

Dallas County Mobility Plan

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Subject: Dallas County Mobility Plan – Final Comprehensive Summary

INTRODUCTION

Beginning in 2015, Dallas County with support from Kimley-Horn, began coordination with all municipalities and transportation agencies within the county to develop a unified thoroughfare plan, now appropriately renamed as a “mobility plan”, that considers each of the different multi-modal networks (thoroughfares, transit, bicycle/pedestrian, and trails). Throughout a process of outreach, data collection, and a series of workshops in 2017 and 2018, Dallas County staff and Kimley-Horn worked together to develop the Dallas County Mobility Plan that integrates the transportation planning goals and infrastructure priorities from the thoroughfare and multimodal plans of each city in Dallas County. Based on this coordinated input to the countywide plan, an updated MCIP selection criteria methodology was also developed that will facilitate the selection, funding, and implementation of mobility solutions with the highest benefit to the Dallas County region. This memo provides a comprehensive summary of the approach and outline of the forthcoming Dallas County Mobility Plan document.

MOBILITY PLAN DEVELOPMENT PROCESS

The Dallas County Thoroughfare Plan originated in 1965 with one major update in 1973 and various minor updates over the years. The original plan provided the basic framework for thoroughfares within the County and was used to establish the basic County responsibility for major thoroughfares and the Road and Bridge Policy. Since then, the state of transportation in the region and the role of Dallas County as a planning and programming agency has evolved. Cities throughout Dallas County have increased in size and population, transportation strategies and technologies have advanced, and preferences for multimodal choices have changed. The County’s process to prioritize and fund the varying needs has reflected these changes. This 2019 update to the Dallas County Thoroughfare Plan, now known as the Dallas County Mobility Plan, incorporates the latest transportation priorities of the region, with coordination from each municipality within the County.

The initial phase of the Mobility Plan began with coordination with each city and transportation agency in Dallas County, including NCTCOG, TxDOT, DART, and STAR Transit. Information and map data from each city and agency’s transportation plans were gathered and digitized into a comprehensive county dataset. This included any adopted thoroughfare plans, bicycle and pedestrian plans, trails plans, roadway inventories, or other long-range transportation plans.

Two rounds of workshop meetings were held to review the data collection process and provide stakeholders with the opportunity to present their local transportation priorities for inclusion in the plan:

- Summer 2017 – Joint workshop with all Dallas County cities and transportation agencies
- Summer 2018 – Subarea focus group workshops with Dallas County cities and transportation agencies

City Workshop Feedback

During the series of workshops held in July-August 2018, many of the cities indicated increased interest in multi-modal and innovative transportation solutions, in addition to traditional thoroughfare connectivity needs. The following is a summary of potential projects that cities may be interested in submitting in future calls for projects:

- Bike/trail connectivity
- Pedestrian connectivity
- Transit station studies
- Transit alternatives
- Industrial-area connectivity
- Innovative intersection improvements
- Safety-related improvements

Stakeholder Feedback

In late 2018, individual stakeholder meetings were held with partner agencies that included an MCIP criteria discussion with NCTCOG and a freight focus group discussion hosted in southern Dallas County. Input gathered at each of these workshops were used in the development of the plan document and maps.

Socioeconomic Trends

In addition to input from local cities and agencies, the Mobility Plan also includes an evaluation of socioeconomic trends. In order to understand the comprehensive needs and prioritize the most effective solutions of a regional transportation system, a plan must not only consider the mobility demands of the area’s current population but also look to the future to anticipate where new needs will arise. This analysis assessed the region’s demographic and economic patterns and projections to understand what trends may be on the way.

DALLAS COUNTY TRANSPORTATION POLICIES AND SERVICES

The Road and Bridge Policy of the Dallas County Code defines the transportation planning and programming functions of the County. Dallas County is legally authorized to expend Road & Bridge funds to support the improvements and maintenance of five classifications of thoroughfares, roads, and bridges.

The updated Dallas County Mobility Plan and MCIP process most directly guides the prioritization and funding of Type B thoroughfare improvements. As the North Central Texas Council of Governments (NCTCOG) no longer maintains regional thoroughfare designations as part of its long-range transportation plan, the Dallas County Mobility Plan will now be the primary source to determine eligibility for funding.

Prior to this Mobility Plan, Type B projects were defined as follows:

Type B: Improvements and maintenance of thoroughfares and bridges of major cross-county importance which are either existing or proposed. The Regional Thoroughfare Plan for North Central Texas Council of Governments will be used as a guide to determine which thoroughfares are of major cross-county importance.

With the Dallas County Mobility Plan now the primary source for Dallas County regional thoroughfare designation to determine eligibility for funding, this Mobility Plan recommends the following update to the Type B project definition:

Type B: Improvements and maintenance of thoroughfares and bridges of major cross-county importance which are either existing or proposed. The Dallas County Mobility Plan will be used as a guide to determine which thoroughfares are of major cross-county importance.

In some cases, a city may request improvements to an existing or proposed thoroughfare not currently designated as a Type B Thoroughfare. The Mobility Plan outlines the roadway upgrade expectations required to make a thoroughfare eligible. If a thoroughfare is not currently designated as a Type B Thoroughfare, the following are expectations to upgrade the roadway:

1. Direct connection between two thoroughfares (i.e. street does not end in a maze of local streets)
2. Capacity
 - a. Ability to convey traffic volume greater than 2,500 vehicles per day (VPD) per lane OR
 - b. Ability to convey two or more modes of traffic with designated facilities (e.g. bicycle pavement markings, bus stops, sidewalks)
3. Note: Minimum of one (1) sidewalk must be present or included in a proposed thoroughfare improvement project.
4. Minimum speed limit of 30 mph
5. No restrictions on types of traffic
6. Transition to Type B must coincide with a project resulting in a capacity improvement accomplished through one or more of the following:
 - a. Addition of lanes
 - b. Intersection improvements
 - c. Designated facilities for alternate modes of traffic
7. Roadway must be included on the Dallas County Thoroughfare Plan. Roadways not currently designated as a Type B thoroughfare must be identified on a locally adopted thoroughfare plan to be added to the Dallas County Thoroughfare Plan.

Other Project Types

This plan primarily focuses on projects involving Type B facilities, and which are eligible for participation through the Major Capital Improvement Program (MCIP) process. The MCIP process is different than most, in that it involves partnering directly with the cities of Dallas County to implement transportation improvements. It is important to note recognize that Dallas County also maintains other

responsibilities related to the construction and maintenance of facilities outside of the Type B designation. In its more traditional function, Dallas County also maintains roads and bridges which are neither on the state highway system nor within the limits of a municipality. While the number of miles of county (Type A) roadways has significantly decreased over the years as cities have expanded, the maintenance of these facilities has remained an important responsibility of the County to provide for the basic transportation needs in unincorporated areas.

MCIP CALL FOR PROJECTS ASSESSMENT AND UPDATE

Assessment of Previous MCIP Call for Projects

The list of submitted projects and scoring criteria used during the 6th Call for Projects (2014) was evaluated to identify opportunities for updates to the call for projects process. While a significant number of submitted projects were related to thoroughfare capacity improvements, many of the projects either included multi-modal elements or were projects entirely focused on non-vehicular connectivity (bicycle, pedestrian, or transit-related improvements). This range of project types include trails, road diets, sidewalks, improved transit access, and planning studies. The previous MCIP scoring criteria was structured so that each project regardless of project type is scored equally using the same set of prioritization measures. This approach, however, produced limitations when comparing one project type to another, and the scoring criteria places a large emphasis on traffic operations and project delivery.

MCIP Project Category Updates

Based on a review of previously submitted projects and the feedback received from the cities and transportation agencies within Dallas County, a category-based approach to prioritizing projects was developed for the 7th Call for Projects, where projects would be identified based on the type of transportation system improvement or multimodal priorities. By expanding the project category options, the Dallas County Mobility Plan recognizes that local communities are highly interconnected in a variety of ways. Each project category would have its own independent prioritization process, which are based on quantitative and qualitative measures that are unique to the specific mode/program.

Four project categories were defined for MCIP project applications and evaluation:

1. **Roadway Capacity & Connectivity** – This category would focus on traditional thoroughfare improvement projects that improve congestion or mitigate traffic impacts, typically through increased roadway capacity or providing new thoroughfare connections. Roadway projects that also incorporate elements to enhance or accommodate travel for other modes would also be scored under this category.
2. **Bicycle & Pedestrian** – This category would focus on projects that specifically create new connections or improve access/safety for bicycles and pedestrians. Projects may include on-street bicycle facilities, shared-use paths, trails, or sidewalks. Projects that improve bicycle or pedestrian access to transit service may also be considered as part of this category.

3. **Safety** – This category would consider projects that do not necessarily improve congestion or efficiency of the roadway network, but rather are focused on improving the safety on thoroughfares or multimodal facilities. This may include improvements related to mitigating vehicle crashes, traffic calming, intersection crossings, or other safety measures. In order for a safety project to be considered, it must relate to a facility identified on the Mobility Plan. Funding will be limited to \$1 million Dallas County cost participation per project.
4. **Innovative & Alternative Transportation Solutions** – This category would encourage projects that involve alternative or innovative mobility strategies, particularly those that reduce single occupancy vehicle traffic. This category may include a wide range of transit-related improvements, including rail transit, bus transit, fixed-route shuttle service, and ride-share service. It is also intended to provide flexibility for projects that may involve future transportation technology, such as connected and autonomous vehicles, high-speed rail, Hyperloop, and “smart cities” technology. Projects considered as part of the Innovative and Alternative category should be part of a regional program already in existence coordinated by a regional project partner (e.g. NCTCOG, TxDOT, DART, or Dallas County).

Selection Criteria Update (7th Call for Projects)

Since 1999, six call for projects have been issued that have utilized a similar prioritization criteria. As part of the Mobility Plan, the scoring criteria and performance measures have been updated to be able to evaluate projects using both traditional criteria categories that maintain an emphasis on traffic congestion and project delivery and also scoring criteria that puts stronger emphasis on safety, multi-modal elements, community development and equity. Depending on the project category, the scoring criteria category weighting is adjusted to place greater emphasis on different project goals. For example, this allows roadway projects, which have a greater emphasis on vehicular capacity and reducing delay, to be compared effectively against multi-modal projects which seek to provide greater connectivity and increase mode choice.

Once all projects are scored in their independent categories, the top-rated projects from each set could then advance to a final list of prioritized projects, depending on available resources and County Commissioner approval.

The following are the recommended scoring category goals:

Project Scoring Goal	Scoring Goal Description
Regional Mobility	This goal seeks to prioritize projects that affect multiple jurisdictions and increase access to regional travel demand generators.
Congestion & Traffic Impacts	This goal seeks to prioritize projects that maximize the efficiency of vehicular travel within the roadway network.
Multimodal Connectivity	This goal seeks to prioritize projects that enhance access and connectivity between multiple modes of transportation.

Economic Vitality	This goal seeks to prioritize projects that strengthen and increase economic opportunity and provide benefit to historically underutilized areas.
Environmental Stewardship	This goal seeks to protect environmental resources and prioritize projects that are compatible with the natural environment.
Safety	This goal seeks to prioritize projects that support a safe transportation system for all users.
Feasibility & Ease of Implementation	This goal seeks to prioritize projects that are shovel-ready and have demonstrated support among all project sponsors.

MOBILITY PLAN MAP PACKAGE

Based on the plan data and input from each city and agency that participated in the Mobility Plan process, a series of three countywide plan maps were developed to represent the major components of the county transportation system: Thoroughfares, Bikeways & Trails, and Transit. Each of these plan maps represents existing and planned thoroughfare and multimodal facilities throughout Dallas County.

- **Thoroughfare Plan** - The Dallas County Thoroughfare Plan map represents the existing and proposed alignments of all arterial and collector thoroughfares throughout the county. This map was developed as a combination of each city’s individual thoroughfare plans.

Given that most cities use different sets of thoroughfare classifications, the Dallas County plan groups all thoroughfares into one of three general classifications: Primary Arterial, Secondary Arterial, and Collector. The following summarizes the typical characteristics of each thoroughfare classification:

Primary Arterial

- Typically the highest traffic volume corridors serving longer-distance trip demands
- Provides connectivity across and between cities
- Provides regional connectivity to major activity centers and travel demand generators

Secondary Arterial

- Provides connectivity for trips of moderate length – typically trips within cities
- Enhances access to the Primary Arterial network

Collector

- Distributes traffic from local streets to the arterials
- Balances providing access to destinations with traffic circulation

Future mobility projects concerning the county’s thoroughfare network will likely include a range of capacity, connectivity, and multimodal improvements. Some new thoroughfares will need to be constructed, and some existing roadways will need to be widened, in order to accommodate new growth and provide additional vehicular capacity. However, in areas where thoroughfares are already built to their intended capacities, adding travel lanes may not be a recommended approach to improving level of service or providing greater transportation options. In these cases, projects may be better focused on maintaining intersection performance, improving access management, making strategic connections to increase route choices, or increasing multimodal connectivity for transit, pedestrian, and bicycling trip alternatives.

- **Bikeways & Trails** - The Dallas County Bikeways & Trails map represents the existing and proposed alignments of major facilities intended for bicycle, pedestrian, or shared-use mobility. This map is assembled from each city’s bicycle plans, trails plans, or other plans that indicate active transportation routes.

These various routes have been grouped into one of three general classifications: Off-Street Trail, On-Street Bikeway, and Other Pedestrian Path. The following summarizes the typical characteristics of each bikeway and trail classification:

Off-Street Trail

- Facilities separated from roadways for use by bicyclists and pedestrians.
- These may include:
 - Sidepaths - shared-use paths immediately adjacent to a roadway
 - Trails - shared-use paths that don’t necessarily follow a roadway alignment and typically follow other features such as railroads, utility lines, or streams

On-Street Bikeway

- Dedicated facilities or travel lanes that carry bicycle traffic within street right-of-way
- These may include conventional bike lanes, buffered or separated bike lanes, cycle tracks, or bicycle boulevards

Other Pedestrian Path

- Some cities plan for enhanced paths for higher pedestrian activity and comfort
- These may include a range of facility types and designs, but often include wide sidewalks or urban trails
- **Transit** - The Dallas County Transit map represents the existing and proposed transit service routes for all transit service providers, as well as long-range regional transit corridors identified by NCTCOG. Transit service routes and station locations identified on the map include: light rail, regional commuter rail, streetcar, bus service (local, express, and on-call), and transit stations (rail, transfer centers, and park and rides).

Transit service in the region continues to advance, and the Dallas County Mobility Plan is positioned to adapt to changing needs and promote transportation improvements that enhance access to the area’s transit system. Transit studies and planned infrastructure improvements that are currently in progress include:

- DART Transit System Plan – As of 2019, DART is in the process of updating its long-range plan for regional transit service. Planned improvements under review include bus network efficiencies, potential streetcar opportunities, and service area growth.
- Cotton Belt Rail Corridor – The Cotton Belt Rail Corridor is a planned passenger rail line that will connect DFW Airport to the City of Plano, with stations planned to serve Dallas, Carrollton, Addison, and Richardson.
- D2 Subway – The D2 Subway alignment is a planned light rail corridor intended to provide a second rail line service across the Dallas Central Business District. This line is expected to improve rail transit capacity and reliability through the downtown area.
- Dallas Streetcar Central Link – The Dallas Streetcar Central Link is a proposed modern streetcar project connecting from the Convention Center area through the central core of Downtown Dallas, linking the current Dallas Streetcar system to the M-Line trolley near Uptown and Klyde Warren Park.

In addition to supporting connectivity to existing and planned transit facilities, Dallas County also seeks opportunities to support cities without existing transit. STAR Transit is an example transportation partner that has provided bus transit service in communities outside of the DART service area.

Mobility Plan Mapbook

In addition to the three transportation component maps, the Dallas County Mobility Plan Appendix includes a mapbook comprised of additional plan data. This includes the following:

- Travel Demand Generator Map – Residential and employment development patterns often dictate many transportation decisions since commuting patterns create intense demand on the transportation network at concentrated periods of the day. This emphasizes the need for cities to better align land uses and the residence/workplace relationship to reduce vehicle miles traveled or provide alternative transportation options for everyday travel. This mobility plan recognizes that each community is made up of a variety of transportation demand generators that each have their own mobility needs.

Demographic Forecast Maps (NCTCOG 2045 Mobility Plan Data)

- 2018 Population Density
- 2045 Population Density
- 2018-2045 Population Change
- 2018 Employment Density
- 2045 Employment Density
- 2018-2045 Employment Change