Mobility 2045: The Long Range Transportation Plan for North Central Texas

NCTCOG Public Meetings
May 2018
What is the Long Range 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 2045 Plan Goals

Mobility
- Improve Transportation Options
- Support Travel Efficiency Strategies
- Ensure Community Access to System and Process

Quality of Life
- Enhance Environment and Life Styles
- Encourage Sustainable Development

System Sustainability
- Ensure Adequate Maintenance, Safety and Reliability
- Pursue Long Term, Sustainable Financial Resources

Implementation
- Provide Timely Planning and Implementation
- Develop Cost Effective Projects and Programs
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

Public Involvement

Environmental Justice
- Financial Constraint
- Technology (AV/CV)

Mobility 2045
Infrastructure Maintenance
Maintain & Operate Existing Facilities
Bridge Replacements

$37.5 B

Regular Maintenance
TxDOT Programmed
Bridge Replacement Program
Management, Operations, and Technology

Improve Efficiency & Remove Trips from System
Traffic Signals and Bicycle & Pedestrian Improvements

Traffic Signal Retiming Program
Technology Program
Bike/Ped Program
Asset Optimization Program

$ 9.5 B
Asset Optimization Recommendations

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

Facility Status
- Existing
- Funded
- Planned
- Major Roadways

Facility recommendations indicate transportation need. Corridors specific alignment, design, and operational characteristics for the Regional Veloweb system will be determined through ongoing project development.
Incentives for Mixed-Use Development

Last Mile Connections

Local Government Coordination

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

$3.2 B
Local Transit Agencies
Trinity Metro
DART
DCTA

Rail and Bus
Induce Switch to Transit

$ 33.3 B
Transit Corridor Recommendations

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.
Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.
HOV/Managed Lanes
Increase Auto Occupancy
Corridor Traffic Management

$ 52.0 B

Freeways/Tollways and Arterials
Additional Roadway Capacity

Economic Development Engine
Transportation System Backbone
Increased Connectivity
Strategic Investment
Accessibility

Source: LBJ Express
Source: North Tarrant Express
Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational characteristics will be determined through ongoing project development.
Freeway Recommendations

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

Roadway corridors for future evaluation 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.
Additional Plan Components

✓ Environmental Considerations
  ✓ Natural Environment – Extreme Weather Resiliency
  ✓ Environmental Justice

✓ Transportation System and Demand Management
✓ Transportation System Safety and Security
✓ Technology
✓ Freight
✓ Aviation
✓ Policies
✓ Programs
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.
Financial Plan Requirements

Use All “Reasonably Expected” Sources
Year of Expenditure Dollars
Must be Financially Constrained
Balance Priorities with Available Resources
# Mobility 2045 Expenditures

## Maximize Existing System

- **Infrastructure Maintenance**
  - Maintain & Operate Existing Facilities
  - Bridge Replacements
  - **$37.5**

- **Management and Operations**
  - Improve Efficiency & Remove Trips from System
  - Traffic Signals and Bicycle & Pedestrian Improvements
  - **$9.5**

- **Growth, Development, and Land Use Strategies**
  - More Efficient Land Use & Transportation Balance
  - **$3.2**

## Strategic Infrastructure Investment

- **Rail and Bus**
  - Induce Switch to Transit
  - **$33.3**

- **HOV/Managed Lanes**
  - Increase Auto Occupancy
  - **$52.0**

- **Freeways/Tollways and Arterials**
  - Additional Roadway Capacity

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*Actual dollars, in billions. Values may not sum due to independent rounding.

**Total Expenditures**

**$135.4**
Next Steps

Official Public Comment Period
Ends June 7

Revise Recommendations

Complete Final Draft Document

Review and Action
STTC – May 25
RTC – June 14
Major Roadway Recommendations

Draft Mobility 2045 Document
Project Recommendation Maps
Project Recommendation Tables

www.nctcog.org/mobility2045

Submit Mobility 2045 Comments by Email

mobilityplan@nctcog.org
### Project Recommendation Table

<table>
<thead>
<tr>
<th>IT Corridor</th>
<th>MTP ID</th>
<th>Facility</th>
<th>From</th>
<th>To</th>
<th>2018 Attainment Year</th>
<th>2019 Attainment Year</th>
<th>2023</th>
<th>2027</th>
<th>2045</th>
<th>Improvement Type</th>
<th>YOE Cost</th>
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<td>5G - US 00</td>
<td>32.10.1</td>
<td>US 00</td>
<td>IH 30</td>
<td>IH 635</td>
<td>4 (Frwy), 2/6 (Frtn C)</td>
<td>4 (Frwy), 2/6 (Frtn C)</td>
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<td>5G - US 00</td>
<td>32.10.2</td>
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<td>IH 25W</td>
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[www.nctcog.org/mobility2045](http://www.nctcog.org/mobility2045)
Questions?

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www.nctcog.org/mobility2045
Within Boundary – Year 2018
13% Land Area
79% Vehicle Hours of Congestion Delay

Cost of Congestion/Delay: $11.9 billion
Congestion Index is based on a percent increase in travel time.
## Toll Facility Effect

### Computer Simulation Analysis

**Average Weekday in 2040**

<table>
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<tr>
<th>Performance Measure</th>
<th>Toll Facility Presence</th>
<th>Change</th>
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<tbody>
<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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<tr>
<td>Average Speed (mph)</td>
<td>32.8</td>
<td>18.5</td>
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<tr>
<td>Vehicle Hours Spent in Delay</td>
<td>3,587,038</td>
<td>10,979,607</td>
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## Financial Assumptions

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<tr>
<th>Funding Strategy</th>
<th>Mobility 2045 (DRAFT)</th>
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<tr>
<td><strong>State Motor Fuel Tax</strong></td>
<td><strong>Existing State Motor Fuel Tax</strong></td>
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<tr>
<td>(per gallon)</td>
<td>+$0.05 in 2025</td>
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<tr>
<td></td>
<td>+$0.07 in 2035</td>
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<tr>
<td><strong>State Motor Fuel Tax Indexing</strong></td>
<td>No</td>
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<tr>
<td><strong>Federal Motor Fuel Tax</strong></td>
<td><strong>Existing Federal Motor Fuel Tax</strong></td>
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<tr>
<td>(per gallon)</td>
<td>+$0.05 in 2025</td>
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<td>+$0.05 in 2035</td>
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<td><strong>Average Vehicle Registration Fee</strong></td>
<td><strong>Existing Fee</strong></td>
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<td>+$10 in 2025</td>
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<td>+$10 in 2035</td>
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<td><strong>Tollroads, Managed Lanes, CDA, and</strong></td>
<td><strong>Currently funded projects + select, strategic facilities based on new toll area policy</strong></td>
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<td>PPP</td>
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<td><strong>Other Assumptions</strong></td>
<td><strong>New revenues from 84th legislature, now allocated, will continue through 2045</strong></td>
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*It is assumed that the equivalent revenue of this magnitude will be available. Specific strategies will be monitored and advanced as appropriate.*
## Mobility 2045 Schedule

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<td><strong>Draft Recommendations for Review</strong></td>
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<td><strong>Air Quality Conformity</strong></td>
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**Notes:**
- Public meetings held during highlighted months.
- Regional Transportation Council action on Mobility 2045 scheduled for June 14, 2018.
Major Roadway Recommendations

Roadway Expenditures
$ 52 B

Regional Roadway Needs
$ 389 B

Shortfall
$ 327 B

DRAFT

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

Policies

Continue RTC Local Government Funding Program for Sustainable Development

Promote Transit-Oriented Development

Plan for Land Use-Transportation Connections

Support Multimodal Transportation Network Planning and Design

Support Active Transportation Planning and Design

Support Pedestrian and Bicycle Safety, Health, and Education

Support Active Transportation Education and Outreach