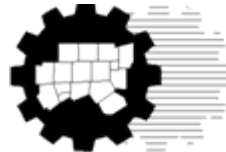


# **MOBILITY 2030: THE METROPOLITAN TRANSPORTATION PLAN FOR THE DALLAS-FORT WORTH METROPOLITAN AREA**



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



# **WHAT IS THE METROPOLITAN TRANSPORTATION PLAN?**

**Represents 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 2030

## Prioritization of Improvements

Maintenance and Operation  
of Existing Facilities

Improve Efficiency of  
Existing Facilities

Trans. System Management  
Intelligent Trans. Systems

Remove Trips From System

Carpool/Vanpool Program  
Pedestrian/Bicycle Facilities

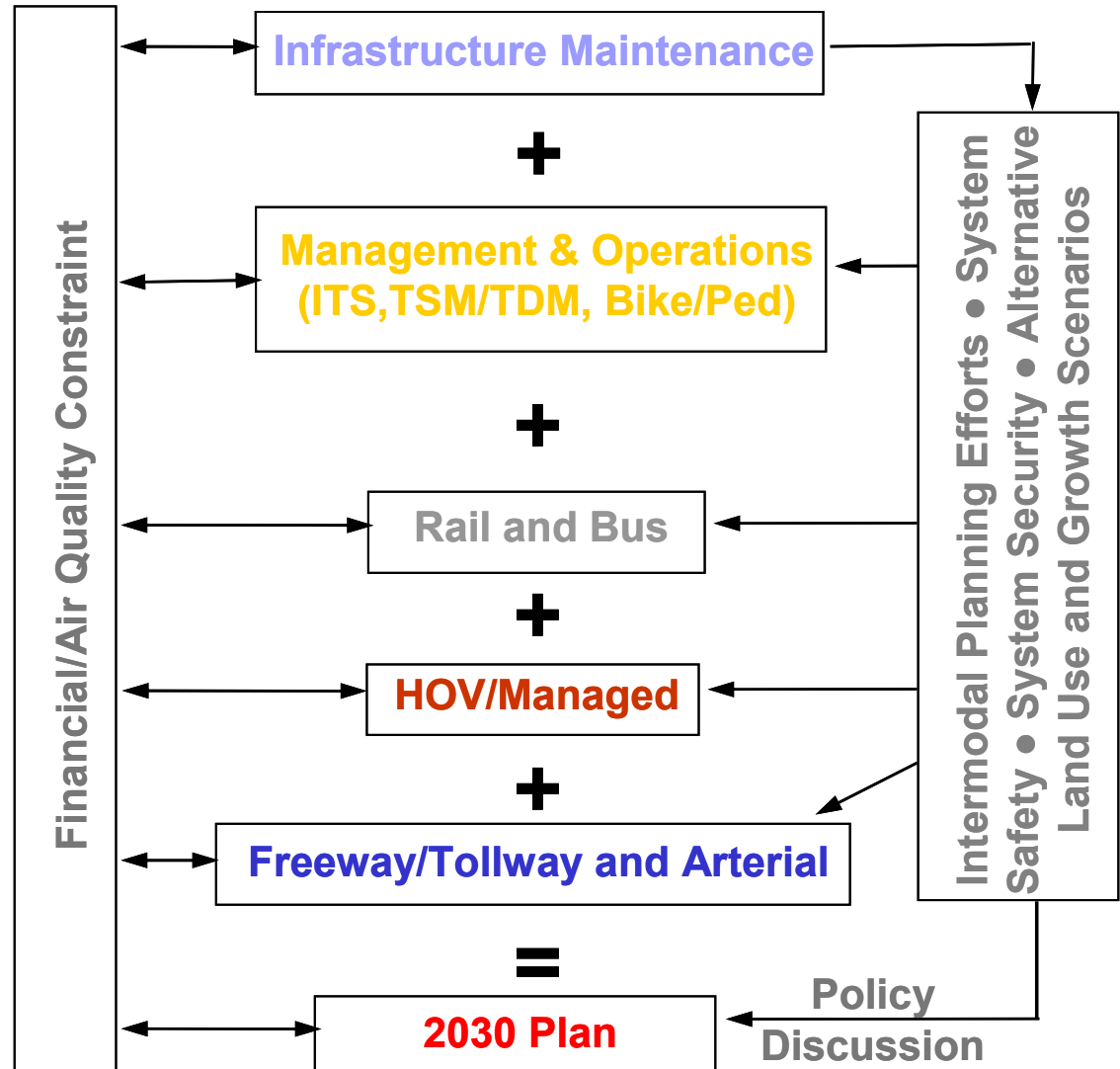
Induce Switch to Transit  
Bus/Commuter Rail/Light Rail

Increase Auto Occupancy

HOV System

Additional Single Occupant  
Vehicle Capacity

Freeway/Tollway  
Regional Arterial



# Funding Definitions

**The Mobility Plan** finances transportation elements. The plan functions as a “savings account”.

**The Transportation Improvement Program** programs plan recommendations to selected planning activities, policy initiatives, transportation programs, and transportation projects (including engineering, right-of-way purchase, and construction). The TIP functions as a “checking account”.



**The Metropolitan  
Transportation Plan**

**Financial Planning/  
Financial Constraint Summary**

	<b>Total Cost (Millions, \$ 2006)</b>
<b>Operations/Maintenance/Rehabilitation/Safety/Facility Reconstruction</b>	<b>10,673</b>
<b>Transit Operations/Maintenance</b>	<b>10,597</b>
<b>Congestion Management Process/Alternative Fuels</b>	<b>2,072</b>
<b>Bicycle/Pedestrian/Transportation Enhancements</b>	<b>1,120</b>
<b>Rail Capital *</b>	<b>9,644</b>
<b>Bus/Paratransit Capital</b>	<b>1,381</b>
<b>Regional Arterial System</b>	<b>3,072</b>
<b>Other Arterials</b>	<b>2,623</b>
<b>Freeway/Tollway Facilities</b>	<b>26,403</b>
<b>HOV/Managed System</b>	<b>3,331</b>
<b>TOTAL</b>	<b>70,916</b>

\* Includes \$3.4 billion through Regional Transit Initiative

January 11, 2007



# **MOBILITY 2030 HIGHLIGHTS**

## **Financially-Constrained Recommendations**

**Includes \$9.6 billion of rail recommendations, including \$3 billion of Regional Transit Initiative (RTI) rail lines**

**Includes \$29.8 billion of roadway recommendations, including \$17.7 billion of Innovative Funding Strategies**

**Includes additional unfunded roadway needs for illustrative purposes**

**Includes policy-level discussion of alternative future and demographic considerations**

**Includes Environmental Mitigation Strategies**

**Includes Safety and Security policies and programs**

**Includes incorporation of Trans-Texas Corridor (TTC-35) into recommendations**



# The Metropolitan Transportation Plan

## Funded Roadway Recommendations

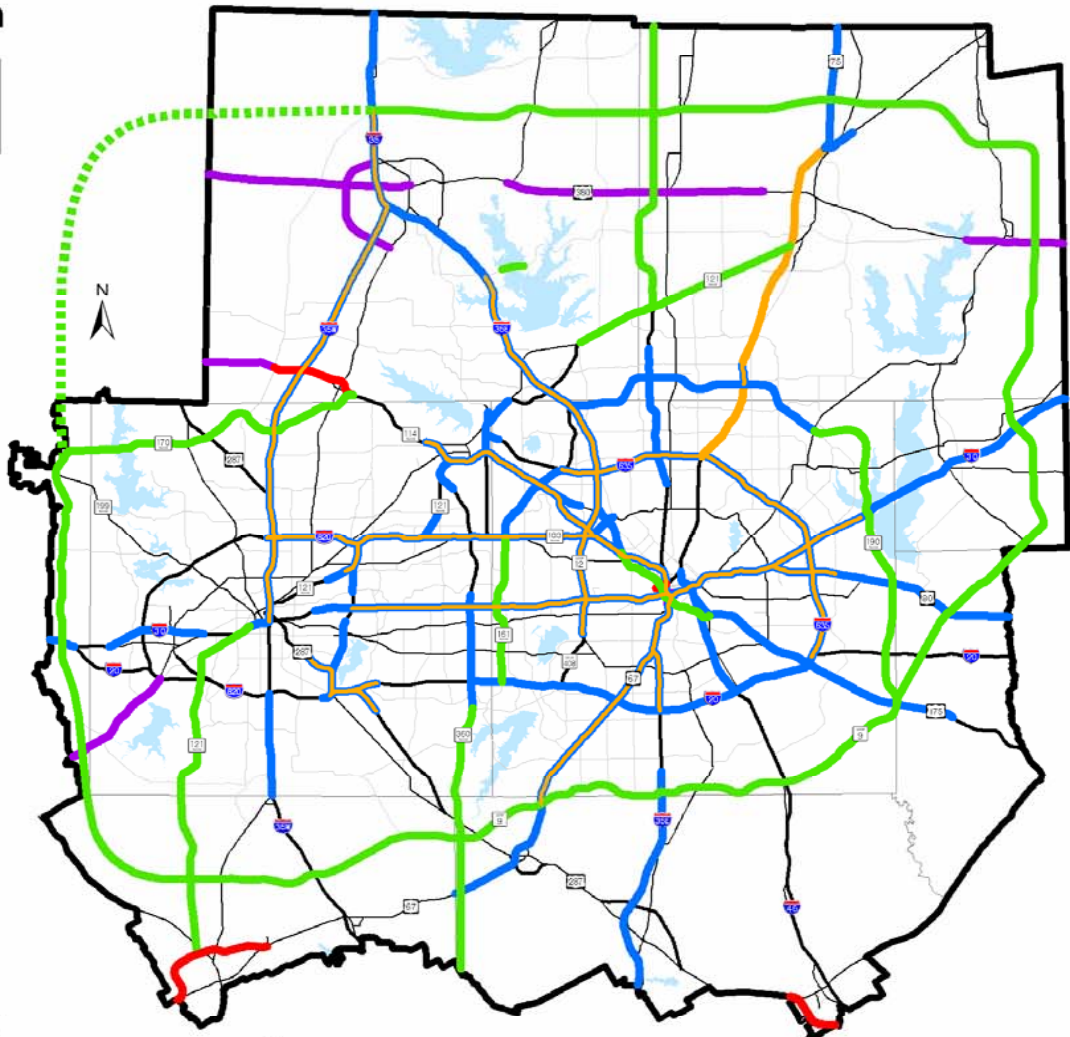
### Legend

- New Freeway Facilities
- New Tollway Facilities
- Additional Capacity To Existing Freeway/Tollway
- HOV/Managed Lanes
- Improvements to Existing Freeway and HOV/Managed Lanes
- Selected New/Improved Regionally Significant Arterials
- Freeways/Tollways

Fort Worth CBD



Dallas CBD



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.

**\$29.8 Billion Regional Roadway System**  
 Additional Freeway/Tollway lane miles = 3,444  
 Additional HOV/Managed lane miles = 626



North Central Texas Council of Governments Transportation



# The Metropolitan Transportation Plan

## Priced Facilities

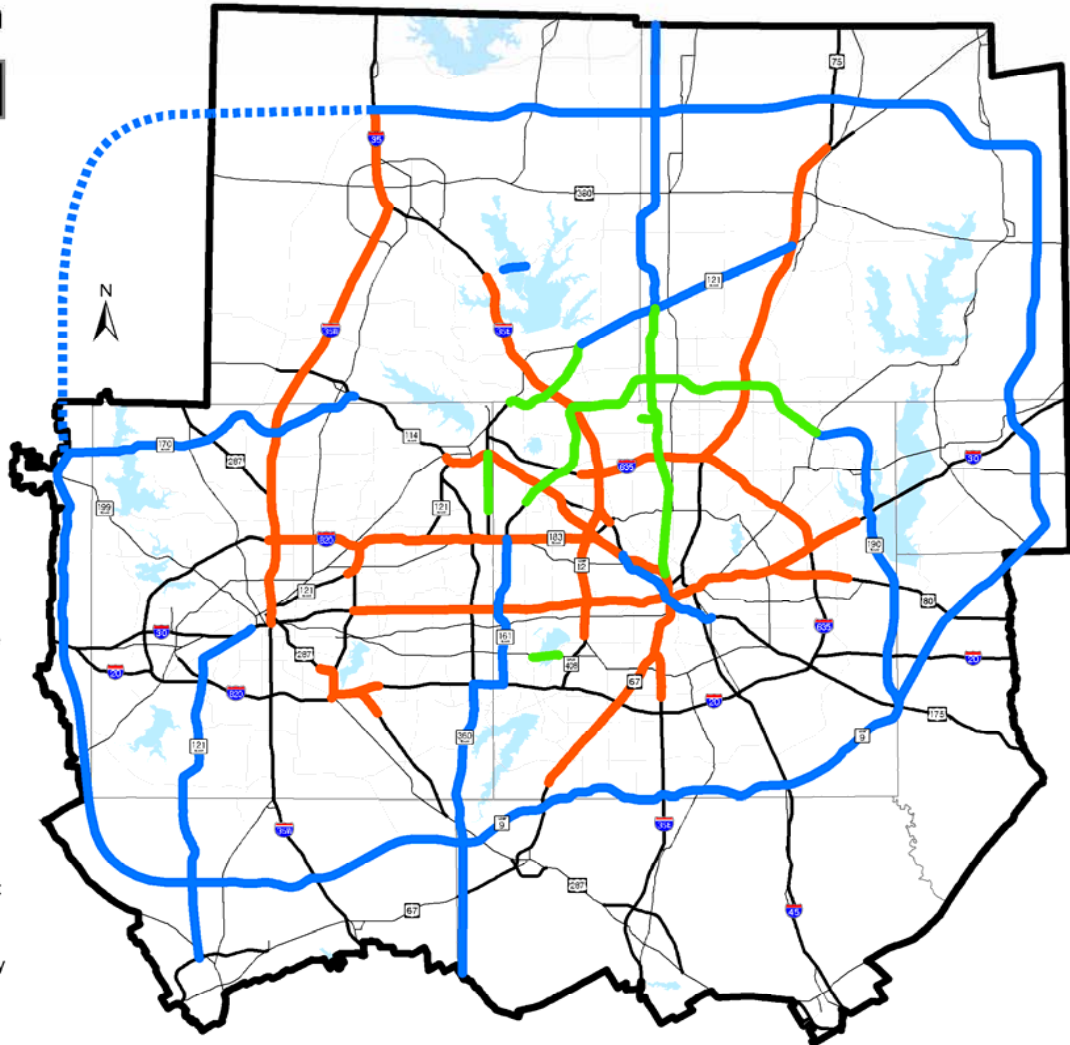
### Legend

- Existing Toll Facilities
- Proposed Toll Facilities
- Proposed HOV/Managed Facilities\*
- Freeways/Tollways

Fort Worth CBD



Dallas CBD



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\* Existing lanes in corridor remain free. Toll charged on new capacity only and will include HOV incentives.



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\$17.7 Billion of Innovative Funding Strategies

January 11, 2007



**Regionally Significant  
Arterials**

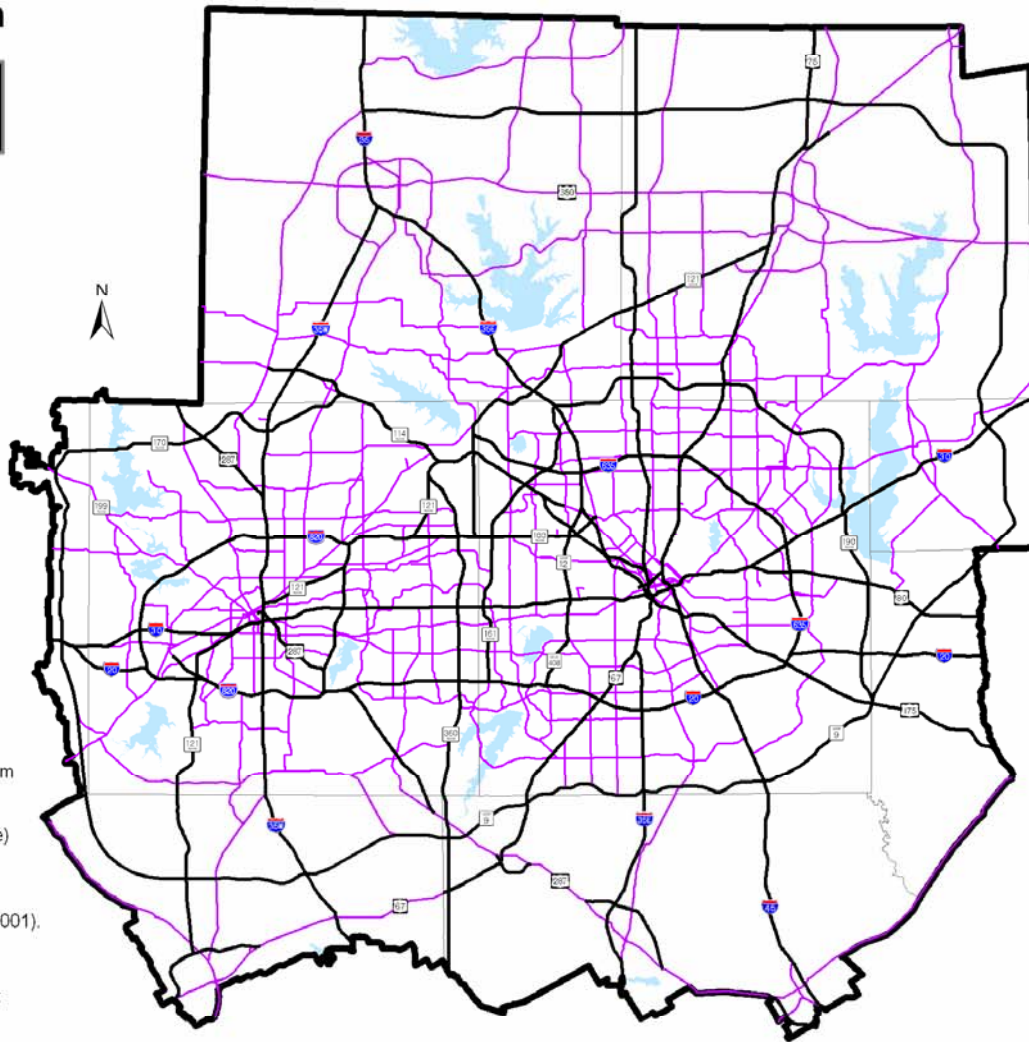
**Legend**

- Freeways / Tollways
- Regionally Significant Arterials\*

Fort Worth CBD



Dallas CBD



\*Regionally Significant Arterials 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) in addition to the locally approved (2005 Update); and
- 3) Regional Arterials as defined and adopted in NCTCOG's Regional Thoroughfare Plan (Amended May 10, 2001).

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



# Regionally Significant Roadway Identification

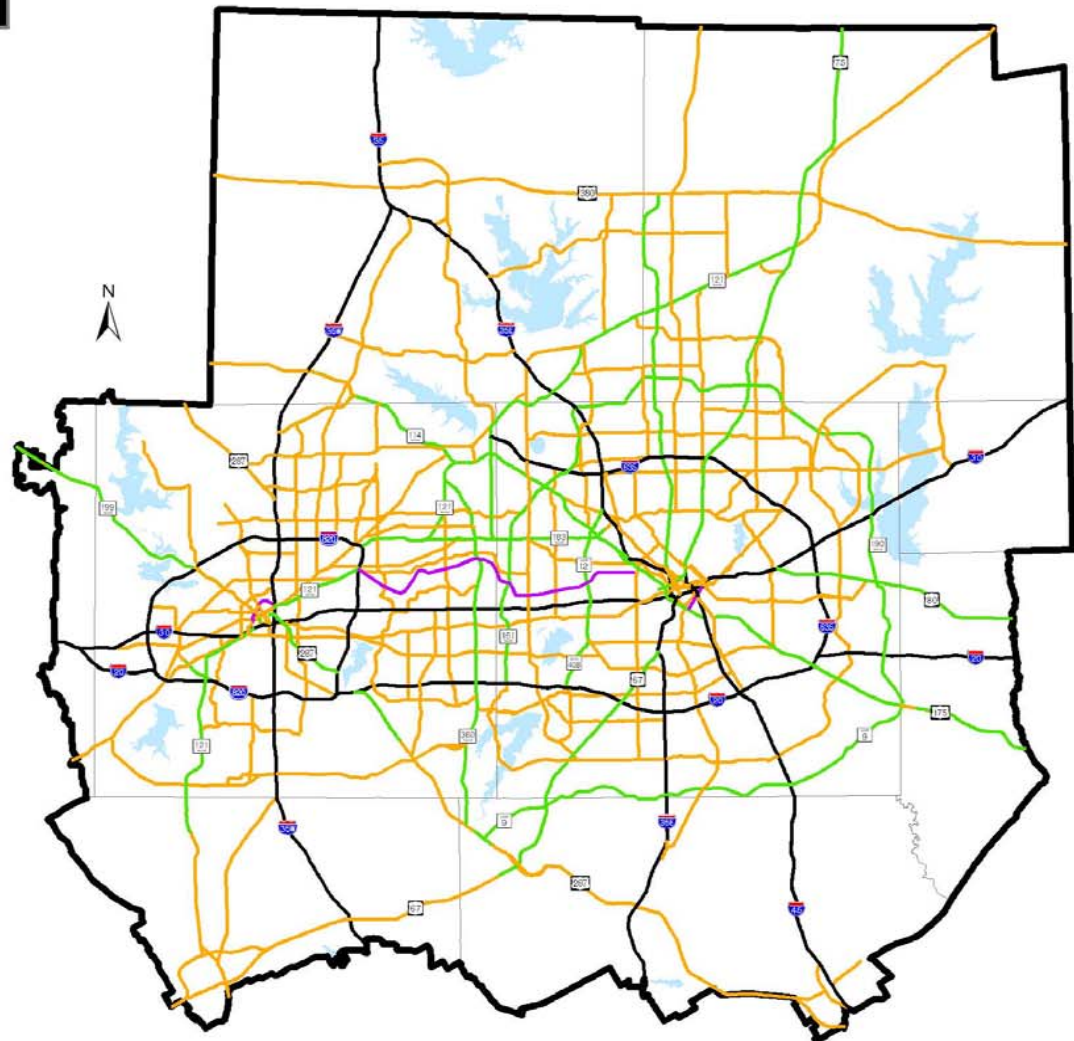
## Federal Functional Classification System Component

- Interstate Highway
- Freeway
- Principal Arterial
- Project Deleted

Fort Worth CBD



Dallas CBD



# Regionally Significant Roadway Identification

## National Highway System Component

- Interstate Highway Route
- Other NHS Route
- Intermodal Connector
- Project No Longer Supported

Fort Worth CBD



Dallas CBD



## Additional Roadway System Needs <sup>(1)</sup>

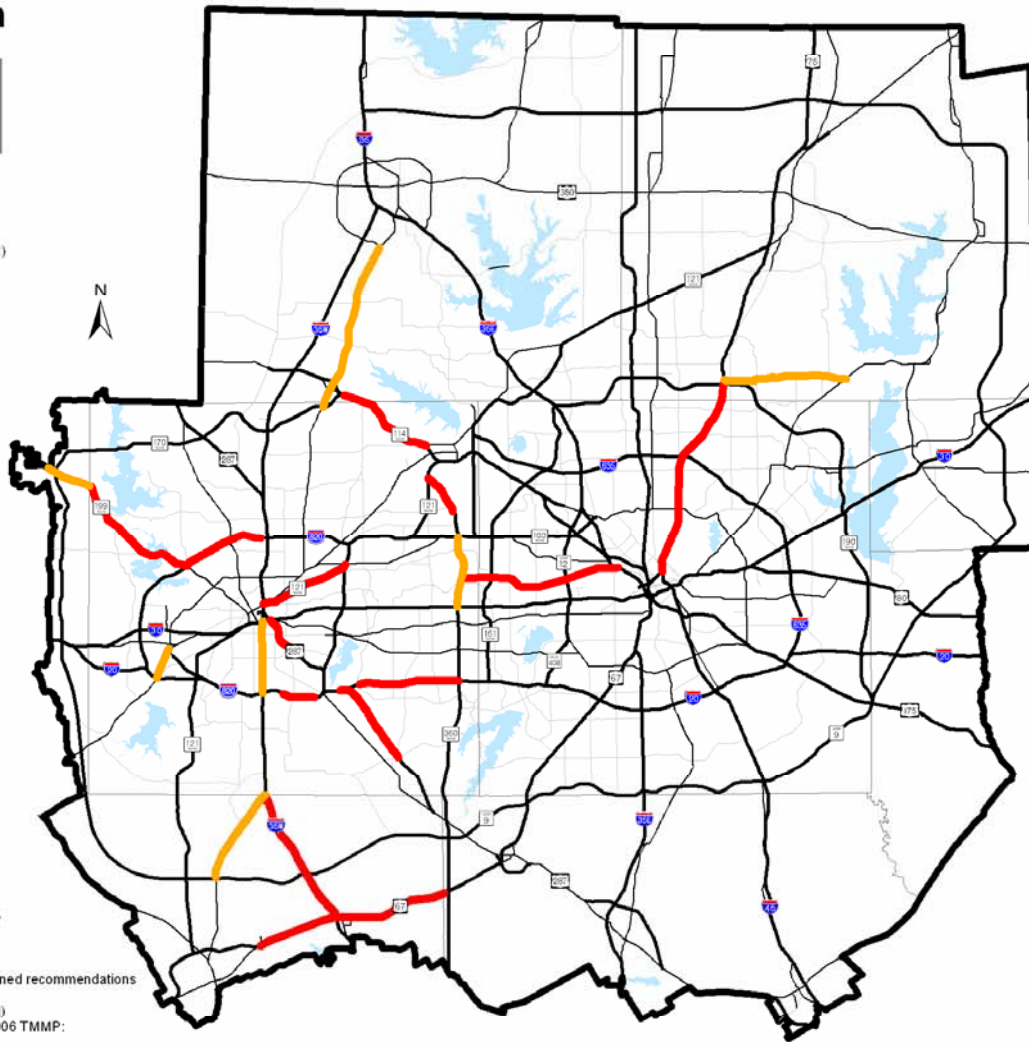
### Legend

- Unfunded Projects: Previously funded in Mobility 2025, 2005 Amendment <sup>(2)</sup>
- Other Unfunded Corridor Needs <sup>(3)</sup>
- Freeways/Tollways

Fort Worth CBD



Dallas CBD



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

(1) Represents additional needs above and beyond those of the financially-constrained recommendations

(2) Projects that are funded in Mobility 2025, 2005 Amendment, however, due to financial constraint issues, will be deferred until after 2030 (\$2.2 Billion deferred)

(3) General Transportation Corridors requiring additional capacity as identified in 2006 TMMP: Needs do not represent specific alignments or modes

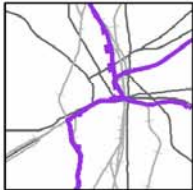


**Passenger Rail Recommendations**

**Legend**

- Light Rail
- Light Rail - New Technology
- Regional Rail
- - - Regional Rail - Special Events Only
- + + + Existing Rail Corridors
- Highways

Fort Worth CBD



Dallas CBD

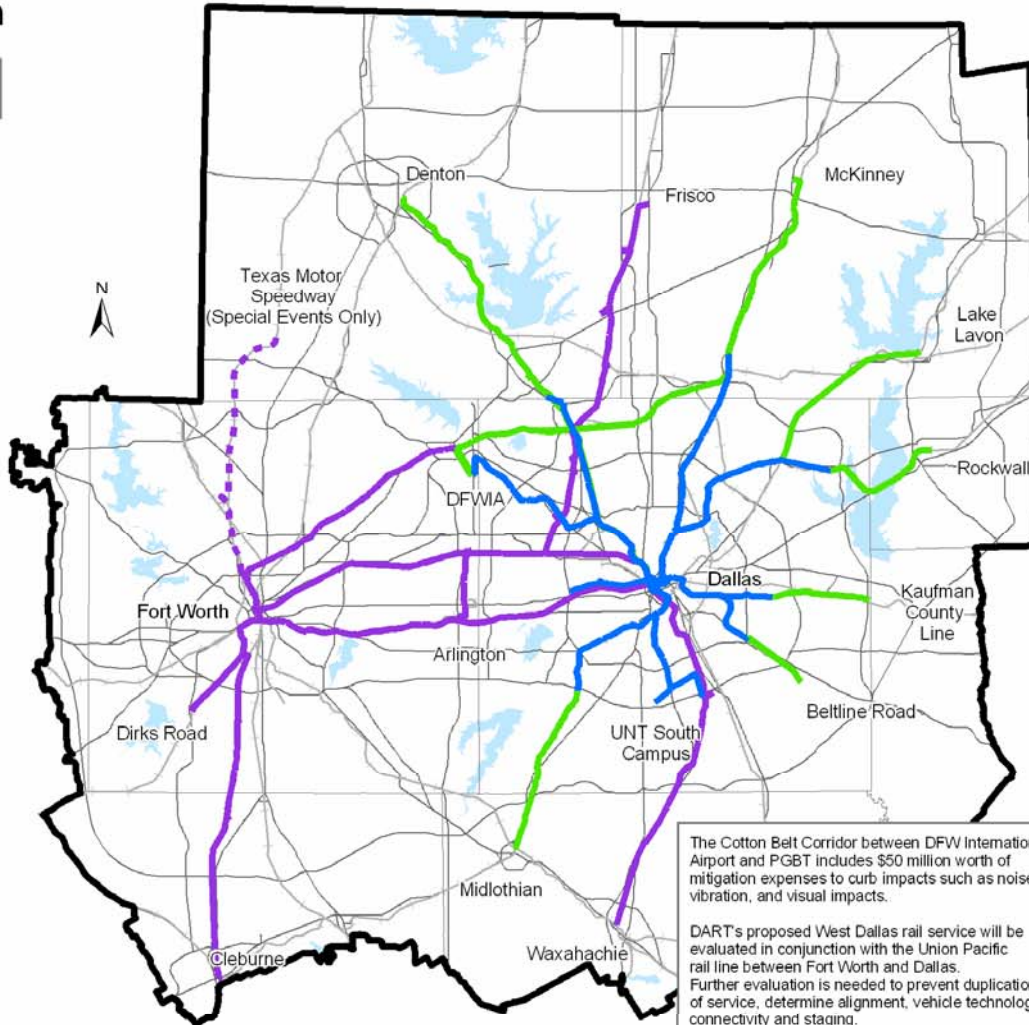


Corridor specific design and operation characteristics for the Intercity Passenger, Regional Passenger and Freight Rail Systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in Future Rail corridors.

All existing railroad rights-of-way should be monitored for potential future transportation corridors. New facility locations represent transportation needs and do not reflect specific alignments.

Institutional structure being reviewed for the region.

The need for additional rail capacity in the Dallas CBD, Fort Worth CBD, DFW International Airport, and other inter-modal centers will be monitored. A grade separation is needed for the Dallas CBD second alignment.



**397 Additional Rail Miles  
\$9.6 Billion**

The Cotton Belt Corridor between DFW International Airport and PGBT includes \$50 million worth of mitigation expenses to curb impacts such as noise, vibration, and visual impacts.

DART's proposed West Dallas rail service will be evaluated in conjunction with the Union Pacific rail line between Fort Worth and Dallas. Further evaluation is needed to prevent duplication of service, determine alignment, vehicle technology, connectivity and staging.

DART's proposed SouthPort rail line extension will be evaluated in conjunction with the Dallas to Waxahachie rail service. Further evaluation is needed to prevent duplication of service, determine alignment, vehicle technology, connectivity and staging.





# The Metropolitan Transportation Plan

## Rail Recommendations Dependent on Regional Transit Initiative Funds

### Legend

- Existing Service, Programmed Projects and Projects Under Development
- Projects Pending Alternative Funding
- Existing Rail Corridors
- Highways

Fort Worth CBD



Dallas CBD

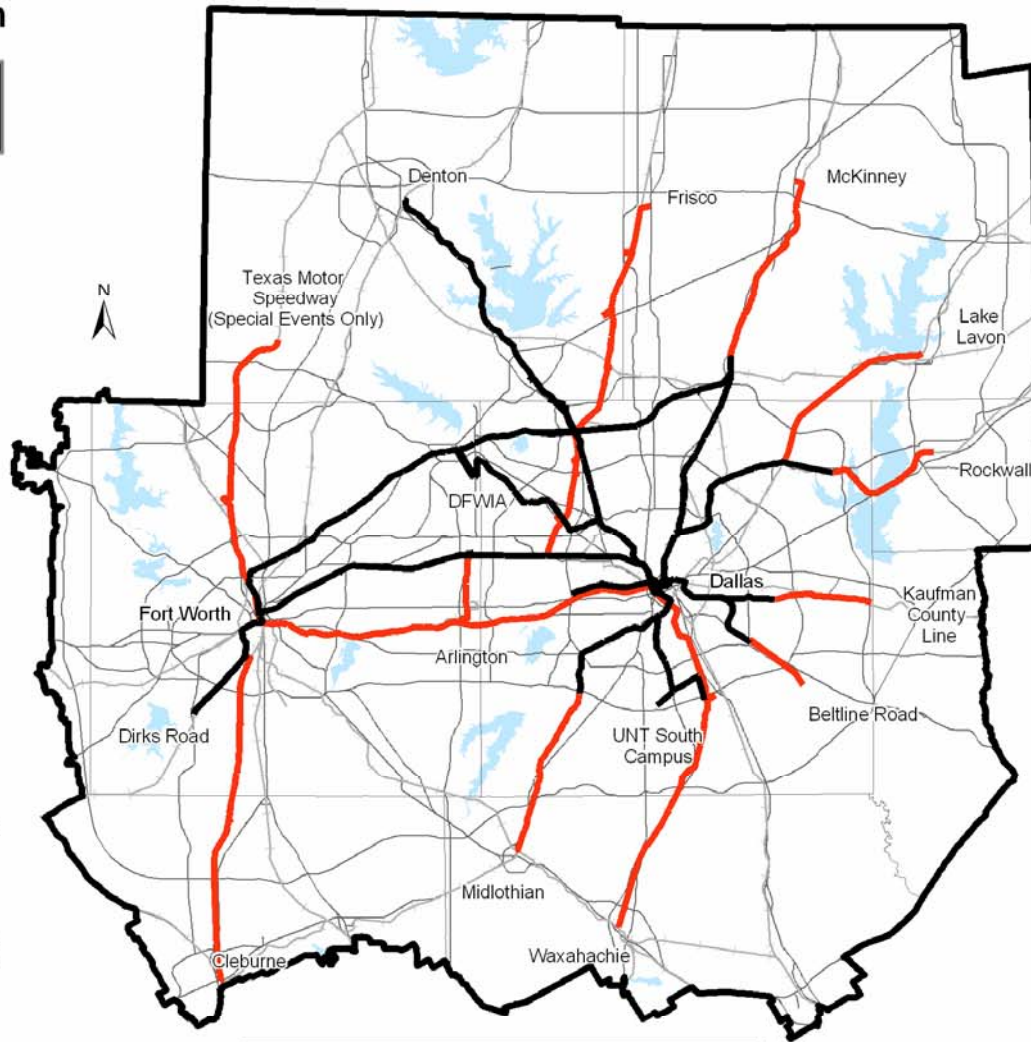


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**239 Rail Miles in Jeopardy**



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Transportation

**Rail Corridors Identified  
For Further Evaluation (1)**

**Legend**

- 2030 Rail Recommendations
- Rail Corridors Identified For Further Evaluation
- Existing Rail Corridors
- Highways

Fort Worth CBD



Dallas CBD



Corridor specific design and operation 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.

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(1) Represents additional transportation needs above and beyond those of the financially constrained recommendations.

## Inter-Regional Passenger Rail Connectivity Recommendations

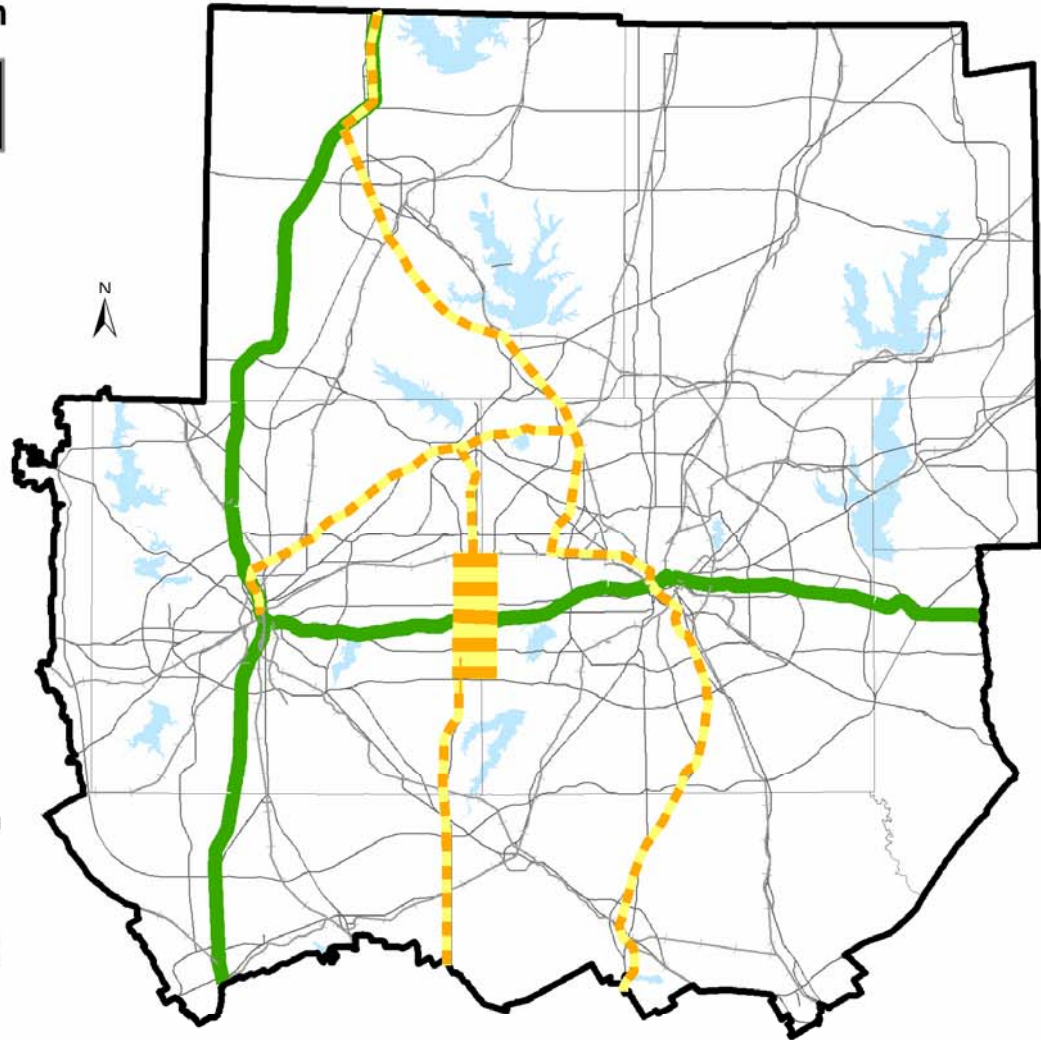
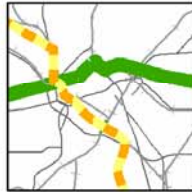
### Legend

- Intercity Rail e.g. Amtrak
- Potential TTC High Speed Rail
- Existing Rail Corridors
- Highways

Fort Worth CBD



Dallas CBD



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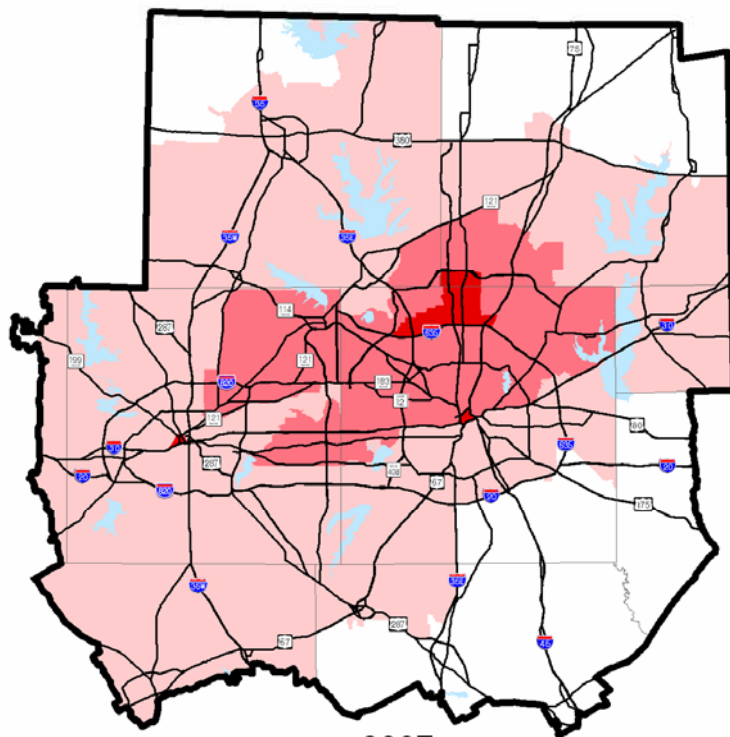




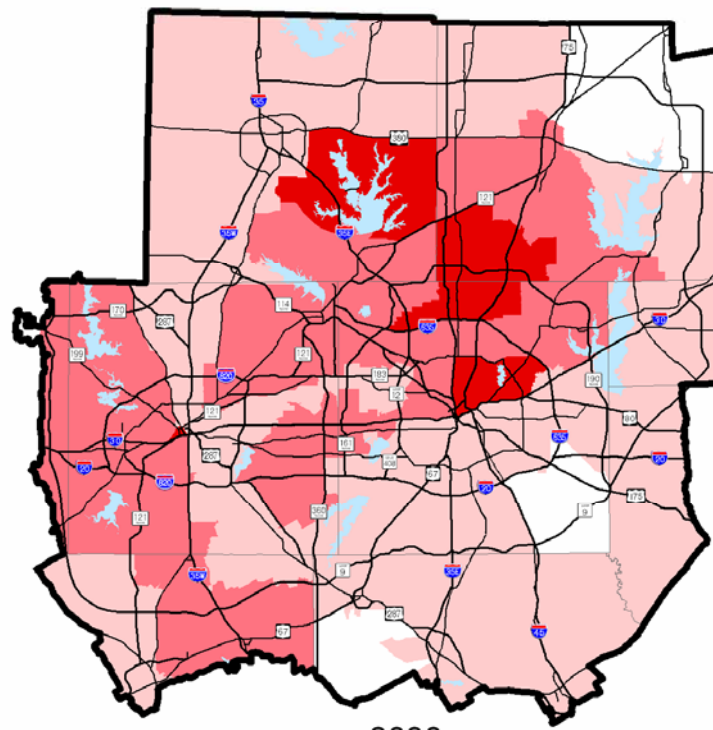
# The Metropolitan Transportation Plan

## System Performance Levels of Congestion

- Areas with No Congestion
- Areas with Light Congestion
- Areas with Moderate Congestion
- Areas with Severe Congestion
- Roadways



2007  
Annual Cost of Congestion \$4.2 Billion



2030  
Annual Cost of Congestion \$6.6 Billion



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**Benefit/Cost Ratio of Plan: 1.51**



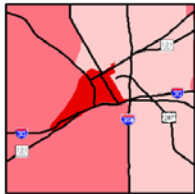
# The Metropolitan Transportation Plan

## System Performance 2030 Levels of Congestion Without Revenue From Priced Facilities

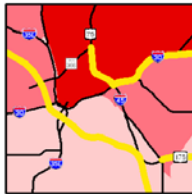
### Legend

- Areas with No Congestion
- Areas with Light Congestion
- Areas with Moderate Congestion
- Areas with Severe Congestion
- Projects In Jeopardy
- Roadways

Fort Worth CBD

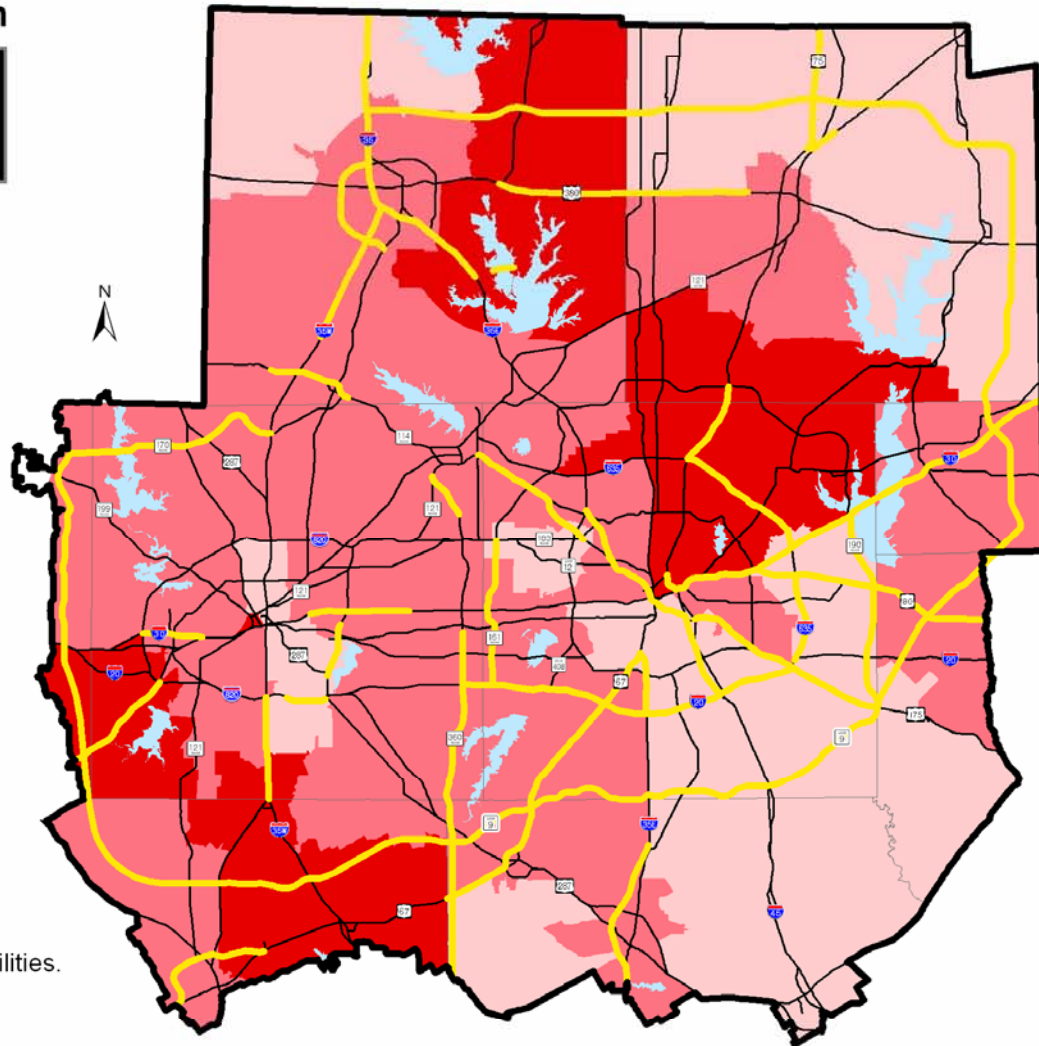


Dallas CBD



Demographic Activity: 2030

Transportation System: 2030  
Recommended Mobility 2030  
projects minus \$17.7 billion worth  
of projects that would be in jeopardy  
without revenue generated from priced facilities.



**Annual Cost of Congestion \$7.8 Billion**




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Transportation



# The Metropolitan Transportation Plan


## Outer loop / Rail Bypass Regional Corridor

### Legend

 Regional Recommended Outer Loop / Rail Bypass Corridor

 TxDOT TTC-35 Tier I Corridor

 TxDOT TTC-35 Potential Connection Zones

 Freeways

 Major Roadways

 Regional Arterials

 County Boundaries

 Metropolitan Planning Area Boundary

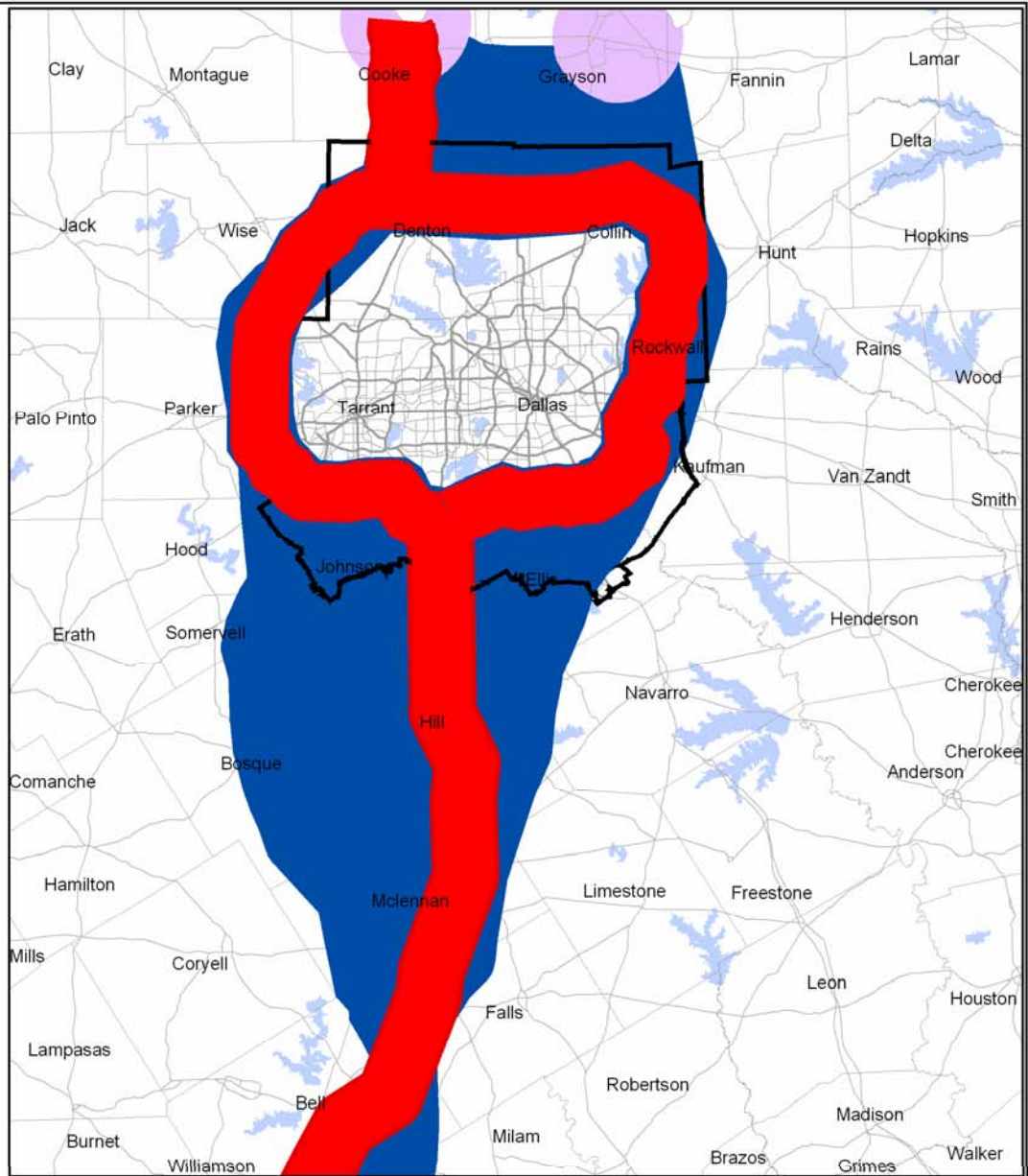
 Major Lakes



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

All regional recommended corridors should be targeted for right-of-way preservation.

January 11, 2007





# The Metropolitan Transportation Plan

## Regional Outer Loop Staging

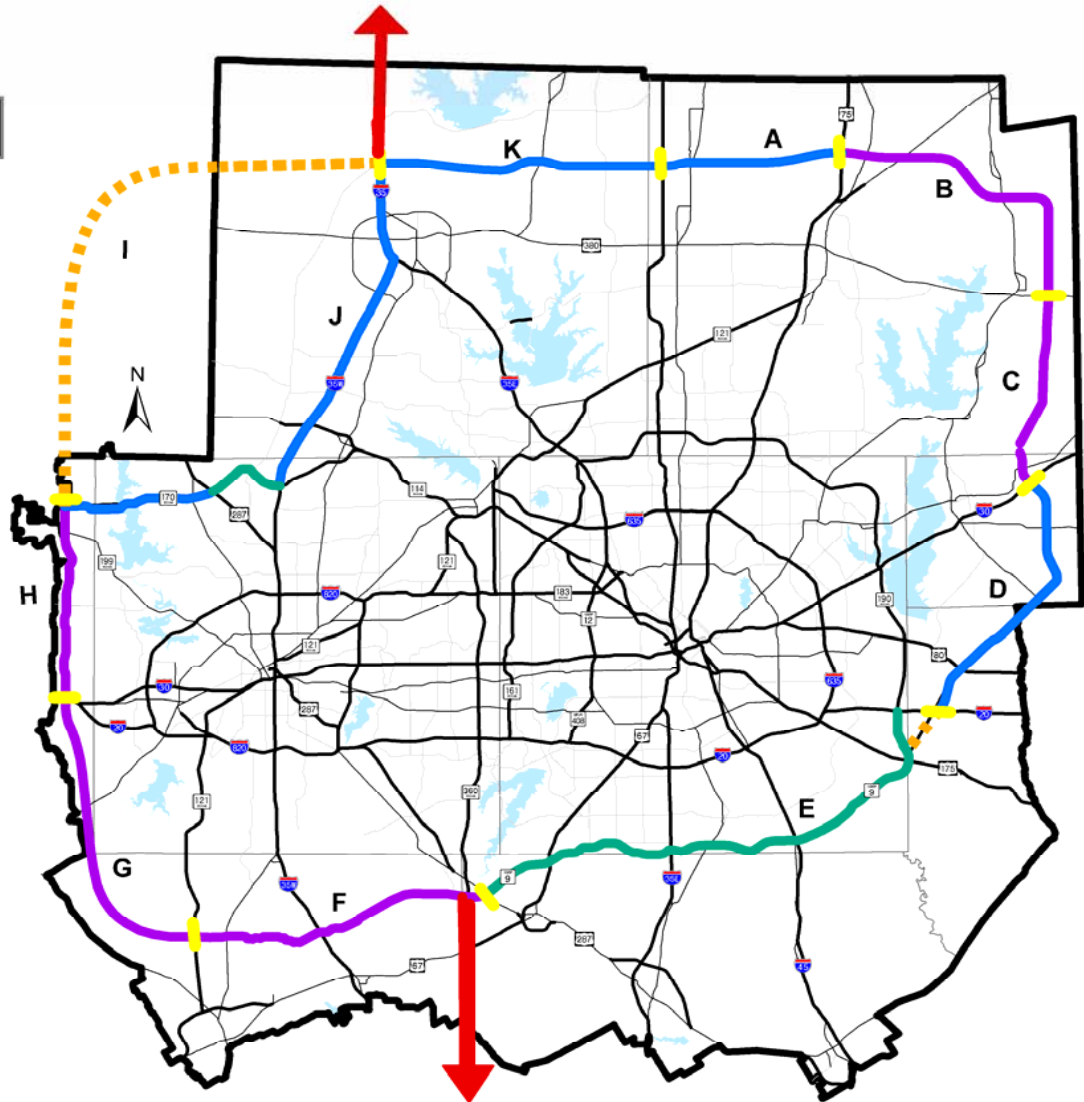
### Segment Staging

- Operational By 2015
- Operational By 2025
- Operational By 2030
- - - Further Evaluation Needed
- North/South Interregional Corridors
- Segment Dividers
- Year 2030 Freeway Network

- A - North Collin County Outer Loop
- B - North/East Collin County Outer Loop
- C - East Collin County Outer Loop
- D - Rockwall/Kaufman County Outer Loop
- E - Loop 9 - Dallas/Ellis/Kaufman County
- F - F.M. 917 Corridor
- G - Southwest Corridor Outer Loop
- H - Parker County Outer Loop
- I - Wise County Outer Loop
- J - S.H. 170 / I.H. 35 Corridor\*
- K - Northern Denton County Outer Loop

\*The IH-35/SH-170 corridor can be developed as an interim Trans Texas Corridor/Regional Outer Loop segment until segment "I" is warranted.

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











Approximately 240 Center Main Line Miles  
 Approximately 1440 Main Lane Miles

January 11, 2007



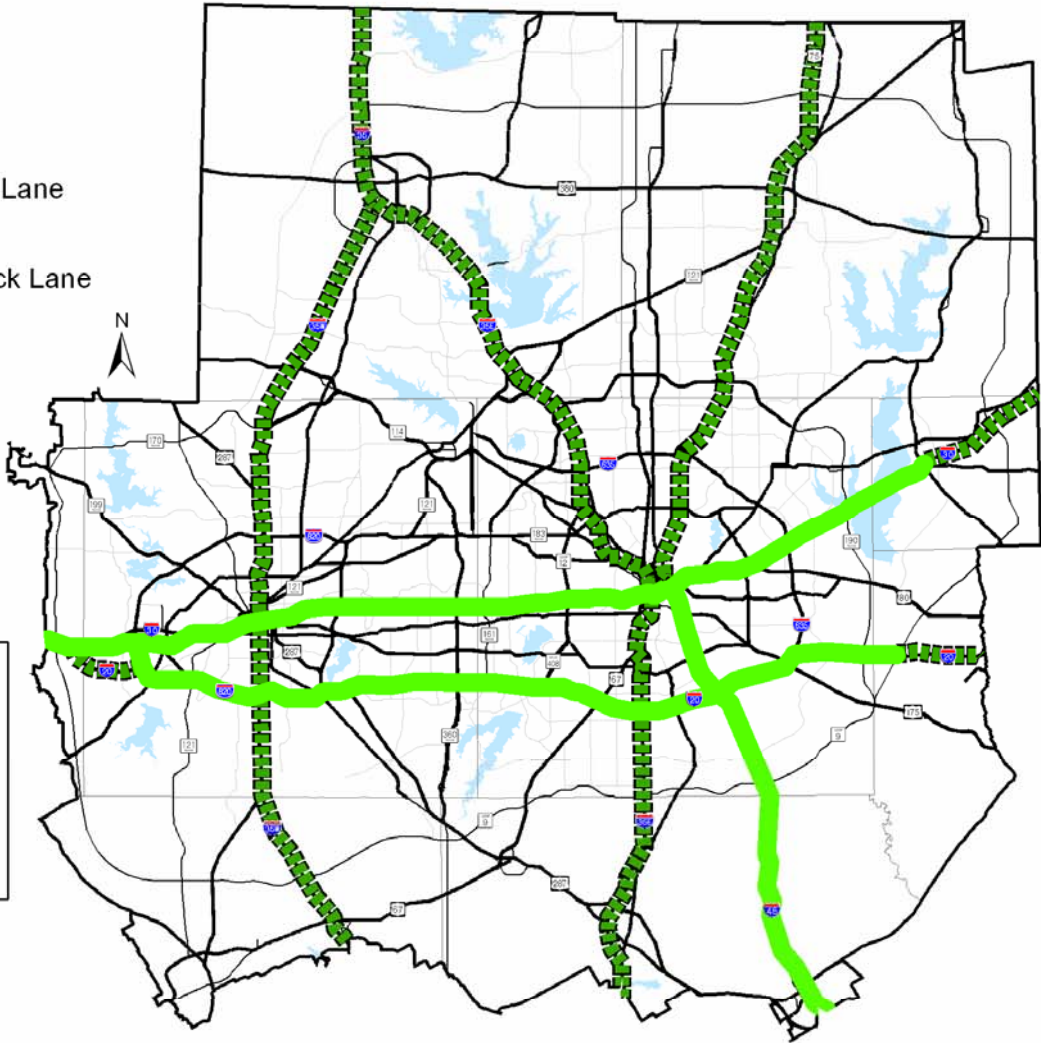
**Truck Lane Recommendations**

**Legend**

-  Recommended Near-term Truck Lane Restrictions
-  Potential Long-term Intercity Truck Lane Restrictions
-  Freeways
-  Major Roadways
-  Regional Arterials
-  County Boundaries
-  Metropolitan Planning Area Boundary
-  Major Lakes

- Recommendations Include:**
- 3 + lanes
  - Moderate to High Truck Volumes
  - Continuous system
- Further site specific study needed to evaluate:**
- Segments with geometric constraints
  - Current or pending reconstruction
  - Capacity and congestion levels
  - Public opinion

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



## Bicycle and Pedestrian Facilities

### Legend

#### Recommended Veloweb Routes

- Completed: 112 miles
- Funded: 34 miles
- Needed: 289 miles

#### Candidate Veloweb Routes

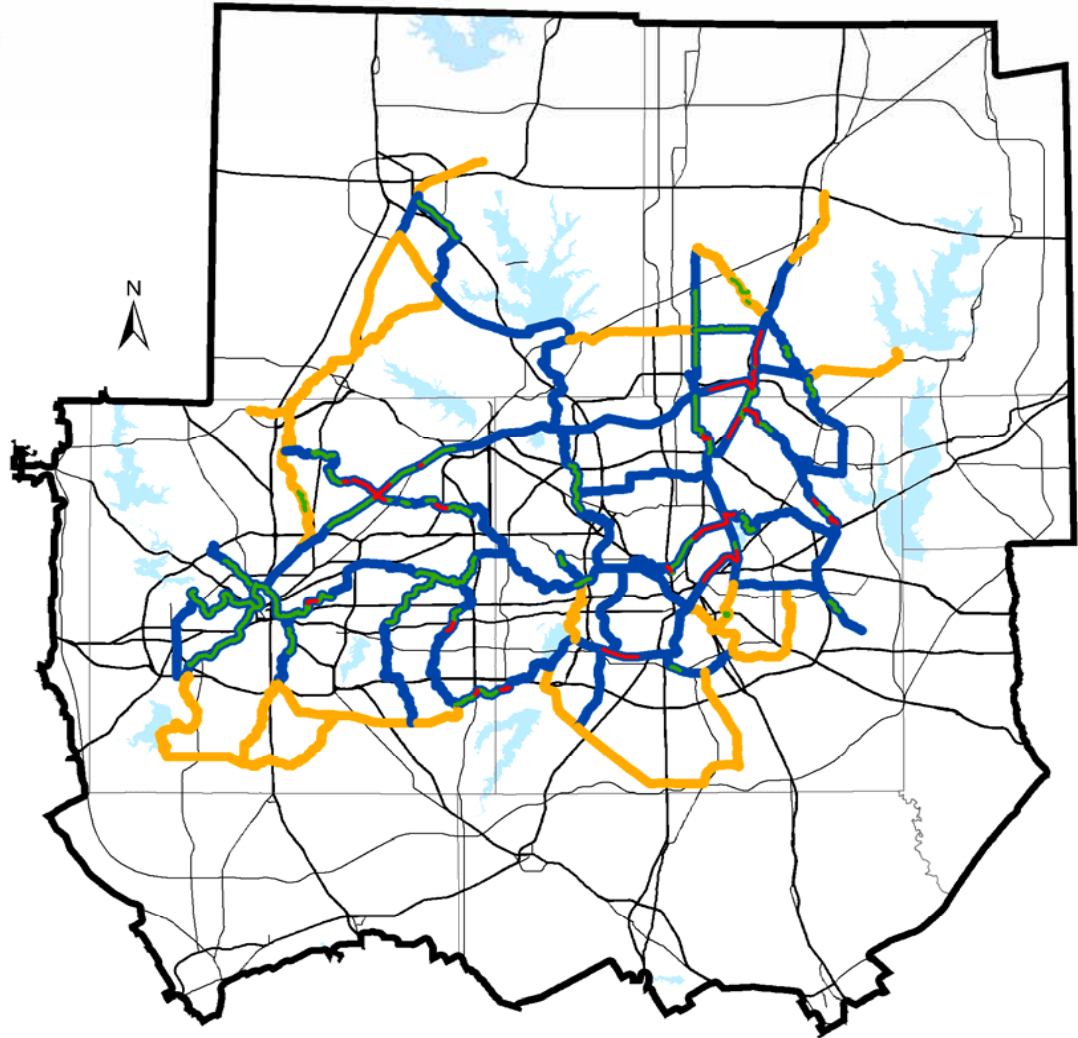
- Completed: 7 miles
- Needed: 202 miles
- Freeways

- County Boundaries
- Metropolitan Planning Area Boundary
- Major Lakes

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.

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

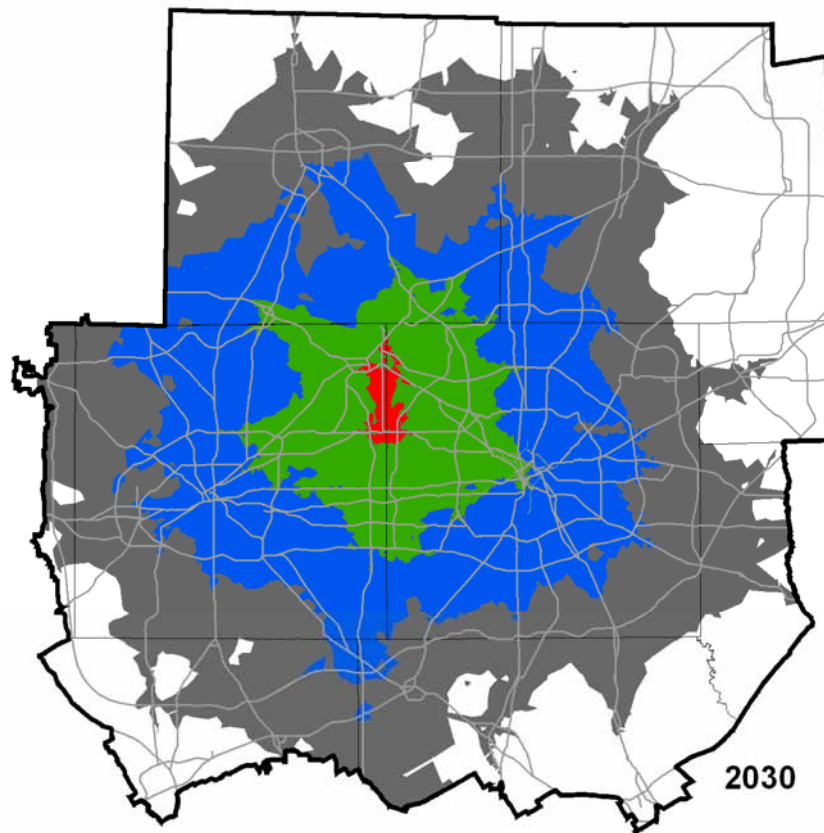
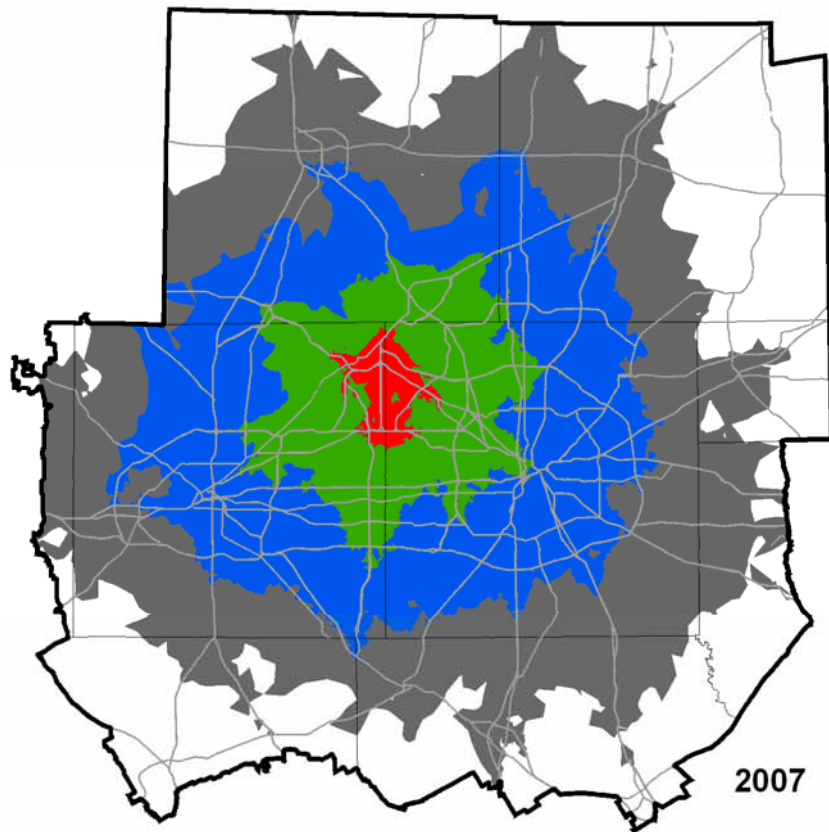


**Travel Time Contours: DFW Airport**

Contours Based on Modeled Average Peak  
Period Speeds in 2007 and in 2030










**Travel Times to Airport**

-  Up to 15 minutes
-  Up to 30 minutes
-  Up to 45 minutes
-  Up to 60 minutes



**Intelligent Transportation Systems**

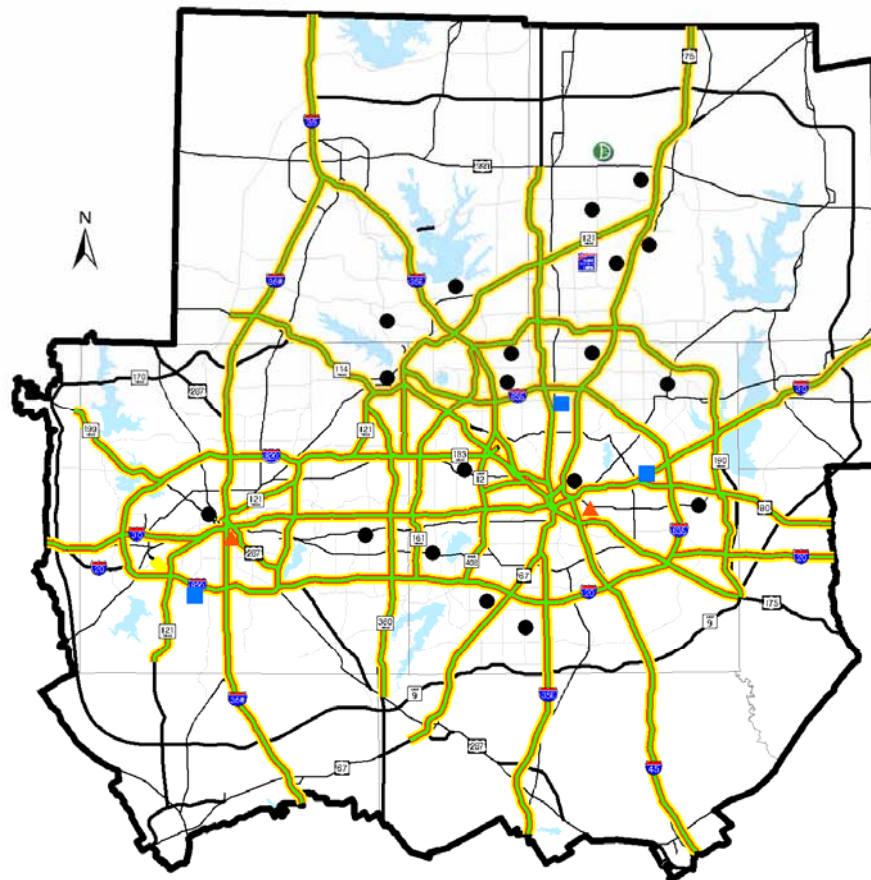
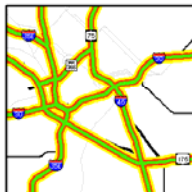
**Legend**

-  Mobility Assistant Patrols
-  Communication Systems
-  Advanced Traffic Management
-  TxDOT Transportation Management Center (TMC)
-  City Transportation Management Center
-  Transit Management Center
-  Freeways / Tollways
-  Highways
-  Regional Arterials

Fort Worth CBD



Dallas CBD





**Park-and-Ride Locations  
Existing, Planned and Candidate**

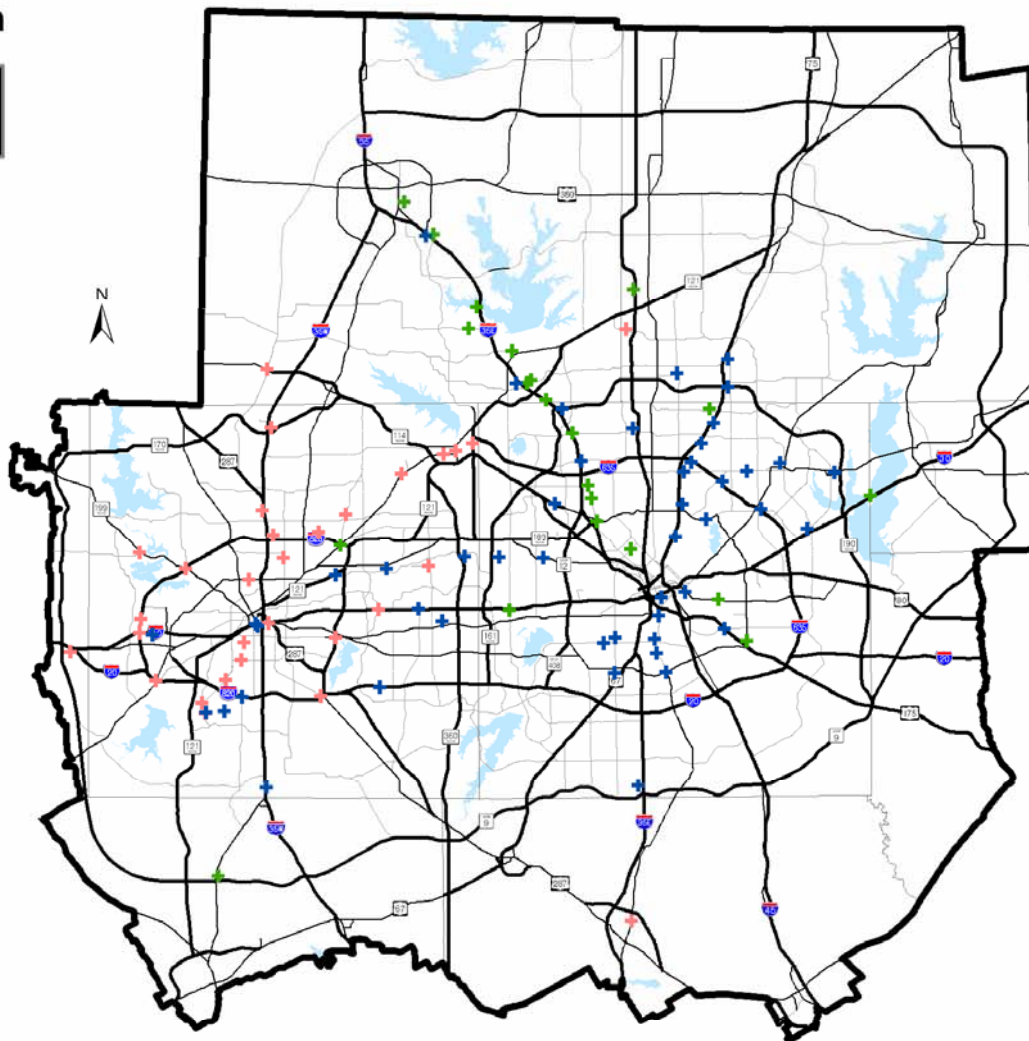
**Legend**

- + Existing Park-and-Ride Locations
- + Planned Park-and-Ride Locations
- + Candidate Park-and-Ride Locations
- Freeways / Tollways
- Highways
- Regional Arterials

Fort Worth CBD



Dallas CBD



# IDENTIFIED FUNDING NEEDS DALLAS-FORT WORTH REGION

**(Updated Based on Mobility 2030 Funding Levels)**

Metropolitan Transportation System Components	Funded Needs (Billions/2006 \$)	Unfunded Needs (Billions/2006 \$)
Operation & Maintenance	\$18.7	
Congestion Mitigation Strategies	\$2.1	
Bicycle & Pedestrian Facilities and Transportation Enhancements	\$1.1	
Rail and Bus Transit System	\$11.0 <sup>1</sup>	
HOV and Managed Facilities	\$3.3	
Freeway and Toll Road System	\$26.4	<b>\$12.7<sup>2</sup></b>
Regional Arterial and Local Thoroughfare System	\$5.7	\$6.0
Additional Cost to Purchase Right-of-Way		\$1.1
Rehabilitation Costs	\$ 2.6	<b>\$32.1</b>
Goods Movement/Rail Freight Costs (Trans-Tx Corridor)		\$6.7
<b>TOTAL</b>	<b>\$70.9 (55 %)</b>	<b>\$58.6 (45 %)</b>
	<b>\$129.5 Billion</b>	

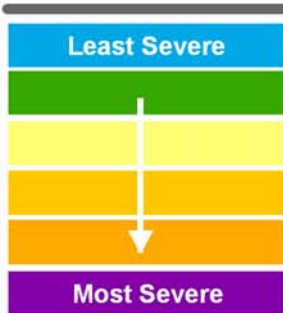
<sup>1</sup> \$3.4 billion obtained through Regional Transit Initiative

<sup>2</sup> Includes Freeway-to-Freeway Interchanges

# TEXAS METROPOLITAN MOBILITY PLAN

## Dallas-Fort Worth Corridor Needs

Range of Capacity Deficiencies to Solve Level of Service "F" Conditions



- Areas with No Congestion
- Areas with Light Congestion
- Areas with Moderate Congestion
- Areas with Severe Congestion

The deficiencies shown reflect out-year needs and represent the additional need above and beyond the financially-constrained Metropolitan Transportation Plan, currently Mobility 2030.

