Policy Foundation for Mobility 2045 Recommendations

NCTCOG Public Meetings
February 2018
Agenda

Mobility Planning Overview
Mobility Planning Foundation
Draft Policy Recommendations
Selected Roadway Recommendations
Schedule and Next Steps
Mobility Planning Overview
What is the Metropolitan Transportation Plan?

Required by Law

Referred to as The Mobility Plan

- Represents a Blueprint for the Region’s Multimodal Transportation System
- Covers at Least a 20-Year Timeframe
- Responds to Goals
- Identifies Policies, Programs, and Projects for Continued Development
- Guides the Expenditure of Federal and State Funds
Mobility Plan Process

- Infrastructure Maintenance
  - Maintain & Operate Existing Facilities
  - Bridge Replacements

- Management, Operations and Technology
  - Improve Efficiency & Remove Trips from System
  - Traffic Signals and Bicycle & Pedestrian Improvements

- Growth, Development, and Land Use Strategies
  - More Efficient Land Use & Transportation Balance

- Rail and Bus
  - Induce Switch to Transit

- HOV/Managed Lanes
  - Increase Auto Occupancy

- Freeways/Tollways and Arterials
  - Additional Roadway Capacity

- Mobility 2045

Public Involvement

Environmental Justice

Financial Constraint Technology (AV/CV)

Air Quality

Mobility 2045
Transportation Funding Basics

System Revenue + Facility Revenue + Local Revenue = Regional Transportation System Revenues

- Motor Fuel Taxes
- Vehicle Registration Fees
- Other Federal Sources
- Toll System Revenues*
- Other State Sources

- Toll Road Bonds
- Managed Lanes
- Public/Private Partnerships
- Public Transportation Fares

- Sales Taxes
- Special Taxes
- Bond Programs
- Impact Fees
- Property Taxes
- Value Capture

* Revenue from existing NTTA facilities after bonds are retired.
Regional Funding

Roadway Expenditures
$ 61 B

Regional Roadway Needs
$ 389 B

Shortfall
$ 328 B

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

Region Is Prospering
Adding 100,000+ Population Annually
Adding 60,000+ Jobs Annually

Corporate Relocations
Toyota
Liberty Mutual
State Farm
Amazon?

Mobility Key Factor
DFW Congestion Levels

Dallas-Fort Worth's congestion is offset with transportation investments.

Sources: TomTom Traffic Index 2013, 2014, 2015, and 2016 Data; North Central Texas Council of Governments
Texas Metro Congestion Levels

Austin, Dallas-Fort Worth, Houston, and San Antonio
Comparison of Congestion Levels and Population

Sources: TomTom Traffic Index 2013, 2014, 2015 and 2016 Data; North Central Texas Council of Governments
## Toll Facility Effect

### Computer Simulation Analysis

**Average Weekday in 2040**

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Toll Facility Presence</th>
<th>Change</th>
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<tr>
<td></td>
<td>With</td>
<td>Without</td>
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<tr>
<td>Vehicle Hours of Travel</td>
<td>9,734,528</td>
<td>17,451,493</td>
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<td>Average Speed (mph)</td>
<td>32.8</td>
<td>18.5</td>
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<td>Vehicle Hours Spent in Delay</td>
<td>3,587,038</td>
<td>10,979,607</td>
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2040 Levels of Congestion/Delay

Congestion Index*
- No Congestion
- Light Congestion
- Moderate Congestion
- Severe Congestion
- Major Roads

Cost of Congestion/Delay: $25.3 billion
*Congestion Index is based on a percent increase in travel time.
2040 Levels of Congestion/Delay
No Tolled Facilities

Cost of Congestion/Delay: $77.4 billion
Congestion Index is based on a percent increase in travel time.
Tolled Managed Lanes

Purpose: Manage Congestion
Effect: Increase Mobility

Guaranteed Speeds with Tolled Managed Lanes

- Speeds 50% Faster for Non-Tolled Lanes
- Speeds 75% Faster for Tolled Lanes

Project Funding Supplement
Allow Private Sector Participation

Users Average About $10 per Month
Drivers Have Choice and Predictability
IH 35W

Segment 3A
Segment 3B
Segment 3C
IH 35W – Segment 3C

Connects Fort Worth to Alliance
Three Other Phases Have Proceeded
TxDOT Construction Contract in Place
No Public Sector Funds Available

Needs Private Sector Investment

$800 million Private Investment Lost if Not Constructed as Tolled Managed Lane
IH 635 – Phase 3
IH 635 – Phase 3

US 75 to IH 30, Including Interchange
Under Consideration for 20+ Years
Citizen and Elected Official Approval
Public Sector Owns Revenue
New Lower Cost Tolling Policy
Managed Congestion

$165 million Grant Submitted to USDOT
Negotiating with Revenue Providers
LBJ East Status

Texas Transportation Commission and the Regional Transportation Council

Creating a Financial Partnership
Draft Policy
Recommendations
Managed Lanes Evolution

- HOV
- Tolled Managed
- Dynamically Priced
- Guaranteed Transit
- Early Deployment Vehicle Technology
- Driverless Trucks
Proposed Policy Additions

General

Support Ability to Modify Mobility Plan for Emergency Operational Improvements

- Technology Lanes
- Managed Lanes
- Access Ramps
- Auxiliary Lanes

Managed Toll Lane System

Support Implementation within a Tolled Managed Lane Policy Area
Toll Managed Lane System Policy Boundary

- Congestion Index:
  - No Congestion
  - Light Congestion
  - Moderate Congestion
  - Severe Congestion
  - Major Roads
  - Toll/Managed Lane Policy Boundary

- Dallas CBD
- Fort Worth CBD

Within Boundary
- 13% Land Area
- 67% of Congestion

Cost of Congestion/Delay: $25.3 billion

*Congestion Index is based on a percent increase in travel time.
Selected Mobility 2045 Roadway Recommendations
Major Roadway Recommendations

- New or Additional Freeway Capacity
- New or Additional Managed Lane Capacity
- New or Additional Toll Road Capacity
- Staged Facility (Frontage Roads)
- Asset Optimization

DRAFT

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

North Central Texas Council of Governments

February 7, 2018
Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.
Shaded areas are not project recommendations. These areas have population/employment growth, congestion, and deficiencies in the existing arterial network that may warrant further study for arterial improvements. Higher arterial needs analysis scores depict areas of greater arterial need.
Mobility 2045
February 8, 2018
North Central Texas Council of Governments

Shaded areas are not project recommendations. These areas have population/employment growth, congestion, and deficiencies in the existing arterial network that may warrant further study for arterial improvements. Higher arterial needs analysis scores depict areas of greater arterial need.
Arterial Capacity Improvements

Disclaimer: Lines indicate arterials with funds for improvement.

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.
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Illustrative roadway corridors indicate an identified transportation need and do not represent recommendations or specific alignments. Recommendations may be developed for future MTPs through feasibility analyses, thoroughfare plans, and environmental studies.
Schedule and Next Steps
# Mobility 2045 Schedule

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**Notes:**
- Public meetings held during highlighted months.
- Regional Transportation Council action on Mobility 2045 Plan scheduled for June 14, 2018.
Next Steps

RTC Workshop in February
Revise Recommendations
Public Comment Period – April and May
Review and Action

Technical – May 25
Policy Board – June 14
Questions?

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www.nctcog.org/mobility2045
Transit Corridor Recommendations

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

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

Dallas CBD

Fort Worth CBD

DRAFT

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Transit Corridor Recommendations: Collin County

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