

APPENDIX C

SUMMARY OF MOBILITY 2030: THE METROPOLITAN TRANSPORTATION PLAN FOR THE DALLAS-FORT WORTH AREA, 2009 AMENDMENT

GOALS AND INTRODUCTION

Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment is the defining vision for transportation systems and services in the Dallas-Fort Worth (DFW) Metropolitan Area. The mobility plan was approved on April 9, 2009 by the Regional Transportation Council (RTC) and was endorsed by the North Central Texas Council of Governments (NCTCOG) Executive Board on April 23, 2009. Federal approval is anticipated in July 2009. The plan will guide the implementation of multimodal transportation improvements, policies, and programs in the DFW Metropolitan Area through the year 2030. The previous plan, Mobility 2030, served as the region's transportation plan since its adoption in January 2007 and formed the basis for the recommendations in this amended Mobility Plan.

LEGISLATIVE BASIS FOR THE PLAN

Since the early 1970s, Metropolitan Planning Organizations (MPOs) have had the responsibility of developing and maintaining a metropolitan transportation plan. With the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the role of the Metropolitan Transportation Plan in the overall transportation planning process was greatly advanced. ISTEA called for the strengthening of the plan to become a central mechanism for the decision-making process regarding investments to develop the metropolitan transportation system. The passage of the Transportation Equity Act for the 21st Century (TEA-21) continued the same basic philosophy. It was an expansion and refinement of what worked well in ISTEA, including new programs to assist MPOs to improve and enhance urban and rural mobility.

On August 10, 2005 the President signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) into law. This act approves funding for surface transportation projects and also represents the largest surface transportation venture in the country to date. While SAFETEA-LU authorizes funding for many transportation funding categories and specific projects, it also continues the concepts identified in ISTEA and TEA-21 regarding the cooperative, continuing, and comprehensive regional planning process. SAFETEA-LU establishes requirements that MPOs must follow in the development of their long-range plans. All new metropolitan transportation plans developed after July 1, 2007 are required to be consistent with the new SAFETEA-LU planning guidance. Mobility 2030 – 2009 Amendment has been developed to fully meet all SAFETEA-LU planning requirements as provided by the Federal Transit and Federal Highway Administrations.

SAFETEA-LU establishes eight planning factors that must be considered in the long-range plan. It is important that the planning process is continuous, cooperative, and comprehensive. Likewise, the plan should also strive to meet the following planning provisions and guidelines.

1. Support Economic Vitality

The Dallas-Fort Worth region accounts for nearly one-third of the state's gross regional economy, and the transportation system is pertinent to economical growth. Mobility 2030 – 2009 Amendment supports the region's economic vitality by increasing the capacity and

efficiency at which goods can move to, from, and throughout the region. In addition, sustainable development practices support economic growth while using resources in an efficient and effective manner.

2. *Increase Safety*

Transportation system safety is an important component of Mobility 2030 – 2009 Amendment and the Regional Transportation Council has included this major policy factor in the development of the new plan. Mobility 2030 – 2009 Amendment includes a chapter dedicated to the safety of the transportation infrastructure and includes programs, policies, and projects to achieve these goals.

3. *Increase the Ability of the Transportation System to Support Homeland Security*

Transportation system security is both a regional and national priority. Emphasis on system security was a major policy parameter considered in the development of Mobility 2030 – 2009 Amendment.

4. *Increase Accessibility and Mobility of People and Freight*

Accessibility and mobility of people and freight is addressed throughout the plan in a vast number of ways. Increasing capacity on roadways and the creation of dedicated truck lanes allows both people and goods to have increased access and mobility in the region. The Tower 55 project will increase the efficiency of goods to be moved via rail throughout the region. Additionally, the plan recommendations include support for the regional outer loop and the connection with the future Trans-Texas Corridor (TTC-35) project which could include general purpose toll lanes, dedicated truck lanes, and rail.

5. *Protect and Enhance the Environment*

Environmental protection and mitigation is fundamental to the planning and implementation process. Consistent with state and federal project development rules, projects must be analyzed for environmental impact and mitigation, and are subject to environmental clearance before they may be constructed. Additionally, Mobility 2030 – 2009 Amendment includes a number of air quality programs designed to reduce potential harmful emissions within the region. Lastly, sustainable development initiatives continue to be important within the region and are aimed at enhancing the environment and the quality of life.

6. *Enhance the Integration and Connectivity of Intermodal Transportation*

The provision of more transportation options and solutions within the region creates a more seamless system. This is illustrated in Mobility 2030 – 2009 Amendment through the expanded transit and roadway systems, through the Transit Operations and Human Services Coordination Program, and through new innovative funding strategies resulting in streamlined project delivery and funding projects sooner, rather than later.

7. *Promote Efficient System Management and Operation*

Mobility 2030 – 2009 Amendment demonstrates increased efficiency in system management and operations through a robust Congestion Management Process plan, as well as dedicating available funding resources to maintaining the existing infrastructure and planning for the eventual reconstruction and rehabilitation of major roadway sections over time.

8. *Emphasize Preservation of Existing System*

Region wide more than \$21 billion have been dedicated to system operations, maintenance, rehabilitation, safety, and reconstruction. These are all important components to system preservation. Mobility 2030 – 2009 Amendment is dedicated to not only funding needed improvement over time, but also allocating available resources to maintaining the existing

infrastructure while planning for reconstruction and rehabilitation needs for an aging roadway system.

Mobility 2030 – 2009 Amendment is required to be financially constrained to anticipated funding resources, which means that projects and programs can only be included as a recommendation in the plan if funding is anticipated to be available through the life of the plan. The plan recommendations must be constrained to available financial resources, this ensures that greater emphasis is placed on multimodal solutions, congestion mitigation strategies, and sustainable development initiatives aimed at getting greater transportation system efficiency. Financial constraint represents one of the most significant limitations to long-range planning in that many projects, although needed, cannot be included and cannot be constructed until funding is identified. As part of a long-range needs-based study, it has been determined that the Dallas-Fort Worth area needs approximately \$244 billion to relieve the most severe levels of congestion within the region by the year 2030. However, federal law requires the long-range plan to be based on revenue sources that are “reasonably expected to be available.” In order to determine what sources the region could expect to be available for funding, a detailed financial model and plan was developed. The financial plan illustrates that the region could anticipate receiving \$146 billion in revenue to fund transportation projects from now until 2030.

SAFETEA-LU recognizes that new highway construction is only one part of the solution for improved mobility. Mobility 2030 – 2009 Amendment has been developed in accordance with the following planning guidelines and requirements:

A long-range plan for each Metropolitan Area is to be prepared and updated periodically (Section 1024(a), 23 USC 134(g)(1)).

- Long-range plans to identify transportation facilities (multimodal, intermodal, pedestrian, and bicycle) that function as an integrated transportation system, include a financial plan that demonstrates how the plan can be implemented, assess capital investment, and other measures to preserve the existing transportation system and make the most of the existing transportation facilities to relieve traffic congestion, and must indicate appropriate transportation enhancement activities (Section 1024(a), 23 USC 134(g)(4)).
- Reasonable opportunity for public comment on the plan before approval (Section 1024(a), 23 USC 134(g)(4)).
- Consistency with Title VI of the Civil Rights Act of 1964 and Executive Order 12898 on Environmental Justice ensuring that no person is excluded from participation in, denied benefits of, or discriminated against in planning efforts, including the development of the metropolitan transportation plan.
- The development of the plan in nonattainment areas for ozone and carbon monoxide must be coordinated with the development of Transportation Control Measures for the State Implementation Plan (SIP) required under the Clean Air Act activities (Section 1024(a), 23 USC 134(g)(3)).

The United States Department of Transportation (U.S. DOT) issued its Environmental Justice order, U.S. DOT Order 5610.2, in 1997 to Address Environmental Justice in Minority Populations and Low-Income Populations to summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice. The U.S. DOT Order clarifies and reinforces Title VI responsibilities as well as addresses effects on low-income populations. Environmental Justice and Title VI are not new requirements, and have always been considered throughout the planning

process, including the development of the metropolitan transportation plan. A technical analysis of Title VI and Environmental Justice has been included in Mobility 2030 – 2009 Amendment.

With the signing of the Clean Air Act Amendments of 1990 (CAAA) into law, the counties of Collin, Dallas, Denton, and Tarrant were designated as nonattainment areas for exceeding the 1-Hour Ozone National Ambient Air Quality Standard. In April 2004, the Environmental Protection Agency redesignated the nine-county area of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall and Tarrant Counties as nonattainment for exceeding the 8-Hour Ozone National Ambient Air Quality Standard. Section 176(c)(4) of the Act required the Environmental Protection Agency (EPA) to finalize the rule making on conformity determinations for transportation plans and programs. This rule, titled Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded Under Title 23 U.S.C or the Federal Transit Act, requires MPOs to make conformity determinations on metropolitan transportation plans and Transportation Improvement Programs before they are approved in nonattainment areas. A conformity determination was conducted for Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment.

ECONOMIC AND ENVIRONMENTAL BASIS FOR THE PLAN

In addition to meeting legislative requirements, transportation planning enhances the region's quality of life and economic vitality. Without adequate transportation funding to ensure mobility, the region will not be able to sustain economic growth. This reality needs to be of serious concern to the state as well as the region. The DFW Metropolitan Area is the largest regional economy in Texas, comprising approximately 30 percent of the state's economy. Larger in population than more than half of the U.S. states, the region is a significant economic, social, and political center of both Texas and the U.S., with substantial growth in population and employment expected to continue. Planning the development of an efficient, effective transportation system must be a top priority in order to maintain the region's quality of life and economic vitality.

In the DFW Metropolitan Area in 2002, nearly 34 percent of the volatile organic compound (VOC) emissions and over 58 percent of Nitrogen Oxide (NOx) emissions that cause ozone pollution are produced by on-road mobile sources which include cars, trucks, buses, motorcycles, and other registered vehicles. Excessive levels of ozone can reduce lung capacity in some people, and may increase the frequency of asthma episodes and reduce the body's ability to resist respiratory infections. All of the recommendations of the Mobility 2030 – 2009 Amendment are aimed at providing adequate mobility, while combating pollution from mobile sources. These strategies focus on making the transportation system more efficient, reducing the demand on the system, and making advances in infrastructure technology to develop cleaner burning transportation modes, fuels, and vehicles.

GOALS

The development of Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendment was guided by a set of goals, which were incorporated in the original Mobility 2030 plan. The adopted set of goals covers three categories: traditional transportation goals, quality of life goals, and financial goals. A summary of the adopted goals is shown in [Exhibit C-1](#).

The traditional transportation goals reflect the desire of the community to develop safe, effective transportation projects that mitigate traffic congestion, enhance mobility, and provide multimodal

travel options in the region. Included in the goals is a focus on minimizing drive-alone travel. The benefits of this are two-fold: less travel, reduced traffic congestion and lower automobile emissions.

A discussion regarding quality-of-life issues, which began in Mobility 2020 and expanded in Mobility 2025 and Mobility 2030, is continued with more depth in Mobility 2030 – 2009 Amendment. At technical workshops, policy briefings, and public forums, participants discussed how investment in transportation projects and programs impacts various areas of urban living, not just mobility. It is recognized that, while transportation investment directly impacts such things as urban mobility, air quality, and economic development, there are other less direct, but equally important, impacts of transportation systems and services. This concept was used to solicit public input into all goals, but especially in the quality of life goals. These goals dictate that planning efforts consider urban form and transportations impact upon the economy and the environment, in addition to the provision of transportation services and infrastructure to those traditionally underserved.

Financial goals were also reviewed for Mobility 2030 – 2009 Amendment. A major part of the planning process focused on the identification of strategies aimed at reducing the financial shortfall between needed transportation improvements and available funds. To support the adopted goals, the recommendations of Mobility 2030 – 2009 Amendment reflect the aggressive activities to be pursued by the RTC aimed at increasing transportation revenue and decreasing project development and implementation costs. The financial goals focus on securing stable revenue and controlling costs for current and future transportation systems and services.

PLAN DEVELOPMENT PROCESS

Because of growing concerns regarding the air quality in the North Central Texas area, and the lack of ability to fund many desired transportation projects and programs, Mobility 2030 – 2009 Amendment was developed in such a way that available funds are allocated to the lower cost (but most cost-effective) and most air quality beneficial projects and programs first, and then the more traditional major capital intensive projects, if they could be afforded, both from a financial and air quality standpoint. A diagram outlining this philosophy is shown in [Exhibit C-2](#).

Exhibit C-1. Goal Summary

Transportation

- Accommodate Expected Demographic Growth
- Reduce Traffic Congestion
- Provide Multimodal Options
- Improve Travel Efficiency

Quality of Life

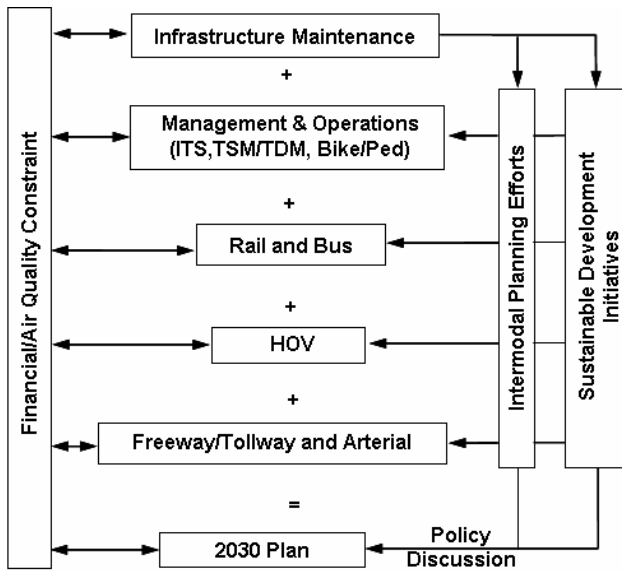
- Provide for Continued Economic Development
- Provide Increased Transportation Accessibility
- Reduce Environmental and Community Impacts

Financial

- Pursue Stable, Long-Term Revenue Options
- Reduce Transportation System Costs

Mobility 2030 Identifies Projects and Programs Which Balance These Goals

Exhibit C-2. Plan Development Process



The process begins by assuming the current infrastructure and other transportation strategies are in place. Then, funding necessary to maintain and operate the current transportation system was allocated first. Next, an assessment of the year 2030 travel forecast was done to identify future congested locations and quantify transportation system needs, or deficiencies. Our first priority is then to squeeze the most efficiency out of our current transportation system as possible and to eliminate as many trips as possible from the system. Congestion mitigation strategies were developed to increase transportation system efficiency through transportation systems management, and reduce drive-alone travel through travel demand management, including bicycle and pedestrian opportunities. With these strategies assumed, alternative rail systems

were developed in an effort to reduce automobile travel. If we cannot eliminate the trip altogether, at least we can encourage a mode change to transit. Following the identification of a recommended rail system, high occupancy vehicle (HOV), and managed facilities were evaluated. The idea is that after reducing as many automobile trips as possible, we can then increase auto occupancy of the remaining trips. Finally, to accommodate the remaining demand, single-occupant vehicle capacity was evaluated in congested corridors. Throughout the development of each of these components, air quality and financial impacts were evaluated to ensure financial feasibility and that air quality conformity requirements could be met. In addition, each component was also reviewed for sustainable development and intermodal opportunities so that the recommendations minimized community impacts and maximized freight movement.

Through this process, projects, programs, and policies were developed which aggressively target traffic congestion and improve air quality for the DFW Metropolitan Area in a cost-effective manner.

REGIONAL GROWTH

A key element of travel forecasting is the development of accurate demographic forecasts. The demographic projections drive the travel forecasting process because they provide information regarding potential locations of increased residential and employment centers, which generate increased travel and traffic. The DFW Metropolitan Area was one of the most rapidly growing areas in the U.S. during the 1990s. The year 2000 Census lists the Dallas-Fort Worth Metropolitan Area as the ninth largest urban area in the country with a growth rate more than twice that of the eight larger areas. By the year 2030, the region is expected to attract nearly three million new residents and over two million new jobs. Planning the development of an efficient, effective transportation system must be a top priority in order to maintain the region's quality of life and economic vitality.

IMPLICATIONS FOR REGIONAL MOBILITY

The dramatic growth that the projections predict will undoubtedly have mobility implications for the region. As previously stated, the demographic projections drive the travel forecasting process, and greater demographic activity in certain areas clearly means increased travel for those areas. Current travel trends brought about by the growth in population and employment in the DFW Metropolitan Area have led to increased travel in the region, which has translated into increased traffic congestion. Since the region is projected to continue to undergo rapid growth, travel and associated congestion will also increase, unless appropriate improvements are made to the regional transportation system.

Weekday vehicle miles of travel (VMT) are on the rise in the region. Total VMT for the region was 125 million in 1999, meaning that on a typical weekday, area residents travel approximately 125 million miles on area freeways, arterials, and local streets. In order to equal this amount of travel, one would have to drive from coast to coast over 35 thousand times. VMT has steadily increased from 66 million in 1980 representing a 92 percent increase over this 19-year period. Average VMT per person has also increased from 22.8 miles per day to 27.6 miles per day, representing a 21 percent increase.

PLAN PERFORMANCE AND FINANCIAL CONSTRAINT

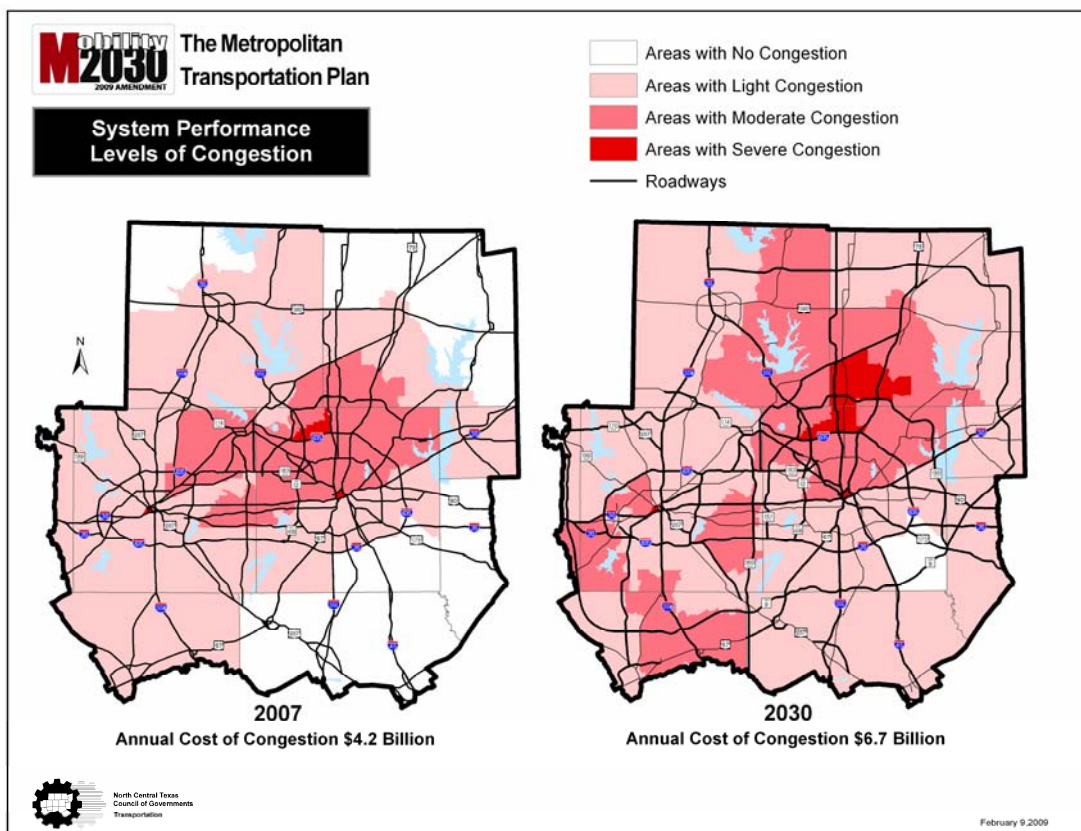
Increased travel is having an impact on the DFW Metropolitan Area roadway system. While travel is increasing, revenues to support construction and maintenance of the roadway system have not kept pace. VMT has nearly doubled from 1980 to 1999; however, highway expenditures during the same time period remained relatively constant in real terms. This imbalance between travel demand and roadway supply has resulted in a significant increase in congestion and roadway maintenance needs. [Exhibit C-3](#) graphically shows the congestion levels of the region in 2007, resulting in a social cost of approximately \$4.2 billion annually. This exhibit also shows what the congestion levels are expected to be if the recommendations of the plan are implemented, resulting in an annual cost of \$6.7 billion.

As described above, the plan recommendations were developed so as to increase travel efficiency and get the most use out of our existing transportation system first, then add improvements based on their cost-effective ability to reduce drive-alone travel. Programs and policies necessary to support the overall goals are also included.

REVENUE/COST IMBALANCE RECONCILIATION INITIATIVES

The financial constraint approach does not tie the plan to any specific revenue generation strategy such as gas tax increases or percentage of gas tax revenue returned to the state. This allows for a more flexible approach to financial planning. While flexible in its approach, this practice also puts an increasing burden on the Regional Transportation Council to monitor the financial situation of the plan on a regular basis and make adjustments accordingly.

Exhibit C-3. System Performance Levels of Congestion



It is proposed that the following strategies be implemented in order to close the gap between revenue and costs:

- Pursue congestion pricing opportunities through managed facilities in specific corridors identified through major investment studies;
- Continue value engineering initiatives;
- Increase DFW share of State allocation;
- Continue to pursue legislative actions aimed at increasing revenue through initiatives identified by the RTC Mobility Plan Finance Subcommittee; and
- Decrease project costs through streamlining the project development process.

The financial status of the plan will be reviewed prior to each Texas legislative session. The RTC will monitor federal, state, and local legislative initiatives and develop policy positions which are in support of the financial goals of Mobility 2030 – 2009 Amendment. This legislative monitoring effort will be coordinated with those of other metropolitan planning organizations, local and state governments, and other agencies and interest groups such as the National Association of Regional Councils, the Association of Metropolitan Planning Organizations, the National League of Cities, and others as appropriate.