DALLAS COUNTY MOBILITY PLAN

FEBRUARY 2020

Kimley»Horn

ACKNOWLEDGMENTS

DALLAS COUNTY COMMISSIONERS COURT

Dallas County Judge Clay Jenkins

District 1 - Dr. Theresa Daniel

District 2 - J.J. Koch, Present Commissioner; Mike Cantrell, Past Commissioner

District 3 - John Wiley Price

District 4 - Dr. Elba Garcia

MOBILITY PLAN DEVELOPMENT TEAM

Dallas County Public Works

- Alberta Blair, P.E., Director of Public Works
- Antoinette Bacchus, P.E., Past Assistant Director of Transportation & Planning
- Tushar Solanki, P.E., Assistant Director of Transportation & Planning
- Jonathan Toffer, Assistant Director of Program Engineering & Management
- John Mears, Assistant Director of Engineering & Construction
- Les St. John, Assistant Director of Property Management & Utility Coordination
- Micah Baker, Senior Transportation Planner
- Minesha Reese, Transportation Planner

PARTICIPATING CITIES AND AGENCIES

Addison
Balch Springs
Carrollton
Cedar Hill
Cockrell Hill
Combine
Coppell
Dallas
DeSoto
Duncanville
Farmers Branch
Ferris
Garland
Glenn Heights
Grand Prairie
Grapevine
Highland Park
Hutchins
Irving
Lancaster
Lewisville
Mesquite
Ovilla
Richardson
Rowlett
Sachse
Seagoville
Sunnyvale
University Park
Wilmer
Wylie
North Central Texas Council of Governments (NCTCOG)
Dallas Area Rapid Transit (DART)
STAR Transit
Texas Department of Transportation (TxDOT)

CONSULTANT TEAM

Kimley-Horn

- Drew Brawner, AICP
- Jeff Whitacre, P.E., AICP, PTP

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DALLAS COUNTY
PUBLIC WORKS

December 17, 2019

Subject: Support for the Dallas County Mobility Plan

Over the past few decades, many changes have taken place in the county to bring about the need to update and establish our own guiding transportation plan that will reflect the growing and ever-changing needs of the cities and citizens of Dallas County. Through the collective efforts of the Dallas County Public Works Department, the Dallas Commissioner's Court, the cities of Dallas County, and our partner agencies, we were able to develop Dallas County's first Mobility Plan.

Dallas County Public Works has successfully managed the Major Capital Improvement Program (MCIP) for the past 20 years. Over this span, Dallas County has invested over $600,000 to leverage a total value of over $1.6 Billion in infrastructure improvements for the citizens of Dallas County through partnerships with the cities and transportation agencies of Dallas County. However, as transportation continues to evolve and meet new challenges, we want to ensure the on-going success of the MCIP by meeting the needs of the future. This success is expanded through the Mobility Plan as the Commissioners Court has given the Public Works Department an opportunity to broaden our outreach for mobility in Dallas County.

The Dallas County Mobility Plan was developed by the Transportation and Planning Division of the Dallas County Public Works Department. The Plan was completed under the direction of the previous Assistant Director Antoinette Bacchus P.E. and published under the direction of Assistant Director Tushar Solanki P.E. The Mobility Plan will serve as a guide for transportation infrastructure improvements in Dallas County over the next 25 years. This plan will push the limits on what it means to be leading planners. The Mobility Plan recognizes the need to provide regional connectivity, a multimodal transportation system, economic development, and to compliment and provide access to existing communities. These goals as well as others will be achieved through the project criteria updates made in the Mobility Plan.

The Public Works Department has a significant role to play in the unique and exciting environment of Dallas County. Our cities and citizens need us to be proactive leaders and to ensure that we have the County and region-wide transportation picture in focus. The Mobility Plan will help lead us towards this vison.

Sincerely:

Alberta L. Blair, P.E.
Director of Public Works

DALLAS COUNTY JUDGE CLAY LEWIS JENKINS

December 11, 2019

The Dallas County Mobility Plan is the culmination of years of work dedicated to ensuring the goals of the Major Capital Improvement Program (MCIP) align with the goals of Dallas County. In collaboration with 31 cities that are partially or wholly in Dallas County, the North Central Texas Council of Governments, Dallas Area Rapid Transit, STAR Transit and the Texas Department of Transportation, the Dallas County Mobility Plan represents our shared vision for a transportation system that provides seamless and accessible connectivity for our 2.6 million residents.

The original Dallas County Thoroughfare Plan, approved in 1966 and updated in 1973, laid the foundation for a county tasked by the state to construct and maintain all roads and bridges not part of the state highway system or within city limits. Over 35 years later, and as we embark on a new decade, the updated plan addresses 21st century mobility solutions while recognizing the importance of socioeconomic trends, innovation, population density and safety.

Dallas County strives to be a proactive regional partner as identified in our current vision statement. The cornerstone of our partnership with the municipalities in the county is our Major Capital Improvement Program. Since 1999, Dallas County has spent $600 million dollars in county funds to leverage more than $1.6 billion dollars for transportation infrastructure projects through six separate calls for projects. The projects selected through the MCIP process are beneficial to both entities and responsive to current needs.

As we proceed through the 7th call for projects, I am encouraged by the new project candidate categories which better reflect our evolving transportation needs in the County. Implementing new technology, assessing aging or outdated infrastructure and emphasizing neighborhood redevelopment are just a few of the issues we will have to take into consideration as we move forward into the next decade.

I support the Dallas County Mobility Plan and extend my sincere appreciation to the Dallas County Public Works team and our internal and external partners for their commitment to ensuring Dallas County remains a model government entity.

Sincerely,

Clay Lewis Jenkins
Dallas County Judge

411 Elm Street Dallas County Administration Building Dallas, TX 75202 (214)653-7949

COMMISSIONER DR. THERESA M. DANIEL
ROAD & BRIDGE DISTRICT 1

Support for Dallas County Public Works 2019 Mobility Plan

When we take the job of Dallas County Commissioner, one of the biggest and most important things we do is keep our residents moving throughout the County. I believe that each person should have a choice about how they do that. If it's by automobile, we should provide the infrastructure to drive safely to your destination. If it's by foot or by bicycle, we should have the trail system to help get you to where you need to be.

Dallas County Public Works uses a model of regional mobility and works cooperatively on transportation matters with cities, regional transportation partners and Dallas County residents in developing and maintaining an effective and sustainable transportation system. This master plan will guide us for years to come.

To quote the document, "The County intends to use the Mobility Plan as a living document that responds and evolves to the changing needs of the region with continued local input."

I fully support these efforts because they reflect my philosophies of access, equity and choice. I hope you all stay on the journey with us.

Sincerely,

Dr. Theresa M. Daniel
Dallas County Commissioner

411 Elm Street, Administration Building,
2nd Floor, Dallas, Texas 75202
(214) 653-6668

DALLAS COUNTY
COMMISSIONERS COURT
J.J. KOCH - DISTRICT 2 COMMISSIONER

December 16, 2019

To: Citizens of Dallas County

Dallas County and the Department of Public Works has long provided a forward-looking vision for mobility for the residents of Dallas County. When Dallas County first developed its Dallas County Thoroughfare Plan, Dallas County provided a framework for uniform thoroughfare development for the municipalities and Dallas County. The Dallas County Thoroughfare Plan had a vision that anticipated population growth, development, and urbanization of Dallas County and stood Dallas County in good stead for over 50 years.

While the 1973 update of the Dallas County Thoroughfare Plan (the last major update of the plan) provided an efficient foundation for transportation planning within Dallas County, the plan was in dire need of modernization to incorporate new approaches and solutions to the transportation problems citizens of Dallas County encounter in their daily lives. Dallas County Public Works recognized the solutions to these problems required more than just building more and bigger roads.

The Dallas County Public Works Department deserves credit for undertaking the important task of generating a fresh plan focusing on overall mobility and moving beyond addressing major thoroughfares as has been done in the past. The Dallas County Mobility Plan emphasizes concepts of multimodal travel by including mass transit, pedestrian, bicycle, trail networks, and new technologies into this planning document.

The Dallas County Mobility Plan represents an innovative new framework for mobility in Dallas County. Families going to work, dropping children to school, visiting local businesses, or going to the neighborhood park, will have many more transportation options beyond driving by car. These are the opportunities to forge lasting memories through personal interactions, such as talking to a neighbor while on a trail, that do not happen using a car for travel.

This Dallas County Mobility Plan, developed through coordination with all the municipalities of Dallas County, will serve our transportation partners and citizens well for the next 25 years. As Dallas County, with our municipal and regional partners, implements this plan, Dallas County builds on its heritage as a transportation leader, but more importantly, this plan sets the foundation for future transportation projects that will improve the quality of life for our citizens for years to come.

Commissioner J. J. Koch
Dallas County, District 2

411 ELM STREET, 2ND FLOOR
DALLAS, TX 75202
214-653-6100

OFFICE OF COMMISSIONER
DISTRICT NO. 3

JOHN WILEY PRICE

Support for the Dallas County Mobility Plan

I am elated to share my support for the Dallas County Mobility Plan. The adopted plan supports my goals of improving economic growth and development in Dallas County especially for the Southern Dallas County region, an area yielding the most opportunity for economic development.

The Dallas County Mobility Plan serves as a regional guide for transportation planning in Dallas County. Dallas County Commissioner District 3 is the most dynamic and diverse quadrant of our county and is well situated for economic growth and development. The District is home to 16 different municipalities as well as host to a majority of the remaining unincorporated area in Dallas County. The Mobility Plan has helped to promote regional connectivity by integrating all the individual transportation plans from our partner cities. By doing so the plan will aid in creating future opportunities that will promote mobility and unlock the development potential in the southern sector. District 3, with the help of the Dallas County Public Works Department, has led the Transportation discussion through the creation of the Southeast Area Transportation Alliance (SEATA) in collaboration with Best Southwest Transportation for the southern sector.

As the southern sector begins to gain momentum, largely in part by the jump-start of the Inland Port coined the Dallas County International Inland Port, the Mobility Plan will help to identify strategic opportunities to facilitate better regional travel across Dallas County. Many of these opportunities will be realized through the Seventh Call for Projects that is currently underway. The Mobility Plan provided the foundation and framework for the Seventh Call project selection process, which includes updated criteria to promote regional mobility, economic vitality and safety among other criteria.

I fully support the Dallas County Mobility Plan and the efforts to continue to support my ideology that transportation leads to economic development.

Sincerely,

John Wiley Price
Dallas County Commissioner, District 3

Administrative Office: 411 Elm Street, 2nd Floor Dallas, TX 75202 (214) 653-6671
District Office: 1506 Langdon Road Dallas, TX 75241 (972) 225-2378
website:http://www.dallascounty.org

DR. ELBA GARCIA
DALLAS COUNTY COMMISSIONER
DISTRICT 4

December 17, 2019

Re: Support for Dallas County Public Works 2019 Mobility Plan

It has been very encouraging to see the success of the Dallas County Mobility Plan unfold. The Public Works team has done an outstanding job of not only engaging the County Commissioners and their staff, but also all of the cities in Dallas County and our many partner agencies in this effort. The collaboration that has helped form the Mobility Plan is a reminder of how the Public Works department continues to be a valued partner in our region.

Commissioner District 4 is made up of many historic neighborhoods, the Greater Dallas Asian American Trade District, two large and rapidly growing suburban cities, and the County's two largest airports. As such, there are varying transportation needs for this area now and in the future. Through continued collaboration, the Mobility Plan is a tool that will help Dallas County and the cities of Dallas County to address these needs in new ways that will help further our local and regional mobility system.

Dallas County continues to be one of the fastest growing counties in the nation, adding more cars on the road each and every day. To provide for this growth we must have a multimodal approach to transportation and it is imperative that we give the citizens of Dallas County a choice for their transportation needs. This multimodal approach to transportation is key to providing access for all and lowering congestion through improved mobility.

I look forward to the continued progress of implementing Dallas County's vision through the Dallas County Mobility Plan and am delighted to share my support for this historic document that will guide our Mobility projects in the future.

Sincerely,

Dr. Elba Garcia
Dallas County Commissioner
District 4
Elba.GarciaDDS@dallascounty.org

4403 W. ILLINOIS DALLAS, TEXAS 75211 214-339-8381 FAX: 214-337-9558
411 ELM STREET DALLAS, TEXAS 75202 214-653-6670 FAX: 214-653-7057

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CHAPTER 1

INTRODUCTION

OVERVIEW OF THE PLAN

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 county roads and bridges. Since then, the state of transportation in the region and the role of Dallas County as a planning and programming agency have evolved. Cities throughout Dallas County have increased in population, urbanized development, and land mass—leaving just a few less-developed areas of unincorporated land mostly in the northeast and southeast areas of the County. Transportation strategies and technologies have also advanced, and preferences for multimodal choices have changed, providing new challenges and opportunities. 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 multimodal transportation priorities of the region, with coordination from each municipality within the County.

Dallas County Vision: Dallas County has previously identified vision statements to guide decisions and how it intends to serve citizens of the County over future years. Currently, the five Vision Statements of the 2017-2021 Administrative Plan are for Dallas County to be:

- Operationally, a model government entity
- A healthy community
- Safe, secure, and prepared
- A proactive regional partner
- The destination of choice for businesses and residents

Dallas County Public Works (DCPW) anticipates the Dallas County Vision in its own Vision Statement, adopted in 1999. The DCPW Department Mission and Vision Statements consist of the following:

Mission Statement: Our mission is to improve the quality of life of our customers—the citizens, taxpayers, transportation users, communities, and internal County partners—by effectively planning, developing, implementing and administering approved regional public works transportation projects, supporting maintenance of countywide roads and bridges, and providing real property management services.

Vision Statement: Dallas County Public Works Department…

- A recognized leader in regional transportation planning and coordination.
- An effective agent and valued partner for planning, design, right-of-way acquisition, and construction of high value-added regional transportation projects.
- A vital part of Dallas County government.
- A values based organization; Respected, Responsive, Reliable; demonstrating extraordinary caring…
- Caring leadership of our County people;
- Caring partnerships focused on our customers;
- Caring stewardship of the fiscal and natural resources we manage.

The core purpose of this Mobility Plan is to assure alignment of the Major Capital Improvement Program (MCIP) with the mutual goals of the County's Vision and the Public Works Department's Mission and Vision. It is intended to serve as a regional guide for transportation planning in Dallas County and promote a countywide multimodal transportation system that:

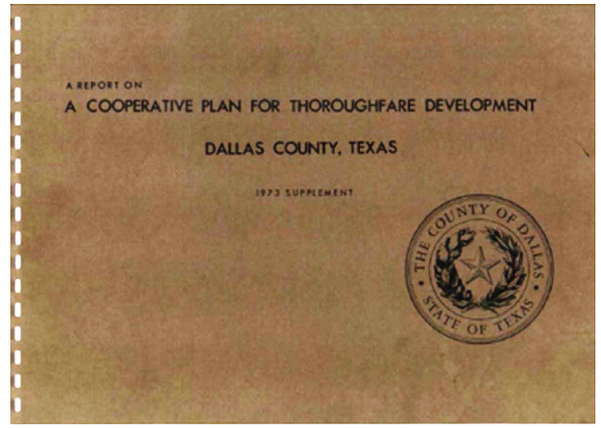
- Integrates the transportation planning goals and infrastructure priorities of each city's thoroughfare and multimodal plans;
- Promotes greater coordination between cities, regional transportation partners such as NCTCOG, TxDOT, DART, STAR Transit, etc. and Dallas County in developing and maintaining an effective and sustainable transportation system; and
- Influences the availability and access to transportation options by facilitating funding partnerships to implement mobility solutions with the highest benefit to the Dallas County region.

HISTORY OF DALLAS COUNTY TRANSPORTATION POLICIES & PLANS

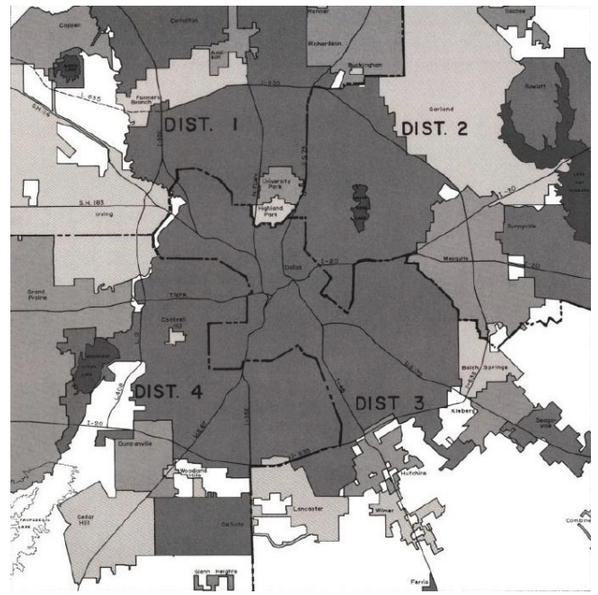
Throughout much of the 20th century, as the Dallas region urbanized, Dallas County played a significant role in the planning and implementation of new thoroughfares. A major area of responsibility given to the County by state statutes is the construction and maintenance of all roads and bridges which are not part of the state highway system or within the limits of incorporated municipalities. The Commissioners Court has met these responsibilities through road and bridge districts, and authorized funds for roadway improvements under the County's Road and Bridge Policy. This policy refers to the types of roadways defined by state law and outlines the facilities eligible for County funds, designating them from Type A to Type E roadways. Road and bridge staff under each commissioner primarily focus on Type A (public roads and bridges within unincorporated portions of the County) and Type B (incorporated roads and bridges of major cross-county importance). Notably, the County's Major Capital Development Fund is also used to fund development and construction of significant additions to the County's transportation and trail systems, again, provided they are classified as regionally significant (Type B).

Types of Projects

Article 16, Section 24 of the Texas Constitution, together with Chapter 251 of the Texas Transportation Code, allow the County Commissioners Court to lay out and establish, change and discontinue public roads and highways, and to exercise general control over all roads, highways, ferries and bridges in their counties. This includes establishing requirements for the classification of county roads and authority to expend County funds within municipalities for the construction or improvement of roadways.

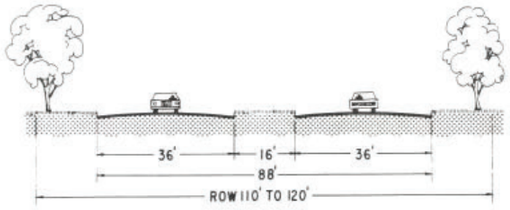


1973 DALLAS COUNTY THOROUGHFARE PLAN

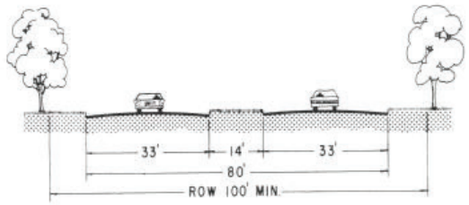


1973 DALLAS COUNTY CITIES & COMMISSIONER DISTRICTS

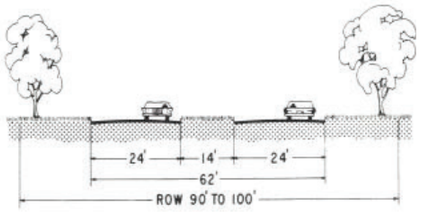
Thoroughfare Classifications (1973 Thoroughfare Plan Update)



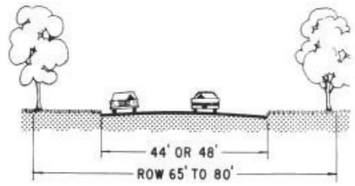
MAJOR THOROUGHFARE (100-120' ROW)



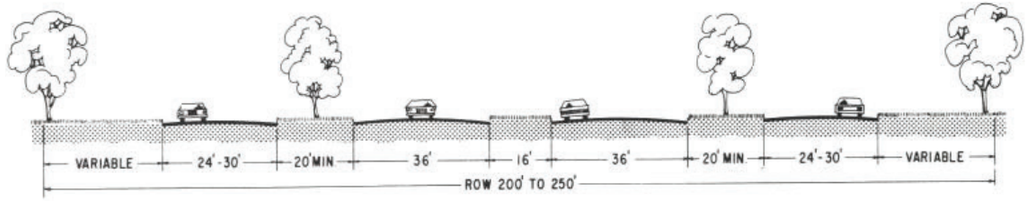
MAJOR THOROUGHFARE (100' ROW MINIMUM)

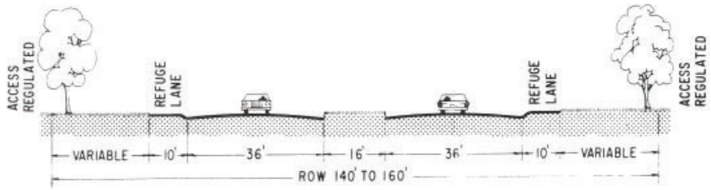


MAJOR THOROUGHFARE (90-100' ROW)



MAJOR THOROUGHFARE (65-80' ROW)





MAJOR THOROUGHFARE (EXPRESSWAY)

The County's Road and Bridge District policy establishes that the County is legally authorized to expend road and bridge funds to support the following types of projects only (Type A-E).

(1) Type A: Improvements and maintenance of roads and bridges located within the unincorporated portions of the county that are on public right-of-way. This includes roads within court-approved subdivisions in which the improvements and rights-of-way have been dedicated to the county and accepted by the commissioners court.

(2) Type B: Improvements and maintenance of thoroughfares and bridges of major cross-county importance which are either existing or proposed.

(3) Type C: Improvements and maintenance of thoroughfares which are affected by state highway programs, planning and policies, including right-of-way, curb and gutter, and storm sewer projects that participate with state department of highways and public transportation as designated by the state as being part of the state highway system.

(4) Type D: Improvements and maintenance of road and bridge projects on county-owned property.

(5) Type E: Improvements and maintenance of streets, alleys, roads, bridges and drainage facilities for a local governmental entity as defined under V.T.C.A., Government Code ch. 791.

Previous Thoroughfare Planning (1973 Thoroughfare Plan Update)

The 1973 update to the County's 1966 Thoroughfare Plan formally provided the criteria for establishing County thoroughfares and identified recommended specific thoroughfares for County implementation. With the development of the North Central Texas Council of Governments' 1977 Major Thoroughfare Plan, which incorporated thoroughfare plans of individual municipalities, Dallas County made reference to this regional thoroughfare plan to identify thoroughfares eligible for classification as Type B roadways. Type B roadway improvements are intended for thoroughfares and facilities within municipalities, but that serve major cross-county importance.

In addition to Type A and B roadways, Dallas County is also authorized to expend funds to support other Type C, D, and E projects, related to the State Highway System and County-owned property. The Bond Program through its history and now the MCIP Program are exclusively concentrated on projects that enhance or supplement Type B or regionally significant thoroughfares. Examples have included Belt Line Road, Pleasant Run Road, Cockrell Hill Road, Wintergreen Road, and Singleton Boulevard.

Previous Thoroughfare Classifications

The 1973 Thoroughfare Plan Update included five classifications to guide the design standards and necessary right-of-way for major thoroughfares. These thoroughfare classifications were applied to roadways recommended for County responsibility, which included thoroughfares that interconnected various County municipalities, connections to the state and interstate highway systems, and other connections with county-wide significance. Many of these previous thoroughfare recommendations have since become regionally significant arterials serving a variety of communities, employment centers and residential districts.

Based on this plan, major roadways were classified and designed as one of five thoroughfare types and were designed according to the typical cross sections pictured on this page:

- Major Thoroughfare (100-120' ROW) - This 6-lane divided section was the preferred thoroughfare standard for roadways intended to carry higher traffic volumes and speeds. In some cases, a Type A Thoroughfare could be converted into an expressway design.
  - *Examples: Belt Line Road (some locations)*
- Major Thoroughfare (100' ROW minimum) - This 4 to 6-lane divided section was a modified version of a Type A Thoroughfare intended for more urbanized areas and areas with limited right-of-way conditions. The 1973 Plan recommended the Type B standard section for numerous major thoroughfares to serve urbanized areas.

- *Examples: Coit Road, Plano Road, Pleasant Run Road, Elam Road*

- Major Thoroughfare (90-100' ROW) - This 4-lane divided section was intended for secondary thoroughfares or in recreational areas. This section was also used as an interim standard prior to widening to a 6-lane roadway.
  - *Examples: Walnut Street, Merritt Road, Bonnie View Road*
- Major Thoroughfare (65-80' ROW) - This 4-lane undivided section was recommended as a section alternative for some secondary thoroughfares.
  - *Examples: SE 14th Street, Lovers Lane*
- Major Thoroughfare (140'+ ROW) - This section provided the option to upgrade certain major thoroughfares to expressway standards with the addition of frontage roads or grade separations at selected locations.
  - *Examples: Dallas Parkway (Dallas North Tollway)*

History of the MCIP

Beginning October 1, 1999, Dallas County's five-year plan marked a change in the County's strategy for financing transportation projects. The Dallas County Commissioners Court stated its intention to phase in the larger projects in such a way to avoid the need to issue and pay interest on long term debt. The property tax for debt service was diverted over time to create a fund for major projects, whose timing is adjusted to conform to the constraints associated with the available cash. While counties across the state maintain county roads and act as partners with cities in financing transportation projects, at this time Dallas County is the only county government offering a call for projects funding opportunity through a program like the MCIP.

Roadway Project Implementation

Until 1999, Dallas County participated in roadway projects in cities and in unincorporated areas through a bond-financed infrastructure approach. In the early years of this approach, Dallas County was responsible for a much larger unincorporated portion of the County, which at the time still made up over 20% of the area. During this time, many state highway and thoroughfare projects were implemented through a series of bond programs, with the last one being approved in 1991. Analysis to determine which projects should be included in the bond programs was facilitated through a Thoroughfare Needs Assessment, including a major study in 1984. Potential projects were evaluated and awarded points based on criteria that included traffic volumes, delay, crash history, and thoroughfare continuity. Those projects with the highest scores demonstrated the most need for transportation improvements, and this information was used during project selection. However, it was recognized that the bond program approach was inflexible, offered limited participation opportunities from cities and the public, and resulted in long project delivery time frames (often exceeding 10 years). By 1999, an even greater majority of the thoroughfare network was incorporated in cities and it became clear that a new implementation approach was needed.

In 1999, the County transitioned to the current Major Capital Improvement Program (MCIP). This program provides a greater emphasis on partnering directly with cities to prioritize and implement projects with County-wide significance. Compared to the previous approach, this program is considered to be more efficient and effective, allowing the County to be more responsive to local needs with the ability to deliver more projects when they are needed. The project identification and prioritization process also involves greater regional partnership and public input, and this collaboration is key to successful decision-making about the future of the County's transportation system.

Dallas County has historically used a combination of long-term bond funds, state payments, cash-on-hand, and interlocal agreements to operate a Transportation Program. The goal of this MCIP program is to maintain the cross-county flow of traffic in an efficient manner. The program is managed by the Public Works Department, which facilitates and manages construction contracts rather than actually performing the roadwork. Beginning after the completion of the projects approved in a 1991 bond election, the Commissioners Court directed that cash finance would replace the traditional debt finance technique for transportation projects.

Between 1999 and 2019, there have been six MCIP calls for projects, with over $600 million in County funding used to leverage a total of over $1.6 billion in transportation infrastructure improvements across Dallas County. The following list summarizes the projects approved for funding through the MCIP process:

- 1999 - 86 project submitted, 58 projects approved
- 2001 - 60 projects submitted, 23 projects approved
- 2003 - 51 projects submitted, 35 projects approved
- 2005 - 66 projects submitted, 25 projects approved
- 2008 - 74 projects submitted, 30 projects approved
- 2012 - 76 projects submitted, 60 projects approved

The call for projects process occurs typically within a four-year cycle. Cities that have identified regional thoroughfare or multimodal projects can submit their proposed projects to Dallas County via the approved application. Selected projects should improve capacity, connectivity, and/or safety as outlined in the MCIP selection criteria. Cities must provide a 50% funding match to receive County funds, and a Master Agreement is required for application submission. Finally, projects compete against other mobility projects in their district, and those that are considered to have the greatest potential impact to the regional mobility system are selected for funding.

The project evaluation criteria have been updated over the course of the previous calls for projects, in order to reflect changing regional trends and new requests for transportation improvements. During the 1st call, almost all projects selected for funding were traditional thoroughfare projects. Since then, the percentage of projects involving multimodal improvements has significantly increased. In response to the growing desire for multimodal transportation funding, the 2009 call for projects expanded the criteria to evaluate bicycle and pedestrian projects. The 2019 criteria is once again updated to further offer opportunities for the evaluation of projects that benefit multimodal connectivity, safety, and innovative transportation solutions.

Five-Phase Project Delivery System

The transition in Dallas County to the MCIP funding commitment system occurred in

History of Dallas County Thoroughfare Planning

1966 — Dallas County adopts its first Thoroughfare Plan

1973 — Dallas County substantially updates its Thoroughfare Plan

1977 — Local governments in the Dallas-Fort Worth region cooperate with the North Central Texas Council of Governments (NCTCOG) to establish the area's first regional Thoroughfare Plan for North Central Texas. Dallas County modifies its Road and Bridge Policy to make reference to this regional thoroughfare plan regarding eligibility for classification as Type B Roads.

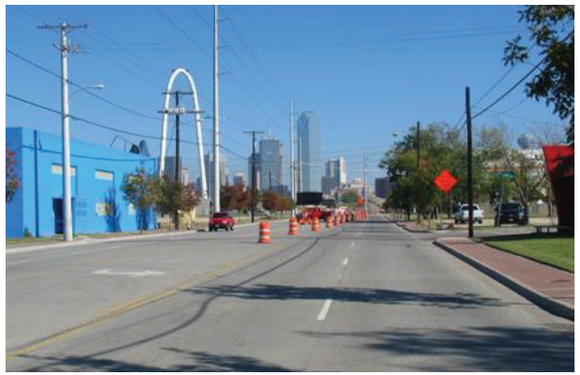
Until 1999 — Dallas County participates in roadway projects in cities and in unincorporated areas through a Bond Program until 1999 with last bond program in 1991

FY 1999/ 2000 — Dallas County replaces its bond-financed infrastructure approach with a "programmed" Major Capital Improvement Program (MCIP), with project selection taking place every two to four years. Since 1999, over $600 million in County funding has leveraged a total of over $1.6 billion in transportation infrastructure improvements across Dallas County.

April 2019 — Dallas County adopts Mobility Plan

2019 — Dallas County initiates the 7th MCIP Call for Projects

MT. CREEK PARKWAY (DALLAS)



SINGLETON BOULEVARD (DALLAS)

DANIELDALE ROAD (DESOTO)

combination with the development the Five-Phase Project Delivery System (Project Management Practices Manual). The purpose of this manual is to provide a standard guide of project management practices for delivering projects within Dallas County Public Works. The process is designed to greatly streamline the project production process by focusing more emphasis on project scope definition in a preliminary plan design, utility coordination, Context Sensitive Solutions, critical path items, and stakeholder involvement.

The design of projects selected through the MCIP Call for Projects is separated into Preliminary and Primary (Final) phases. Upon completion of a Preliminary Design (approximately 30%), a Pre-Design Charrette is held with the City (or Cities), utilities, and other project stakeholders to gain consensus on project scope, budget, schedule, and other critical issues. Preliminary plans include typical sections, horizontal and vertical alignment, a general drainage plan, and required ROW acquisition.

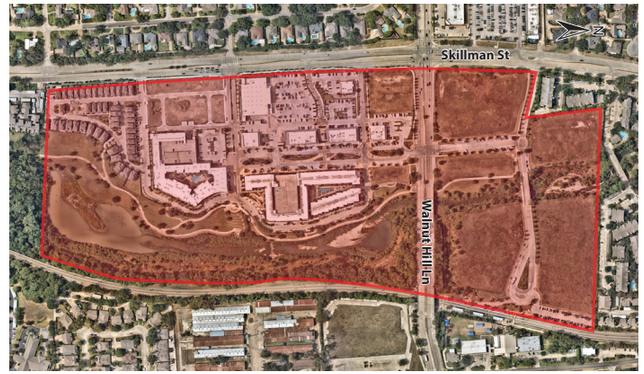
The Primary Design phase includes specific milestones for ROW Acquisition and permitting to begin early in the phase (around 60%) and ROW Acquisition to be completed later in the phase (around 90%) so that Utility Adjustments can be initiated to avoid delaying construction.

In the Construction Phase, partnering with the construction contractor is stressed in the form of a partnering session at the Pre-Construction Conference and follow-ups during construction. A Public Information Neighborhood Meeting is sometimes held to update project information and let the public know what to expect during and after construction.

Project Close Out includes final City invoicing, record drawings, contractor evaluation, and After Action Review.

Major steps of the Five-Phase Project Delivery System from planning to construction:

- Phase 1 - Planning & Preliminary Design
  - *Project Definition*
  - *Preliminary Design*
- Phase 2 - Primary Design
- Phase 3 - Design
  - *Design Completion*
  - *ROW Initiation*
- Phase 4 - ROW
  - *ROW Completion*
  - *Utility Adjustment*
- Phase 5 - Project Delivery
  - *Construction*
  - *Project Close Out*



LAKE HIGHLANDS TOD (DALLAS)

BELT LINE RD/PIONEER RD ROUNDABOUT (BALCH SPRINGS)

COTTONWOOD CREEK TRAIL (DALLAS)

CHAPTER 2

DALLAS COUNTY TRANSPORTATION POLICIES AND SERVICES

CHAPTER HIGHLIGHTS

This chapter introduces how the Major Capital Improvement Program (MCIP) has been updated for the latest call for projects and outlines the major transportation project types and transportation services facilitated by Dallas County. This includes four major Type B facility project types which have evolved from design guidance in the 1973 Thoroughfare Plan to today's range of mobility projects outlined in the updated Type B Facility definition. The updated definition has been broadened to include not only traditional roadway capacity projects, but also major bicycle and pedestrian projects and roadways in more rural areas of the County defined under the Subdivision Policy.

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. In its most traditional function, the County is responsible for Type A roads and bridges. These facilities, located in unincorporated areas, typically provide local access to rural land and agricultural uses, but also serve a regional function to move goods and people across County land area. Over time, many former Type A roadways have formed the foundation of the County's current urban arterial system. If and when a Type A roadway is annexed into a city, the maintenance responsibility of this roadway is assumed by that local government. While today there is a relatively smaller portion of unincorporated area that the County is responsible for, the acquisition of right-of-way and roadway design improvements for Type A roads is still a critical function.

MAJOR CAPITAL IMPROVEMENT PROGRAM (MCIP)

The MCIP replaced the traditional bond-financing approach to funding infrastructure improvements. The appeal of this program is that it allows a rotation of projects and ability to respond to changing city priorities. For example, it typically takes five to six years from funding approval to construction, and each year some projects will be authorized for funding while others are being completed.

Typically within a four-year cycle, Dallas County evaluates and selects transportation infrastructure improvement projects from a call for projects with priority given to those that improve capacity and safety on regional roadways and multimodal pathways within the County. The application process requires the completion of the MCIP Project Application form for each project, which includes the project eligibility requirements and the technical details form. The projects are selected by the Dallas County Commissioners Court.

Funding Categories for MCIP projects are divided into four project types:

Roadway Capacity and Connectivity

This category focuses on traditional thoroughfare improvement projects that improve congestion or mitigate traffic impacts, typically by increasing roadway capacity or providing new thoroughfare connections. Roadway projects that incorporate elements to enhance or accommodate travel for other modes are also scored under this category.

Bicycle and Pedestrian

This category focuses 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.

Safety

This category considers projects that do not necessarily improve congestion or efficiency of the roadway network, but rather are focused on improving 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 is limited to $1 million Dallas County cost participation per project.

Innovative and Alternative Transportation Solutions

This category encourages 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 and coordinated by a regional project partner (e.g. NCTCOG, TxDOT, DART, or Dallas County).

MCIP Project Eligibility (Type B)

This Mobility Plan most directly guides the prioritization and funding of eligible facility improvements. With the transition to the Major Capital Improvement Program (MCIP) in 1999, the preferred design of roadways is guided by the individual thoroughfare plans and mobility priorities of individual cities, with partnership from Dallas County. With this collaborative approach, an overarching set of County roadway standards are no longer needed to guide thoroughfare design. However, the plan does refer to a set of roadway design criteria to determine if a thoroughfare is eligible as a Type B roadway project.

Prior to this Mobility Plan, Type B projects were based on thoroughfare designations in the North Central Texas Council of Governments (NCTCOG) Regional Thoroughfare Plan. This plan incorporated local government thoroughfare planning efforts into a single, comprehensive transportation plan with the designation of Regional Arterials. As NCTCOG no longer maintains a Regional Thoroughfare Plan with thoroughfare designations as part of its long-range transportation plan, the Dallas County Mobility Plan will now be the primary source for Dallas County regional thoroughfare designation to determine eligibility for funding. Therefore this Mobility Plan recommends the following update to the Type B project definition:

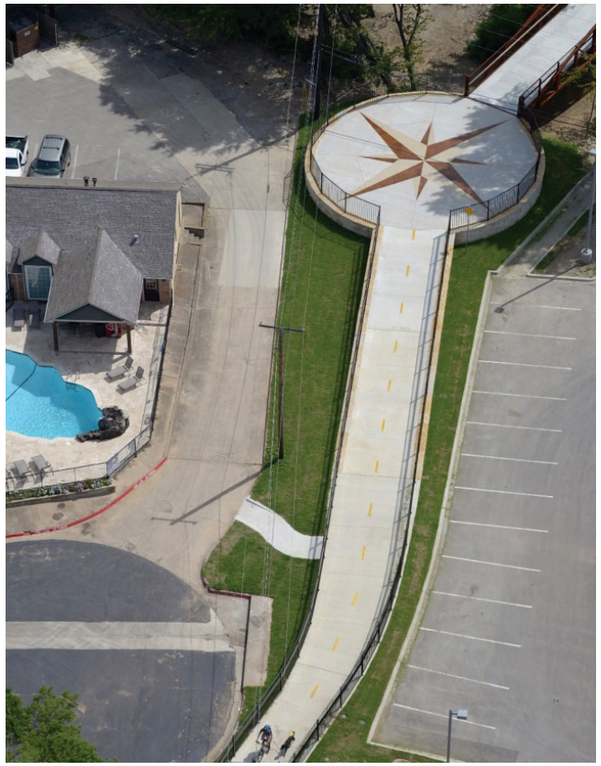
> *Type B: Improvements and maintenance of thoroughfares and bridges of major cross-county importance which are either existing or proposed. The Dallas County Mobility Plan will be used as a guide to determine which thoroughfares are of major cross-county importance.*

4-LANE ARTERIAL - HUNTER FERRELL ROAD BRIDGE (GRAND PRAIRIE)

4-LANE ARTERIAL - PLEASANT VALLEY ROAD (GARLAND)


6-LANE ARTERIAL (TYPICAL EXAMPLE)

2-LANE COMPLETE STREET - GREENVILLE AVENUE (DALLAS)



SANTA FE TRAIL EXTENSION (DALLAS)

LA PRADA DRIVE (DALLAS)

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. freight, bicycle pavement markings, bus stops, sidewalks)

   Note: Minimum of one (1) sidewalk must be present or included in a proposed thoroughfare improvement project.
3. Minimum speed limit of 30 mph, unless designated as a "complete street" serving pedestrians, bicyclists, and transit primarily
4. No restrictions on types of traffic, unless designated as a "complete street" serving pedestrians, bicyclists, and transit primarily
5. 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
   d. Addition of transit connections or features
6. 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 (and fit the criteria described in 1 through 5) to be added to the Dallas County Thoroughfare Plan.

RELATED PROGRAMS AND POLICIES ADMINISTERED BY DALLAS COUNTY

This plan primarily focuses on projects involving Type B facilities, which are eligible for participation through the Major Capital Improvement Program (MCIP) process, as authorized in the Road and Bridge policy and Major Capital Development Fund policy. The MCIP process is different from most, in that it involves partnering directly with the cities of Dallas County to implement transportation improvements. It is important to note that Dallas County also fulfills other responsibilities related to the construction and maintenance of facilities outside of the Type B designation. In its more traditional function, Dallas County 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 remains an important County responsibility as it provides the basic transportation needs in unincorporated areas.

Dallas County Trail and Preserve Program

The Dallas County Trail and Preserve Program (TAPP), administered by the County's Planning and Development Department, works to preserve natural open spaces and create a countywide trail system. An eleven-member board recommends to the Commissioners Court which projects the County should pursue, proposes possible policy changes, funding priorities, and program goals, and works to increase the public's awareness of the County's open space and trail systems. Because of the important benefits trails provide, Dallas County and many of its cities have been actively working to create a comprehensive trail system in the Dallas area that connects work places, neighborhoods, retail areas and other major destinations. There are currently over 150 miles of major hard surface trails throughout the County, many of which also connect to on-street bicycle facilities.

The County and its cities continue to expand the trail network, with extensions of popular commuter and recreational trail corridors planned. More information can be found on the Dallas County website, under the Planning & Development Department's Trail System page. (https://www.dallascounty.org/trails/)

Subdivision Policy

Dallas County maintains responsibilities for ensuring that adequate infrastructure facilities are provided within unincorporated areas. One of the primary tools the County uses to provide necessary facilities, including roadway connectivity, are the County Subdivision Regulations. The purpose of the Subdivision Regulations is to provide for the safety, health and well-being of the general public by requiring that adequate roads, streets, and drainage are provided in all subdivisions, and to provide facilities which can be maintained without imposing a burden to the taxpayers.

Dallas County updated their subdivision regulations in December of 2017 (see Court Order 2017-1621). These regulations apply to the following unincorporated areas: areas which are within the Extra Territorial Jurisdiction (ETJ) of a respective municipality and areas which are not within a municipality's ETJ.

When the proposed subdivision is in an ETJ jurisdiction of a municipality, the applicable ETJ standards will apply, as outlined in the ETJ agreement with that municipality; otherwise the attached Dallas County Standards will apply. All subdivision requirements must be met in order for a subdivision to be accepted by Commissioners Court.

Concerning County Roads, the subdivision policy addresses the dedication of right-of-way for local streets, connectivity requirements to major thoroughfares and construction standards for new roadways. Topics discussed include:

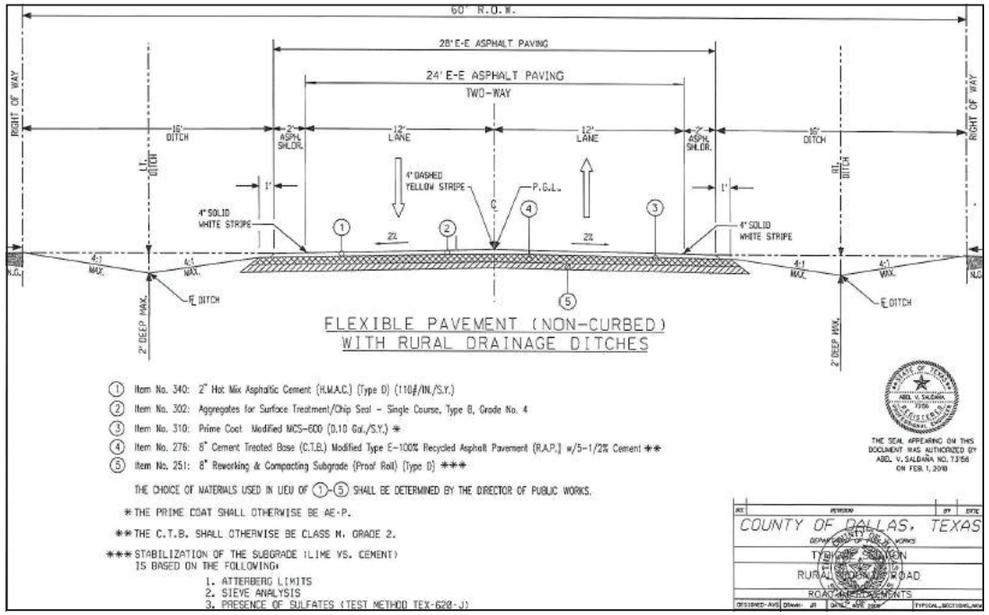
- Subdivision Requirements
- Preparing Right-of-Way
- Subgrade
- Base Materials
- Surface - H.M.A.C.
- Driveways

The Subdivision Regulations contain two typical sections for the design of rural county local roads and thoroughfares:

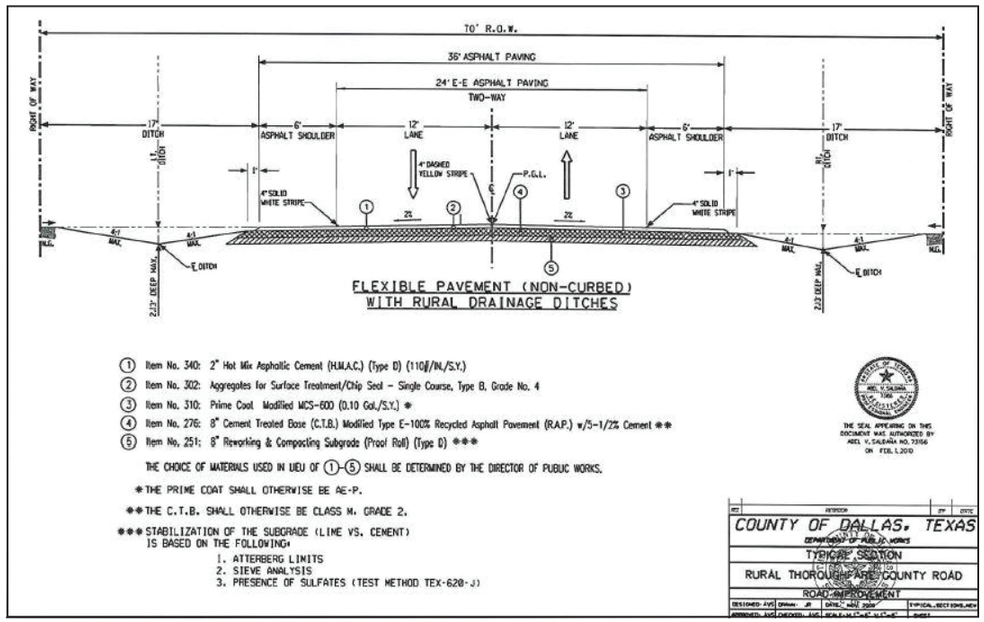
- Rural County Road (60' ROW)
- Rural Thoroughfare County Road (70' ROW)

DALLAS COUNTY SUBDIVISION POLICY TYPICAL SECTIONS:

RURAL COUNTY ROAD



RURAL THOROUGHFARE COUNTY ROAD



CHAPTER 3

DALLAS COUNTY UPDATED APPROACH TO REGIONAL MOBILITY

CHAPTER HIGHLIGHTS

Transportation is a central element of daily life and represents a critical component of an area's physical, economic, and social infrastructure. In order to understand the comprehensive mobility needs and prioritize the most effective mobility solutions for 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 chapter assesses the region's demographic and economic patterns and projections to understand what trends may be on the way. It highlights current transportation strategies applicable to improving the transportation system we have today, and it explores the future of transportation and how we must continue to adapt to provide innovative solutions that best serve transportation users.

MOBILITY NEEDS

A crucial step in transportation planning is to understand the forces that will drive regional change over the coming years. The development of the Dallas County Mobility Plan includes an assessment of demographic and economic trends related to the future growth and transportation needs of communities in the county. The conditions highlighted in this chapter inform existing and future needs for a variety of regional transportation strategies.

People

Dallas County residents and employees use the transportation system every day to connect to education, jobs, cultural resources, recreational activities, and more. Understanding population trends allows County planners to adjust priorities and adapt the transportation system to accommodate future demand and changing lifestyles. The Dallas-Fort Worth-Arlington metropolitan area was the fastest growing metro area in the United States as of 2017, with Dallas County remaining one of the top 10 fastest-growing counties, according to U.S. Census Bureau population estimates. Between 2010 and 2017, Dallas County gained approximately 250,000 residents.

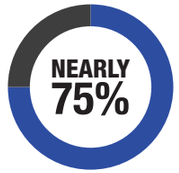
It's important to note that this growth has not been evenly distributed across the county. Some of the fastest growing cities since 2010 include Sachse, Addison, Wilmer, Hutchins, Richardson, and Farmers Branch – each with greater than 10% estimated population growth within the last 8 years. The City of Dallas continued to add the largest amount of people, with an estimated 140,000 new residents since 2010.

Socioeconomic Trends

Dallas County consists of a diverse population in terms of race, ethnicity, income, and age. Planners and decision makers must keep these various population groups in mind and the different transportation needs of a diverse region. Some considerations when evaluating and prioritizing transportation improvements include:

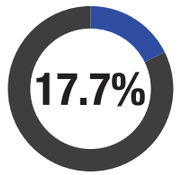
Aging Population

Aging communities present significant mobility challenges in comparison with younger populations. Maintaining the flexibility and foresight to accommodate a variety of lifestyles and ensuring that viable multimodal options exist will be extremely important moving forward. An estimated 10% of Dallas County's population is aged 65 and over.



Older persons across the nation live in neighborhoods that are designed to be vehicle dependent, which can make it difficult for older residents to "age in place."

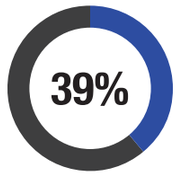
Low-Income Population and Households without a Vehicle



In 2017, approximately 17.7% of the study area's population lived below the poverty line. This rate has remained steady since 2010. Additionally, approximately 7% of households in Dallas County are zero-car households.

Minority Population

According to the U.S. Department of Transportation, negative health effects related to the transportation system can fall hardest on vulnerable members of the community, such as low-income residents, minorities, children, persons with disabilities, and older adults. Households in low-income areas typically own fewer vehicles, have longer commutes, and have higher transportation costs. In order to address equity in transportation, it will be important to consider the unique mobility challenges faced by Dallas County's various minority populations.



In 2017, approximately 39% of the county's population was defined as any race or ethnicity besides "white alone" in the U.S. Census.

*Dallas County remained one of the **top 10 fastest growing counties** from 2010-2018.*

Source: U.S. Census (Top 10 Counties in Numeric Growth)

DISTRICT 1 - UPTOWN DALLAS

DISTRICT 2 - DOWNTOWN GARLAND

DISTRICT 3 - MESQUITE

DISTRICT 4 - GRAND PRAIRIE

Population Density

The densest areas in the county include many of the neighborhoods surrounding the county's traditional urban core. These include Dallas' Uptown, Lower Greenville, Design District, and Bishop Arts neighborhoods, as well as higher densities of population near the confluence of major thoroughfares:

- Northwest Highway and US 75
- Northwest Highway and Webb Chapel Rd
- I-635 and Skillman St
- Dallas North Tollway and Belt Line Rd

The built environment within these denser populated areas typically takes on a more urban development pattern supported by a smaller block pattern, a higher mix of nonresidential destinations, and multimodal mobility options. However, a variety of denser residential clusters are developing in numerous cities throughout Dallas County, including traditionally suburban communities, as the demand for more housing choices and walkable neighborhoods increases. Examples include Addison Circle, Irving Urban Center, and the Downtown Carrollton district, among others. These development types provide opportunities to strengthen traditional streets with safe, multimodal designs that better connect people to transit, as well as linking pedestrian and bicycle-oriented destinations. Cities in Dallas County with light rail and commuter rail service are increasingly encouraging transit-oriented development (TOD) around stations through land use and urban design decisions that create walkable districts and active public realms. TOD best practices focus on the creation of mixed-use activity centers that encourage a high density of uses within a comfortable pedestrian travel distance surrounding a train station. These centers often have supporting transit service to increase access beyond the TOD area, including bus, circulator, or streetcar service.

Suburban residential and rural areas of Dallas County predictably have much lower population densities and will have different transportation priorities than urban areas. Given the greater distances between destinations, regional thoroughfare connectivity remains important for auto-oriented trips. However, even in traditional suburbs, opportunities exist to improve transportation choices with regional connections to existing transit or local trip options with improved sidewalks, trails, bicycle facilities, or alternative transit options.

Southern Dallas County has historically grown much slower than areas north of Downtown Dallas, with approximately two-thirds of the County's population located in its northern half. However, over recent years, growth in areas within southern Dallas County has begun to exceed that of the north. With a large inventory of available land to develop, this part of the County remains one of the greatest opportunities for growth in North Texas. The City of Dallas has recognized this potential and has promoted new growth with its GrowSouth initiative. This plan is rooted in a set of goals to strengthen neighborhoods and attract new private investment. Major catalytic investment areas stimulating new growth in southern Dallas County include the Inland Port, Education Corridor (UNT-Dallas and Paul Quinn College), Red Bird Mall redevelopment area, and Bishop Arts/Oak Cliff redevelopment. The anticipated effects of this growth can be seen on the 2018-2045 Population Change map. As this growth occurs, connections to the regional transportation network will become a priority in this area.

Safety

Reducing transportation fatalities and serious injuries requires an integrated approach to safety in motorized and non-motorized transportation projects. According to Texas motor vehicle crash statistics from the Texas Department of Transportation (TxDOT), Dallas County experienced 49,837 crashes in 2018, the second highest among all Texas counties. These crashes resulted in 296 fatalities and 1,512 suspected serious injuries. Of the major contributing factors, 4.6% were speed-involved crashes, and 11.6% involved distracted drivers. In order to address these issues, it will be important for Dallas County to continue to promote a transportation system that provides safe access and mobility for all roadway users.

A related program that currently addresses roadway safety is the Highway Safety Improvement Program (HSIP), with the goal of achieving a significant reduction in traffic fatalities and serious injuries on all public roads. The HSIP is federally funded and administered by TxDOT, with projects selected through a statewide program call. Projects may range from spot safety improvements and upgrading existing conditions to new roadway construction (such as grade separations). Example improvements include barriers, curve improvements, grade separations, intersection improvements, rumble strips, and roadway widening.

BELT LINE RD ROUNDABOUT (BALCH SPRINGS)

Innovative Solutions

While the population of residents and employees continues to grow, the available resources to maintain existing roadways, as well as develop new roadways, cannot meet the demand. In the face of this, Dallas County is looking for opportunities to identify and implement innovative solutions. Creative approaches to using available funding to meet the needs of high percentages of the population through various modes is critical to keeping the transportation network functioning effectively and efficiently.

As advanced transportation technologies continue to emerge, regional and local transportation agencies are exploring new initiatives to safely and efficiently move people and freight. Emerging technologies already being explored in the DFW region include driverless cars, personal delivery robots and smart intersections designed to reduce traffic congestion and collisions. Additionally, partnership with the private sector is expanding opportunities to provide enhanced transportation services. This includes on-demand service models to expand transit reach, dockless mobility, and access to transportation data to make better planning and investment decisions.

Dallas County

2018 Population Density
(persons per acre)

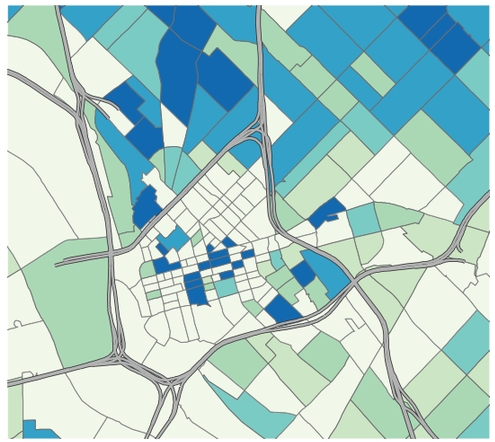
The 2018 population forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Population per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

Legend

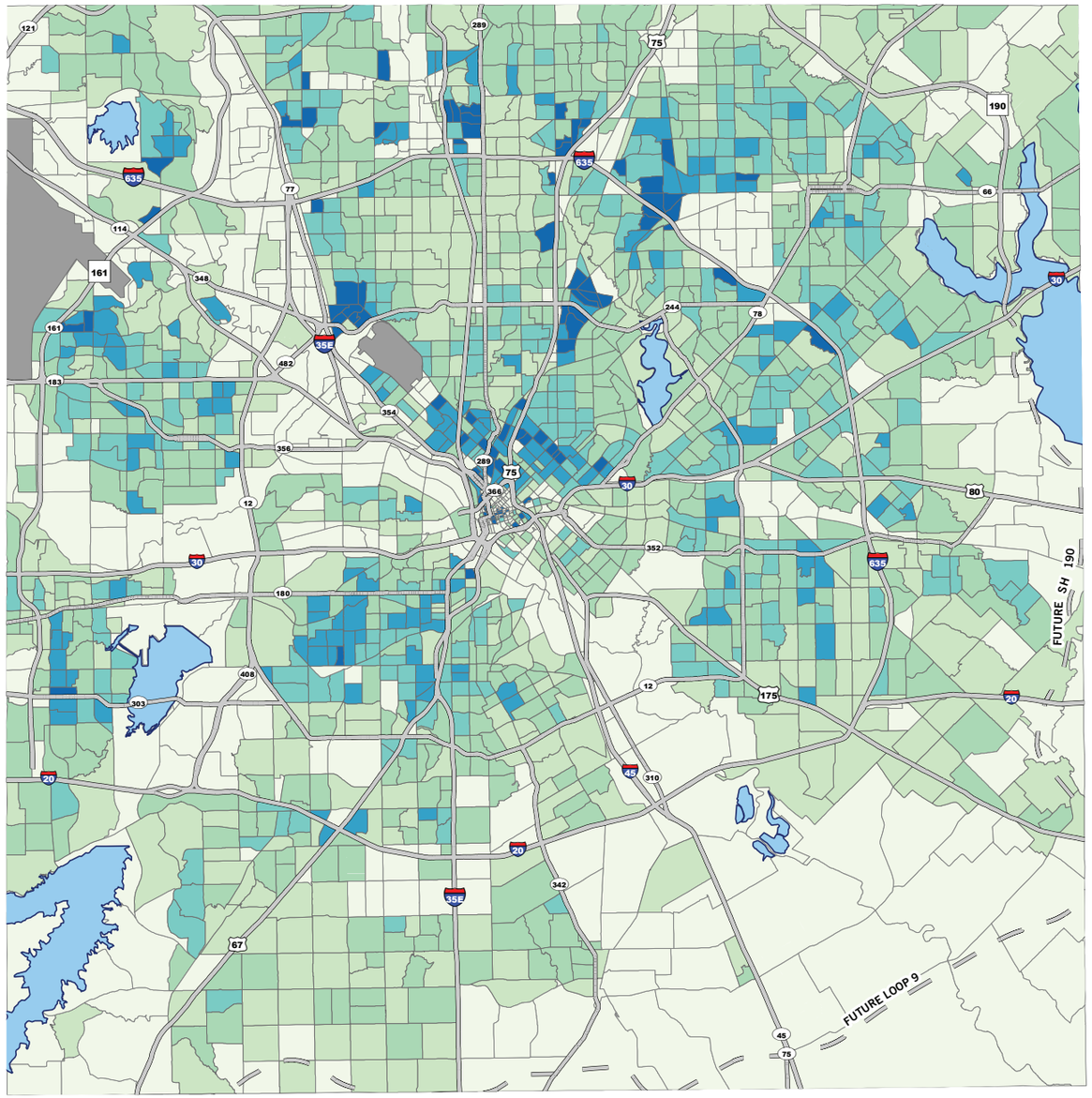
POP / ACRES

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

- Highways
- Airports



Dallas CBD

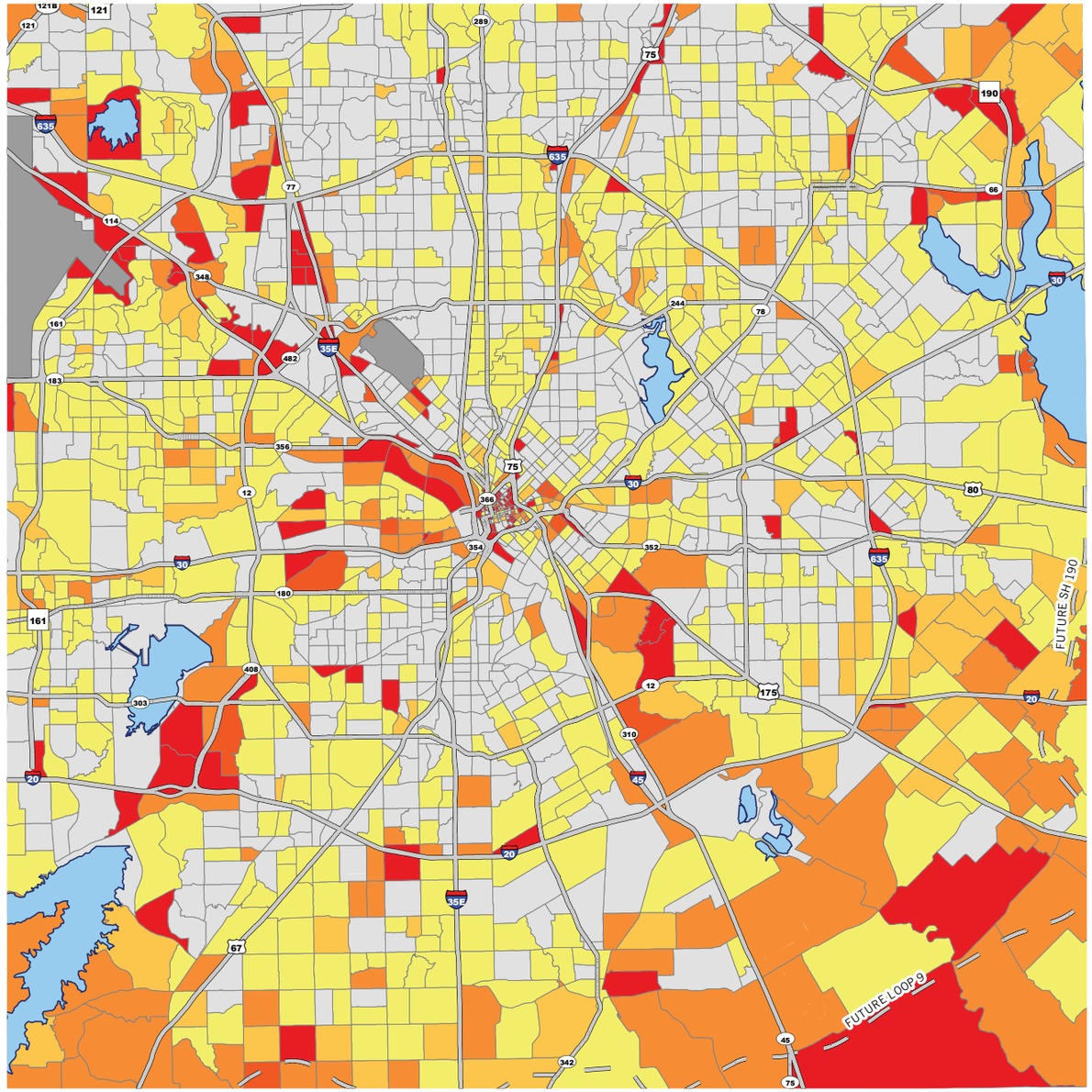


Population Growth Projection

As part of its long-range Metropolitan Transportation Plan, the North Central Texas Council of Governments (NCTCOG) routinely updates demographic forecasts for the region. For the latest plan, Mobility 2045, NCTCOG estimates that Dallas County could add over 800,000 people through the planning horizon year of 2045. Existing urban areas will likely see incremental population growth over this time as demand for walkable and transit-oriented neighborhoods continues. However, significant new residential growth is also expected in new neighborhoods and areas with infill potential in communities in southern Dallas County, as well as areas in east, northeast, and northwest Dallas County.

Population	2019 Estimate	2045 Forecast
Dallas County	2,554,770	3,445,189
Dallas-Fort Worth Region	7,414,810	11,246,516

SOURCE: NCTCOG



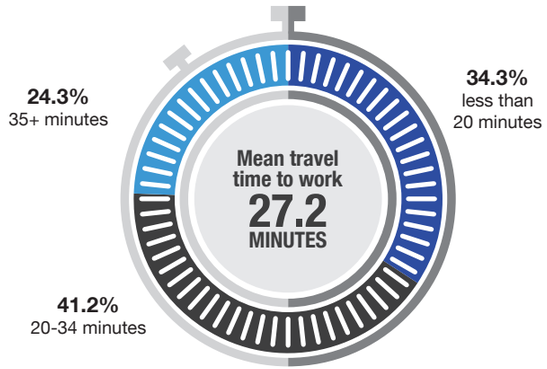
Economic Vitality

Transportation is foundational to community development, as it provides access to employment, thereby acting as a stepping stone for economic growth. Taking a closer look at employment hubs within the region can uncover opportunities for multimodal connections. Whereas concentrations of population are more dispersed throughout Dallas County, employment centers have historically located disproportionately to the north. The Dallas central business district remains a major employment activity center, with major job growth occurring along the I-35, US 75, State Highway 114, Dallas North Tollway, and I-635 corridors north of Downtown Dallas. However, employment catalyst developments have also increased the job base in the southern areas of Dallas County in recent years, including the Dallas County Inland Port, VA Medical Center, UNT-Dallas, as well as commercial and industrial growth along major transportation corridors.

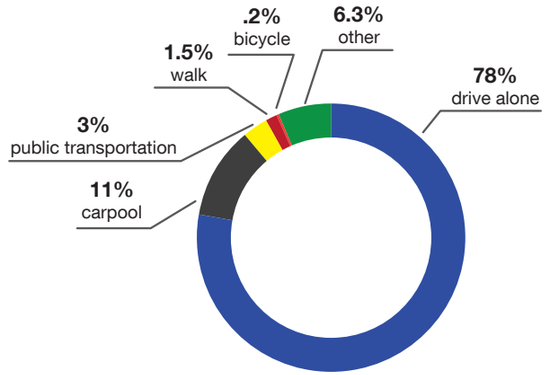
Employment and residential land use patterns influence how people get around. Nationally, the automobile is the predominant form of transportation for work and other travel purposes, and this trend is no different within Dallas County. Based on U.S. Census data, 78% of Dallas County residents drive alone as the primary means of transportation to work, with 11% utilizing carpools, 3% using public transportation, 1.5% walk, and 0.2% bicycle. The remainder either work at home or use some other means to commute. While the personal vehicle will remain the primary means of transportation in the near future, the increases in mixed-use and transit-oriented development in the Dallas County region, combined with multimodal connectivity improvements, can influence shorter commute distances and support non-vehicular trip choices.

DALLAS COUNTY TRANSPORTATION TRENDS

TRAVEL TIME TO WORK
(5-YEAR ACS, 2013-2017)

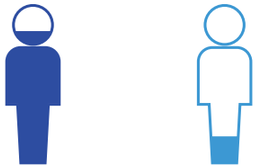


COMMUTE MODE SHARE
(5-YEAR ACS, 2013-2017)



COUNTY-TO-COUNTY COMMUTE FLOWS
(5-YEAR ACS, 2011-2015)

DALLAS COUNTY RESIDENTS



83.5%
live and work in
Dallas County

16.5%
work in
another County

DALLAS COUNTY WORKERS

65.7%
commute from
within Dallas County

34.3%
commute from another County
10.3% Collin | 9.7% Tarrant
7.5% Denton | 6.7% other

EXAMPLE EMPLOYMENT CENTERS

Dallas County

2018 Employment Density

(persons per acre)

The 2018 employment forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Employment per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

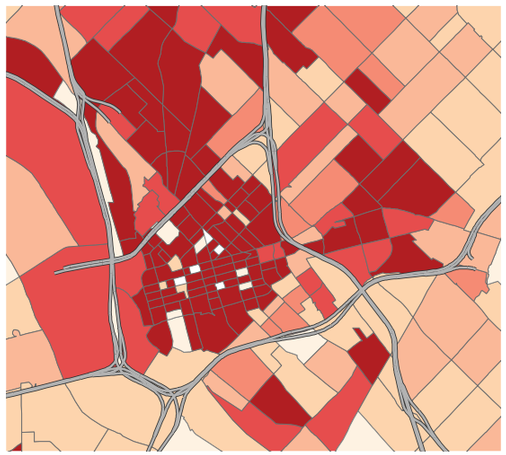
Legend

EMP / ACRES

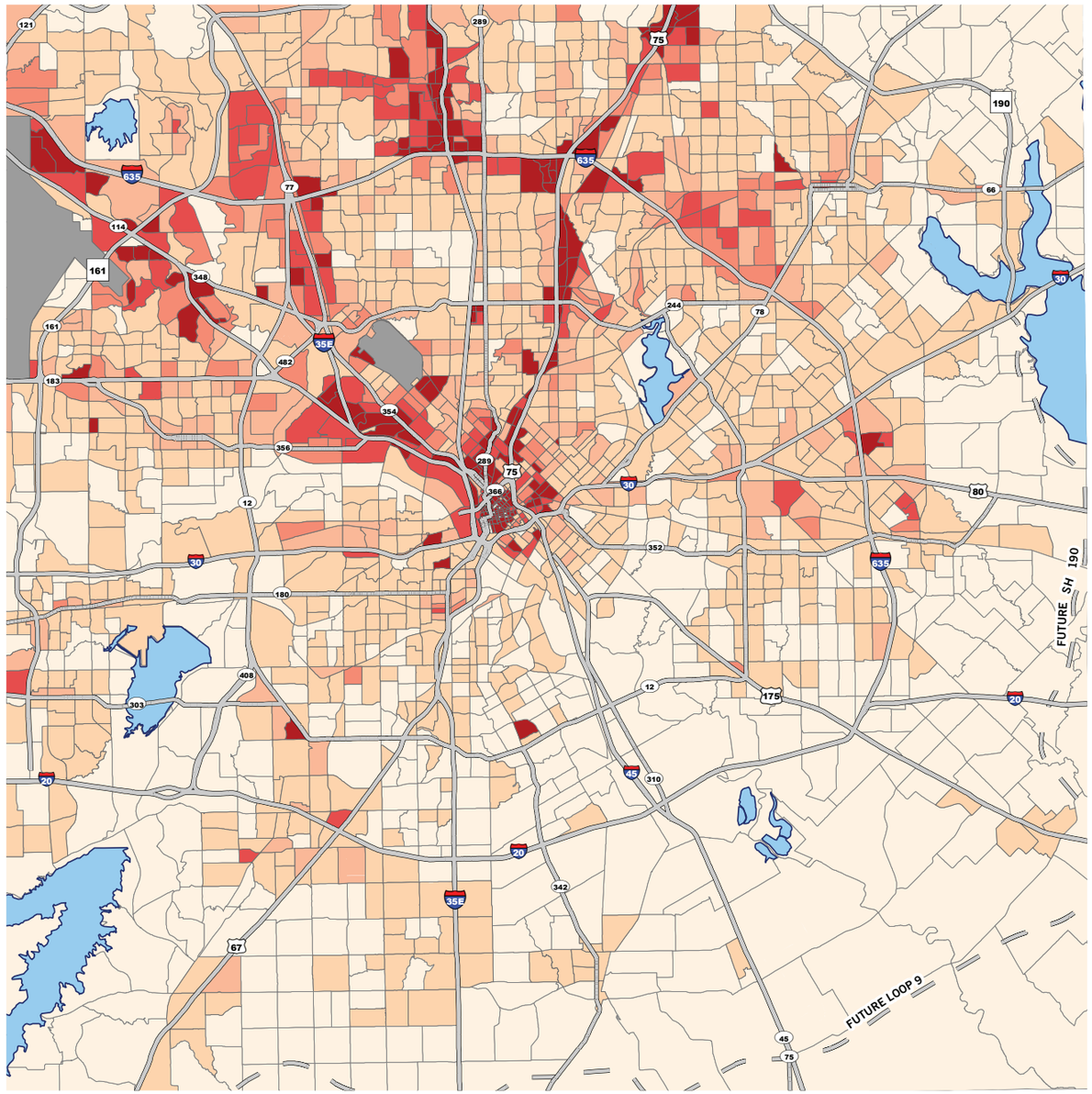
- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

Highways

Airports



Dallas CBD



Employment Density and Economic Growth Projection

The Dallas-Fort Worth region continues to be a national leader in job and economic growth. According to the Bureau of Labor Statistics, DFW led the nation's metro areas in job growth in 2018. Employment sectors driving this growth include trade, transportation, and utilities, as well as the professional and business services sector. Large companies have moved workers or expanded operations to the region, and smaller businesses are benefiting from the job and population growth. The 2018 Employment Density map indicates how Dallas County's employment base has grown over the years, with clusters of employment along some of the area's major transportation corridors.

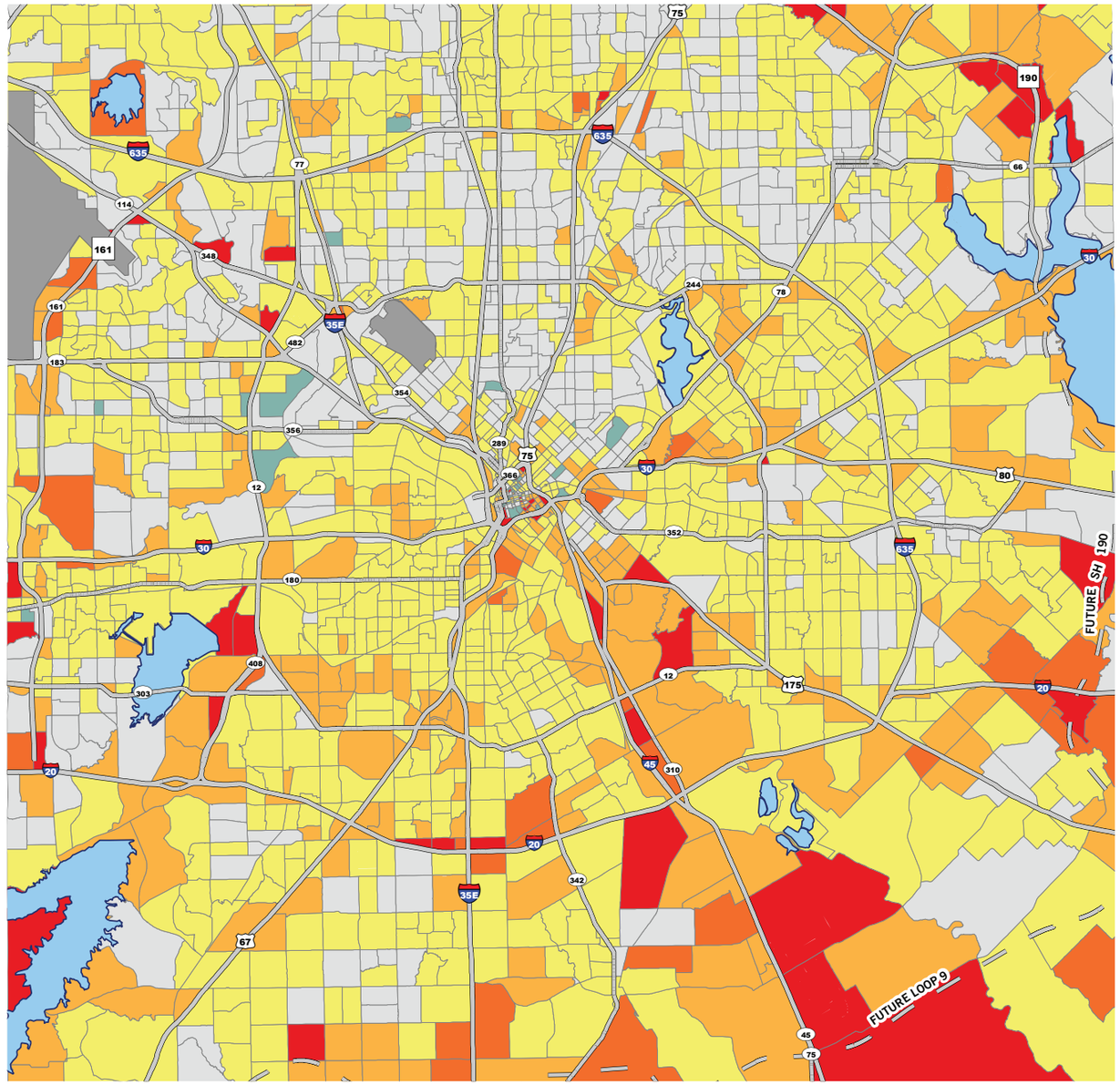
In addition to population growth, NCTCOG also projects that Dallas County could add over 1,000,000 jobs through the horizon year of 2045. Based on regional economic trends and local city land use planning, the countywide job base is expected to strengthen in most areas of the county. Existing employment activity centers will likely continue to attract more employers to capitalize on existing infrastructure and access to urban amenities. In many cases, major development in the already urbanized areas may occur as redevelopment or infill projects. The greatest rates of new employment development, however, may be expected to occur along the major transportation corridors in the outer communities of Dallas County, particularly southern Dallas County along I-20 and I-45 and eastern Dallas County along the planned SH 190/Loop 9 corridor, many of which are areas with existing low employment.

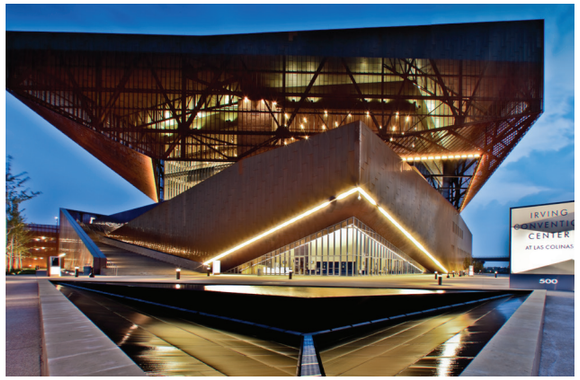
These expected growth trends are supported by Texas' business-friendly climate, skilled work force, and transportation infrastructure. Dallas County's access to highway, rail, and airport systems is one of its greatest assets promoting business growth. However, this economic growth will also create new challenges connecting the growing population with places of employment. Trends show an increase in young professionals with college degrees being attracted to urban environments with transportation choices. Dallas County can support creating both a desirable economic environment and livable neighborhoods through the strengthening of its multimodal transportation networks.

Dallas County

2018-2045 Employment Change

The 2045 employment forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan.





LAS COLINAS

DALLAS NORTH TOLLWAY

UNT DALLAS

Transportation Demand Generators

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 to provide alternative transportation options for everyday travel. However, this mobility plan recognizes that each community is made up of various transportation demand generators that each have their own mobility needs. In addition to traditional employment centers, these may include:

- Higher education/universities
- Local schools
- Airports
- Hospitals and medical centers
- Intermodal freight areas
- Recreation-oriented development
- Tourist destinations
- Existing and future transit hubs

Currently the demand for workforce transportation has stimulated responses from STAR Transit which is involved in efforts with the cities of Hutchins, Seagoville, DeSoto, Mesquite, and Balch Springs to transport commuters by bus to the DART light rail system or local employment centers.

Transportation Management Associations

Transportation Management Associations (TMAs) typically include employers, developers, building owners, local government representatives, and others. They are organized to coordinate efforts among stakeholders to establish policies, programs, and services to address the local transportation needs and air quality issues within a geographical area.

Currently, the Central Dallas Association operates the Downtown Dallas, Inc. TMA in the Dallas central business district. Their current focus areas include:

- Public Safety
- Maintenance & Beautification
- Great Placemaking
- Strategic Partnerships and Communications
- Economic Development and Planning
- Complete Neighborhoods
- Urban Mobility

In 2018, the Inland Port TMA convened, bringing together employer, city and county representatives with the intent of collectively establishing policies, programs, and services to address local transportation needs and air quality issues within the specified geographical area. The TMA will operate independently, with DART providing funding toward transportation services and NCTCOG conducting a transportation access survey to expedite data development necessary to prove demand.

Major Transportation Demand Generators Influencing Growth

Dallas County is divided into four Commissioner Districts. Each district has a unique set of employment and activity centers that generate transportation demand and regional trips. The following summarizes some of the major transportation demand generators in the County:

District 1

Cities within District 1 include: Dallas, Garland, Mesquite, Richardson

Major Demand Generators:

- US 75 office/commercial corridor
- I-635 industrial/commercial corridor
- Garland Road Corridor (East Dallas)
- White Rock Lake/Arboretum
- High Five/Texas Instruments Area

District 2

Cities within District 2 include: Addison, Carrollton, Coppell, Dallas, Farmers Branch, Garland, Highland Park, Irving, Richardson, Rowlett, Sachse, Plano, Wylie

Major Demand Generators:

- Dallas North Tollway/I-635 employment centers
- Future Cotton Belt Corridor & Trail
- PGBT Corridor/Firewheel Town Center
- Southern Methodist University and University of Texas at Dallas
- Addison Airport

District 3

Cities within District 3 include: Balch Springs, Cedar Hill, Combine, Dallas, DeSoto, Duncanville, Ferris, Garland, Glenn Heights, Hutchins, Lancaster, Mesquite, Seagoville, Sunnyvale, Wilmer

Major Demand Generators:

- Dallas Central Business District/ Fair Park
- Inland Port/Lancaster Airport
- Education Corridor (UNT-Dallas, Paul Quinn College)
- Red Bird/Dallas Executive Airport redevelopment district
- Loop 9 New Development Corridor

District 4

Cities within District 4 include: Cockrell Hill, Dallas, Grand Prairie, Irving

Major Demand Generators:

- Love Field Airport
- Medical District
- Las Colinas employment district
- SH 161 Corridor
- DFW Airport

See Appendix for map of example transportation demand generators.

MOBILITY SOLUTIONS

Transportation is a fundamental part of daily life. It affects everyone in many ways, and plays a critical role in shaping a region's physical and social infrastructure. Reliable access to efficient and safe modes of transportation goes a long way toward improving the region's economic equity, environmental footprint, and overall quality of life. The Dallas County Mobility Plan recognizes that our local communities are highly interconnected, particularly in terms of mobility, economy, and quality of life. As a result, it not only takes strong local planning but also an effective regional strategy for providing a connected transportation system that accommodates existing and future mobility needs.

Multimodal Transportation Options

The Dallas County Mobility Plan recognizes that roadways are more than just for moving cars – they are also for movement of pedestrians, bicycles, transit vehicles, and goods. Promoting mobility choices is a priority of the County and is often reflected in the local priorities of the individual communities within the County. With a growing population, areas currently developing or redeveloping, and changing demographics, the region faces critical decisions on how to accommodate the increase in trips throughout our local transportation system and the competing needs of different road users.

Thoroughfares

Thoroughfares play many roles, and solutions for improving mobility on roadway corridors cannot take a one-size-fits-all approach. Although the automobile is still the primary transportation mode in Dallas County and the region, efforts to create a more balanced system are encouraged. Traditionally, the strategy for managing congestion in a city or a region has been by building larger roadways, largely focused on accommodating a short period of peak travel time during the day. Transportation planning best practices now take a much more multimodal and context-sensitive approach to prioritizing roadway improvements in order to create a balanced system with streets that more appropriately serve adjacent land uses.

Dallas County does have areas that can accommodate new development, particularly in southern areas of the County, and these areas will require new roadway connectivity to support growth. However, other areas are substantially developed, with significant roadway infrastructure already in place. Developed portions of the County will likely attract infill opportunities for new housing and job centers. In these cases, where most major arterials have been built to their intended maximum capacity, growing vehicular traffic issues cannot be solved by expanding roadways.

Even along built-out thoroughfares, maintaining efficiencies in the existing network is essential. Strategic improvements to existing corridors will need to take place with access management best practices or with efforts to shift trips to other modes.

- Access management serves two purposes: to improve mobility and to improve safety. Access management improves throughput by reducing turning movements, primarily on arterial roadways. It also improves safety by reducing potential conflict points that occur at controlled and uncontrolled intersections and driveway access locations. This strategy typically promotes **safety** but can also provide **congestion relief** benefits.
- Reducing vehicle miles traveled and shifting trips to other modes can be accomplished through effective travel demand management. This can include providing additional public transportation service, integrating multimodal networks, and utilizing strategies such as ridesharing, telecommuting, and transportation technology improvements. This strategy can promote both **multimodal** and **innovative mobility** goals.
- "Complete Streets" is an approach used to design streets or reallocate a street's space within existing right-of-way to better serve the full range of roadway users, typically by enhancing space for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Typical factors that promote the need for right-sizing certain streets include the availability of excess travel lane capacity, the need for increased safety for all users, and the desire to transform streets into livable community places. Complete Street redesign strategies often include converting vehicle travel lanes to other uses, narrowing travel lanes, changing parking configurations, or improving pedestrian infrastructure. This strategy can have wide-ranging benefits, addressing **connectivity, multimodal, and safety** goals.

HAMPTON ROAD AT BEAR CREEK (GLENN HEIGHTS)

EXAMPLE BICYCLE/PEDESTRIAN FACILITIES

Pedestrian Network

Pedestrian systems are the primary transportation element that connects all travel modes. Highly mixed-use activity destinations, increased pedestrian amenities, and well-planned pedestrian connections promote walking as a viable form of transportation.

Two of the main factors that influence the decision for people to walk over driving include pedestrian comfort and trip length. People want to walk in an environment where they feel safe, particularly along roadways with higher traffic volumes. Ideally, continuous and connected sidewalks should be present throughout the entire network, especially along transit corridors. This ensures that destinations are accessible to all pedestrians, especially those with disabilities. Streetside safety and comfort can be further enhanced by adequately separating pedestrians from other modes of travel. To create a better connected pedestrian network, filling gaps in the existing system and upgrading deficient sidewalks should be a high priority.

In addition to creating a quality pedestrian network, local communities must also support creating places that reduce walking distances through land use planning and decisions that increase pedestrian activity. When land uses are separated, transportation choices are reduced. Activity centers that create a mix of destinations (e.g. housing, jobs, schools, daily services, etc.) lend themselves to everyday walking trip choices.

LAKE HIGHLAND TRAIL (DALLAS)

Bicycle Network

Just like the pedestrian network, safe and well-connected bicycling infrastructure is crucial to encouraging more bicycling. There is a direct correlation between the amount of bicycling infrastructure that is built and the number of people who choose to bike. Increasingly, cities within Dallas County are accommodating bicycle facilities with active transportation planning that promotes multimodal thoroughfares that incorporate bicycle, shared-use path and trail connectivity.

Bicycling is typically accommodated with a variety of bicycle facility types that offer varying levels of separation from traffic, often selected based on the thoroughfare type, traffic speeds and volumes, and the development context. There are many types of bike facilities that are appropriate for different roadways and contexts, including buffered bike lanes, protected bike lanes, and cycle tracks. Protected bike lanes with some kind of physical barrier are important where cyclists are close to higher traffic volumes and speeds.

Shared-use paths and trails provide off-street connectivity, either adjacent to a thoroughfare or in open spaces. These facilities are considered elements of both the pedestrian and the bicycle network and attract a variety of trip types, including recreational trips. The North Central Council of Governments (NCTCOG) promotes regional pedestrian and bicycle connectivity via off-street shared-use paths with their Regional Veloweb network designation.

See the Bikeways & Trails map for existing and planned pedestrian and bicycle networks in Dallas County.

SOPAC TRAIL PHASE 4 (DALLAS)

DART LIGHT RAIL

STAR TRANSIT

Transit Network

A robust public transit system provides a practical and equitable alternative to a car-dependent transportation network. Compared to owning a vehicle, transit can be an affordable transportation option, and is particularly important for those who cannot drive due to age, income, or disability. In order for transit to be viable for many people and attract new riders, the service must be effective, reliable, convenient, and safe.

Within Dallas County, transit service is predominantly provided by Dallas Area Rapid Transit (DART). DART's network includes light rail, Trinity Railway Express commuter rail, bus routes, paratransit, and rideshare services. Transit service is provided within 13 Dallas County cities – Addison, Carrollton, Cockrell Hill, Dallas, Farmers Branch, Garland, Glenn Heights, Highland Park, Irving, Plano, Richardson, Rowlett, and University Park.

Since 2013, STAR Transit has also provided bus transportation service to communities in southern and eastern Dallas County, which currently includes routes in Balch Springs, Seagoville, Mesquite, and Desoto. STAR Transit does not have dedicated tax revenues to support operational costs. Instead, revenue comes from a diverse set of funding sources, including local fund matches.

Growth patterns in Dallas County make convenient transit service more complex and expensive to operate. Given the limited resources available for transit, cities and transit operators must balance efforts to increase ridership with providing service coverage. Ultimately, service must be useful, reliable, and convenient – providing service that gets people where they need to go and increasing the viability of choosing transit over driving a personal vehicle. The efficiency of transit also depends on an interconnected street network with convenient ways for riders to shift between a variety of transportation modes. Transit riders rely on a good network of sidewalks, trails, and bikeways to move between transit services and their final destinations, often referred to as the "first mile/last mile" of a user's trip. For these reasons, transit cannot be considered in isolation.

TRINITY RAILWAY EXPRESS

FUTURE OF TRANSPORTATION

The transportation systems of cities and regions continue to evolve. The Dallas County Mobility Plan and its implementation efforts must respond not only to the transportation needs as they stand today, but also the potential changes in the future. To do this, we must look beyond the current transportation strategies and technologies being leveraged to better understand what trends are on the way. In urbanized areas, this means we are no longer building our way out of congestion by continuously widening roads, but rather maximizing the use of existing corridors with increased mode share, new options for personal and shared mobility, and the integration of new transportation technology.

Dallas County has the opportunity to leverage emerging technologies that may lead to economic growth and increase regional competitiveness. By starting to think now about transportation technologies that may be prevalent in the future, planning, maintenance, and preservation efforts can be adapted to better serve these technologies. The following sections describe strategies and technological applications that could be integrated with the current transportation network to change to how people and goods travel, both locally and regionally.

Advancements in transportation planning and technology will continue to shape our mobility network. Leveraging technology and innovation in areas like autonomous cars, vehicle-to-infrastructure communication, big data, and data analysis will offer opportunities to increase safety and efficiency, particularly in urbanized areas. The U.S. Department of Transportation has begun to document how cities can prepare for the future and engage with innovative mobility strategies with reports such as *Beyond Traffic 2045* and *Preparing for the Future of Transportation (Automated Vehicles).* Some of the identified ways technology may transform transportation include:

- Innovations in policy, technology, vehicle, and roadway design are expected to further enhance driver safety. This includes continued advancements in vehicle safety, such as automated emergency braking systems, and lane-departure and forward collision warning systems. Roadway safety design options also continue to advance, with alternative intersection designs and data to better understand the characteristics of high crash locations.
- Automation and robotics can impact all modes of transportation, improving infrastructure maintenance and travel safety, and enabling the mainstream use of autonomous vehicles. Automated vehicles have the potential to transform our transportation system by significantly reducing crashes, enabling real-time route planning, increasing efficiency of existing infrastructure, and expanding transportation access to the young, older adults, and people with disabilities.
- New sources of travel data can improve travelers' experience, support more efficient management of transportation systems, and enhance investment decisions. This is due in large part to the widespread use of GPS and smartphones.

Transportation Demand Management

Transportation Demand Management (TDM) refers to strategies to efficiently use the transportation system without adding additional capacity to the transportation network. TDM strategies are policies or programs that change travel patterns, such as shifting commuters from automobile to non-automobile modes, from single-occupant vehicles to higher occupancy vehicles, and from peak-hour travel to off-peak travel. In other words, TDM refers to attempts to change travel behavior (i.e., how, when, and where people travel) to increase the efficiency of transportation systems and roadways. Strategies of a TDM plan focus on the demand side (i.e., behavior changes) rather than the supply side (i.e., infrastructure improvements).

Many of these strategies have been explored for a number of years, but the benefits of reducing congestion, increasing safety, increasing mobility options for non-drivers, and positive environmental impacts will continue to be important into the future. Typical TDM strategies include:

- **Rideshare** – Ridesharing typically refers to carpooling and vanpooling and is a direct effort to maximize the number of passengers in each vehicle.
- **Alternate Work Schedules** – Alternate work schedules balance demand on the transportation system by modifying the time or frequency of travel, and include compressed work weeks, flexible work hours, staggered work hours, and telecommuting.
- **Bicycle/Pedestrian Infrastructure and Programs** – Investments that encourage walking and biking often involve efforts by employers and public agencies who can influence the travel behavior of employees and other local commuters.

Transportation System Management

Transportation System Management (TSM) is the process of optimizing the existing transportation system and infrastructure through less capital-intensive measures. Unlike TDM strategies, which focus on travel times and travel options, TSM strategies focus on physically enhancing the existing transportation infrastructure to increase roadway capacity, increase travel options, and reduce congestion and delay.

Minor targeted improvements to transportation infrastructure can significantly increase the capacity, efficiency, and usefulness of the transportation system. Some of the commonly implemented TSM strategies include traffic signal optimization, geometric roadway modifications, spot roadway and lane modifications, intersection modifications, access management, and pedestrian and bicycle enhancements.

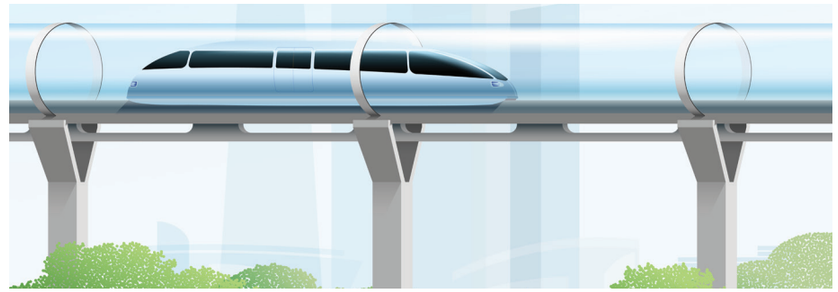
Intelligent Transportation Systems (ITS) is a TSM strategy that includes a variety of technological applications to manage traffic flow, minimize congestion for normal and unexpected delays, and reduce crashes. These applications include dynamic message signs along highways, coordinated traffic signals, video cameras and special sensors to monitor traffic, and ways to give emergency and transit vehicles priority to proceed safely through signalized intersections.

Advanced and Emerging Technologies

Advances in transportation technology are likely to change everything about our travel experience, including how we travel, how the things we buy are transported, and whether or not we even own a vehicle. This technology may take the shape of enhancements to existing travel modes or include emerging travel modes, such as personal rapid transit and high speed rail. The following list summarizes a range of emerging technologies that are currently available or are under development, and may have the potential for future application within Dallas County.

- **Connected and Autonomous Vehicles** – Connected and autonomous vehicles communicate with their environment and with other vehicles, improving safety and traffic flow, and diminishing the need for a human behind the wheel.
- **High Speed Rail** – While high speed rail has been a reality in other countries for years, plans are now underway for a high speed rail corridor that links Dallas and Houston, with a station envisioned near downtown Dallas. This would improve mobility options for long-range travel and enhance the economic connections throughout the county and region.
- **Hyperloop** – Currently in development as an experimental transportation method, the Hyperloop would connect two destinations with a sealed tube that transports passenger pods at high speeds. A Hyperloop network, similar to a rail network, would connect regional destinations; a route system that would connect the major Texas metro areas is currently proposed.
- **Personal Rapid Transit** – Personal rapid transit is a network of small vehicles that operate on a system of designated rails or roadways. These vehicles carry a few people at a time and allow for non-stop travel.
- **Shared Ride Services** – Services such as Uber and Lyft are popular in urban areas across the country. They allow people to easily schedule a ride using a mobile application, diminishing the need to own a vehicle or to park in busy areas. These services continue to evolve, and in some areas include options for carpooling and integration with local transit service.

Dallas County intends to stay at the forefront of these and other transportation technologies. Until such time as these technologies yield feasible and fundable projects, Dallas County will encourage collaborative efforts that advance the technology levels of the region.



CHAPTER 4

DALLAS COUNTY MOBILITY PLAN

CHAPTER HIGHLIGHTS

Beginning in 2015, Dallas County 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 cities' different multi-modal networks (thoroughfares, transit, bicycle/pedestrian, and trails). Dallas County is now substantially made up of incorporated areas within individual municipalities, and relatively little unincorporated county land remains for the county to plan, build, and maintain roads. Because of this, the cities within the county are responsible for the planning of their thoroughfare networks within their respective incorporated areas and extra-territorial jurisdictions. Therefore, it is important to note that this Mobility Plan does not supersede the city thoroughfare plans, but rather encourages regional and multimodal connectivity. The resulting product will encourage better integration of travel modes, and complement the Major Capital Improvement Project evaluation system for funding and implementing transportation projects.

This chapter outlines the process to develop the **Dallas County Mobility Plan** and the **major plan components.**

DEVELOPMENT OF THE PLAN

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, and other long-range transportation plans. Following an initial round of data collection, a workshop was held in Summer 2017 to introduce the mobility plan and provide an opportunity for cities to review the collected data and provide input on additional data to incorporate into the County Mobility Plan.

Through 2018, the Mobility Plan datasets were refined, incorporating any additional plans received after the first workshop. In some cases, transportation plan alignments were digitized for cities that did not have digital files available. A second round of workshop meetings was held in Summer 2018 to review the data collection process, discuss transportation priorities for the region, and provide updates on the Dallas County MCIP call for projects program. These meetings allowed for focused discussions on subareas of the County, where City staff members could express concerns or priorities for transportation improvements, as well as review the Mobility Plan maps and how they would be utilized.

Over time it is understood that city plans and local transportation priorities may change. The County intends to use the Mobility Plan as a living document that responds and evolves to the changing needs of the region with continued local input.

The following is a summary of the stakeholder engagement completed as part of the development of this plan:

2015
- Mobility Plan Kickoff Meeting

October 2016
- Letter to Cities and Partner Agencies, requesting participation and city transportation plans

Summer 2017
- Joint workshop with all Dallas County cities and transportation agencies
- Review of initial data collection and analysis; preview of updated Mobility Plan approach; gathering of input from stakeholders

Summer 2018
- Series of county subarea focus group workshops
- Draft Mobility Plan datasets; discussion of local and regional transportation priorities; and gathering of final input to be incorporated into the plan

Fall/Winter 2018
- NCTCOG stakeholder meeting
- Dallas County Inland Port stakeholder meeting
- Further refinement of Mobility Plan and evaluation criteria

Next Steps
- On-going coordination between Dallas County and City staff
- On-going updates to the Mobility Plan to reflect changes in transportation plans and priorities

CLARK ROAD (PRIMARY ARTERIAL)

PLEASANT RUN ROAD (SECONDARY ARTERIAL)

BELTWAY DRIVE (COLLECTOR)

MOBILITY PLAN COMPONENTS

The Dallas County Mobility Plan is made up of three transportation map components, developed as a result of the data collection and coordination process: Street Network Plan, Bikeways & Trails, and Transit. Each of these plan maps represents existing and planned thoroughfare and multimodal facilities throughout Dallas County.

Cities within Dallas County can use the Mobility Plan maps to support their project planning and prioritization decisions, to identify ways to improve local and regional connections, and to consider strategies for enhancing connections between modes and major transportation facilities. A comprehensive view of the transportation network can help prompt collaboration with other regional partners, and action as necessary.

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 is assembled from each city's individual thoroughfare plan that designates roadway functional classifications, right-of-way requirements, number of travel lanes, and other basic design criteria. 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

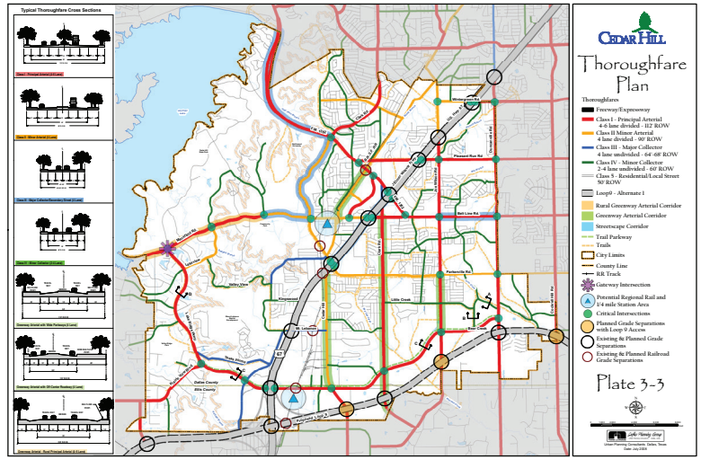
- Provides connectivity for trips of moderate length – typically trips within cities
- Enhances access to the Primary Arterial network

Collector

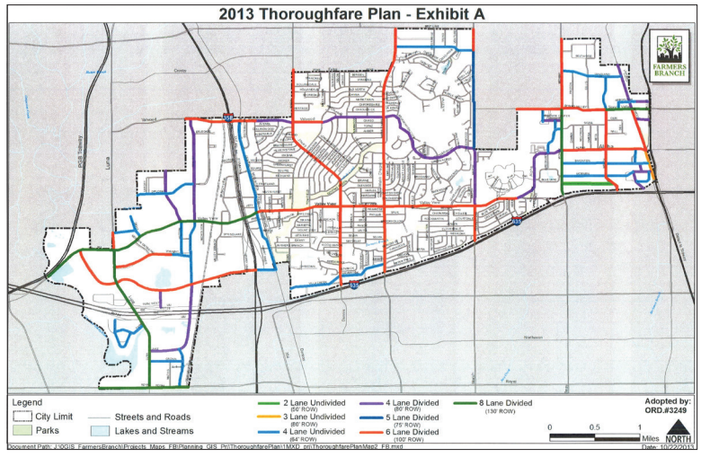
- Distributes traffic from local streets to the arterials
- Balances providing access to destinations with traffic circulation

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.

Local Thoroughfare Plan Examples



CEDAR HILL THOROUGHFARE PLAN



FARMERS BRANCH THOROUGHFARE PLAN

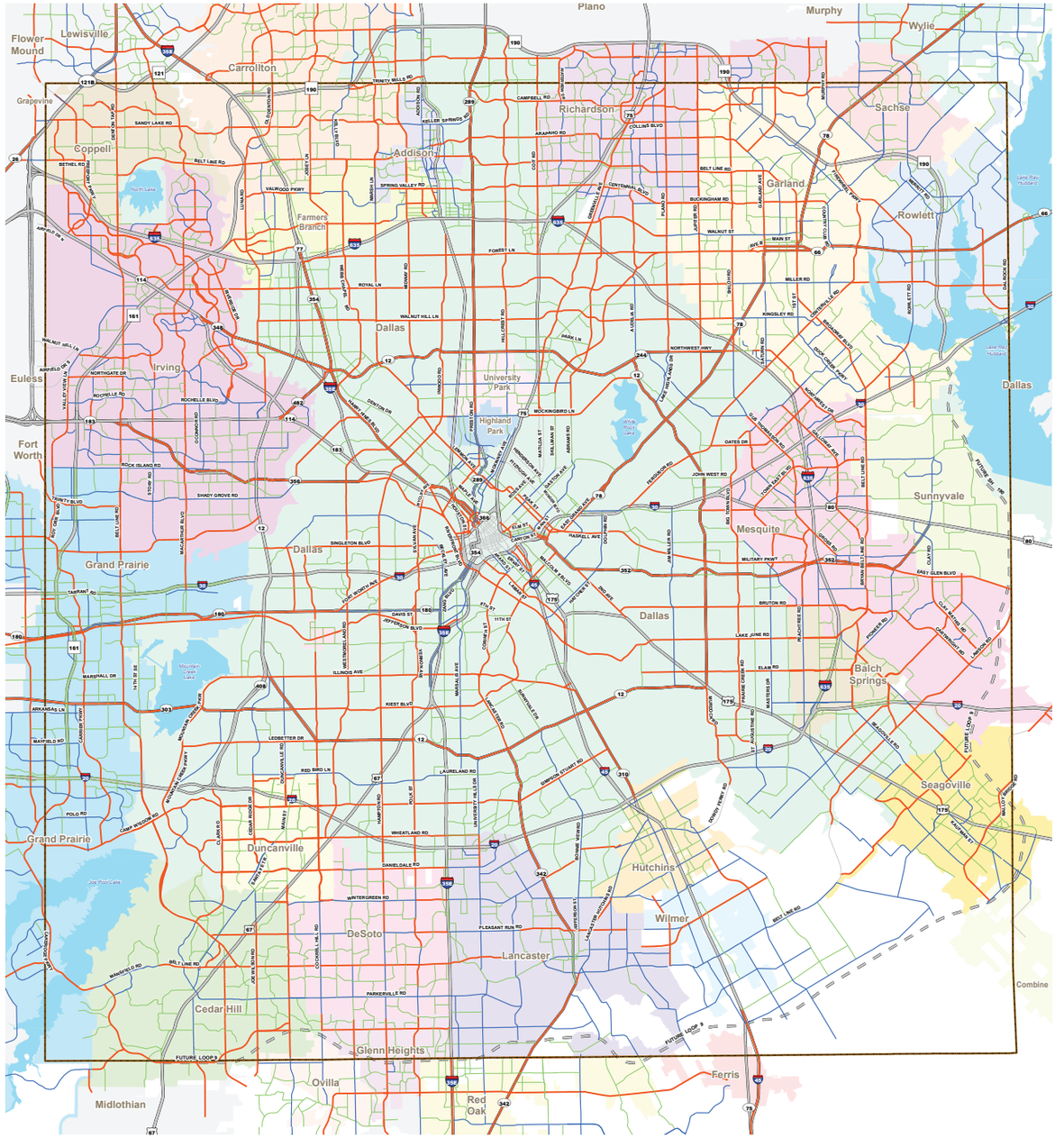
Dallas County

Thoroughfare Plan

Legend

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Dallas County Boundary
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



EXAMPLE BIKEWAY/TRAIL FACILITIES

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, and 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 Bikeways & Trails map is intended to provide a comprehensive view of the ultimate bikeway and trail network for Dallas County (should the planned facilities come to fruition). Cities and agencies can use this map to identify priority locations for gap infill or connection opportunities. These can then be prioritized for funding opportunities, such as through the Dallas County's Call for Projects.

The following summarizes the typical characteristics of each bikeway and trail classification displayed on the Bikeways & Trails Map:

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

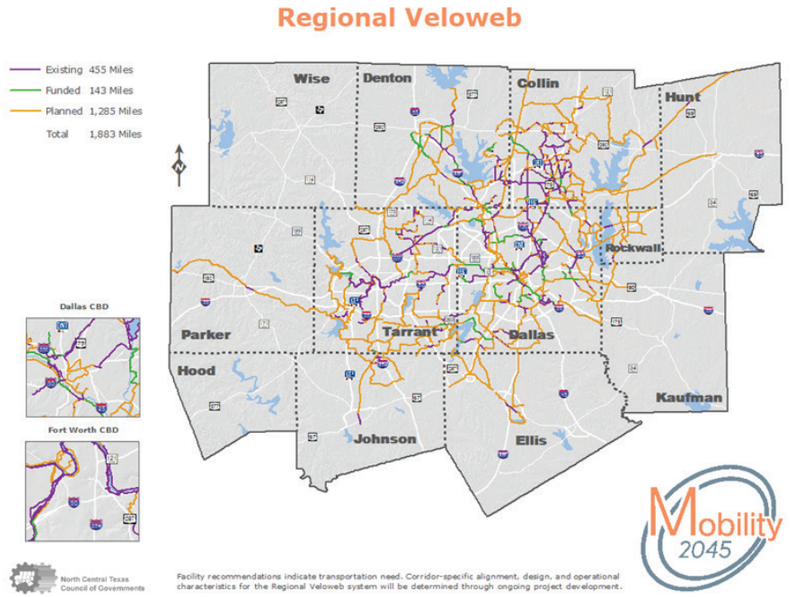
Other Pedestrian Path

- Enhanced facilities intended for higher pedestrian activity and comfort
- These may include a range of facility types and designs, but often include wide sidewalks or urban trails

In addition to their impact on providing first and last mile connections to other transportation facilities and activity centers, bicycle and pedestrian facilities are known to impact the health and quality of life of users.

Regional Plans

As an active transportation component of NCTCOG's Mobility 2045, the Regional Veloweb is an extensive 1,883 mile off-street shared-use path (trails) network. This Veloweb plans to connect 10 counties and 105 cities in North Central Texas. The corridors identified as "planned" fall to the responsibility of the cities and counties for planning and implementation of the bicycle and pedestrian infrastructure and amenities. The Veloweb can be used to guide the planning process of regional and local agencies.



Dallas County

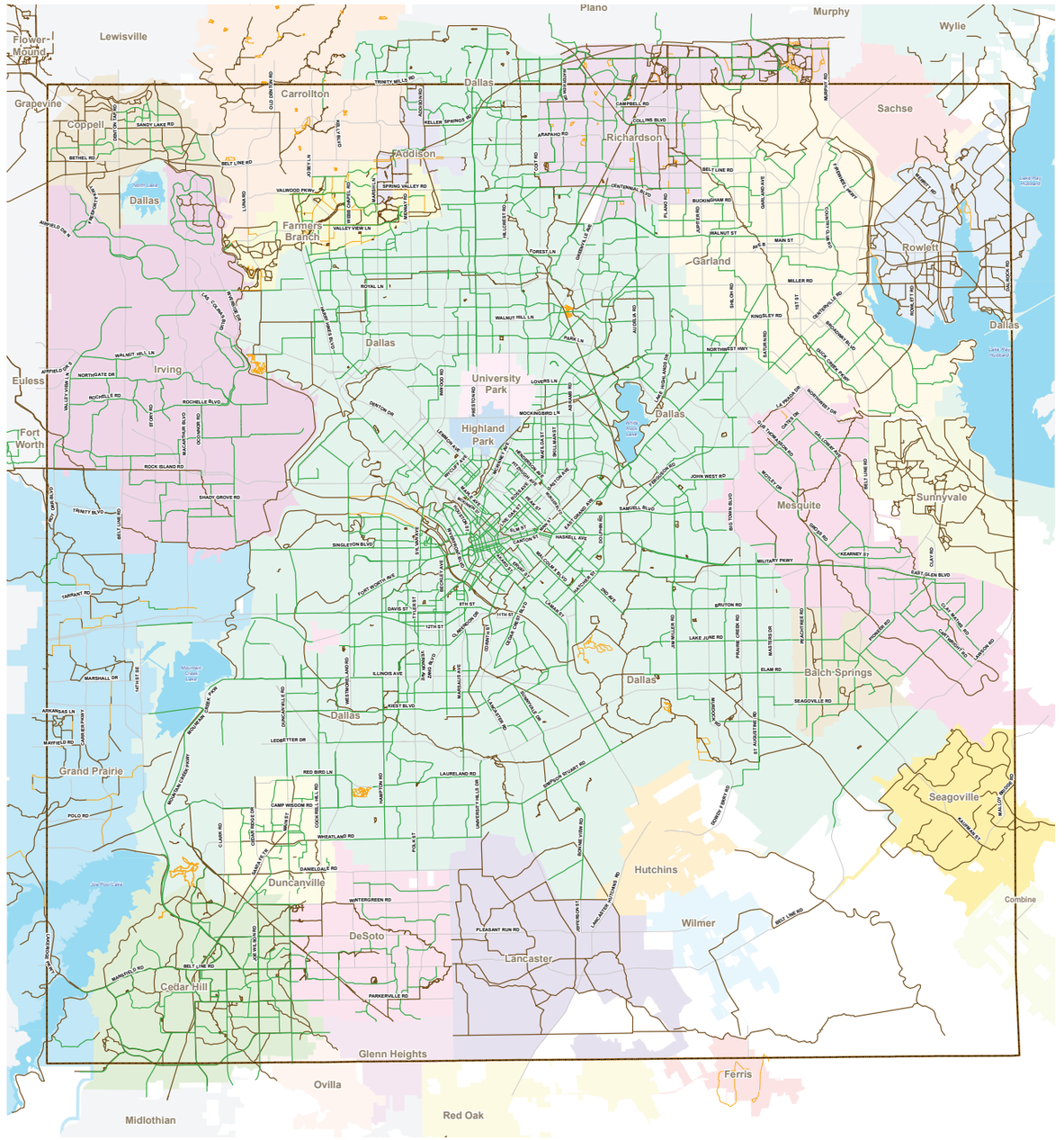
Bikeways & Trails

Legend

Bikeways and Trails

Type (Existing and Planned)

- Off-Street Trail
- On-Street Bikeway
- Other Pedestrian Path
- Other Unknown
- Dallas County Boundary
- Other Major Roadways
- Lakes



REGIONAL TRANSIT SERVICE EXAMPLES

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). This map can be used by the Dallas County stakeholders to inform their planning process when identifying ways to connect their transit network or identify opportunities sites for capitalizing on existing facilities.

Transit service is a vital link in the overall transportation network. It complements other modes of transportation such as vehicular travel and active transportation (bicycling and walking) by providing a form of safe travel for longer trips. When operated through a regional entity, such as DART, a comprehensive transit network is able to move higher volumes of persons across a distance, connecting workers and other users between their homes, jobs, and activity centers. Transit, whether in the form of light-rail, bus, or shuttle, can impact the efficiency of the overall transportation network.

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. More information can be accessed at the DART.org website under News & Events.
- **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. It is currently planned for implementation in the year 2022.
- **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. STAR transit offers transportation in the cities of Mesquite, Balch Springs, Seagoville, Hutchins and DeSoto and provides over 200,000 rides per year. STAR Transit continues to look at ways to provide transportation services to more individuals within Dallas, Kaufman, and Rockwall Counties, with their most recent service extension occurring in April 2018 when they launched the DeSoto Demand Response and Bus Route 501.

New Transit Trends and Technology

Transit agencies around the country are adapting to advances in transportation technology and offering new services to improve rider experience, offer flexible routes and scheduling, and mitigate declines in transit ridership. These new services can help eliminate transit deserts, create first- and last-mile connections to transportation hubs, and provide convenient paratransit, where traditional transit service would be inefficient or cost-prohibitive.

The following are some emerging trends that Dallas County transit providers and cities may consider exploring:

- **Mobility as a Service (MaaS)** - MaaS are typically provided as partnerships between public and private organizations, and can include various means of transportation to deliver real-time route scheduling and optimization. Locally, DART has been exploring MaaS service options, partnering with Uber and Lyft to provide first/last mile connections.
- **Autonomous Vehicles/Shuttles** - Several cities across the country have started to test autonomous shuttle service that typically carry 10-15 people or less on a fixed route. Over time, as public perception about safety concerns is reduced and infrastructure improves, this solution may continue to become more viable. Some driverless shuttles have been tested in the region, including pilot project service in Arlington and Frisco. Recently, NCTCOG has facilitated a Dallas Midtown Automated Transportation System Study to explore options and feasibility for autonomous transit alignments within the Dallas Midtown area.
- **Microtransit** - This includes on-demand, dynamic shared rides, often in partnership with mobility technology companies. A common service option works by dispatching small bus type vehicles to people requesting rides, often within a predefined zone or at designated pick-up/drop-off locations.
- Other transit technology advancements include mobile ticketing, real-time arrival information, and the use of electric/hybrid vehicles (e.g. vans, buses, and trains).

Dallas County

Transit

Legend

Station Areas

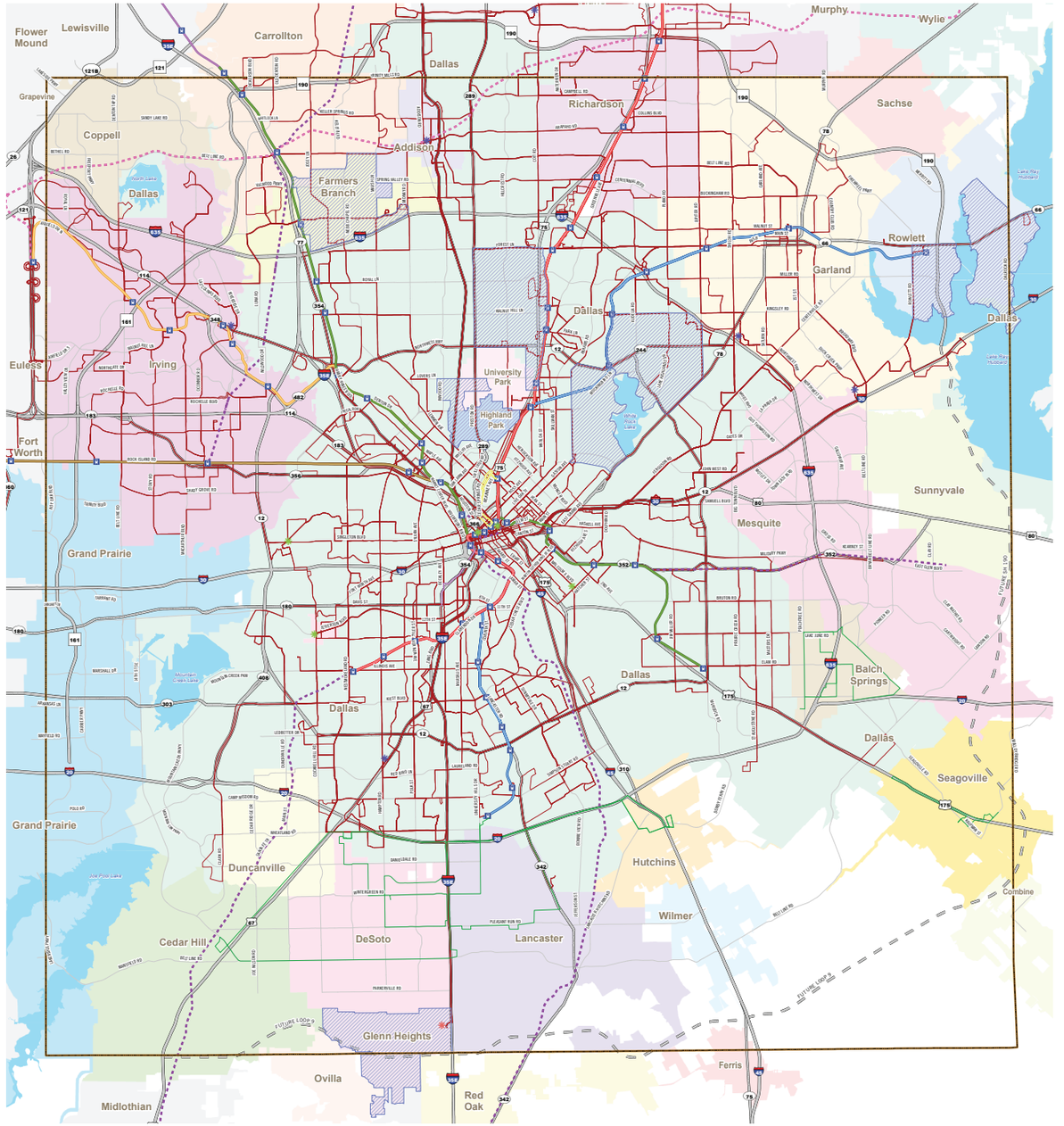
- Park & Ride
- Transfer Center
- Transit Center
- Rail Stations

Rail

- LRT Blue Line
- LRT Green Line
- LRT Orange Line
- LRT Red Line
- Trinity Railway Express
- Oak Cliff StreetCar
- Dallas StreetCar
- DCTA
- Cotton Belt Line (Future)
- NCTCOG Mobility 2045 Transit Corridors

Bus Routes

- DART Routes
- Star Transit Routes
- Dart On-Call Zone
- Planned Highways
- Dallas County Boundary
- Other Major Roadways



CHAPTER 5

MOBILITY PLAN IMPLEMENTATION

IDENTIFICATION OF TRANSPORTATION NEEDS AND CANDIDATE PROJECTS

The implementation of the Mobility Plan's objectives will require an ongoing collaborative effort between Dallas County and the cities of Dallas County. Through the Major Capital Improvement Program (MCIP), Dallas County offers a partnership "funding commitment" financing mechanism for the County to provide up to half of the total project cost for transportation infrastructure improvements. This program is administered as a call for projects, occurring every two to four years, which allows Dallas County the flexibility to focus on high priority projects and implement them in a timely manner.

Dallas County generates a comprehensive list of candidate projects through an open nominations process, which allows each city in Dallas County to submit projects and funding requests based on what is most essential to serving their own local and regional transportation needs. In recent years, communities in Dallas County have increasingly expressed interest in implementing a wider range of mobility project types that address a variety of issues and with benefits that serve multiple road users. In years past, most transportation projects were focused on constructing and widening roadways to support vehicle capacity. With the realization that we cannot build our way out of traffic congestion, the trend in mobility planning has moved toward building more livable, multimodal streets. This was reflected in the variety of applications submitted during the 6th Call for Projects in 2012, with many requests related to Complete Streets, improvements for active transportation, transit access improvements, and safety.

Previously projects selected for funding have been evaluated from one combined set of candidate projects. Given the diversity of desired mobility improvements, the recommended approach for future calls for projects includes recognizing the variety of needs with four main project candidate categories:

- **Roadway Capacity & Connectivity** – This category primarily includes widening projects and new roadway projects, but may also include multimodal corridors, access management projects, or other approaches to improve overall roadway efficiency.
- **Bicycle & Pedestrian** – This category encourages projects that primarily create new connections or improve access for bicycles and pedestrians. These may include on- or off-street bicycle and pedestrian facilities, which may be in combination with other roadway improvements. Example projects may include the addition of sidewalks, trails, or bike lanes, as well as Complete Street or "road diet" corridor projects.
- **Safety** – This category encourages projects that 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.
- **Innovative & Alternative Mobility Solutions** – This category encourages 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.

Evaluate and Prioritize Projects

The MCIP program is one of the primary implementation tools to help achieve these visions by aiming to improve regional mobility, and the associated objectives of improved safety, economic competitiveness, environmental quality, and livability. As part of this Mobility Plan update, the MCIP evaluation criteria and project performance measures were evaluated to support the County vision goals and the interests of the local cities and transportation partners. In addition to the recommended expansion of the candidate project type categories, an updated approach to the project evaluation goals and performance measures is also recommended. This allows projects to be evaluated using both traditional criteria categories that maintain an emphasis on addressing traffic congestion and project delivery, and the addition of qualitative scoring criteria that put stronger emphasis on safety, multi-modal elements, community development and equity.

The following summarizes the recommended project evaluation criteria categories:

Project Evaluation Criteria	Evaluation Criteria 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 or have demonstrated support among all project sponsors.

COORDINATION WITH OTHER PLANS AND PROGRAMS

With the increased range of project types and evaluation metrics, the MCIP program will continue to provide Dallas County with a tool to effectively prioritize and allocate available resources to the most essential transportation improvements. As previously mentioned, this plan does not supersede other local plans, but rather is representative of the collective transportation strategies of individual cities and regional transportation agencies. This plan will need to evolve as new plans are developed and as new transportation priorities and technologies emerge. This section highlights some of the recent and ongoing planning efforts that are integrated with the Dallas County Mobility Plan.

Additionally, cities are encouraged to collaborate with other transportation partners to leverage additional funding sources. Combining MCIP funds with other partnership funding can help cover additional project costs that are not able to be covered by the local funding match.

Regional Transportation Agencies and Plans

Other regional transportation partners also plan, fund, and implement mobility solutions that impact Dallas County and the greater Dallas-Fort Worth region. Many of these projects and programs are of a larger scale than Dallas County would typically address, but they are often compatible with the County goals of creating an efficient and accessible transportation system. Therefore, it is important that the County's planning efforts work in step with changing regional mobility efforts.

TxDOT Statewide Transportation Plan

The Texas Department of Transportation (TxDOT) is currently updating its long-range multimodal statewide transportation plan. The Texas Transportation Plan (TTP 2050) sets the direction for the future of Texas' multimodal transportation system by informing investment strategies tailored to make progress towards TxDOT's performance goals and objectives. This plan will include strategies for the development, construction, and implementation of projects and services for all transportation modes, including roadways, aviation, public transportation, bicycle and pedestrian, waterways and coastal waters, freight, and passenger rail.

NCTCOG Mobility 2045

Mobility 2045 was adopted as the current long-range Metropolitan Transportation Plan on June 14, 2018 to guide the implementation of multimodal transportation improvements, policies, and programs across a 12-county Metropolitan Planning Area through the year 2045. NCTCOG coordinates with cities, counties, transportation partners, and the public to plan road, transit, bicycle, pedestrian, and other mobility improvements in North Texas. The plan guides expenditures of state and federal transportation funds over the next 20-plus years. The planning process is continuous and is modified to account for changes in demographics, financial assumptions, project design concept and scope, local priorities, and legislative direction.

DART 2040 Transit System Plan

The 2040 Transit System Plan is currently in progress. This plan will focus on sustaining the DART system for current and future customers and provide a blueprint for DART projects and programs through 2040. Since regional growth trends and mobility needs extend beyond the DART Service Area, the 2040 plan will also identify regional opportunities to expand transit and mobility choices. DART is developing the 2040 Transit System Plan using a phased approach. Phase 1 focused on the bus network through a Comprehensive Operations Analysis (COA) effort which identifies efficiencies and improvements to benefit transit customers and grow ridership. Phase 2 will evaluate longer-term projects and programs, integrate the COA bus recommendations, and identify regional expansion opportunities in order to create the 2040 Transit System Plan.

NTTA

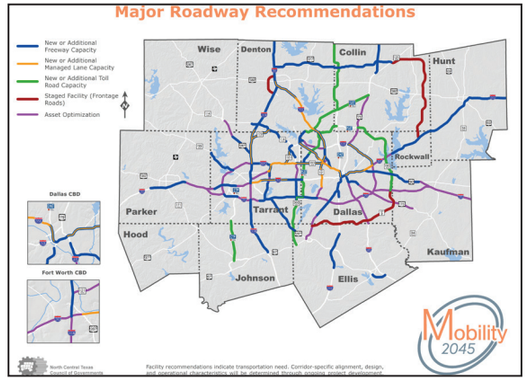
The North Texas Tollway Authority (NTTA) operates more than 980 toll miles in the region. These roadways act as key connectors throughout the region. As of 2019 NTTA is in the construction process of:

- *Improvements to the Dallas North Tollway (DNT)*
- *Widening President George Bush Turnpike (PGBT)*
- *Phase 4 of the DNT Extension*
- *East Branch/State Highway 190*

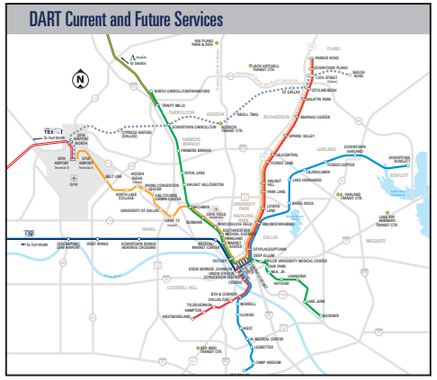
NTTA has also slated several future projects including the Sam Rayburn Tollway (SRT) fourth lane project. Projects from this regional entity can have a large impact connecting geographic areas within and outside of Dallas County.

STAR Transit

STAR Transit is a state established public transportation agency based in Kaufman County, but providing transportation services through agreements with cities in Dallas County (Seagoville, Balch Springs, DeSoto, Hutchins and Mesquite). Core services include demand response service, commuter routes, and circulator bus service. STAR Transit continues to explore opportunities to expand services through local government partnerships requesting innovative transportation options.



NCTCOG MOBILITY 2045



DART TRANSIT SYSTEM PLAN

STAR TRANSIT BUS SERVICE
(STAR TRANSIT OPERATES ROUTES IN ADDITIONAL CITIES)

Local Transportation Plans and Programs

The process to create this Mobility Plan included thorough coordination efforts to understand and incorporate all available thoroughfare and multimodal transportation plans from the cities of Dallas County. While the Mobility Plan maps are intended to document all known existing and planned facilities for regional transportation, they cannot capture all the local goals, policies, and strategies identified in local plans. This section documents only a few examples of the unique and innovative local transportation planning efforts completed in recent years.

City of Dallas (Commissioner Districts 1, 2, 3, and 4)

- **City of Dallas Complete Streets Design Manual and Vision Map (2016)**

  https://dallascityhall.com/departments/transportation/Pages/Complete-Streets.aspx

  The City of Dallas launched the Complete Streets Initiative to improve the way the City designs and builds streets. The Design Manual guides roadway design decisions not just for the space between street curbs, but also for the entire space between buildings on either side of the street. This manual is intended to work alongside the Dallas Thoroughfare Plan and the Dallas Development Code, and includes a new classification system for streets that takes into account the street context and the future vision for accommodating all modes of travel. This Complete Street typology is identified on the Complete Streets Vision Map, which is the starting point for the context-sensitive roadway planning and design process. Pilot projects completed as part of this initiative include the multimodal and placemaking corridor improvements on Bishop Avenue, Greenville Avenue, Sylvan Avenue, and Cedar Springs Road, among others.

- **City of Dallas 2017 Bond Program and Needs Inventory**

  https://dallascityhall.com/departments/public-works/dallasbondprogram/Pages/default.aspx

  The 2017 Bond Program, separate from the City's annual budget, focuses on improving capital funding for City of Dallas assets such as facilities, streets and alleys, libraries and parks. A digital needs inventory map was developed based on maintenance records, master plans, citizen input and Council recommendations. The inventory includes project descriptions and estimated costs for new, refurbished or rehabilitated projects. The bond program was approved in an election on November 7, 2017, with over $500 million budgeted to construct or improve streets, sidewalks, and multimodal facilities in coordination with established transportation plans and other agencies.

City of Richardson (Commissioner Districts 1 and 2)

- **Transit-Oriented Planning Efforts**

  https://www.cor.net/departments/development-services/comprehensive-planning/transit-oriented-development

  The City of Richardson began examining the potential for development and redevelopment near the City's five DART rail stations prior to service beginning. Since then, station area plans have been developed for the Spring Valley, Arapaho Center, and CityLine/Bush DART rail stations. These plans have resulted in development guidelines intended to encourage compact, pedestrian-friendly environments with appropriate connectivity to the rail stations. Similarly, the City partnered with the University of Texas at Dallas on a land use study for the future rail transit station along the planned Cotton Belt Rail line.

City of Highland Park (Commissioner District 2)

- **Highland Park Traffic Study (2014)**

  https://www.hptx.org/DocumentCenter/View/1065

  Responding to residents' concerns about growing transportation impacts as greater Dallas continues to grow, the Town initiated a study to identify recommended solutions to some of the most pressing concerns. Primary issues identified in the study include spillover parking on residential streets from adjacent development; regional cut-through traffic using residential streets; and roadway and intersection safety concerns caused by higher vehicle volumes and speeds. Recommendations to address these issues include parking policies, traffic calming, community streets design, and intersection safety improvements.

City of Desoto (Commissioner District 3)

- **Trails Plan (2011)**

  http://www.desototexas.gov/1374/Parks-Master-Plan

  Developed as part of the City's Parks, Recreation, Open-Space & Trails Master Plan, the City of Desoto's Trails Plan highlights where trails, sidewalks, and park trails exist, then shows where future trails can help improve access and connectivity to parks, schools, recreational facilities, and other cities. This plan not only identifies preferred routes for off-street trails, but also possible on-street bicycle routes.

City of Irving (Commissioner District 4)

- **Imagine Irving Comprehensive Plan (2017)**

  https://www.cityofirving.org/826/Plans-and-Reports

  The City of Irving's recently adopted Comprehensive Plan emphasizes creating neighborhoods, employment centers and retail corridors that provide high-quality infrastructure and amenities. The land use-transportation relationship is closely linked throughout the plan, with a primary goal of providing a wide variety of transportation choices to get around town. The City plans to focus on improving all street connections and encouraging alternative transportation options by improving or building sidewalks and bike facilities, enhance transit centers, and create new and existing mixed-use communities to support multimodal trips.

Future Updates

It is understood that each city and regional transportation agency will update their plans and priorities over time as needed. Dallas County intends to regularly coordinate with all cities within the county to continue to identify current and future transportation needs. Dallas County encourages each city to continue to proactively develop new transportation solutions to support the mobility needs of existing residents, businesses, and visitors, and plan for the region's growth and economic wellbeing. As plans are updated, these can then be incorporated into future Mobility Plan updates to identify additional partnership opportunities with the County. Dallas County also plans to provide these updates on an online interactive map documenting the major Mobility Plan components, which will include the thoroughfare plan, bike and trails routes, and transit service.

APPENDIX

DALLAS COUNTY MOBILITY PLAN

FEBRUARY 2020

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APPENDIX TABLE OF CONTENTS

Mobility Plan Maps

Demographic Forecast Maps (NCTCOG 2045 Mobility Plan Data)

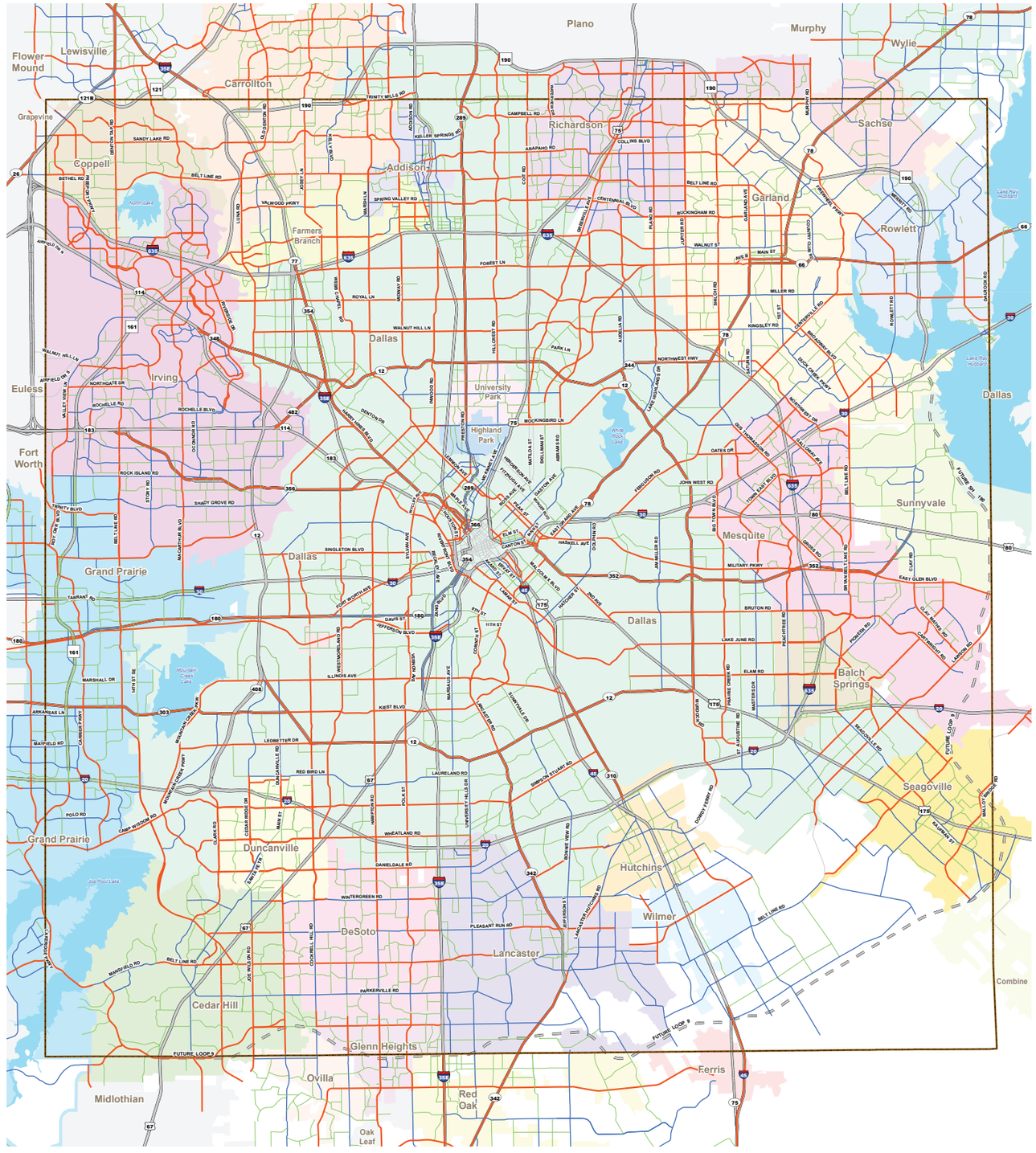
Dallas County

Thoroughfare Plan

Legend

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Dallas County Boundary
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Thoroughfare Plan

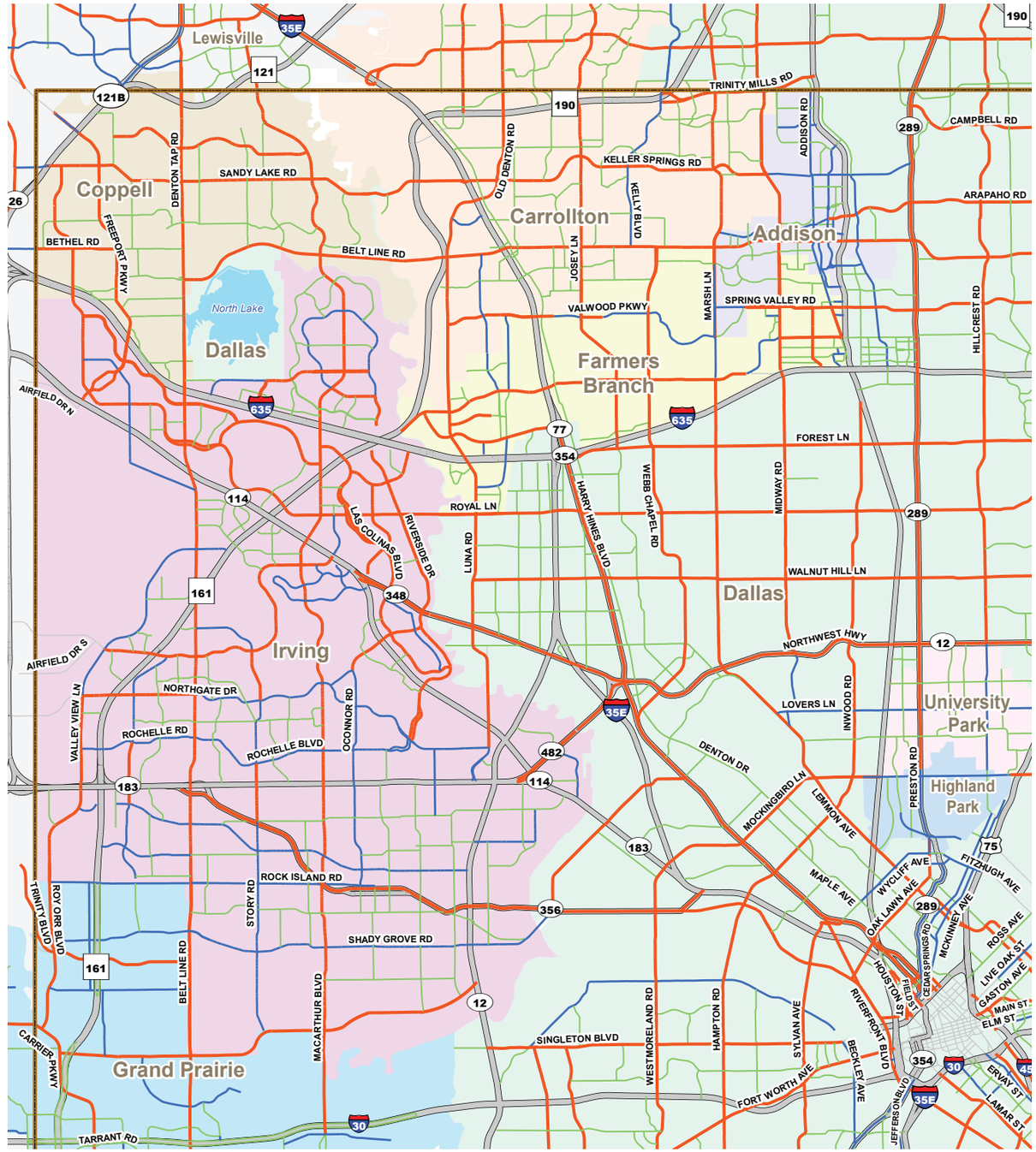
NW Quadrant

Legend

- Dallas County Boundary

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Thoroughfare Plan

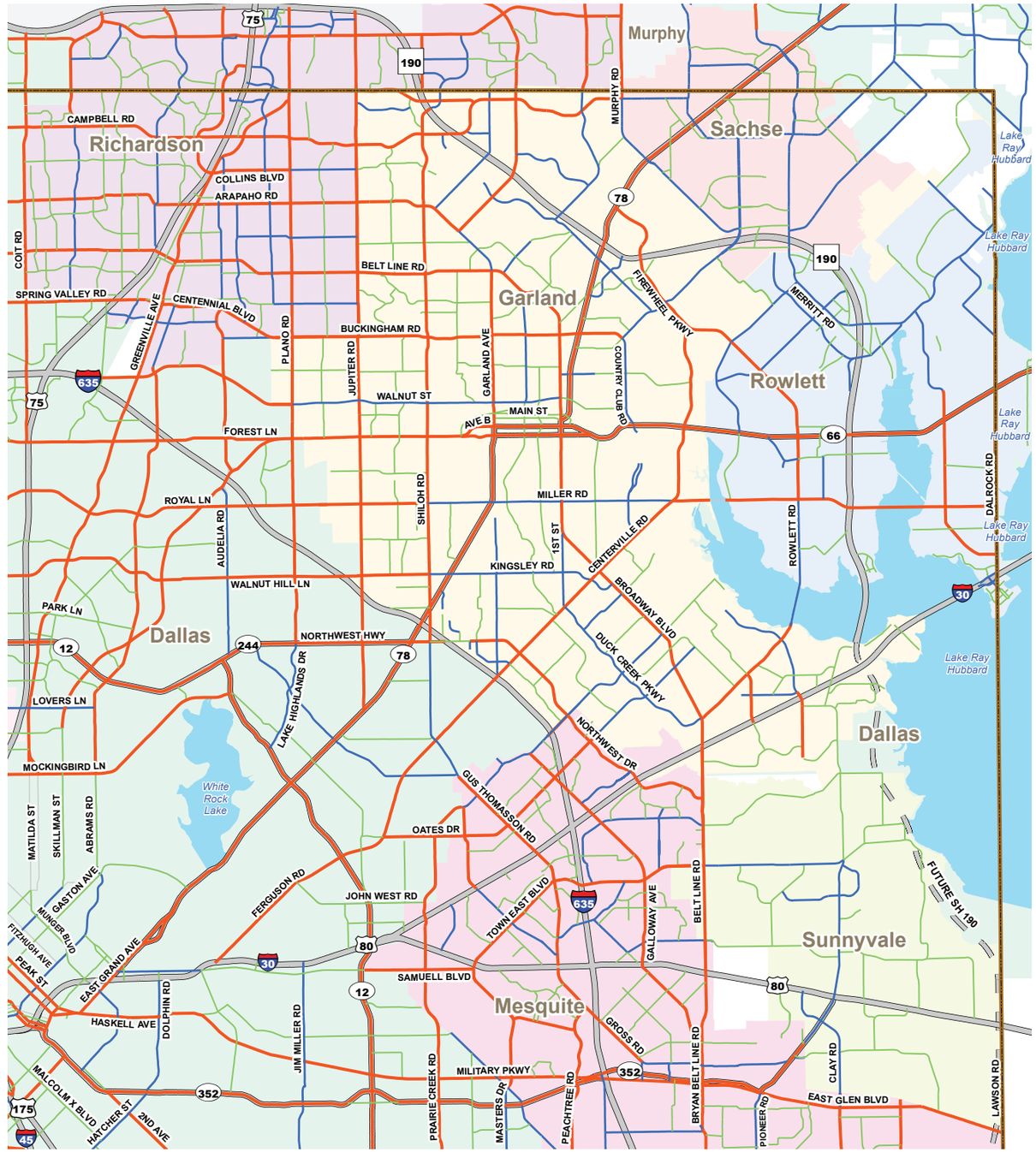
NE Quadrant

Legend

- Dallas County Boundary

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Thoroughfare Plan

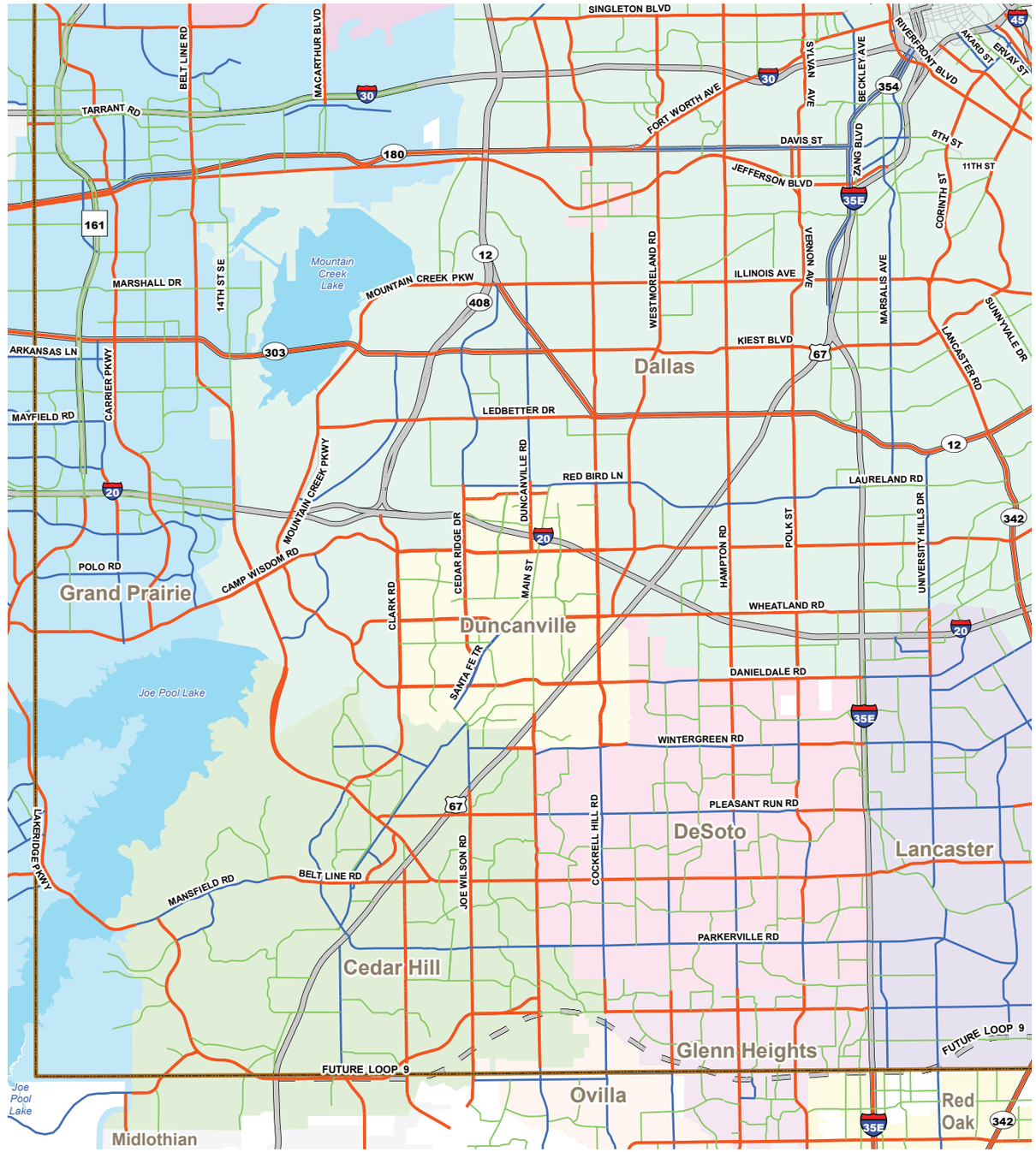
SW Quadrant

Legend

- Dallas County Boundary

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Thoroughfare Plan

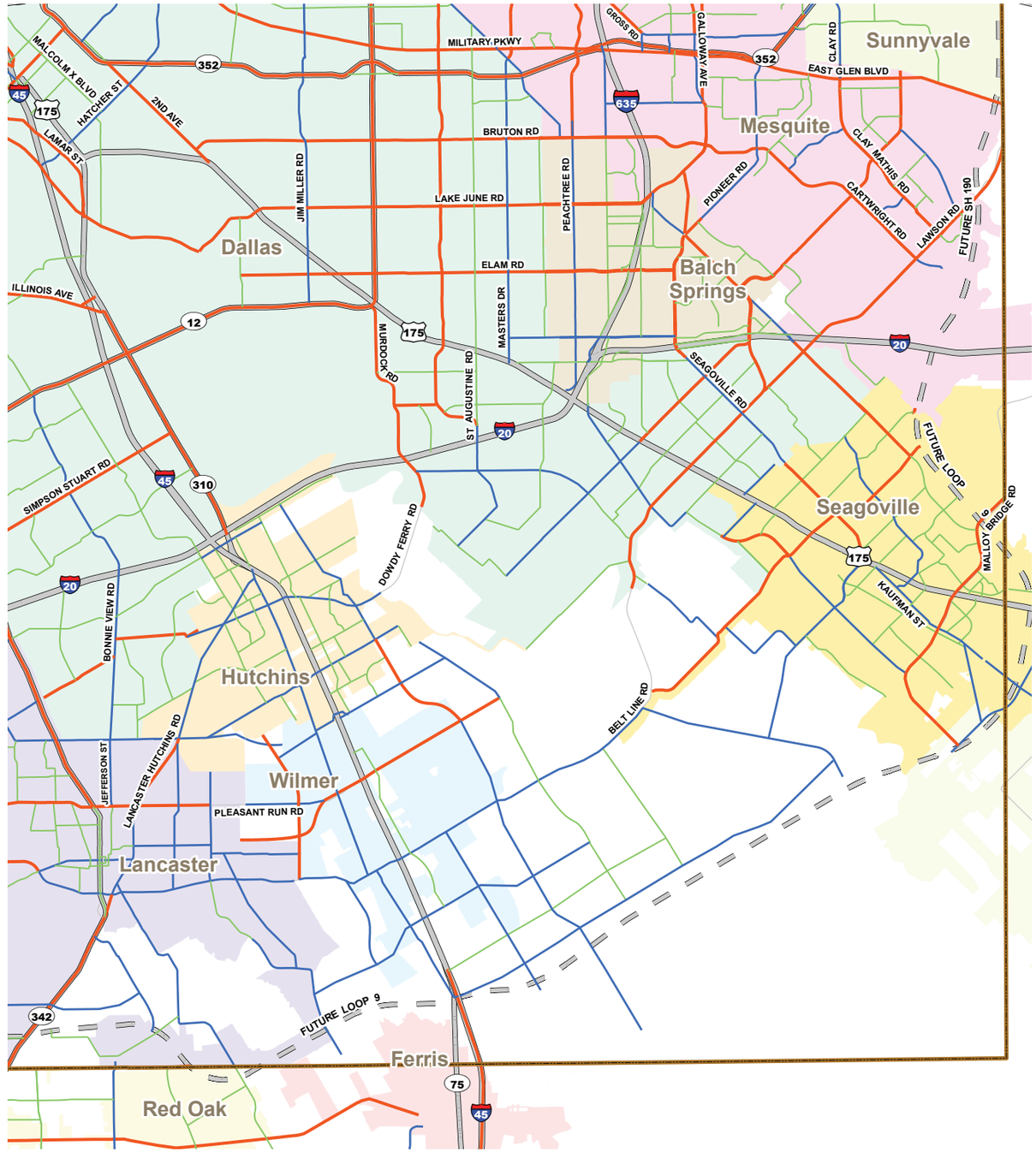
SE Quadrant

Legend

- Dallas County Boundary

Functional Class

- PRIMARY ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- Existing Highways
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

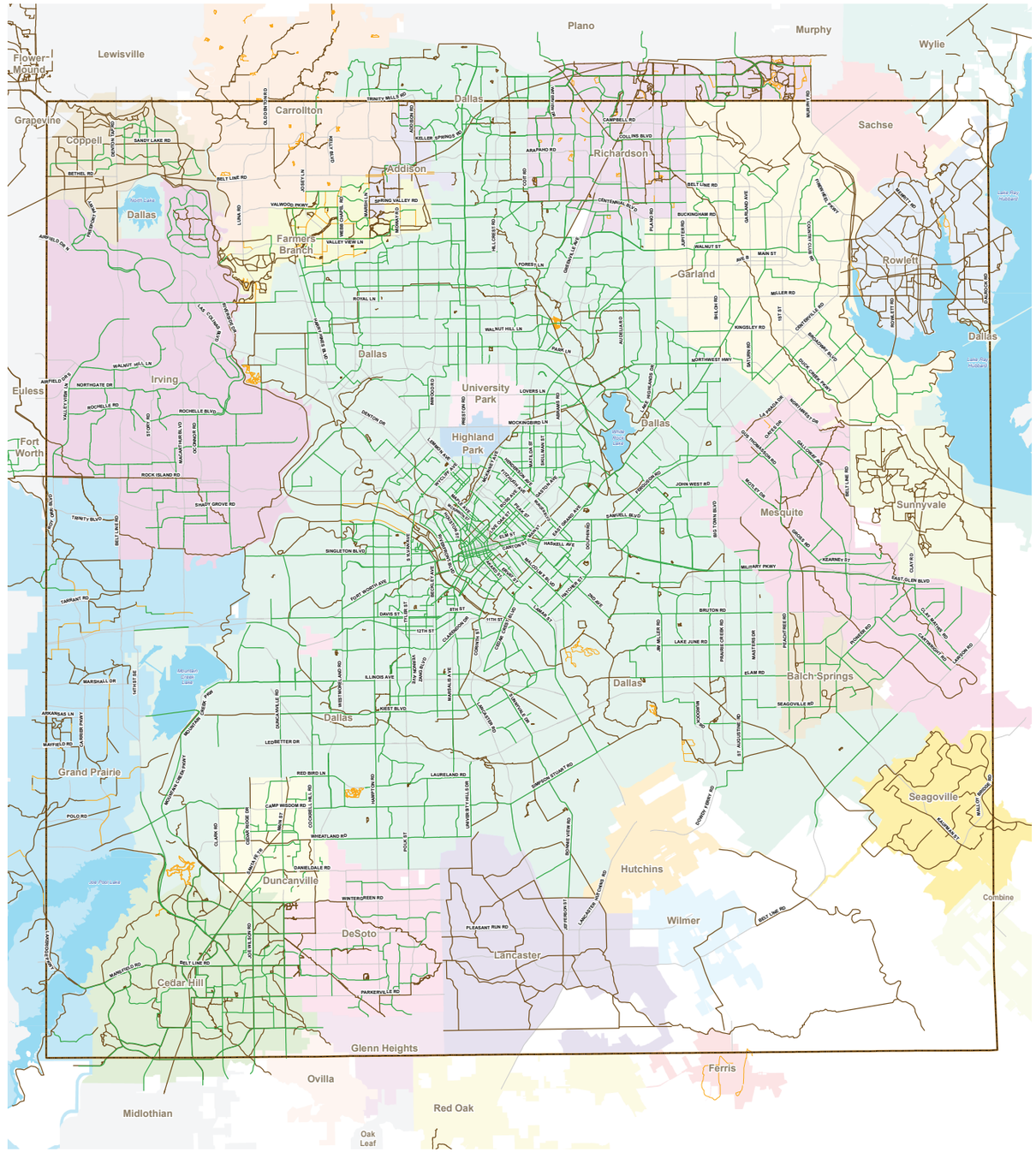
Bikeways & Trails

Legend

Bikeways and Trails

Type (Existing and Planned)

- Off-Street Trail
- On-Street Bikeway
- Other Pedestrian Path
- Other Unknown
- Dallas County Boundary
- Other Major Roadways
- Lakes



Dallas County

Bikeways & Trails

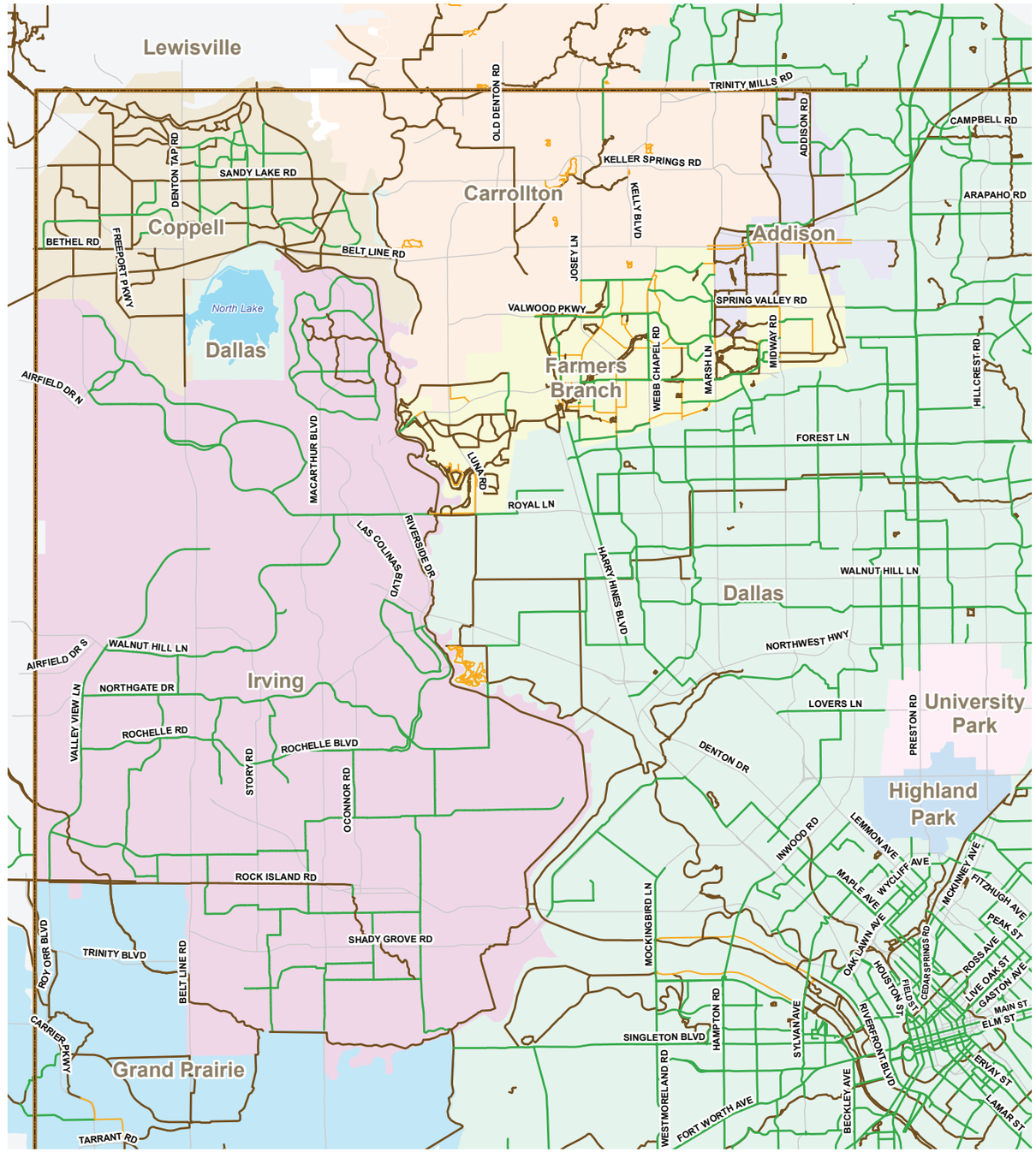
NW Quadrant

Legend

Bikeways and Trails

Type (Existing and Planned)

- Off-Street Trail
- On-Street Bikeway
- Other Pedestrian Path
- Other Unknown
- Dallas County Boundary
- Other Major Roadways
- Lakes



Dallas County

Bikeways & Trails

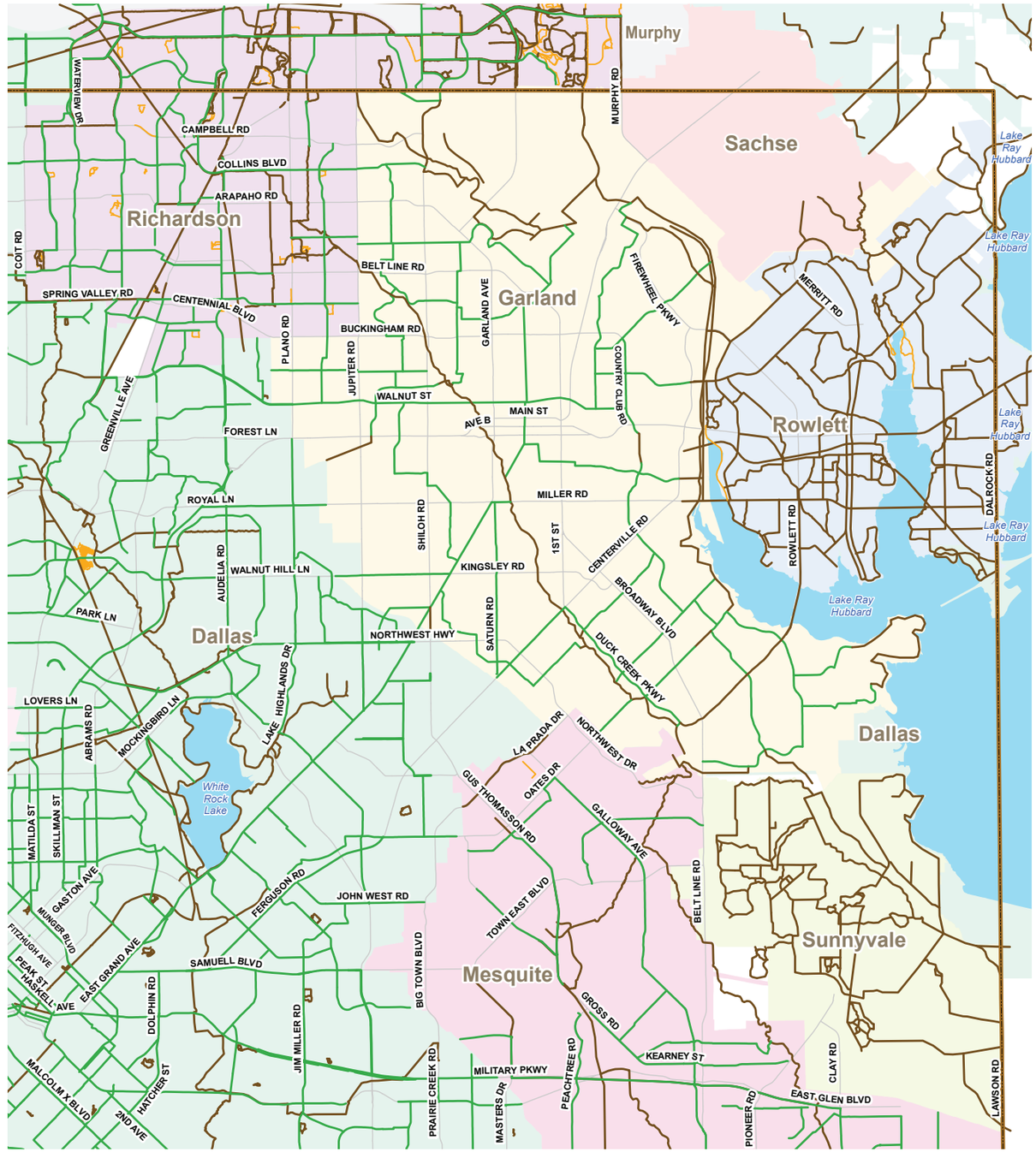
NE Quadrant

Legend

Bikeways and Trails

Type (Existing and Planned)

- Off-Street Trail
- On-Street Bikeway
- Other Pedestrian Path
- Other Unknown
- Dallas County Boundary
- Other Major Roadways
- Lakes



Dallas County

Bikeways & Trails

SW Quadrant

Legend

Bikeways and Trails

Type (Existing and Planned)

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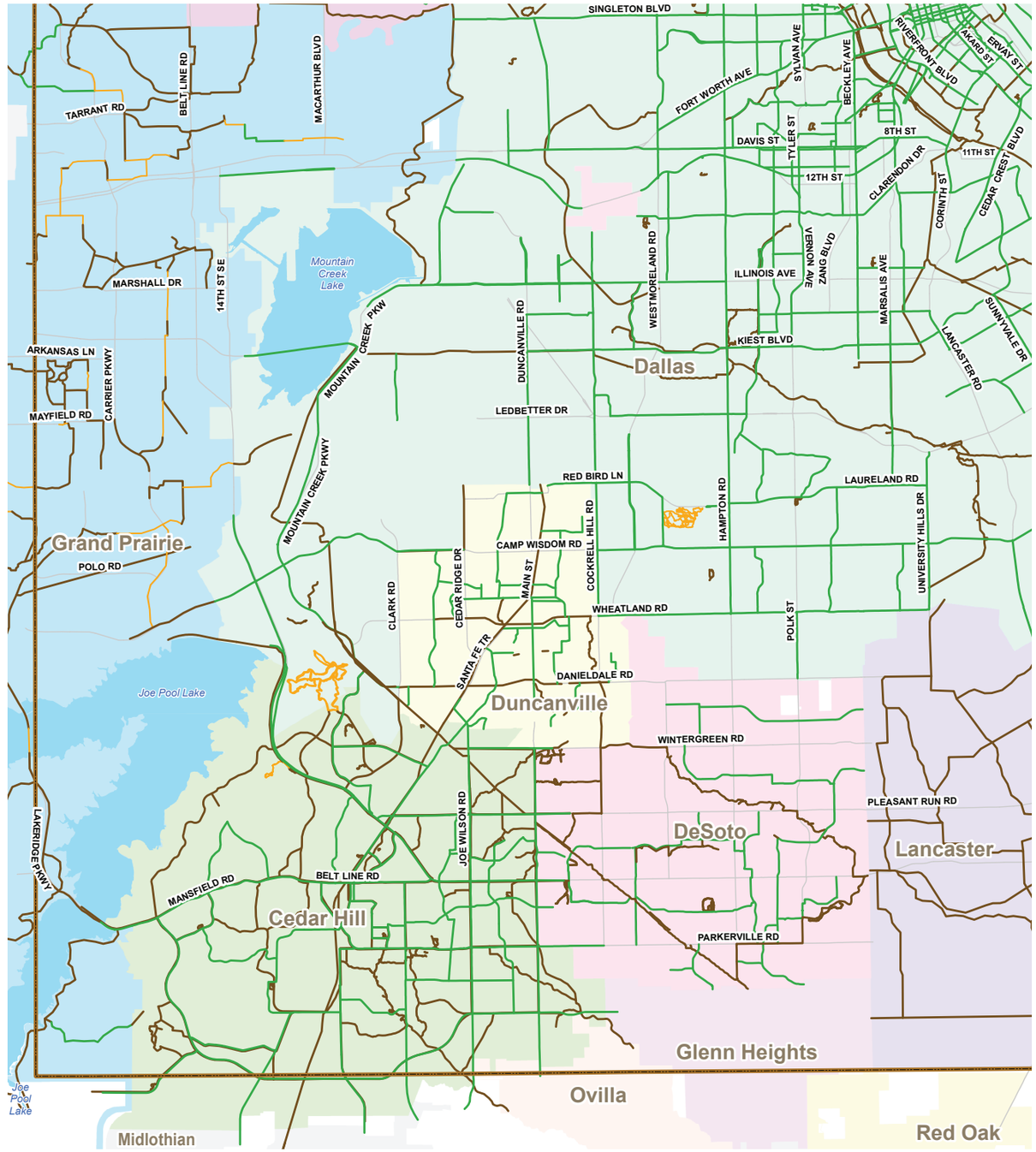

Dallas County

Bikeways & Trails

SE Quadrant

Legend

Bikeways and Trails

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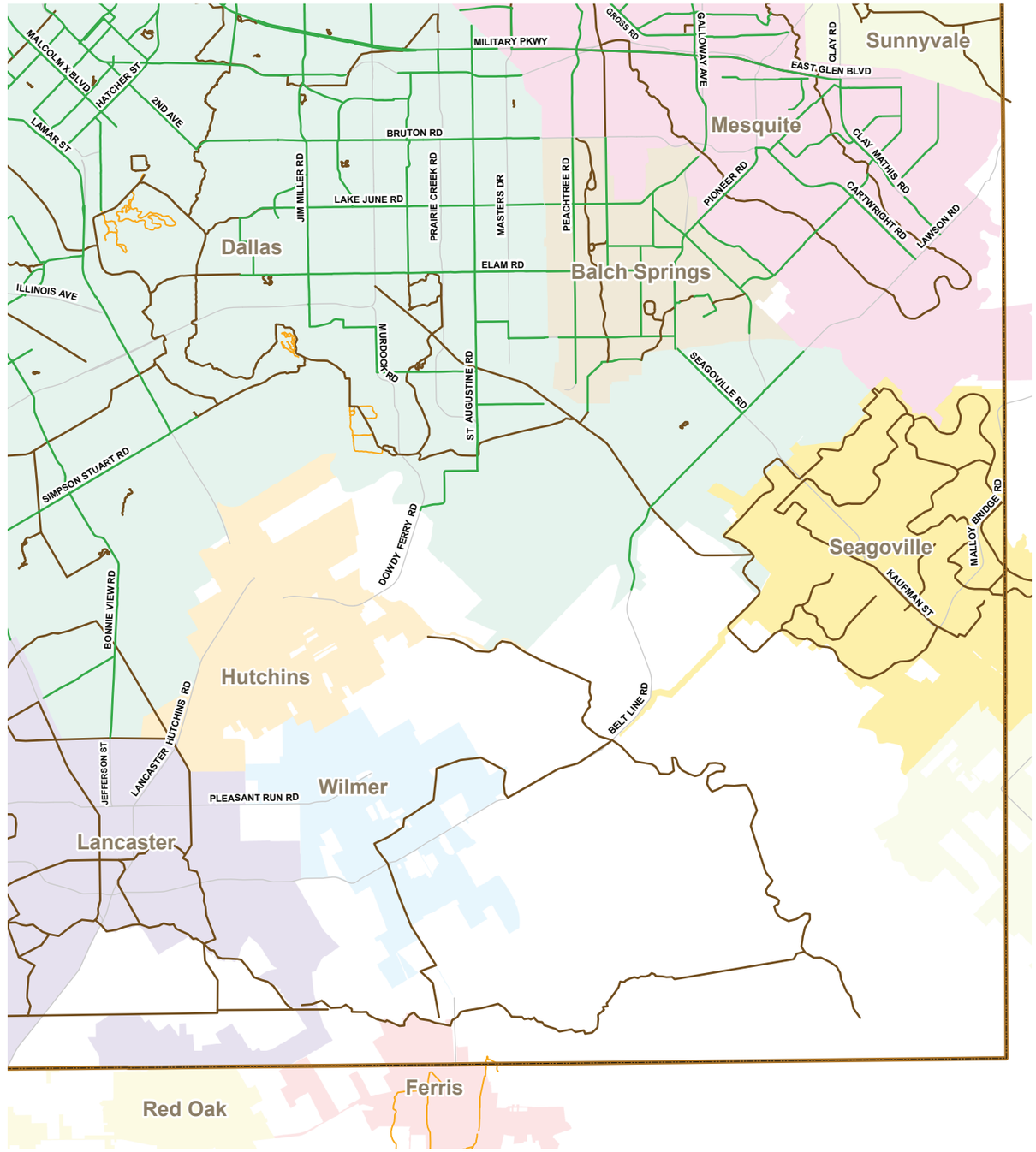

Dallas County

Transit

Legend

Station Areas

- Park & Ride
- Transfer Center
- Transit Center
- Rail Stations

Rail

- LRT Blue Line
- LRT Green Line
- LRT Orange Line
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- NCTCOG Mobility 2045 Transit Corridors

Bus Routes

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- Dart On-Call Zone
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- Other Major Roadways
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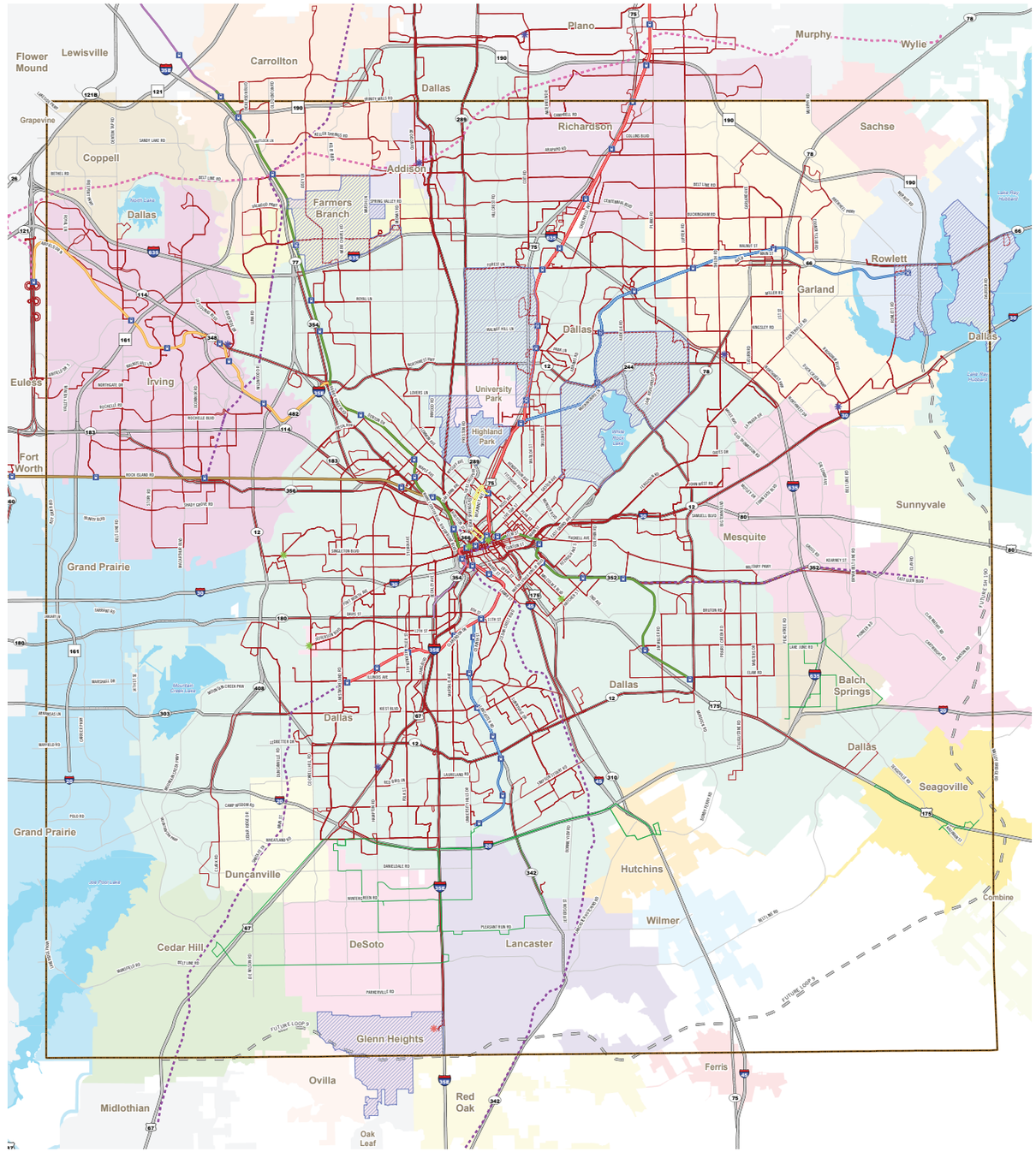

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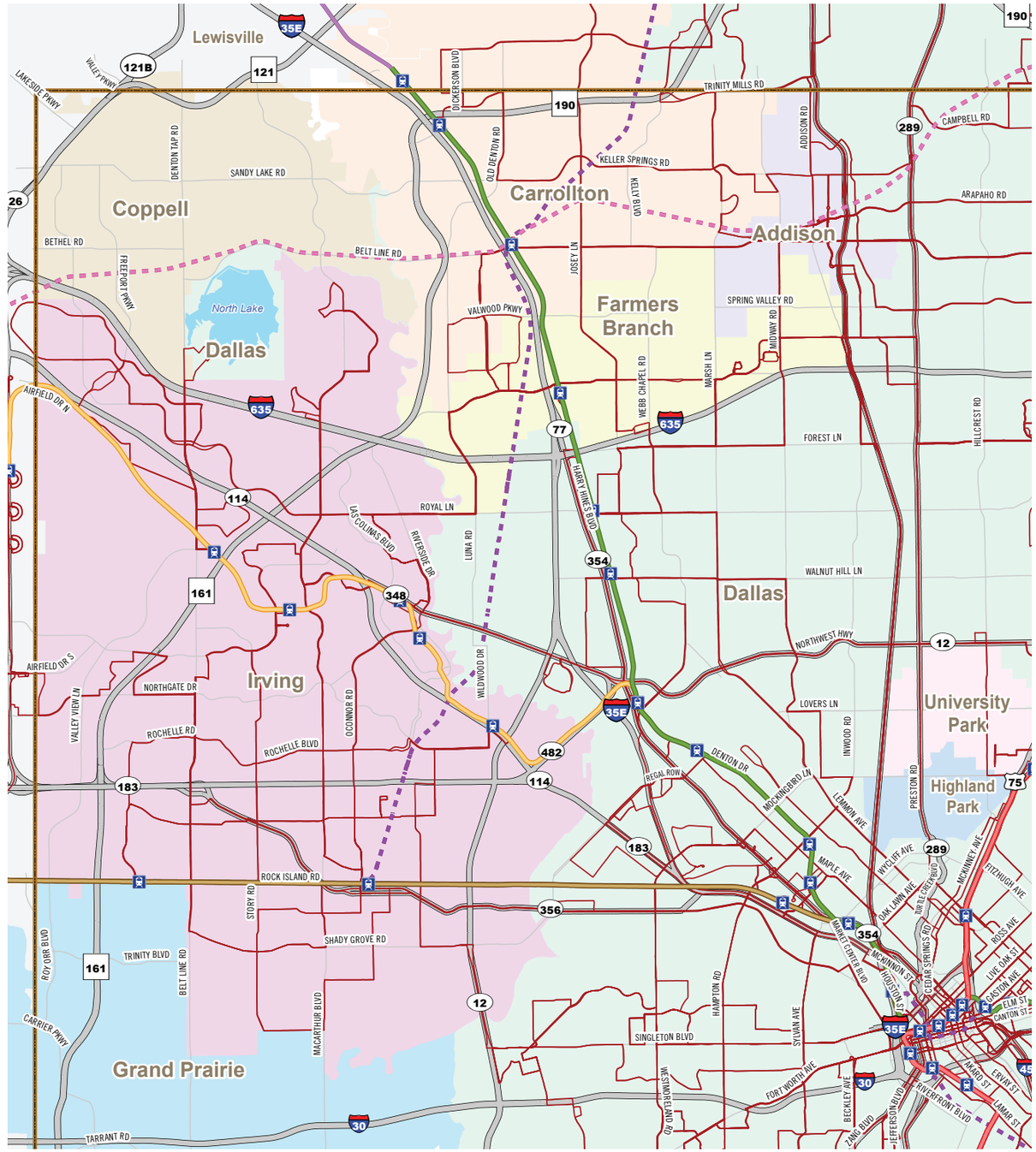

Dallas County

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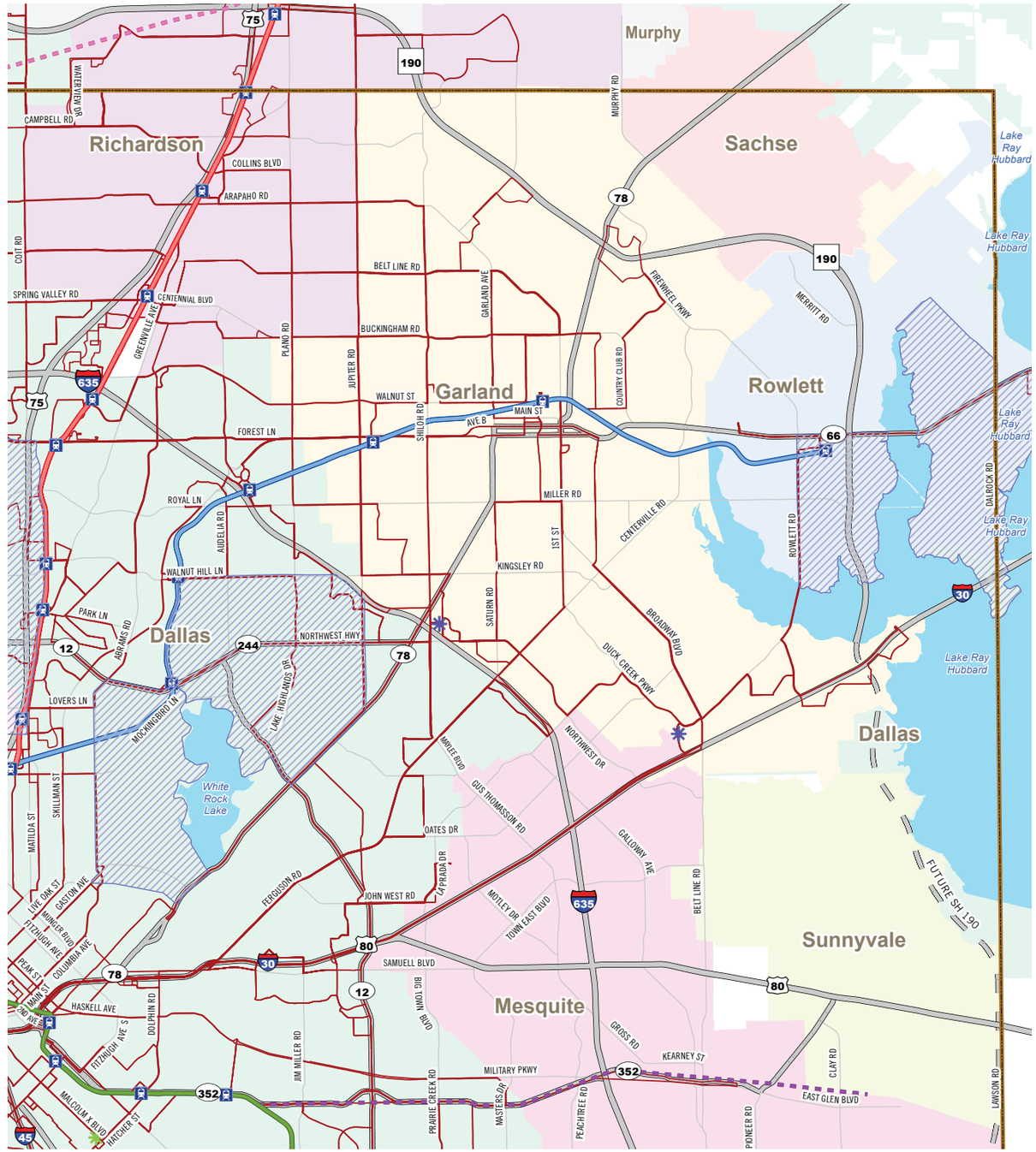

Dallas County

Transit

SW Quadrant

Legend

Station Areas
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- Transfer Center
- Transit Center
- Rail Stations

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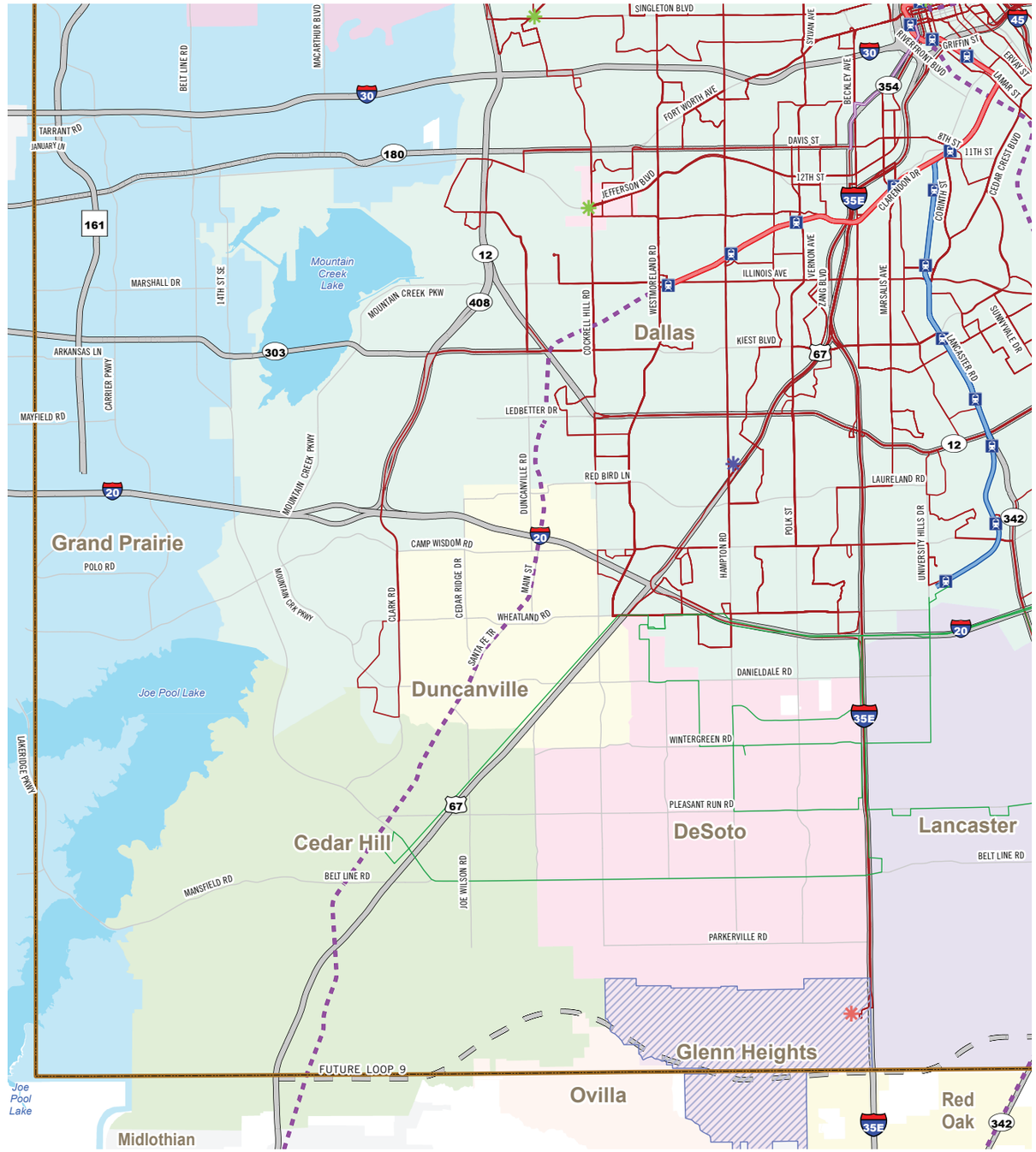

Dallas County

Transit

SE Quadrant

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Station Areas
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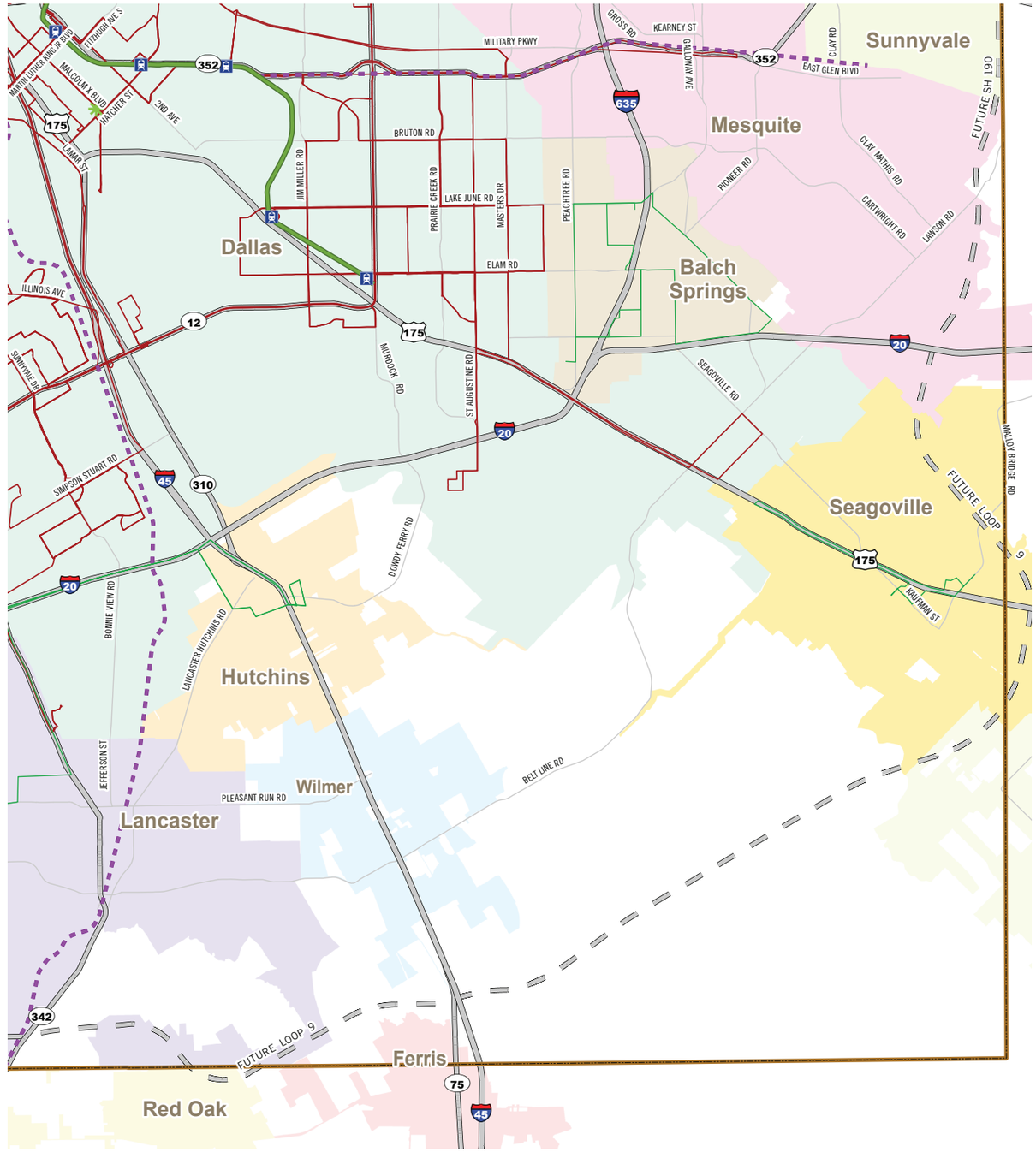


Dallas County

Travel Demand Generators

NW Quadrant

Legend

Major Activity Centers

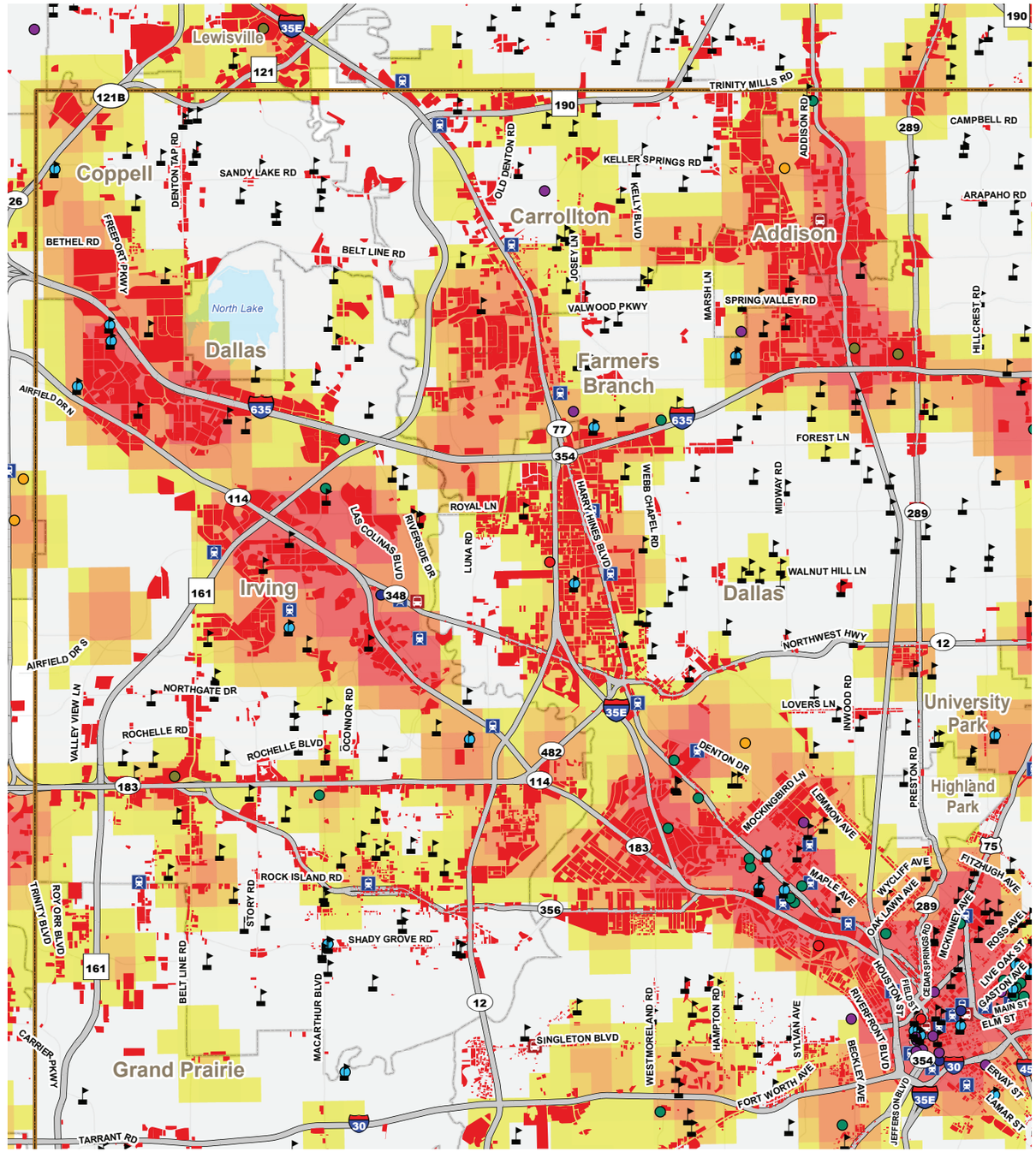
- Park & Ride/Transit Center
- Rail Stations
- Schools
- Major Parks
- Major Retail Centers
- Convention Centers
- Amusement/Recreation
- Higher Education
- Airports
- Hospital

Commercial/Retail/ Office Land Uses

Employment Clusters

Mid — High

- Dallas County Boundary
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Travel Demand Generators

NE Quadrant

Legend

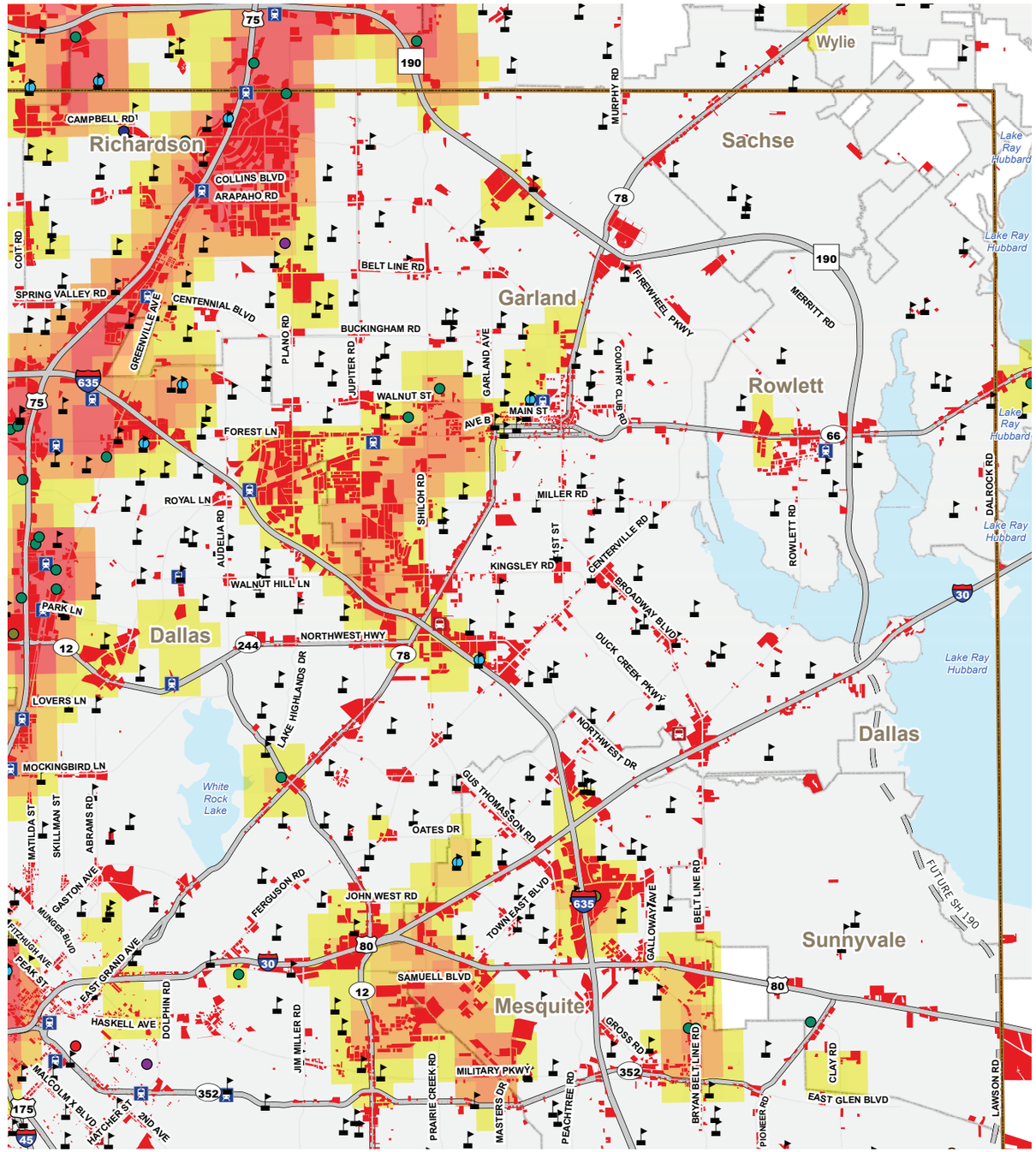
Major Activity Centers

- Park & Ride/Transit Center
- Rail Stations
- Schools
- Major Parks
- Major Retail Centers
- Convention Centers
- Amusement/Recreation
- Higher Education
- Airports
- Hospital
- Commercial/Retail/ Office Land Uses

Employment Clusters

Mid — High

- Dallas County Boundary
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Travel Demand Generators

SW Quadrant

Legend

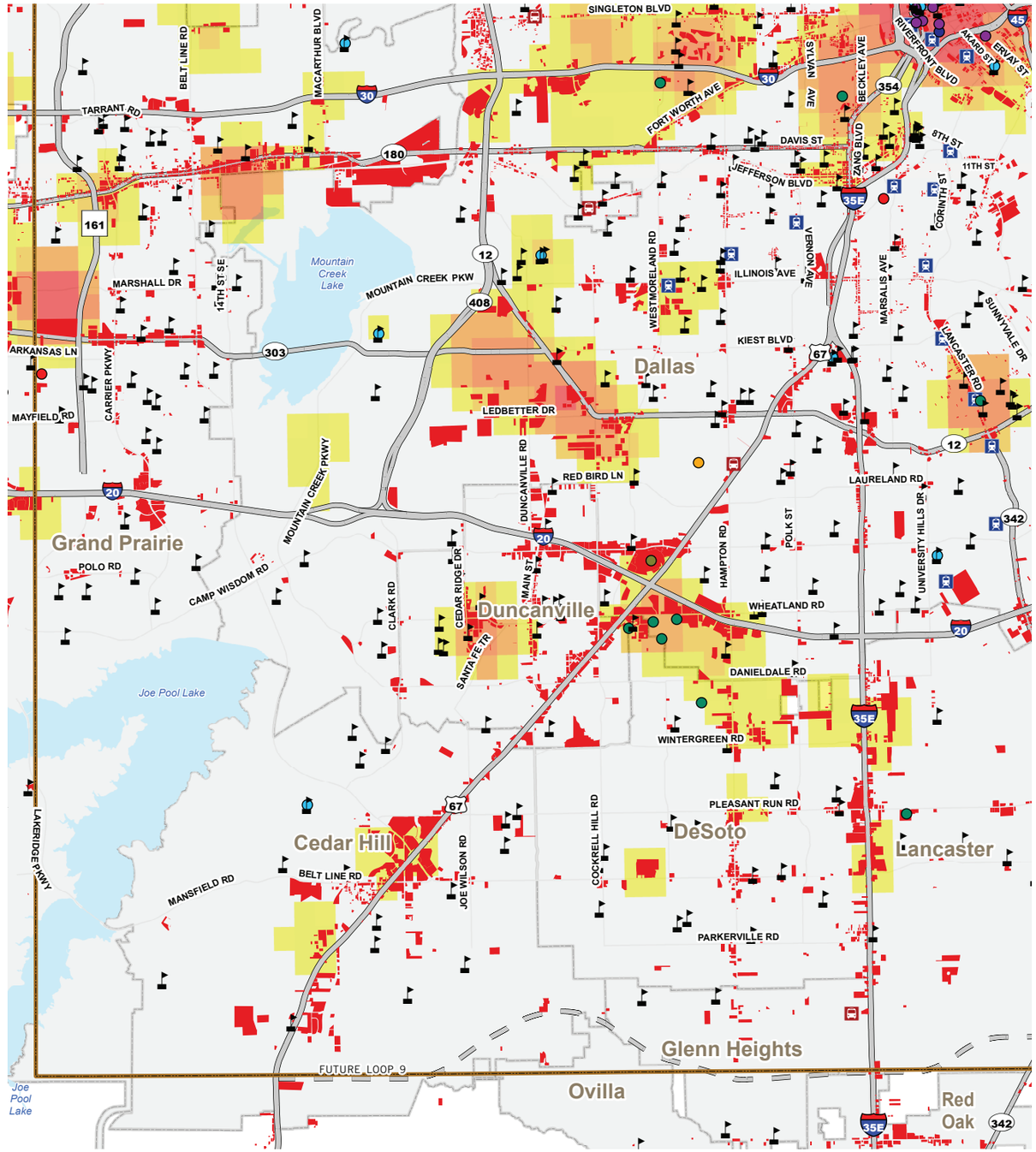
Major Activity Centers

- Park & Ride/Transit Center
- Rail Stations
- Schools
- Major Parks
- Major Retail Centers
- Convention Centers
- Amusement/Recreation
- Higher Education
- Airports
- Hospital
- Commercial/Retail/ Office Land Uses

Employment Clusters

Mid — High

- Dallas County Boundary
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

Travel Demand Generators

SE Quadrant

Legend

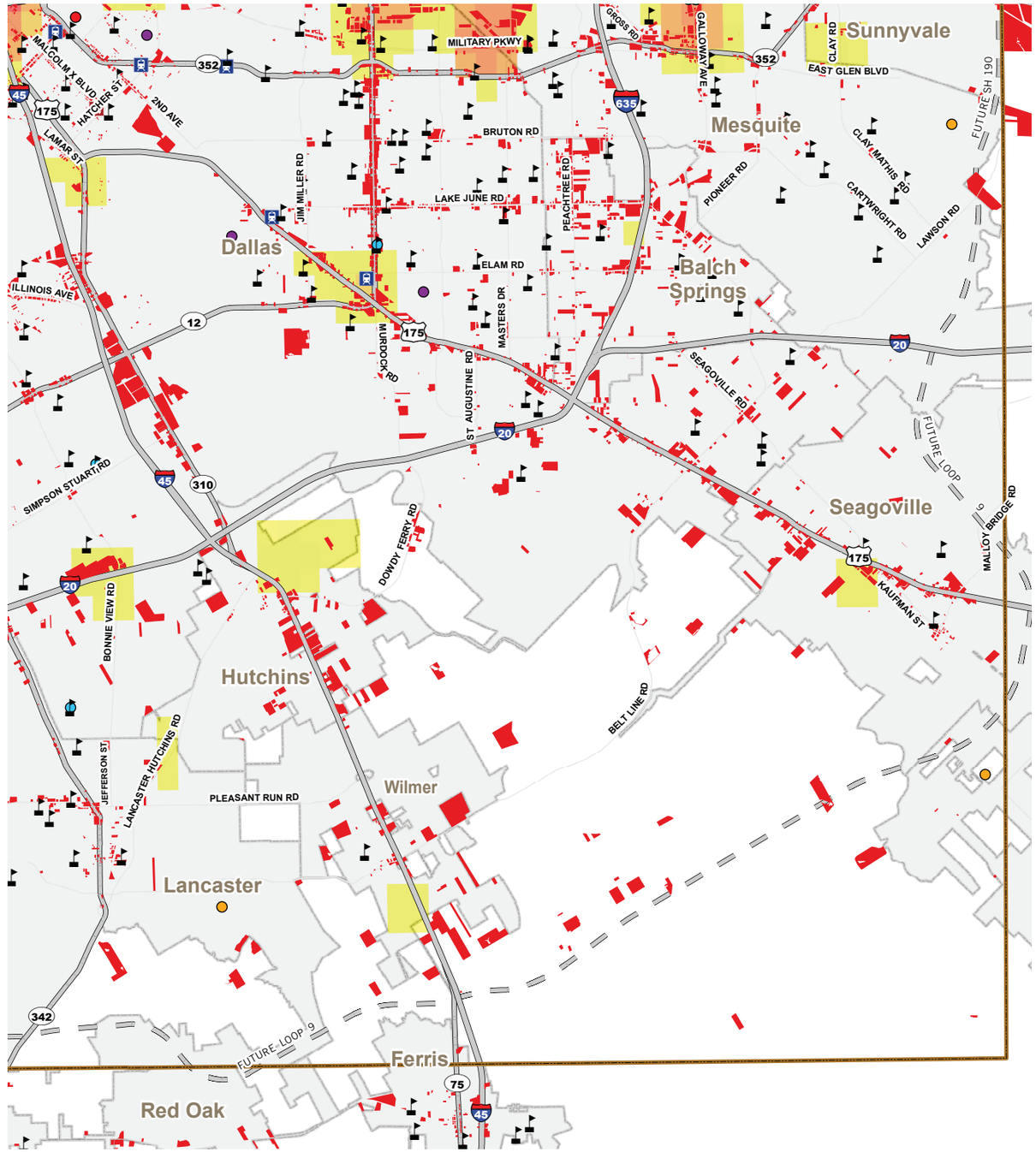
Major Activity Centers

- Park & Ride/Transit Center
- Rail Stations
- Schools
- Major Parks
- Major Retail Centers
- Convention Centers
- Amusement/Recreation
- Higher Education
- Airports
- Hospital
- Commercial/Retail/ Office Land Uses

Employment Clusters

Mid — High

- Dallas County Boundary
- Planned Highways
- Other Major Roadways
- Lakes



Dallas County

2018 Population Density
(persons per acre)

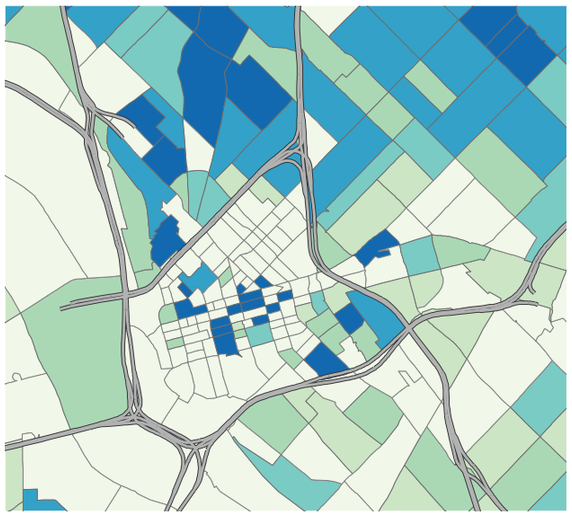
The 2018 population forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Population per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

Legend

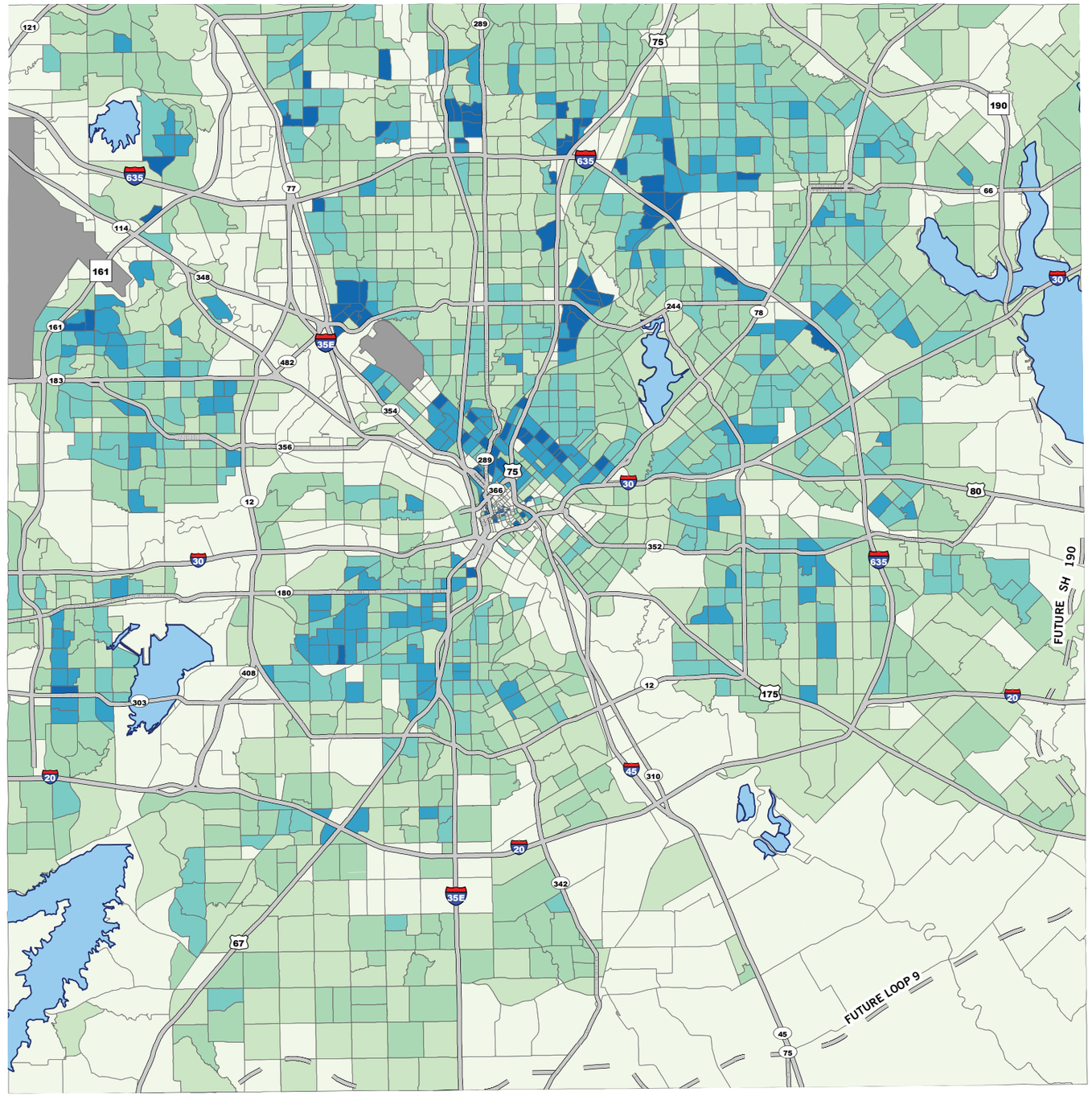
POP / ACRES

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

- Highways
- Airports



Dallas CBD



Dallas County

2045 Population Density
(persons per acre)

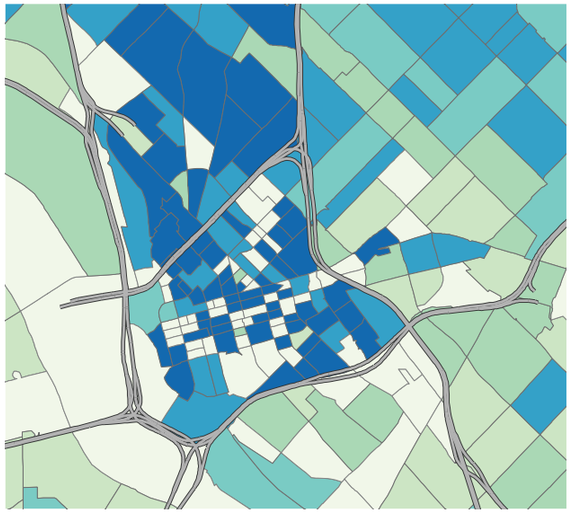
The 2045 population forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Population per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

Legend

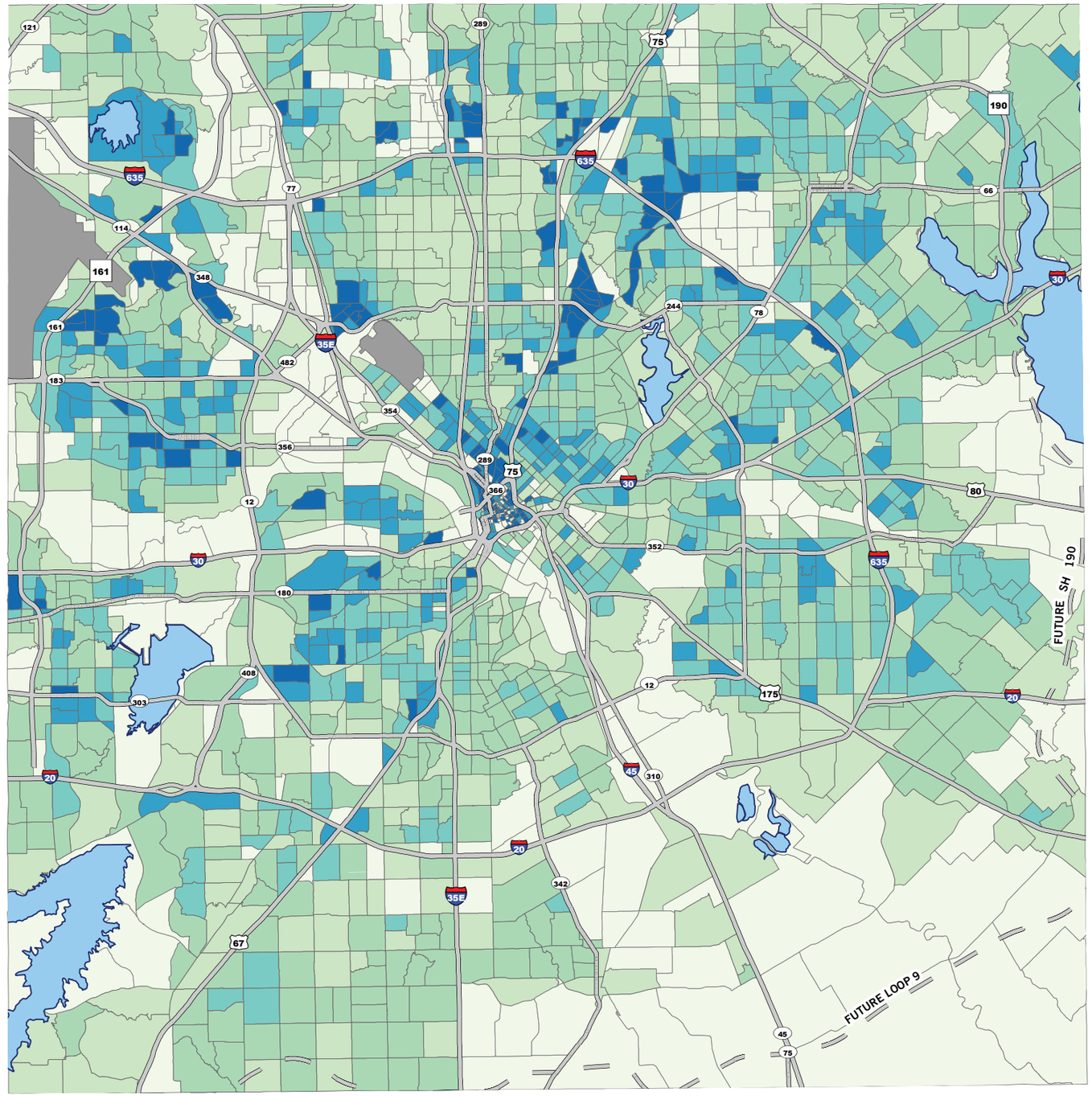
POP / ACRES

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

- Highways
- Airports



Dallas CBD



Dallas County

2018-2045 Population Change

The 2045 population forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan.

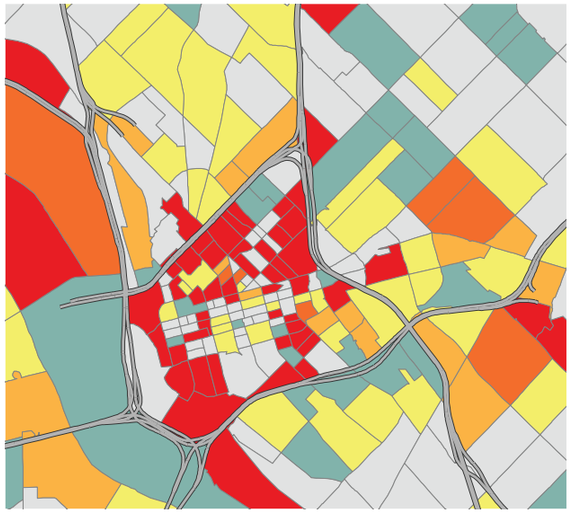
Legend

% Population Change from 2018

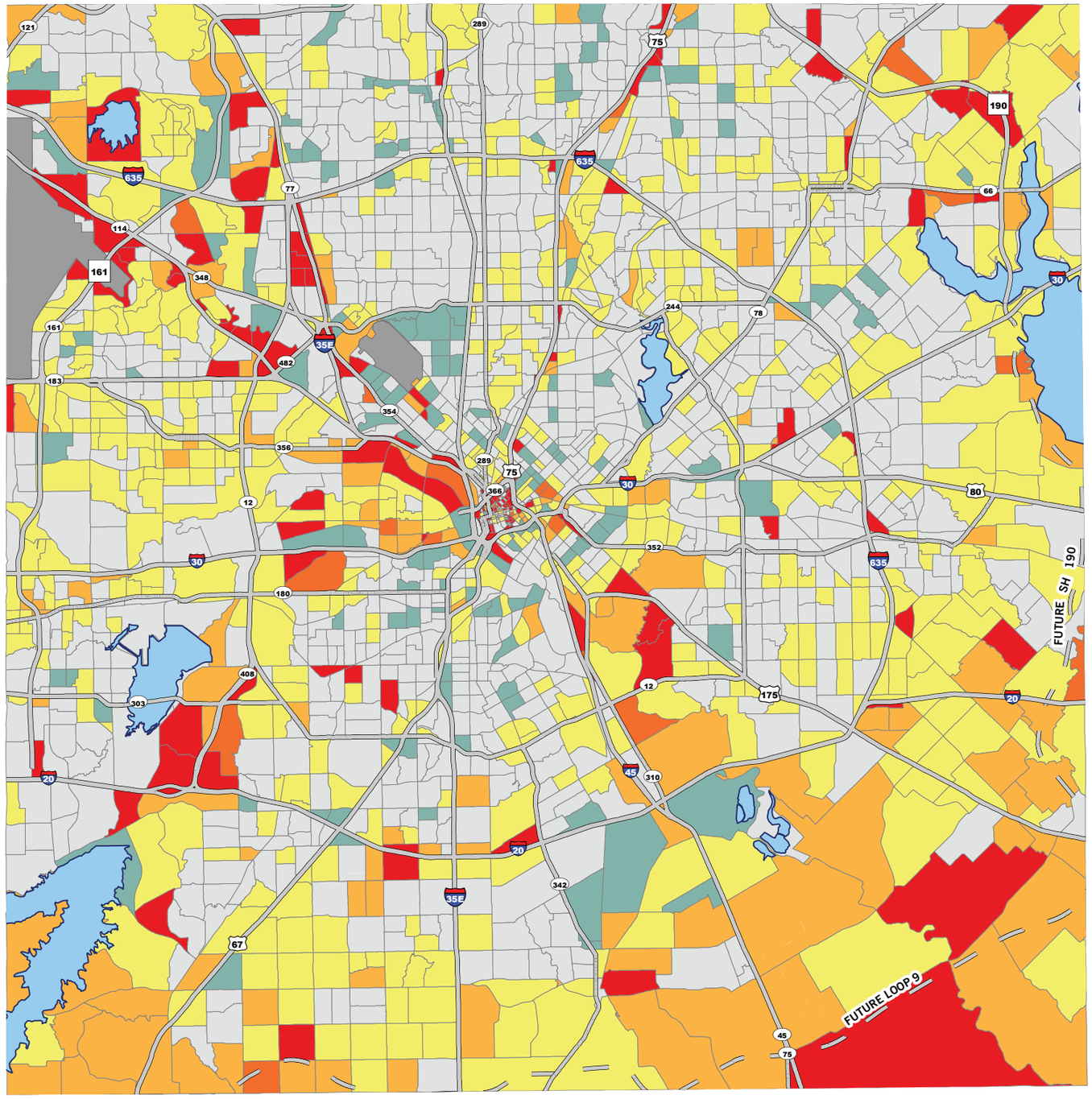
- -99.95% - -25.00%
- -24.99% - 25.00%
- 25.01% - 200.00%
- 200.01% - 1000.00%
- 1000.01% - 2000.00%
- 2000.01% +

Highways

Airports



Dallas CBD



Dallas County

2018 Employment Density
(persons per acre)

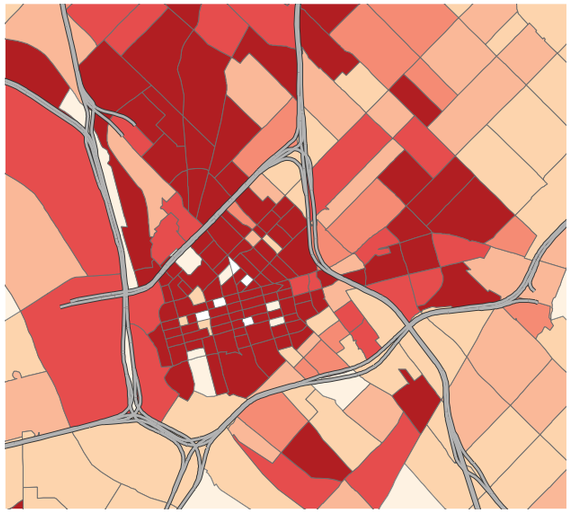
The 2018 employment forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Employment per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

Legend

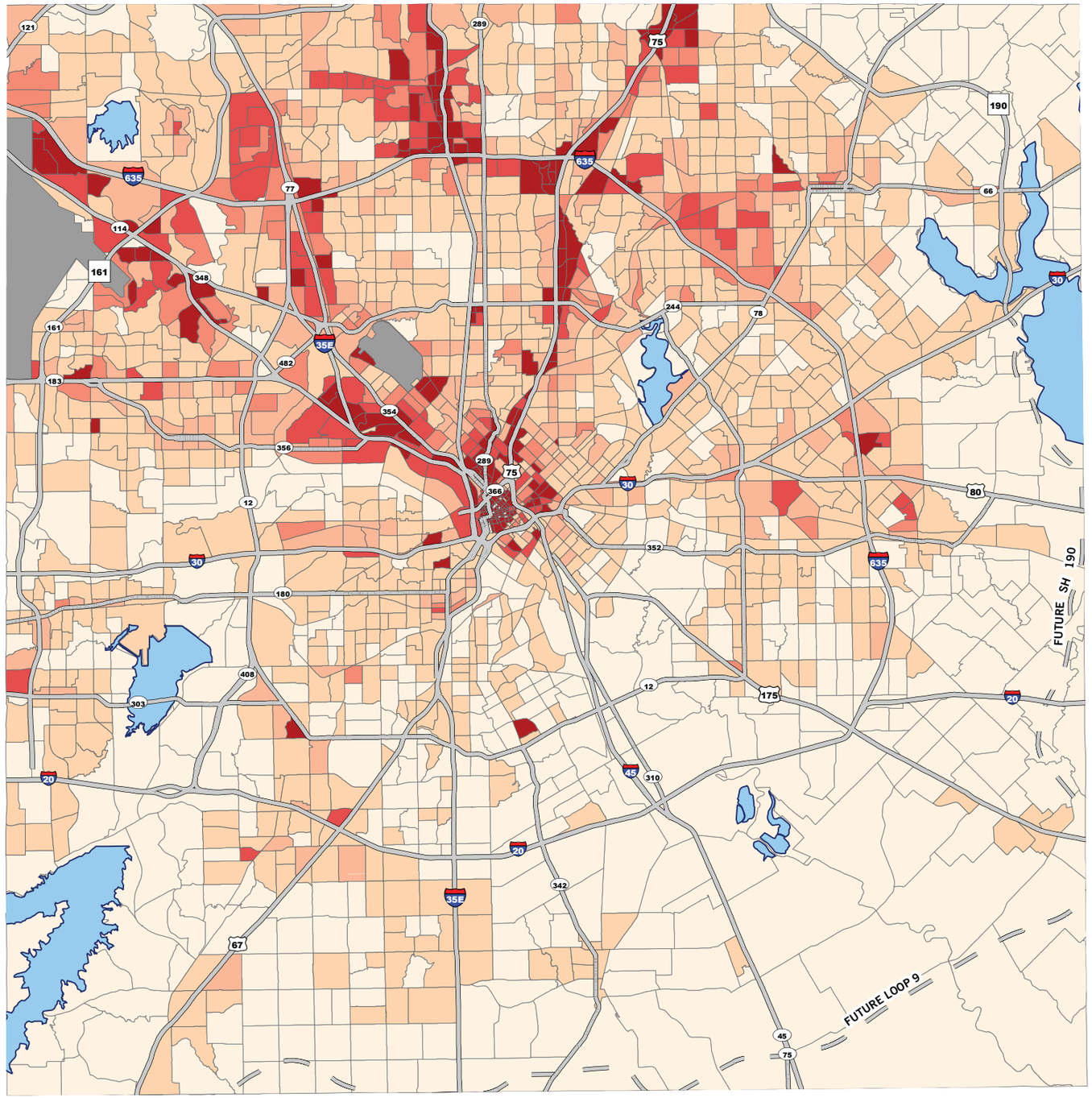
EMP / ACRES

- 0 - 1
- 2 - 5
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

- Highways
- Airports



Dallas CBD



Dallas County

2045 Employment Density
(persons per acre)

The 2045 employment forecast is from the North Central Texas Council of Governments (NCTCOG) 2045 Mobility Plan. Employment per acre is aggregated to the Traffic Analysis Zone (TAZ) layer.

Legend

EMP / ACRES

- 0 - 1
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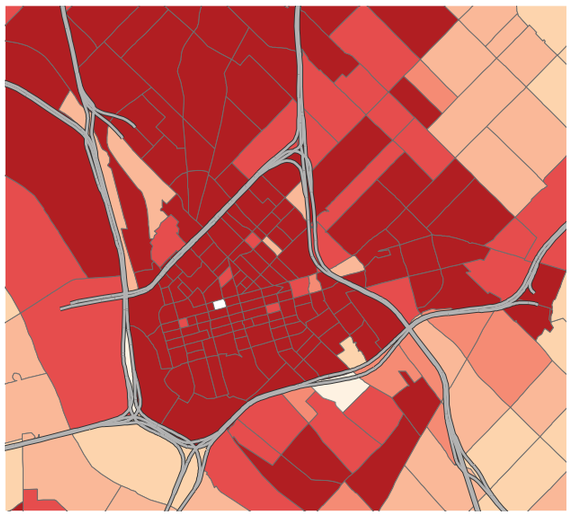
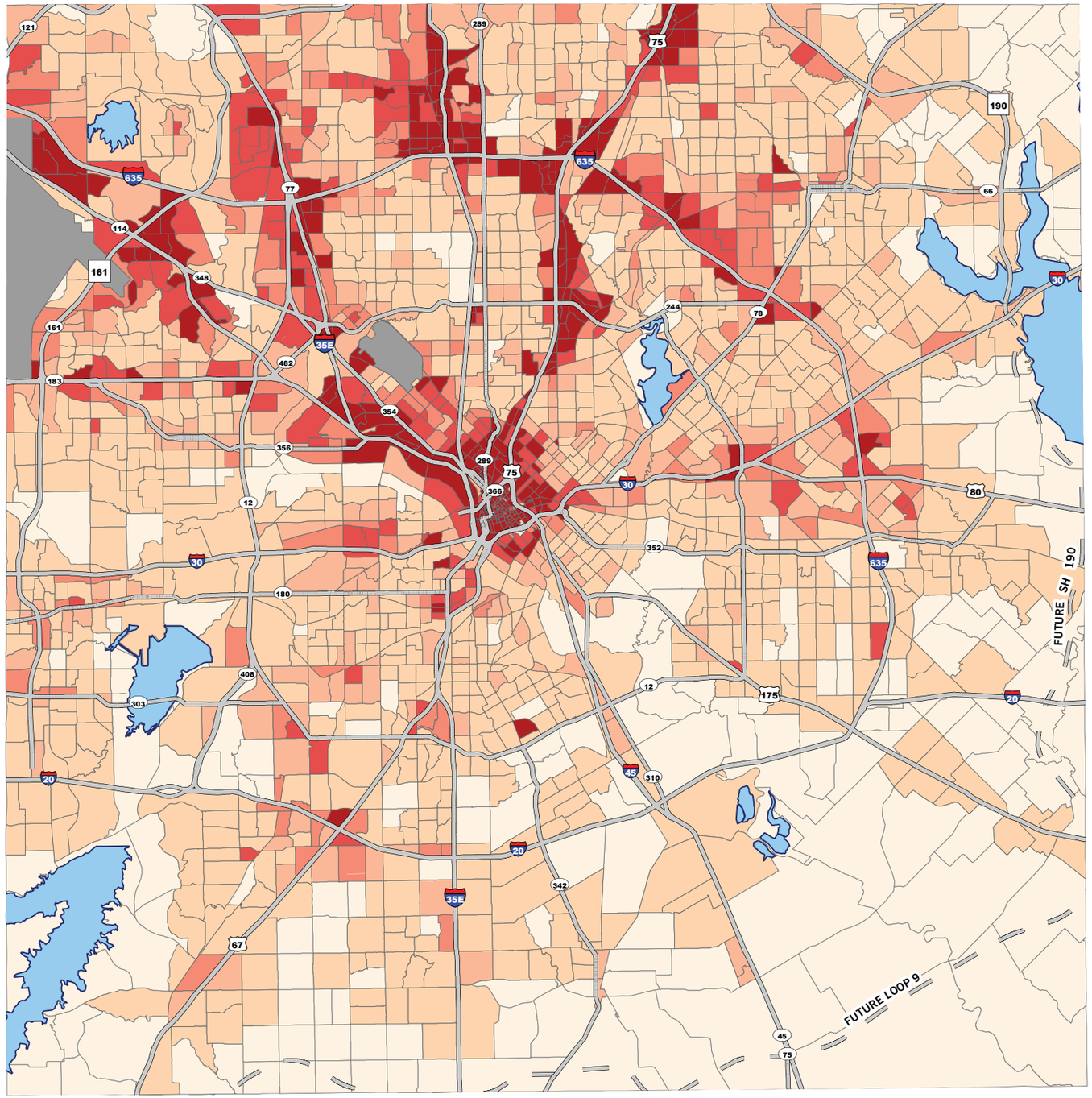
- 6 - 10
- 11 - 15
- 16 - 25
- 26 +

- Highways
- Airports



Dallas CBD



Dallas County

2018-2045 Employment Change

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Legend

% Employment Change from 2018

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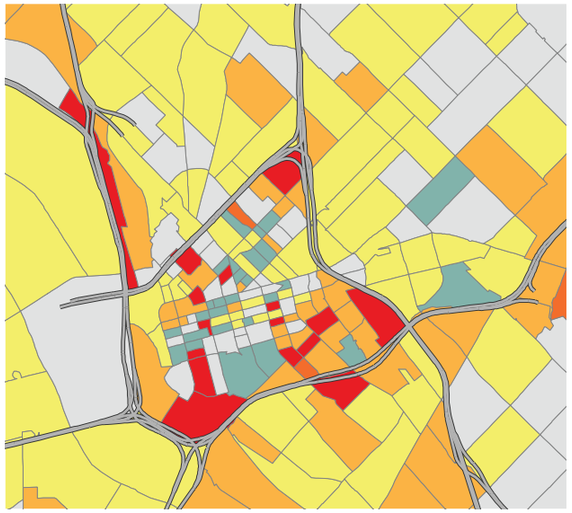
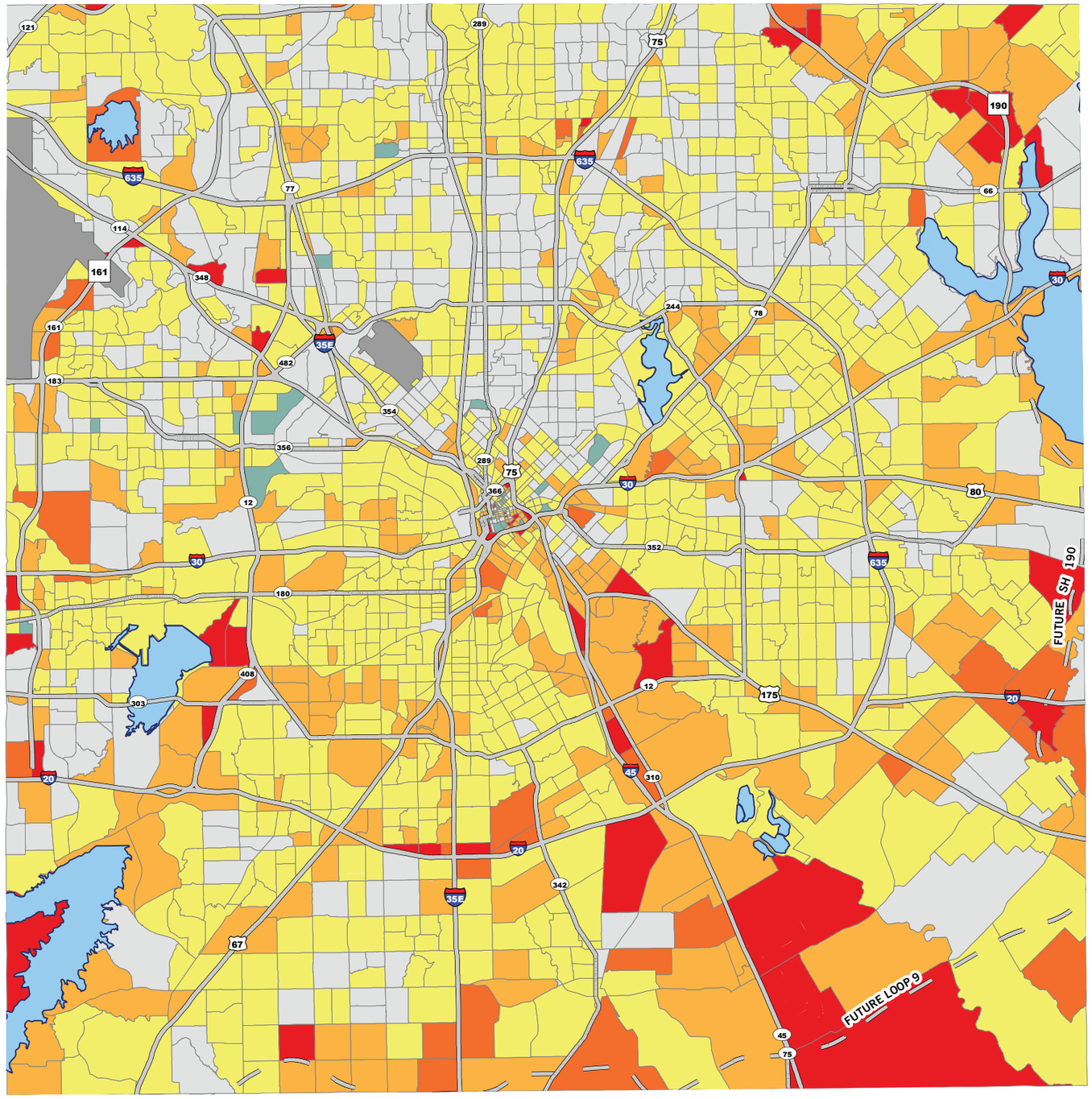
- -24.99% - 25.00%
- 25.01% - 200.00%
- 200.01% - 1000.00%
- 1000.01% - 2000.00%
- 2000.01% +

Highways

Airports



Dallas CBD



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MICAH BAKER,
SENIOR TRANSPORTATION PLANNER

MINESHA REESE,
TRANSPORTATION PLANNER

The Dallas County Mobility Plan was developed by the Transportation and Planning Division of the Dallas County Public Works Department. The Plan was completed under the direction of Antoinette Bacchus P.E. and Tushar Solanki P.E., and led by Senior Transportation Planner - Micah Baker and Transportation Planner - Minesha Reese.

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Balch Springs
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City of
HUTCHINS
SOUTH GATE TO "BIG D"
WILMER
Seagoville
CEDAR HILL
Glenn Heights
Lancaster
Ferris