MPO PLANNING AGREEMENT

REGIONAL TRANSPORTATION COUNCIL
SEPTEMBER 13, 2018

KEN KIRKPATRICK
COUNSEL FOR TRANSPORTATION
MAJOR PROVISIONS

Term: Six years (October 1, 2018 to September 30, 2024)

Responsibilities of the State:

Provide federal funding and in-kind match to NCTCOG

Provide appropriate technical assistance to support data collection, travel forecasts, and plan development

Jointly promote development of the intermodal transportation system with State emphasis on connectivity and continuity of the systems

Share information to support the metropolitan planning process
Responsibilities of NCTCOG as the MPO:

Use funds in accordance with State and federal regulations and requirements to develop and maintain a comprehensive regional transportation planning program.

Assemble and maintain staff capable of performing all of the MPO activities required by law.

Collect and forecast socio-economic, roadway, and travel data.

Prepare all required plans, programs, reports, and obtain required certifications.

Exercise sole responsibility to hire, supervise, evaluate and terminate the MPO Planning Director.
Responsibilities of the MPO Policy Committee

(Regional Transportation Council):

Ensure the federal requirements of the metropolitan planning process are fulfilled to develop and maintain a comprehensive regional transportation planning program in accordance with federal laws and regulations

Develop and adopt a Metropolitan Transportation Plan, Transportation Improvement Program, Unified Planning Work Program, Congestion Management Process, and Conformity Analysis for the MTP and TIP

Provide planning policy direction to the MPO Transportation Planning Director
Responsibilities of NCTCOG as the Fiscal Agent:

Maintain required accounting records for State and federal funds

Provide all appropriate funding as identified by fiscal year in the UPWP to allow MPO staff to effectively and efficiently operate the program

Provide personnel services

Provide benefits for staff

Establish and maintain procedures and policies for procurement and purchasing
Responsibilities of the MPO Transportation Planning Director:

- Administer the UPWP through planning policy direction provided by the MPO policy committee
- Act as a liaison with the Texas Department of Transportation
- Oversee and direct all MPO transportation planning staff
- Prepare and submit all required plans, programs, reports and certifications
- Develop and present to the MPO policy committee the Metropolitan Transportation Plan, Transportation Improvement Program, Unified Planning Work Program, Congestion Management Process, and Conformity Analysis and other planning documents as required
MPO PLANNING AGREEMENT

SIGNATORIES TO THE AGREEMENT

Transportation Director, on behalf of the MPO Policy Committee

NCTCOG Executive Director, on behalf of NCTCOG Executive Board as the designated MPO/Fiscal Agent

Director, Transportation Planning and Programming Division, Texas Department of Transportation
Approve MPO Planning Agreement

Authorize Michael Morris, P.E., Director of Transportation, to execute on behalf of the Regional Transportation Council
• Fort Worth Housing Solutions and Trinity Metro have partnered to implement a Transit-Oriented Development near the Texas & Pacific Rail Station, which will:
  - Provide access to low-income housing
  - Create a positive land-use/transportation nexus

• Funding has been identified for the residential building and surface parking lot, but not for the six-level parking facility ($11,362,000)

• Parking facility includes both public transit and private parking

• Parking garages are federally eligible, but federal funds may not be best option since it is a public/private garage
PROJECT AREA

Provided by Fort Worth Housing Solutions
• North Central Texas Council of Governments (NCTCOG) staff concurs with the project idea, but suggests not using federal funds.

• Both agencies requested Regional Transportation Council (RTC) consideration of a proposal that the RTC transfer $11,362,000 in federal funds to Trinity Metro

  • Trinity Metro and NCTCOG staff will bring back specific projects on which to use federal funds via the normal Transportation Improvement Program (TIP) modification process

• Trinity Metro will transfer an equal amount in local funds to Fort Worth Housing Solutions to implement the parking facility.
RTC Approval of:

- The proposed $11,362,000 funding exchange as outlined in Slide 3.
- Direct staff to administratively amend the 2019-2022 TIP and other funding, planning, administrative documents to reflect this action as appropriate.
QUESTIONS?

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Cody Derrick  
Transportation Planner I  
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cderrick@nctcog.org
Total Settlement to Date: $14.7 Billion

- Zero Emission Vehicle (ZEV) Investment - Managed by Electrify America
- Environmental Mitigation Trust (Trust) - Distributed to States

Settlement Breakdown ($ in Billions)

- $10.0
- $2.0
- $2.7
- Texas’ Share: $209 Million
TCEQ GOALS FOR USE OF FUNDS

www.TexasVWFund.org

1. Reduce Nitrogen Oxides (NOx) Emissions
2. Reduce the Potential for Exposure of the Public to Pollutants
3. Prepare for Increased and Sustained Use of ZEVs
4. Complement Other Incentive Funding Programs

TCEQ Proposed Funding Breakdown

- Administrative Costs; Up to 4%
- Statewide ZEV Infrastructure; Up to 15%
- Mitigation Actions in Priority Areas; At Least 81%
### ELIGIBLE PROJECTS AND FUNDING LEVELS

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Ownership</th>
<th>New Fuel Type</th>
<th>Funding Allowed by Trust</th>
<th>Funding Proposed by TCEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace or Repower</td>
<td>Govt Owned</td>
<td>Electric**</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td>Replace</td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75% 25%*</td>
<td>60% 25%*</td>
</tr>
<tr>
<td>Repower</td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75% 40%</td>
<td>60% 40%</td>
</tr>
</tbody>
</table>

*Exception is Drayage Trucks, which Qualify for 50%*

**Up to 60% of Cost of Necessary Infrastructure for All-Electric Vehicles also Eligible**
<table>
<thead>
<tr>
<th>Project Type</th>
<th>Ownership</th>
<th>Fuel Type</th>
<th>Funding Allowed by Trust</th>
<th>Funding Proposed by TCEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Install Light-Duty ZEV Supply Equipment</td>
<td>Govt Owned</td>
<td>Electric</td>
<td>100%</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Hydrogen</td>
<td>25-33%</td>
<td>25%-33%</td>
</tr>
<tr>
<td>Replace/Repower Airport Ground Support Equipment</td>
<td>Govt Owned</td>
<td>Electric**</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75%</td>
<td>60%</td>
</tr>
<tr>
<td>Replace/Repower Forklifts or Port Cargo-Handing Equipment</td>
<td>Govt Owned</td>
<td>Electric**</td>
<td>100%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Non-Govt Owned</td>
<td>Electric**</td>
<td>75%</td>
<td>60%</td>
</tr>
</tbody>
</table>

*Not Shown: Ocean-Going Vessel Shorepower (Not Applicable in DFW Area)

**Up to 60% of Cost of Necessary Infrastructure for All-Electric Vehicles also Eligible

TCEQ Proposing to Disallow Replacement/Repower of Freight Switchers, Ferries or Tugboats; Not Opting in to State Clean Diesel Program
Previous RTC Recommendation

Allow Administration through Select Regional Councils; Funding Proportional to Number of Registered Violating Vehicles

<table>
<thead>
<tr>
<th>Texas Regional Council</th>
<th>RTC-Recommended Settlement ($ in Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alamo Area Council of Governments (San Antonio Area)</td>
<td>$27.4</td>
</tr>
<tr>
<td>Capital Area Council of Governments (Austin Area)</td>
<td>$32.9</td>
</tr>
<tr>
<td>Houston-Galveston Area Council</td>
<td>$58.9</td>
</tr>
<tr>
<td>North Central Texas Council of Governments</td>
<td>$63.0</td>
</tr>
<tr>
<td>Rio Grande Council of Governments (El Paso Area)</td>
<td>$5.9</td>
</tr>
<tr>
<td>Rest of State</td>
<td>$20.9</td>
</tr>
</tbody>
</table>

Regional Councils Selected Based on Nonattainment Status, Ozone Advance Participation, Presence of Inspection/Maintenance Program, and/or Inclusion in Texas Clear Lanes
Current TCEQ Proposal

Distribute to Priority Areas Based on
(1) Severity of Ozone Levels and (2) Population
Proposed Funding for DFW Estimated to Meet Only 3.72% of Funds Needed to Replace All Eligible On-Road Vehicles

TERP Awards to Date Based on Awards from 2001 through 2017; Estimated Funding Needed Calculated Based on Number of Eligible Vehicles in Each Area and TCEQ Estimated Project Costs
GEOGRAPHIC ELIGIBILITY & FUNDING DISTRIBUTION

Proposed Comment:
Re-Evaluate Methodology for Geographic Distribution to Ensure Fair Share Allocation to DFW Ozone Nonattainment Area:
Previous RTC Recommendation = $63 Million

Potential Fair Share Allocations to NCTCOG Based on Various Metrics

Calculated Based on % Metric in NCTCOG Region Compared to Total of RTC Recommended Councils or TCEQ Recommended Priority Counties; NOx = Nitrogen Oxides; VOC = Volatile Organic Compounds
ACTION REQUESTED

Approve Proposed Comments (See Electronic Item 6.3):

Ensure Fair Share Allocation to Regions
• DFW Area Should Receive $63 Million

Allow Administration through Councils of Government/Metropolitan Planning Organizations in Priority Areas
• NCTCOG Would Not Charge Administrative Costs

Utilize Latest/Greatest Quantification Methodologies
• Select Tool that Estimates Multipollutant Benefits and Accurately Reflects Real-World Emissions Benefits of Alternative Fuels Relative to Diesel Engines (e.g., Argonne National Laboratory AFLEET Tool and EPA Diesel Emissions Quantifier)

AFLEET Tool = Alternative Fuel Life-Cycle Environmental and Economic Transportation Tool
Approve Proposed Comments (See Electronic Item 6.3):

Ensure that Cost-Effectiveness Calculations Only Consider Volkswagen Funds
• Enable Leveraging of Other Funding Sources

Support Interpretation that There is Equity Between Electric and Hydrogen Infrastructure Submitted as Part of a Replacement/Repower Project
• Infrastructure Needed to Support an All-Electric Vehicle Replacement/Repower Eligible for up to 60% Funding
• Request Further Explanation/Clarity in Final Mitigation Plan

Through Legislative Program: Appropriate Funding for Infrastructure Incentives Under Texas Emissions Reduction Plan
• Provide Equity Among Fuel Types
## MITIGATION TRUST SCHEDULE

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Date</th>
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<tbody>
<tr>
<td>Draft Beneficiary Mitigation Plan for Texas Released</td>
<td>August 8, 2018</td>
</tr>
<tr>
<td>STTC Action</td>
<td>August 24, 2018</td>
</tr>
<tr>
<td>RTC Action</td>
<td>September 13, 2018</td>
</tr>
<tr>
<td>TCEQ Public Hearings -At NCTCOG Offices</td>
<td>September 10-26, 2018</td>
</tr>
<tr>
<td></td>
<td>-September 14, 2018</td>
</tr>
<tr>
<td>Deadline for Comments</td>
<td>October 8, 2018</td>
</tr>
<tr>
<td>First Application Round Opens</td>
<td>Expected by End of 2018</td>
</tr>
</tbody>
</table>
FOR MORE INFORMATION

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Go To www.nctcog.org/airquality; Select “Funding and Resources”
Auto Occupancy Detection Technology
Rewards Program and Tolled Managed Lane Policy

Regional Transportation Council
September 13, 2018
Natalie Bettger and Berrien Barks
Presentation Overview

HOV Subsidy Report

New Approach
  Auto Occupancy Detection and Verification Technology
  High Occupancy Vehicle Rewards Program

Funding

Policy Adjustments

Schedule
Near Term Managed Lane System Openings

Current Express/HOV + New Managed Lanes
- Current Express/HOV Lanes
- New TEXpress Managed Lanes
- Transitional
- High - Occupancy Vehicle Lane
- Major Roadways

Fort Worth CBD

Dallas CBD

North Central Texas Council of Governments

Segment 3C
- Open 2021

Segment 3B
- Open 2017

Segment 3A
- Open July 2018

Segments 1 & 2W
- Open 2014

Open 2014

Open 2015

Open 2017

Opening 2018

Open 2014

Open August 2016

Open 2017

Open 2014

HOT Conversion
- Open October 2016
How much HOV 2+ Subsidy has the RTC been responsible for?
$2,489,130 as of May 2018

How much of the Vanpool Toll reimbursement has the RTC been responsible for?
$5,094 from October 2014 – June 2018

How long can the RTC keep the HOV policy at 2+?
For now, it remains 2+ and it will continue to be monitored quarterly

Have there been any additional NTTA customer service needs?
No, minimal impact

Have the speeds on the Toll Managed Lane facilities dropped below 35 mph?
No
## Toll Managed Lane Data Monitoring

### Cumulative December 2013 – May 2018

<table>
<thead>
<tr>
<th>Facility</th>
<th>HOV 2+ Subsidy Costs</th>
<th>NTTA Customer Service (Additional Needs)</th>
<th>Project Performance Events (Speeds &lt; 35 mph)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North Tarrant Express</strong></td>
<td>$979,619</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>• SH 183/121 from IH 35W to SH 121</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IH 35W from IH 30 to US 287</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LBJ Express</strong></td>
<td>$1,509,512</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td>• IH 635 from Preston Road to Greenville Ave.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• IH 35E from Loop 12 to IH 635</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DFW Connector</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td><em>SH 114 from Kimball Ave. to Freeport Parkway</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IH 30 Managed Lanes</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td><em>IH 30 from SH 161 to Westmoreland Rd</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IH 35E Managed Lanes</strong></td>
<td>N/A</td>
<td>Negligible</td>
<td>0</td>
</tr>
<tr>
<td><em>IH 35E from FM 2181 (Teasley) to LBJ</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
New Approach

Move from Enforcement to Rewards

Advance US 75 Technology Lane

Decrease Congestion in Peak Period

Improve Safety

Reduce Risk to Police Officers

Decrease Cost
Current HOV Enforcement

Register Pre - Declare Every Trip

Occupancy Declaration Sent to Field

Officers Watch for Red Light

Violation: Legal Process

Toll Collected

NTTA Back Office System for Billing
Register

Pre-Declare Every Trip

Occupancy Declaration Sent to Field

Officers Watch for Red Light

Violation: Legal Process

Toll Collected

NTTA Back Office System for Billing
Register
Pre-Declare Every Trip
Occupancy Declaration Sent to Field
Officer Watch for Red Light
Violation: Legal Process
Toll Collected
NTTA Back Office System for Billing
HOV Clearinghouse
Receive Transaction File(s)
Carma Active Tags/Plates API
Select Carma User Transactions
Carma Occupancy API
Send Differential File(s)
HOV Rewards Program
New Approach – Rewarding HOV

Implementation Phases

Phase 1 - Managed Lane Rewards
- HOV Points = 50% of actual toll transaction
- Support for all 8 managed lanes in DFW (Cintra & TransCore operated roads)

Phase 2 - US 75 Technology Lane

Phase 3 and Beyond - Corridor & Event Rewards
- HOV Points for HOV travel on specific road segments for any event purpose
- Support for any road segment (including toll roads), any day of week and 24/7/365, any area
- Support for other modes (transit, bicycles, pedestrians)
- Cash-out options and gamified tiers (e.g. Amazon e-credit, Visa cards, check, cash)
- Integrate with other rewards applications (e.g. Try Parking It)
# HOV Subsidy Reimbursement by Corridor

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Current Program</th>
<th>Proposed Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P3 Operated</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LBJ</td>
<td>RTC Funded</td>
<td>RTC Funded</td>
</tr>
<tr>
<td>NTE</td>
<td>RTC Funded</td>
<td>RTC Funded</td>
</tr>
<tr>
<td><strong>TxDOT Operated</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IH 635 East</td>
<td>N/A</td>
<td>TxDOT Passthru*</td>
</tr>
<tr>
<td>DFW Connector</td>
<td>N/A</td>
<td>TxDOT Passthru*</td>
</tr>
<tr>
<td>IH 30</td>
<td>N/A</td>
<td>TxDOT Passthru*</td>
</tr>
<tr>
<td>IH 35E</td>
<td>N/A</td>
<td>TxDOT Passthru*</td>
</tr>
<tr>
<td>Midtown Express</td>
<td>N/A</td>
<td>TxDOT Passthru*</td>
</tr>
<tr>
<td>Future Facilities</td>
<td>N/A</td>
<td>TxDOT Passthru</td>
</tr>
</tbody>
</table>

*Rewards paid through toll revenue.*
## DFW Expected Program Costs (10 Years)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Year</th>
<th>Technology*</th>
<th>Marketing</th>
<th>Integration</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development/ Pilot Testing</td>
<td>2016-2018</td>
<td>$3,150,000</td>
<td>$850,000</td>
<td></td>
<td>$4,000,000</td>
</tr>
<tr>
<td>Implementation (10 Years)</td>
<td>2019-2028</td>
<td>$16,000,000</td>
<td>$3,000,000</td>
<td>$1,000,000</td>
<td>$20,000,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$19,150,000</td>
<td>$3,000,000</td>
<td>$1,850,000</td>
<td>$24,000,000</td>
</tr>
</tbody>
</table>

*Technology includes system hardware, user beacons, app maintenance, and system operation. The cost might change.
## Direct Cost Comparison

<table>
<thead>
<tr>
<th>Estimated Direct Costs with Existing System (10 Years)*</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Enforcement</td>
<td>$15,245,452</td>
</tr>
<tr>
<td>Enhancement to TEXPress Application</td>
<td>$5,927,285</td>
</tr>
<tr>
<td>Marketing and Education</td>
<td>$2,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$23,172,737</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expected Total Cost for New System (10 years)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New Technology Operating and Marketing Cost</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

*Does not include indirect benefits such as safety, traffic flow, and legal savings.
Indirect Benefits
Automated Vehicle Occupancy Verification

Safety First
- No law enforcement
- No declaration lanes
- No roadside distractions
- Improved network performance

Legal/Court
- Fewer tickets
- Less dropped cases
- Focus on other cases
- Lower court cost

Expandability
- Expedite US 75 Technology Lane
- Add facilities/modes
- Provide reward or incentives
- Quick to implement

Air Quality Benefits/Congestion
- Fewer cars on road
- More people traveling
- Faster and consistent speed
- Less emissions
Request RTC Approval
Next Month (October 2018)

Request Approval for RTC Action to:

1. Approve New Approach
2. Approve Three (3) Years of Funding
3. Review Policy Adjustments
Draft Schedule

July 6, 2018 - Meeting with TxDOT Management

August/September 2018 - Surface Transportation Technical Committee

September - Regional Transportation Council Workshop

September/October 2018 - Regional Transportation Council

Fall 2018 – TxDOT Endorsement for Application for DFW and Statewide

Soft Launch; December 2018, 10-15 regular users for each managed lane

Full Launch; February 2019, all managed lanes in DFW
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Dan Lamers
Senior Program Manager
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817-695-9263
Performance Measure
Target Setting
Regional Transportation Council

Dan Lamers, P.E.
September 13, 2018
## Relevant Dates

<table>
<thead>
<tr>
<th>Complete</th>
<th>Rulemaking</th>
<th>MPO Target Setting Deadline</th>
<th>Reporting Period</th>
<th>Reporting Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>Transit Asset Management</td>
<td>12/27/2017</td>
<td>Annually</td>
<td>Annually</td>
</tr>
<tr>
<td>✓</td>
<td>Safety (PM Rule 1)</td>
<td>2/27/2018</td>
<td>Annually</td>
<td>Annually</td>
</tr>
<tr>
<td></td>
<td>Pavement and Bridge (PM Rule 2)</td>
<td>11/15/2018</td>
<td>Four-year Performance Periods (starting 2018-2022)</td>
<td>Biannually (beginning, middle, and end of performance periods)</td>
</tr>
<tr>
<td></td>
<td>System Performance (PM Rule 3)</td>
<td>11/15/2018</td>
<td>Four-year Performance Periods (starting 2018-2022)</td>
<td>Biannually (beginning, middle, and end of performance periods)</td>
</tr>
</tbody>
</table>
# Pavement and Bridge

## National Highway System

<table>
<thead>
<tr>
<th>Categories</th>
<th>Responsible Agencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate Highways</td>
<td>TxDOT</td>
</tr>
<tr>
<td>On-System Non-Interstate Highways (i.e., SH 360)</td>
<td>TxDOT</td>
</tr>
<tr>
<td>On-System Arterials</td>
<td>TxDOT</td>
</tr>
<tr>
<td>Off-System Toll Roads</td>
<td>NTTA</td>
</tr>
<tr>
<td>Off-System Arterials</td>
<td>Local Governments</td>
</tr>
</tbody>
</table>
## Pavement and Bridge
### Interstate Pavement Performance Measure

<table>
<thead>
<tr>
<th>Condition Averages*</th>
<th>Proposed Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
</tr>
<tr>
<td><strong>TxDOT (Statewide) Pavement Condition</strong></td>
<td></td>
</tr>
<tr>
<td>% “Good”</td>
<td>50.50%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>0.15%</td>
</tr>
<tr>
<td><strong>NCTCOG (MPA) Pavement Condition</strong></td>
<td></td>
</tr>
<tr>
<td>% “Good”</td>
<td>32.93%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>0.43%</td>
</tr>
</tbody>
</table>

* Represents average of previous 5 years
** Updated data received since August 2018 workshop
TBD – Pending data from TxDOT
N/A – 2-year IH targets not required

Red indicates ratings worse than statewide average.  
Green indicates ratings better than statewide average.
## Pavement and Bridge

### Non-Interstate Pavement Performance Measure

<table>
<thead>
<tr>
<th>Condition Averages*</th>
<th>Proposed Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>% “Good”</td>
<td>51.30%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>14.34%</td>
</tr>
<tr>
<td><strong>NCTCOG (MPA) Pavement Condition</strong></td>
<td></td>
</tr>
<tr>
<td>% “Good”</td>
<td>31.63%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>16.58%</td>
</tr>
</tbody>
</table>

* Represents average of previous 5 years
TBD – Pending data from TxDOT
N/A – 2-year IH targets not required

Red indicates ratings worse than statewide average.
Green indicates ratings better than statewide average.
## Pavement and Bridge

### National Highway System Bridge Performance Measure

<table>
<thead>
<tr>
<th>Condition Averages*</th>
<th>Proposed Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>TxDOT (Statewide) Bridge Condition</td>
<td></td>
</tr>
<tr>
<td>% “Good”</td>
<td>50.10%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>0.90%</td>
</tr>
<tr>
<td>NCTCOG (MPA) Bridge Condition</td>
<td></td>
</tr>
<tr>
<td>% “Good”</td>
<td>54.23%</td>
</tr>
<tr>
<td>% “Poor”</td>
<td>2.36%</td>
</tr>
</tbody>
</table>

* Represents average of previous 5 years

TBD – Pending data from TxDOT

N/A – 2-year IH targets not required

Red indicates ratings worse than statewide average.

Green indicates ratings better than statewide average.
System Performance
Interstate System Reliability

<table>
<thead>
<tr>
<th>Measure</th>
<th>Percentage of Person Miles of Travel that is Reliable on Interstates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Geography</td>
<td>Interstate Segments in the MPA</td>
</tr>
<tr>
<td>Direction indicating improvement</td>
<td>Higher</td>
</tr>
<tr>
<td>CFR Citation</td>
<td>23 CFR 490.507(a)(1)</td>
</tr>
</tbody>
</table>

This measure is the percentage of person travel on the region's Interstate system that meets the Federal threshold for reliability (reliable segments have an LOTTR < 1.5 for AM, PM, Midday, and Weekend time periods).

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed</td>
<td>73.5%</td>
<td>76.0%</td>
<td>73.2%</td>
<td>72.8%</td>
<td>77.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013-2017 Best Fit Trend (scaled to intercept 2017)</td>
<td></td>
<td></td>
<td></td>
<td>77.7%</td>
<td>78.2%</td>
<td>78.6%</td>
<td>79.1%</td>
<td>79.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TTI Suggested Targets (for NCTCOG MPA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>65.0%</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

Reliable Person Miles of Travel on Interstates

- Observed
- 2013-2017 Best Fit Trend (Adjusted)
- TTI Suggested Targets (for NCTCOG MPA)
## System Performance

### Freight System Reliability

<table>
<thead>
<tr>
<th>Measure</th>
<th>Truck Travel Time Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicable Geography</strong></td>
<td>Interstate Segments in the MPA</td>
</tr>
<tr>
<td><strong>Direction indicating improvement</strong></td>
<td>Lower</td>
</tr>
<tr>
<td><strong>CFR Citation</strong></td>
<td>23 CFR 490.607</td>
</tr>
</tbody>
</table>

This measure is a planning time index that shows the amount of extra time a truck trip needs to add to a median trip length to arrive on time 95% of the time. If a truck trip in 2017 has a median travel time of 30 mins., an average of 52.2 mins. (30 x 1.74) would need to be scheduled for the truck to arrive on time 95% of the time.

<table>
<thead>
<tr>
<th></th>
<th>Observed Data</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed</td>
<td>2.17</td>
<td>2.02</td>
</tr>
<tr>
<td>Best-Fit Trend</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TXDOT Regional Trend</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Observed Data vs. Projections

*Change in NPMRDS Data Provider*

---

The chart shows the observed and projected truck travel time reliability from 2013 to 2022. The observed data is represented by a blue line, the best-fit trend by an orange line, and the TXDOT regional trend by a red line.

- **Observed**: 2013 - 2.17, 2022 - 1.41
- **Best-Fit Trend**: 2022 - 1.41
- **TXDOT Regional Trend**: 2022 - 1.92
## System Performance
### All National Highway System Congestion
#### Peak Hour Excessive Delay

<table>
<thead>
<tr>
<th>Measure</th>
<th>Person Hours of Peak Hour Excessive Delay (PHED) per Capita</th>
<th>This measure quantifies the average amount of extra travel time experienced by the region’s population (per capita) due to travel that is occurring below FHWA’s threshold for excessive delay during peak travel times (AM and PM peaks). For the purposes of this measure, the excessive delay threshold is 60% of the speed limit or 20mph, whichever is greater.²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Geography</td>
<td>All NHS Segments in the Dallas-Fort Worth-Arlington Urbanized Area¹</td>
<td></td>
</tr>
<tr>
<td>Direction indicating improvement</td>
<td>Lower</td>
<td></td>
</tr>
<tr>
<td>CFR Citation</td>
<td>23 CFR 490.707(a)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observed Data</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Observed³,⁴</td>
<td>12.9</td>
</tr>
<tr>
<td>2014-2016 Best Fit Trend (scaled to intercept 2017)³,⁴</td>
<td></td>
</tr>
<tr>
<td>TxDOT Adopted Target (for UA)</td>
<td></td>
</tr>
</tbody>
</table>

**Annual Peak Hour Excessive Delay per Capita**

---

² FHWA’s definition of excessive delay is 60% of the speed limit or 20 mph, whichever is greater.

¹ Urbanized Area.

³ Observed data is calculated using the formula: PHED = Total Person Hours of Excessive Delay / Population.

⁴ Adjusted for inflation using the Consumer Price Index for All Urban Consumers (CPI-U).
Definition
The percent of people commuting to work not driving alone. This includes carpooling, transit, taxi, bicycling, and working at home.

Targets
Non-SOV targets for the Dallas-Fort Worth-Arlington UZA established by TxDOT.

<table>
<thead>
<tr>
<th>Urbanized Area in Nonattainment</th>
<th>Baseline</th>
<th>2020 Target</th>
<th>2022 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dallas-Fort Worth-Arlington</td>
<td>19.60%</td>
<td>19.21%</td>
<td>19.01%</td>
</tr>
</tbody>
</table>
System Performance
Non-SOV Performance

Source: American Community Survey
## Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 27</td>
<td>STTC Information Item – Performance Measures and Targets</td>
</tr>
<tr>
<td>August 9</td>
<td>RTC Information Item – Performance Measures and Targets</td>
</tr>
<tr>
<td>August 24</td>
<td>STTC Workshop – Performance Measures and Targets</td>
</tr>
<tr>
<td><strong>September 13</strong></td>
<td>RTC Information Item</td>
</tr>
<tr>
<td>September 28</td>
<td>STTC Information Item – Draft Targets</td>
</tr>
<tr>
<td>October 8, 15, 18</td>
<td>Public Meetings</td>
</tr>
<tr>
<td><strong>October 11</strong></td>
<td>RTC Information Item – Draft Targets</td>
</tr>
<tr>
<td>October 26</td>
<td>STTC Action Item - Recommend Approval of Final Targets</td>
</tr>
<tr>
<td><strong>November 8</strong></td>
<td>RTC Action Item – Approval of Final Targets</td>
</tr>
<tr>
<td>November 15</td>
<td>Submittal to TxDOT Deadline</td>
</tr>
</tbody>
</table>
Regional Veloweb

- Existing: 455 Miles
- Funded: 143 Miles
- Planned: 1,285 Miles
- Total: 1,883 Miles

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics for the Regional Veloweb system will be determined through ongoing project development.
Highlighted Regional Trail Corridors

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Existing/Funded</th>
<th>Planned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fort Worth to Dallas Regional Trail Corridor</td>
<td>52 miles</td>
<td>12 miles</td>
<td>64 miles</td>
</tr>
<tr>
<td>Cotton Belt Regional Trail Corridor</td>
<td>16.5 miles</td>
<td>28.5 miles</td>
<td>45 miles</td>
</tr>
<tr>
<td>Dallas to McKinney Regional Trail Corridor</td>
<td>67 miles</td>
<td>15 miles</td>
<td>82 miles</td>
</tr>
<tr>
<td>Denton to Dallas Regional Trail Corridor</td>
<td>41 miles</td>
<td>13 miles</td>
<td>54 miles</td>
</tr>
</tbody>
</table>
Background

Fort Worth to Dallas Regional Veloweb Trail

December 1996  Regional Veloweb alignment included in Mobility 2020

November 2013  Five Mayors meet and commit to implement the 64-mile Regional Veloweb alignment (24.5 miles need funding)

2014 to 2018  18.5 miles of trail with funding commitments (variety of sources)

Summer/Fall 2018  Funding request of RTC for 3.1 miles to complete a continuous 53-mile alignment connecting the five cities
  • 1.4 miles from CentrePort TRE Station to Grand Prairie city limits
  • 1.7 miles from Fort Worth city limits to Mike Lewis Trail
## Fort Worth To Dallas Regional Veloweb Trail

<table>
<thead>
<tr>
<th>Existing and Funded</th>
<th>21.9 miles</th>
<th>7.4 miles</th>
<th>6.4 miles</th>
<th>11.9 miles</th>
<th>10.4 miles</th>
<th>58 miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned and Unfunded</td>
<td>1.4 miles</td>
<td>0</td>
<td>3.3 miles</td>
<td>1.3</td>
<td>0</td>
<td>6 miles</td>
</tr>
</tbody>
</table>

**Legend**
- **Existing** Trail Corridor Facility Status
- **Funded** Trail Corridor Facility Status
- **Planned** Trail Corridor Facility Status
Fort Worth To Dallas Regional Veloweb Trail
(CentrePort Station to Mike Lewis Trail)

*Note: Approximately 1.6-miles along Rock Island Rd from West Irving Station to Tarrant Co. line will be completed with a future roadway project (date TBD).
Background
Cotton Belt Regional Veloweb Trail (DFW Airport to Plano)

December 1996  Regional Veloweb alignment included in Mobility 2020

2017 - 2018  NCTCOG, DART, and local jurisdictions coordinate opportunities for
             trail environmental clearance, design, and funding to construct “critical”
             trail sections

Summer/     Funding requested of RTC for trail:
fall 2018    • design (26-mile corridor) and
             • construction (8.5 miles of “critical” trail sections)

Early 2019   DART design/build contractor begins design and construction phases
Cotton Belt Regional Veloweb Trail

**Eastern Portion of Corridor (with Cotton Belt Rail Project)**
from DFW North Airport Station in Grapevine to Plano Shiloh Station
**26.2 miles**

**Entire Corridor**
from Fort Worth (West of Handley Ederville Rd) to Plano Shiloh Station
**45 miles**
Critical Trail Sections

Primary Considerations

- Typically includes grade separation (trail bridges) where DART is planning rail bridges of major roadways
- Areas of constrained ROW
- Areas where trail and bridge construction is not feasible once the Cotton Belt Passenger Rail is active

Photo Courtesy City of Denton: MLK Trail Bridge at Loop 288 constructed adjacent to the DCTA Rail Bridge
Cotton Belt Regional Veloweb Trail “Critical” Sections
Cotton Belt Regional Veloweb Trail Sections
Summary of Proposed Funding for Regional Trail Implementation

<table>
<thead>
<tr>
<th>Regional Trail Corridor</th>
<th>Total</th>
<th>Federal</th>
<th>Local</th>
<th>TDCs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fort Worth To Dallas Regional Trail</strong></td>
<td>$10.0M</td>
<td>$9.08M</td>
<td>0.92M</td>
<td>1.08M</td>
</tr>
<tr>
<td>(Fort Worth and Grand Prairie Sections)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cotton Belt Regional Trail</strong></td>
<td>$8.20M</td>
<td>$8.20M</td>
<td>-</td>
<td>1.64M</td>
</tr>
<tr>
<td>(design for entire 26 mi. corridor)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cotton Belt Regional Trail</strong></td>
<td>$21.27M</td>
<td>$19.46M</td>
<td>$1.81M</td>
<td>2.44M</td>
</tr>
<tr>
<td>(construction of “critical” sections)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cotton Belt Trail Total</strong></td>
<td>$29.47M</td>
<td>$27.66M</td>
<td>$1.81M</td>
<td>4.08M</td>
</tr>
<tr>
<td><strong>Combined Total Both Corridors</strong></td>
<td>$39.47M</td>
<td>$36.74M</td>
<td>$2.73M</td>
<td>5.16M</td>
</tr>
</tbody>
</table>

1 Pending Action by the Dallas Co. Commissioners Court
## Schedule for Funding Request

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPAC Briefing</td>
<td>8/15/18</td>
</tr>
<tr>
<td>STTC Information Item</td>
<td>8/24/18</td>
</tr>
<tr>
<td>Public Meetings</td>
<td>Early September</td>
</tr>
<tr>
<td>RTC Information Item</td>
<td>9/13/18</td>
</tr>
<tr>
<td>STTC Action</td>
<td>9/28/18</td>
</tr>
<tr>
<td>RTC Action</td>
<td>10/11/18</td>
</tr>
<tr>
<td>All Local and State Funding Commitments in Place</td>
<td>December 2018</td>
</tr>
</tbody>
</table>
Contact Information

Karla Weaver, AICP
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Kevin Kokes, AICP
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Gabriel Ortiz
Transportation Planner II
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Automated Vehicle Program 2.0

Regional Transportation Council
September 13, 2018

Thomas Bamonte
# CMAQ/STBG FUNDING PROGRAMS

<table>
<thead>
<tr>
<th>STATUS</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔</td>
<td>Federal/Local Funding Exchanges</td>
</tr>
<tr>
<td>☐</td>
<td>Automated Vehicle Program</td>
</tr>
<tr>
<td>✔</td>
<td>Round 1</td>
</tr>
<tr>
<td>☐</td>
<td>Round 2</td>
</tr>
<tr>
<td>☐</td>
<td>Strategic Partnerships</td>
</tr>
<tr>
<td>✔</td>
<td>Round 1</td>
</tr>
<tr>
<td>☐</td>
<td>Round 2</td>
</tr>
<tr>
<td>☐</td>
<td>Round 3/Intersection Improvements/Policy Bundle TDCs</td>
</tr>
<tr>
<td>✔</td>
<td>Planning and Other Studies</td>
</tr>
<tr>
<td>✔</td>
<td>10-Year Plan/Proposition 1 Adjustments</td>
</tr>
<tr>
<td>✔</td>
<td>Sustainable Development Phase 4: Turnback Program, Context Sensitive, Transit Oriented Development (TOD) Projects</td>
</tr>
<tr>
<td>✔</td>
<td>Transit Program</td>
</tr>
<tr>
<td>☐</td>
<td>Assessment Policy Programs/Projects</td>
</tr>
<tr>
<td>✔</td>
<td>Local Bond Program Partnerships</td>
</tr>
<tr>
<td>✔</td>
<td>Safety, Innovative Construction, and Emergency Projects</td>
</tr>
<tr>
<td>☐</td>
<td>Management and Operations (M&amp;O), NCTCOG-Implemented, and Regional/Air Quality Programs</td>
</tr>
</tbody>
</table>

- ✔ = Project Selection Completed
- ☐ = Program Partially Completed
- ☐ = Pending STTC/RTC Approval
Automated Vehicle Program 2.0: Overview

Three Projects:
1. AV Planning Resources
2. AV Deployment Cost Assistance
3. Regional Priority AV Deployments

One Process: Opt-in to AV 2.0 Program
Project #1: AV Planning

NCTCOG procures planner(s) to assist public entities attracting or facing AV deployments

Planner(s) on retainer

Grant size tied to metric(s)—e.g., city population/deployment scale

Total: **Up to $1.5M**, plus NCTCOG administration ($200K approx.)

Funding source: To Be Determined [Federal or RTR]
Project #2: AV Deployment Cost Coverage

Cover costs associated with public entity hosting an AV deployment

Grants payable upon actual AV deployment

Total: **Up to $10M**, plus NCTCOG administration ($600K approx.)

Funding source: To Be Determined [Anticipate Federal]
Project #3: Regional Priority AV Planning Deployments

Fund AV deployments for use cases not served by AV developers

Competitive project selection

Total: **Up to $20M**, plus NCTCOG administration ($900K approx.)

Funding source: To Be Determined [Anticipate Federal]
Process

1. Public entities express interest in hosting AV deployments.

2. Respondents eligible for grants.

3. Advance paperwork done to help ensure greatest possible cost coverage.

4. Public entities can join AV 2.0 Program at any time.
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>STTC Briefing</td>
<td>August 2018</td>
</tr>
<tr>
<td>Public Meetings</td>
<td>September 2018</td>
</tr>
<tr>
<td>RTC Briefing</td>
<td>September 2018</td>
</tr>
<tr>
<td>STTC Action</td>
<td>September 2018</td>
</tr>
<tr>
<td>RTC Action</td>
<td>October 2018</td>
</tr>
<tr>
<td>TIP Process Complete</td>
<td>April 2019</td>
</tr>
<tr>
<td>Funding Available</td>
<td>Late 2019</td>
</tr>
</tbody>
</table>
Thomas J. Bamonte
@TomBamonte
tbamonte@nctcog.org
469-600-0524
Regional Truck Parking Study

Regional Transportation Council
September 13, 2018

Jeff Hathcock, Program Manager
NCTCOG Transportation Department
Truck parking is a major issue both nationally and within our region.

Truck parking data was collected and analyzed for area-specific recommendations.

The Truck Parking Study is a comprehensive document that identifies innovative solutions to meet our growing truck parking needs.
The Following Data Sets were Collected for the Study:

**Regional Overview** – Classification of freight infrastructure, major freight facilities, and freight-oriented developments

**Literature Review** – Recently completed truck parking studies that identify opportunities and challenges faced by other cities, regions, and states

**Public Truck Parking** – Review of rest areas identifying locations of in-region or near-region rest areas, total truck parking lanes available, and amenities offered at each site

**Regional Truck Stops** – Inventory of all regional truck stop facilities including the name of the location, number of truck parking spaces, overnight parking applicability, locations of combined fueling centers, and other details
The Following Data Sets were Collected for the Study:

Local Truck Parking Ordinances – Aggregated list of municipal parking ordinances

Hours of Service – Federal rules on Hours of Service

In-Region Travel Times – Series of maps and data that track travel times from specific areas across the region

Heavily Traveled Freight Corridors – Review of regional highways and the number of trucks that routinely travel these highways

Driver Survey and Stakeholder Outreach – Results from the “Truck Parking Study-Driver Survey” and stakeholder outreach meetings
DATA COLLECTION – TRUCK STOPS

North Central Texas Truck Stops

Legend
- Truck Stops
- Freight Oriented Developments
- Primary Highway
- Secondary Highway
- Major Arterial
- Counties
- Lakes

Study   Data Collection   Analysis   Recommendations   Next Steps   Questions
ANALYSIS

The Following Analysis was Conducted:

Review of Driver Survey Results

Identification of Regional and State facilities – Review of underutilized public land

Corridors of Concern Criteria and Scoring – Six criteria to score the corridors against the collected data

Corridors of Concern – Corridors that have major freight activity while lacking sufficient truck parking
Corridors of Concern:

• Great Southwest Area - IH 30/SH 360
• South Dallas - IH 45 and IH 20
• North Fort Worth - IH 35W
• North Dallas - IH 35E and IH 635
• East Dallas County - IH 635
• Parker County - IH 20/IH 30
ANALYSIS

Corridor of Concern: IH 35W (North of Downtown Fort Worth)
RECOMMENDATIONS

State and Regional Recommendations – Short-term truck parking facilities could be located on underutilized public land.

Partnership Opportunities – The public- and private-sectors could collaborate to develop truck parking in specified areas through a mutually-beneficial incentivized plan.

Technology Enhancements and Applications – Dynamic Messaging Signs and other technologies may be implemented for notification of truck parking availability at facilities. Also, Air quality mitigation strategies should be pursued with existing and future truck parking locations.
NEXT STEPS

Continue updating data sets established in the beginning of the study.

Coordinate recommendations and plans with TxDOT with regard to underutilized land and new public facilities.

Leverage Public-Private Partnerships to increase the number of parking facilities.
QUESTIONS
CONTACT INFORMATION

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