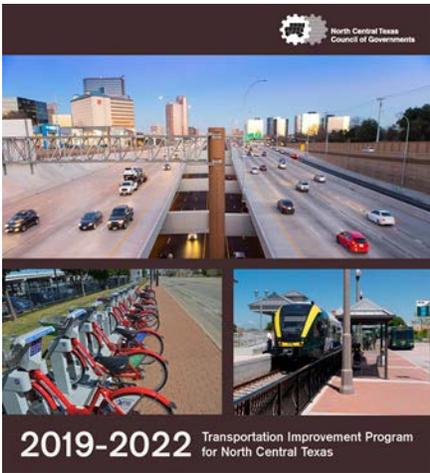


Appendix C

Summary of Metropolitan Transportation Plan



Appendix C

Summary of Mobility 2045: The Metropolitan Transportation Plan for North Central Texas

INTRODUCTION

Mobility 2045: The Metropolitan Transportation Plan for North Central Texas (*Mobility 2045*) defines a vision for transportation systems and services in the Dallas-Arlington-Fort Worth (DFW) Metropolitan Area and will guide the implementation of regional transportation policies, programs, and projects through the year 2045.

REGIONAL ISSUES

The Dallas-Fort Worth region continues to experience sustained population growth, with over 100,000 people moving to the region each year. The 2010 Census lists the Dallas-Fort Worth Metroplex as the fourth largest urban area in the United States with a growth rate more than twice the eight largest areas. By 2045, the population is expected to grow by 51 percent to 11.2 million residents.

ECONOMIC ISSUES

North Central Texas is a major economic, social, and political center of both Texas and the United States. The region represents 30 percent of the state's gross domestic product and is the 12th largest metropolitan economy in the world. By 2045, employment in the region is expected to grow by 46 percent to 7 million jobs. An efficient and effective transportation system is key in accommodating this growth. Without adequate funding to sustain mobility, it will be difficult for the region's transportation system to accommodate this new employment and economic activity.

AIR QUALITY ISSUES

Under the Clean Air Act, the Environmental Protection Agency classified the ten-county area of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise County as nonattainment for exceeding the 8-Hour Ozone National Air Quality Standard.

In addition, final designations were released in 2018 for the 2015 ozone standard, which removed Rockwall County from nonattainment. However, the region remains under both standards. This means mobility plans must promote strategies, such as reducing congestion, to decrease air pollution in the region to acceptable levels or risk losing federal and state funding for transportation.

FINANCIAL ISSUES

Mobility 2045 is required to be financially constrained, meaning projects and programs can only be included as a recommendation in the plan if funding is anticipated to be available throughout the life of the plan. The Dallas-Fort Worth area will need approximately \$389 billion in transportation funding by 2045 to alleviate the most severe levels of congestion. The financial plan reveals the region could anticipate receiving \$135.5 billion in revenue to fund transportation projects from now until 2045.

LEGISLATIVE REQUIREMENTS

Metropolitan Planning Organizations (MPOs) were created to ensure local communities within designated regions have a voice in determining how federal and state transportation funds are spent. As a result, MPOs are legislated to develop and maintain a Metropolitan Transportation Plan for the region. In 1974, the North Central Texas Council of Governments became the designated MPO for the Dallas-Arlington-Fort Worth region.

In 2015, Congress passed a new five-year transportation funding bill called Fixing America's Surface Transportation Act, or the FAST Act. The FAST Act builds upon previous legislation and provides additional funding for transportation projects and new planning requirements.

Mobility 2045 was developed in accordance with the FAST ACT through a performance-driven, outcome-based approach using the following planning factors:

- Support the economic vitality of the region, enabling global competitiveness, productivity, and efficiency.
- Increase the safety and security of the transportation system for all users
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development
- Enhance the integration and connectivity of the transportation system for all modes and users
- Promote efficient system management and operation
- Emphasize the preservation of the existing system
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
- Enhance travel and tourism

METROPOLITAN TRANSPORTATION PLAN DEVELOPMENT PROCESS

MPO staff developed Mobility 2045 amid growing concern about increased congestion, restrictive air quality requirements, and the balance of tax versus toll funded projects in an environment of scarce funding resources for transportation. Staff optimized existing funds by prioritizing recommendations to strategically invest in transportation improvements. The principles used to allocate funds included:

- Maintain and operate existing facilities
- Improve the efficiency of existing facilities
- Reduce single-occupancy trips
- Improve land use-transportation connection
- Increase transit trips
- Increase auto occupancy
- Increase system capacity for autos

MOBILITY 2045 PLANNING ELEMENTS

A number of key planning elements played a role in the development of the Mobility 2045 recommendations. The major sections of the plan reflect these elements and their importance in providing a quality transportation system.

- **Financial Reality:** Balances the range of existing and expected financial resources to adhere to the financial constraints of Mobility 2045.
- **Social Considerations (Environmental Justice):** Considering the benefits and burdens of transportation on communities is important to ensure specific groups or communities do not experience disproportionate or adverse impacts due to improvements to the transportation system.
- **Environmental Considerations:** Supports a transportation system that maintains and enhances the environment and complements conservation efforts.
- **Operational Efficiency:** Using technology, and other operational strategies to manage congestion and the demand placed on the system to maximize the current network capacity and substantially improve congestion and air quality in the region. This effort includes promoting efficient and effective relationships between land-use and transportation.
- **Mobility Options:** Supports multi-modal transportation solutions, including bicycle and pedestrian facilities, roadways, transit, high-speed rail, aviation, and freight accommodations.

PUBLIC INVOLVEMENT

Public participation is essential to the successful development of Mobility 2045. MPO staff solicited feedback from the public and educating residents through public meetings, community events, presentations, surveys, and print and digital media. Outreach efforts continued through all phases of plan development.

POLICIES, PROGRAMS, AND PROJECTS

The construction of transportation projects alone cannot achieve the goals of Mobility 2045. Recommendations consist of policies, programs, and projects reflecting regional priorities and goals.

GOALS

The development of Mobility 2045 was directed by a set of adopted goals which guide efforts to accommodate the mobility needs of a growing region. The adopted goals support efforts to improve the region's mobility, quality of life, system sustainability, and project implementation. The goals are shown in Exhibit C-1.

PLAN COSTS

Mobility 2045 provides a set of financially constrained recommendations in the form of a set of policies, programs, and projects to promote an efficient and effective transportation system. The total cost for all expenditures is listed in the table below.

Major Expenditure	Estimated Cost in Billions
Infrastructure Maintenance	\$37.5
Management and Operations Strategies	\$9.5
Growth, Development, and Land-Use Strategies	\$3.2
Public Transportation	\$33.3
Roadway System	\$52.0
Total	\$135.5

*Total may vary due to independent rounding

PLAN PERFORMANCE

Congestion Savings

Currently, the annual cost of congestion (travel delay due to traffic congestion) for all residents is approximately \$12.1 billion and is forecasted to rise to \$27.2 billion in 2045. If the plans, programs, and projects listed in Mobility 2045 are not implemented, the annual cost of congestion is estimated to rise to \$47.9 billion in 2045. This means that Mobility 2045 gives the region a savings of \$20.8 billion due to its efforts to reduce traffic congestion, which translates to around \$1,800 per resident in 2045.

Vehicle Miles and Hours Travelled

Measuring weekday vehicle miles and hours travelled (VMT and VHT) by automobiles is a long established measure for evaluating transportation system performance. In 2018, the region generated over 212 million VMT. This figure is expected to rise to 331 million in 2045, which is a 56 percent increase. Vehicle hours travelled is forecast to increase from 5.8 million hours per day in 2018 to over 10 million hours per day by 2045.

If no programs, policies, and projects from Mobility 2045 are implemented, vehicle hours of travel would rise from 10 to 13 million hours per day in 2045, which would add an extra 16 minutes of daily travel for each resident by 2045.

Mobility

- Improve the availability of transportation options for people and goods
- Support travel efficiency measures and system enhancements targeted at congestion reduction and management
- Ensure all communities are provided access to the regional transportation system and planning process

Quality of Life

- Preserve and enhance the natural environment, improve air quality, and promote active lifestyles
- Encourage livable communities which support sustainability and economic vitality

System Sustainability

- Ensure adequate maintenance and enhance the safety and reliability of the existing transportation system
- Pursue long-term sustainable revenue sources to address regional transportation system needs

Implementation

- Provide for timely project planning and implementation
- Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system

TRANSPORTATION BEYOND 2045

While Mobility 2045 recommendations detail strategic programs and projects to improve transportation in the region, all the transportation needs of North Central Texas still cannot be met. Unfunded transportation needs may be addressed through various solutions providing residents more choices as they travel throughout the region. As part of a continuous planning process, Mobility 2045 recommendations will be evaluated for their effectiveness and revised during the next update of the Metropolitan Transportation Plan.

T h i s p a g e i s i n t e n t i o n a l l y b l a n k