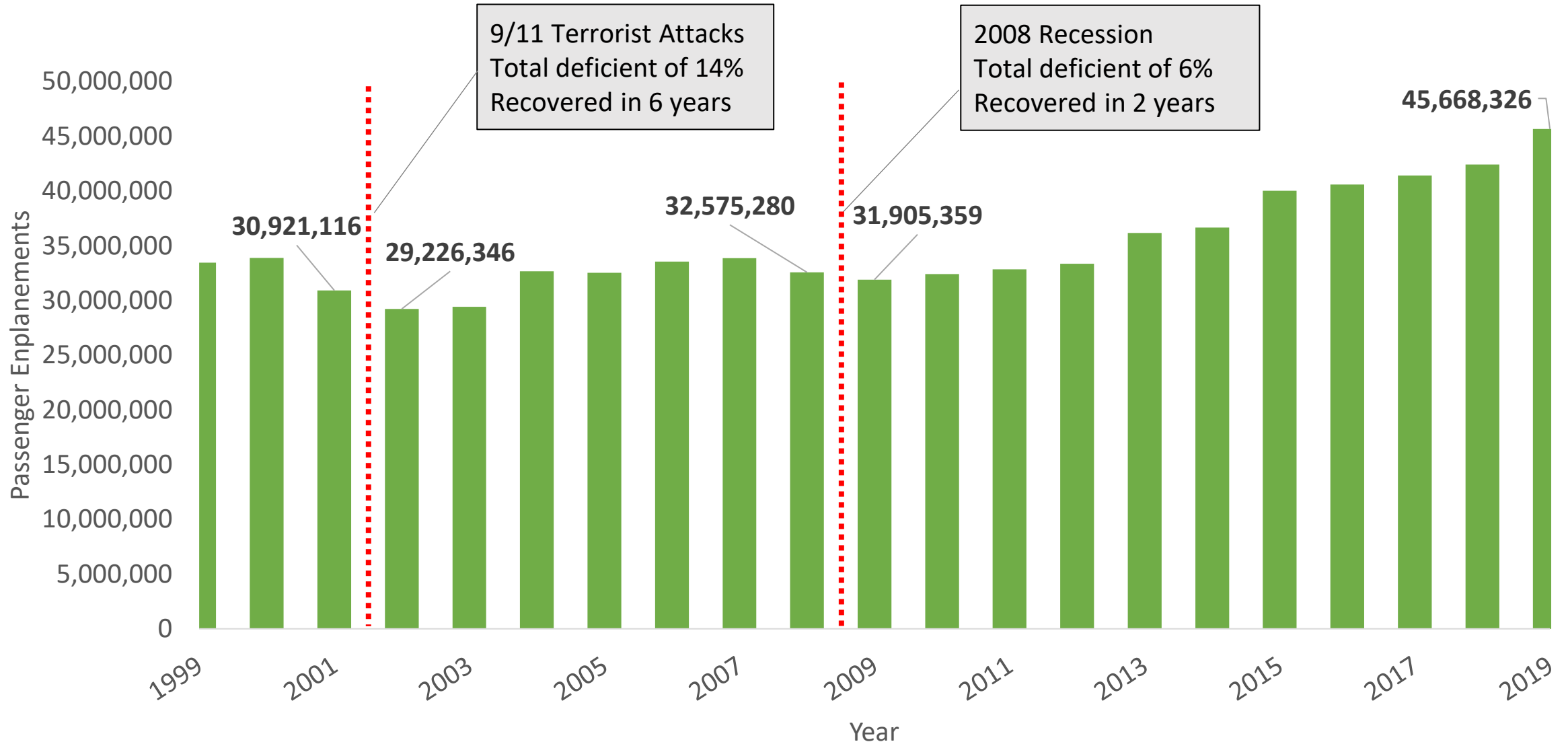
North Central Texas Ozone Comparison

		3 Year Design Value			
2017		2018	2019	2020*	
March	2 yellow days High: 62 at Eagle Mtn Lake	8 yellow days High: 63 at Denton	10 yellow days High: 66 at Cleburne	3 yellow days High: 64 at Pilot Point	
April	10 yellow days High: 68 at Dallas Hinton	16 yellow days 2 orange days High: 81 at Dallas North High: 81 at Dallas Hinton	12 yellow days High: 69 at Greenville	8 yellow days High: 69 at Rockwall High: 69 at Grapevine	
May	15 yellow days 5 orange days High: 80 at Dallas North High: 80 at Dallas Hinton	9 yellow days 6 orange days 2 red days High: 92 at Eagle Mtn Lake	6 yellow days 5 orange days High: 80 at Pilot Point	7 yellow days High: 69 at Grapevine High: 69 at Parker County	

Data Source: TCEQ  
Data Analysis: NCTCOG

\* as of May 14, 2020. At this time last year (May 14, 2019), there were four Yellow days and one Orange Exceedance day.

# DFW Passenger Enplanements



Sources: DFW Airport, Dallas Love Field and NCTCOG Analysis

# INCOMING PRIVATE SECTOR REVENUE FOR NORTH TARRANT EXPRESS (NTE)/SH 183

Per prior RTC direction, staff continues to work with TxDOT and private sector partners to complete additional phases of the NTE and other public/private partnership projects.

Recent projections indicate that general purpose and managed lane capacity improvements are anticipated to be triggered in mid-2022 with an open to traffic date of June 2024.

The private sector is currently coordinating with TxDOT to advance these improvements.

The private sector partner (NTEMP) will be paying for these improvements in the amounts noted below:

Capacity Improvements	\$ in Millions	Notes
SH 183/NTE Segment 1 & 2W Widening	\$162	Add 1 general purpose lane in NTE Segment 1 and 1 managed lane in NTE Segment 2W
Build 2+2 managed lanes from Reliance Parkway to SH 161 (former Segment 2E)	\$860	This section of 5.3 miles would be built and operated by private sector as an extension of the current facility
Build 2+2 managed lane from SH 161 to Story Rd	\$270	Funding Cintra would pay to TxDOT to lane balance east of SH 161 (2 miles)

\$1,292

# DO WHAT WE NEED, NOT WHAT WE WANT

Existing Funding Constraints

Financial Crisis Response from 2009

Lower Cost of Construction (25%)

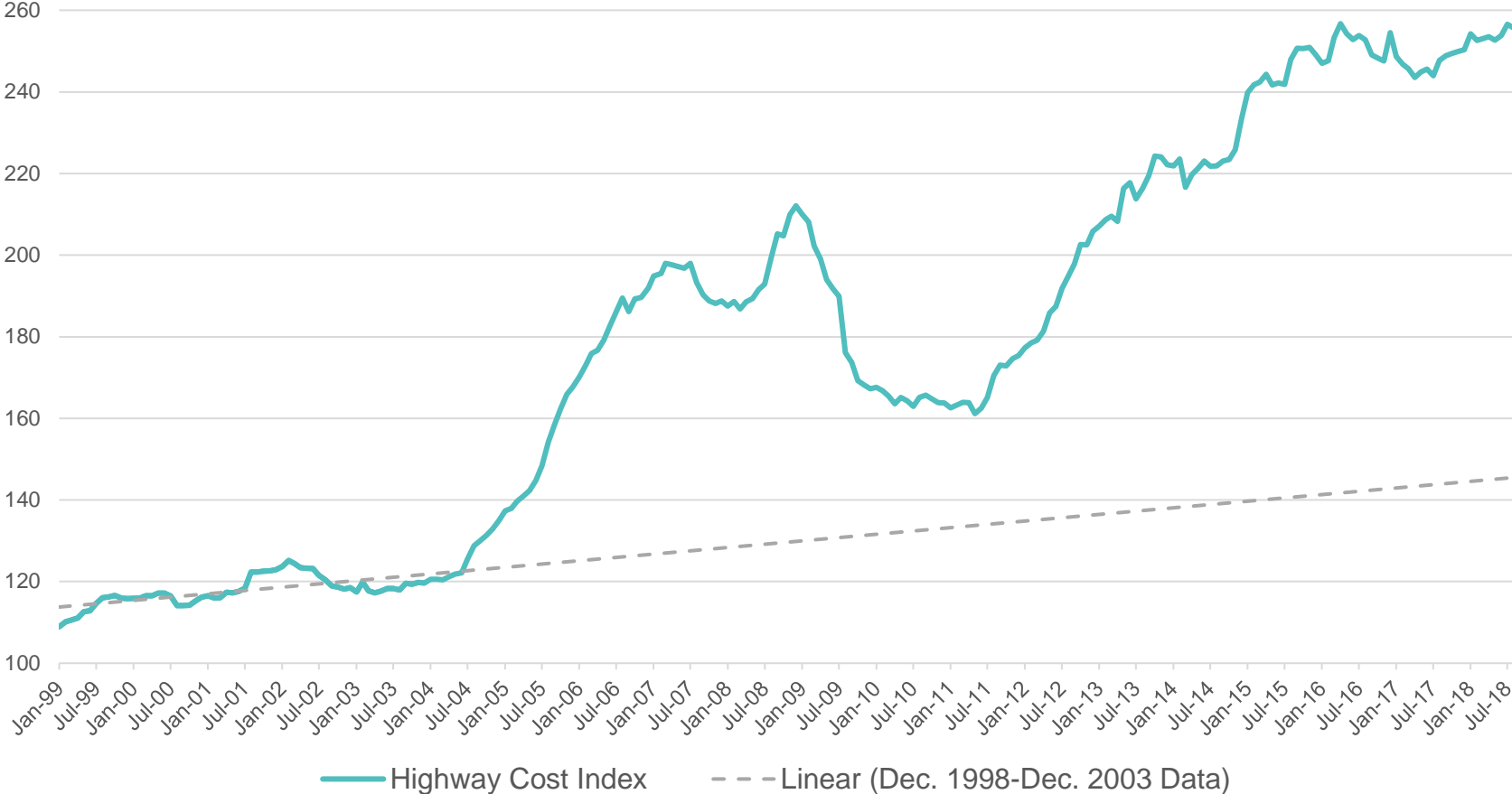
Federal Infrastructure

State P3

0% Interest

Infrastructure Bonds

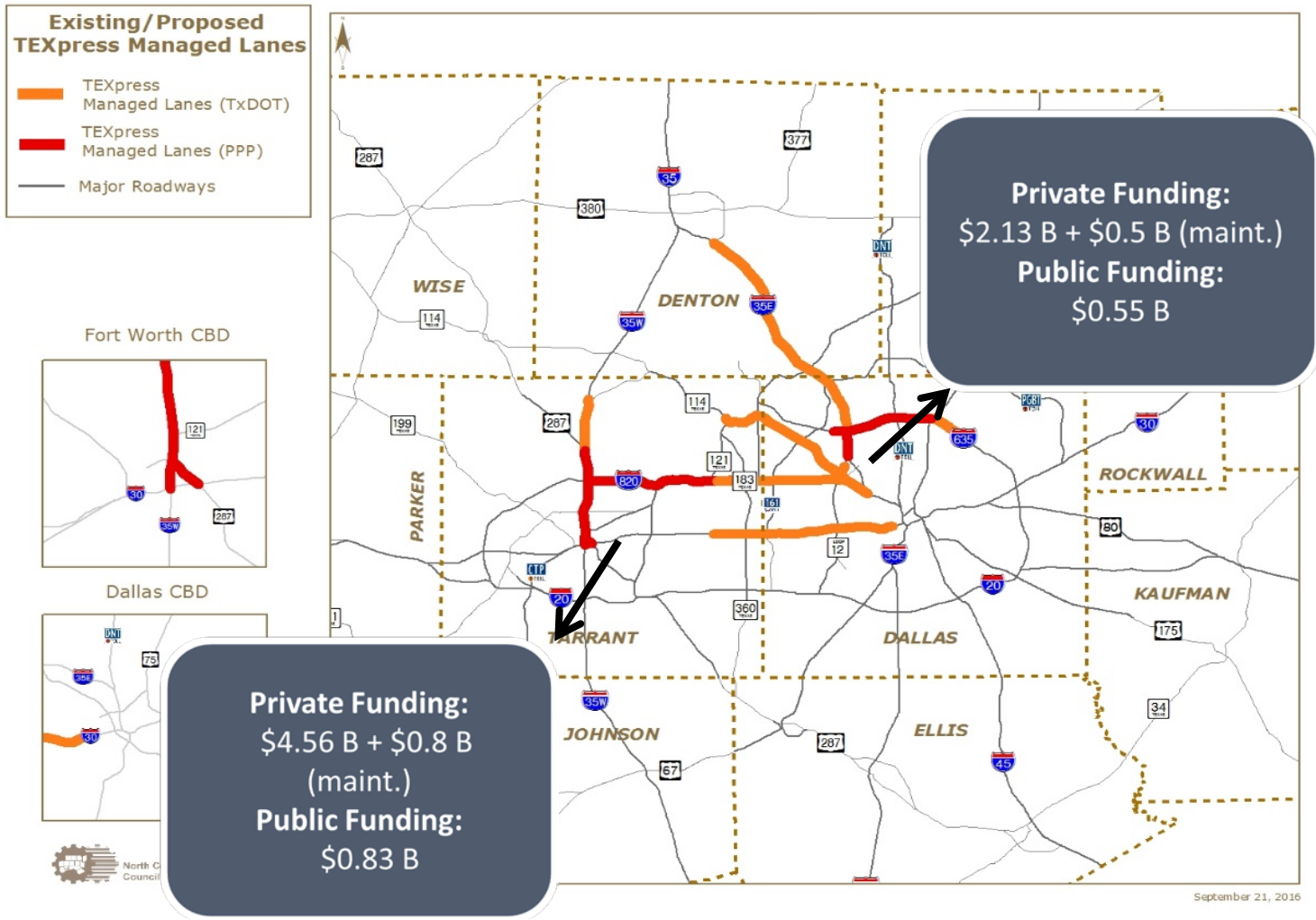
# TAKE ADVANTAGE OF LOWER CONSTRUCTION INFLATION COSTS



Source: Texas Department of Transportation – Highway Cost Index

# LEVERAGING/INNOVATIVE FUNDING

## Tolled Managed Lane Operators



# CANDIDATE PROJECTS

High Speed Rail: Dallas to Houston

High Speed Rail: Dallas to Fort Worth

Hyperloop Certification Center

Autonomous Transit (Midtown)

Freeway Induction Loops

State Highway 183, US 75 Technology Lanes