MOBILITY 2025: THE METROPOLITAN TRANSPORTATION PLAN

Dan Lamers, P.E.
North Central Texas Council of Governments
Transportation Department
www.nctcog.org/trans
NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS

NCTCOG Established to Assist in…

Planning for Common Needs;
Cooperating for Mutual Benefit; and
Coordinating for Sound Regional Development.

NCTCOG's Purpose is to…

Strengthen Both the Individual and Collective Power of Local Governments and to Help Them Recognize Regional Opportunities;
Eliminate Unnecessary Duplication; and
Make Joint Decisions.

Administratively…

Executive Director
Eight Departments
METROPOLITAN TRANSPORTATION PLANNING
ADMINISTRATIVE STRUCTURE

Regional Transportation Council

RTC Subcommittees
- Mobility Plan Implementation
- Transportation Project Mediation
- Intermodal, Freight, and Safety
- Transportation Air Quality

Executive Board

Surface Transportation Technical Committee

Travel Demand Management/ Congestion Management System Committee

Air Transportation Technical Advisory Committee

Bicycle/Pedestrian Transportation Task Force

Intermodal, Freight, and Safety Subcommittee

Clean Cities Technical Coalition
METROPOLITAN TRANSPORTATION PLANNING
WHAT WE DO

Metropolitan Transportation Plan
Transportation Improvement Program
Congestion Management System

- Intelligent Transportation Systems
- Transportation System Management
- Travel Demand Management
- Performance Monitoring

Air Quality Conformity Determinations
Unified Planning Work Program
Ninth Largest Metropolitan Area in the U.S.

Ranked Second in Population Growth Between 1990-2000 Adding Over One Million Persons

Larger than 27 States in Population

Larger than 16 States in Land Area

Represent Over 34 Percent of the State’s Economy

Five Million Persons in Year 2000 Growing to Nearly Nine Million Persons by the Year 2030
Accommodate Growth
Respond to Changing Demographics
Maintain and Operate Existing System
Integrate Technology
Improve Air Quality
Address Financial Constraints
Gain Public and Legislative Support
Identifies $45 Billion of Policies, Programs, and Projects

Blueprint for Multimodal Transportation System

Responds to Adopted Goals:
- Mobility
- Quality of Life
- Financial
- Air Quality

Identifies Policies, Programs, and Projects for Continued Development

Guides Expenditures of Federal and State Funds
# Mobility 2025:
The Metropolitan Transportation Plan, Amended April 2005

## FINANCIAL CONSTRAINT SUMMARY

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<td>$12.4</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$45.0</strong></td>
<td><strong>$42.2</strong></td>
<td><strong>$2.8</strong></td>
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¹ $2.0 billion to be obtained through Regional Transit Initiative
² $0.8 billion to be obtained through future Partnership Programs

As Amended: April 14, 2005
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REGIONAL CONGESTION LEVELS

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<th>1999</th>
<th>2025</th>
<th>% Change</th>
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<tr>
<td><strong>Population</strong></td>
<td>4.5 M</td>
<td>8.0 M</td>
<td>75%</td>
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<td><strong>Employment</strong></td>
<td>2.7 M</td>
<td>4.9 M</td>
<td>84%</td>
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<td><strong>VMT/Person</strong></td>
<td>29.05</td>
<td>29.31</td>
<td>1%</td>
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<td><strong>Vehicle Miles Traveled</strong></td>
<td>125 M</td>
<td>233 M</td>
<td>86%</td>
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<td><strong>Roadway Capacity</strong></td>
<td>23.2 M</td>
<td>34.8 M</td>
<td>50%</td>
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<tr>
<td><strong>Total Delay (Vehicle Hours)</strong></td>
<td>1.3 M</td>
<td>2.8 M</td>
<td>115%</td>
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<td><strong>% Roadways Congested</strong></td>
<td>38%</td>
<td>53%</td>
<td>39%</td>
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Annual Cost of Congestion = $5.3 Billion

Annual Cost of Congestion = $11.5 Billion
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Bicycle and Pedestrian Facilities

Legend
- Bicycle-Pedestrian Transportation Districts
  Within all rail corridors all existing and planned stations are bicycle and pedestrian districts
- Candidate Veloweb Routes
- Recommended Veloweb Routes

New facility locations indicate transportation needs and do not represent specific alignments.

All Veloweb routes should be targeted for right of way preservation.

In addition to stand alone bicycle/pedestrian facilities, all transportation projects should be evaluated for basic safety accommodations and improvements to encourage cycling and walking.
LOCAL BENEFITS OF TRANSPORTATION SUSTAINABLE DEVELOPMENT STRATEGIES

Allows the choice of walking for short trips and the option of driving shorter distances.

Maximizes the use of public infrastructure.

Increases tax base in the district without reducing tax values of surrounding properties.

Creates a neighborhood with an authentic sense of place.
SOUTHLAKE TOWN SQUARE IS ...

A new "downtown" serving the City of Southlake and northeast Tarrant County.

A community gathering space including Southlake Town Hall, library, and post office along with planned residential Brownstones.

A destination location made possible through exceptional pedestrian design, quality building design and construction, public spaces, and a mix of uses including restaurants, offices, and retail stores.
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Rail System
Legend
- Future Light Rail
- Existing Light Rail
- Future Regional Rail
- Existing Regional Rail
- Future Rail
- Special Events
- Future Intercity Rail
- Existing Intercity Rail
- North Crosstown Corridor Study*
- Possible Eastern Terminus
- Existing Rail Corridors

Fort Worth CBD

Dallas CBD

Corridor specific design and operation characteristics for the Rail System will be determined through ongoing project development.

New facility locations indicate transportation needs and do not represent specific alignments.

All existing railroad rights-of-way should be monitored for potential future transportation corridors.

Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

Institutional structure being reviewed for the region.

The need for additional rail capacity within the Dallas CBD, Fort Worth CBD, DFW International Airport, and other intermodal centers will be monitored.

*NORTH CROSSTOWN CORRIDOR STUDY AREA
At a minimum, evaluate the engineering feasibility and environmental implications of:
- rail along the KCS line and the Burlington Northern line, including the feasibility of an alternative connection along S.H. 196;
- rail along the full Cotton Belt Corridor, from Parker Road to DFW Airport; and
- rail along the Cotton Belt Corridor from DFW Airport with an eastern transition to light rail along LBJ Freeway at an Addison Intermodal Center.
REGIONAL TRANSIT INITIATIVE
PROPOSED STRUCTURE

**DCTA Service Area**
(.5¢ existing cities ; .5¢ proposed for entire county)

**FWTA Service Area**
(.5¢ existing + .5¢ proposed = 1¢ Total)

**DART Service Area**
(1¢ existing ; 1¢ proposed)

**Potential New Regional Rail Authority** (*)
(.5¢ proposed)

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* DCTA will work with cities within the Service Area to provide funding necessary for implementation of transit activities within non-DART and non-FWTA portions of Denton County.

** FWTA preference for distribution of FWTA Regional Rail Authority sales-tax to that of the FWTA Service Area.

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*** Flexibility including but not limited to the following:
- Creation of Regional Rail Authority Service Area
- Able to Partner with other Authorities
- Expand to Counties as Needed
- Minimal "Feeder" Bus Service
- Additional Funding Includes: Air Quality Projects, Local Match, Bottleneck Improvements, etc.
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Intelligent Transportation Systems

Legend
- Mobility Assistant Patrols
- Communication Systems
- Advanced Traffic Management
- TxDOT Transportation Management Center (TMC)
- City Transportation Management Center
- Transit Management Center
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HOV and Managed Facility System

Legend
- Orange: Reversible
- Purple: Managed HOV/Integrated Tollway
- Green: Two-Way
- Solid Black: Freeways/Parkways

Corridor specific design and operational characteristic for the HOV and managed lane recommendations, such as occupancy requirements and reversibility, will be determined through ongoing project development.

Arrows represent the predominant direction of travel during the morning peak period but do not represent specific design recommendations. Predominant direction of travel demand is reversed during the afternoon peak period.

All HOV and tollway facilities will be managed for mobility efficiency. Operational strategies to manage the flow of traffic should be considered in corridors where additional freeway or tollway lanes are being proposed.

Right-of-Way preservation should be encouraged in all freeway/tollway corridors to accommodate potential future HOV facilities.

New facility locations indicate transportation needs and do not represent specific alignments.
WHAT IS VALUE PRICING AND WHAT ARE MANAGED LANES?

Managed facilities mean more people in fewer vehicles, especially during the peak periods through travel behavior changes and design/operational improvements that can be adjusted as needed (can include incentives/restrictions).

Value Pricing is a technique to encourage travel behavior by setting the price of travel to different levels depending on desired outcome.
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Freeway / Tollway System

Legend

- Improve Existing Freeway/Tollway
- New Staged Freeway
- New Staged Tollway
- New Staged Parkway
- Upgrade to Parkway
- Preserve Right-of-Way
- Truck Lane Demonstration Corridor*

*The Truck Lane Demonstration Corridor is a pilot program to determine and compare the feasibility, impacts, and effectiveness of:
1) providing exclusive dedicated truck lanes through the corridor and on adjoining access/egress lanes and ramps, and
2) restricting trucks to operating only in certain lanes in the corridor.

Corridor specific design and operational characteristics for the Freeway/Tollway system will be determined through ongoing project development.

Additional and improved freeway/tollway interchanges and service roads should be considered on all freeway/tollway facilities in order to accommodate a balance between mobility and access needs.

All freeway/tollway corridors require additional study for capacity, geometric, and safety improvements related to truck operations.

New facility locations indicate transportation needs and do not represent specific alignments.

Operational strategies to manage the flow of traffic should be considered in the corridors where additional freeway or tollway lanes are being considered.
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Regionally Significant Roadways*

Legend
- Freeways and Tollways (Present and Proposed)
- Other Regionally Significant Roadways
- Preserve Right-of-Way

*Regionally Significant Roadways are derived from the following sources:
1) The National Highway System and National Highway System Intermodal Connectors (1995);
2) The Federal Functional Classification System (1997 Update); and
3) Regional Arterials as defined and adopted in NTCOG's Regional Thoroughfare Plan (Amended May 10, 2001).
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Corridors Requiring Further Evaluation

Legend
- Corridor Requiring Further Evaluation Before Placeholder Included in the Plan
- Freeways and Tollways (Present and Proposed)
- Other Regionally Significant Roadways

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Goods Movement Corridors Technology Deployment

Legend

- Orange: Speed Detection/ITS
- Black: Dynamic Message Signs (Potential/Existing Sites)
- Green: Truck Stop/NAFTA Kiosk (Potential Sites)

All freeway/tollway corridors require additional study for capacity, geometric and safety improvements related to truck operations.

I-35 E/W routes extend to Hillsboro with additional dynamic message signs and truck stops/NAFTA kiosks.

ITS coordinated through TxDOT Transportation Management Centers.
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Hazardous Materials Truck Route

Legend
- Hazardous Cargo Route
- Transuranic Radioactive Waste Cargo Route
- Primary Access Points for Through Shipments

Member Cities
- Arlington
- Balch Springs
- Benbrook
- Dallas
- Duncanville
- Forest Hill
- Fort Worth
- Garland
- Grand Prairie
- Haltom City
- Hurst
- Hutchins
- Irving
- Lake Worth
- Lancaster
- Mesquite
- North Richland Hills
- Saginaw

In accordance with the results of NCTCOG’s Hazardous Materials Routing Study and FHWA guidelines:
1) Through shipments must observe these routes. Through shipments are those not having both origin and destination points within the region.
2) Shipments beginning or ending in the region are encouraged to observe these routes.
3) Local shipments are encouraged to observe these routes.