Collin County Transit Study

Task 3.1 Existing Transit Services, Planned Improvement and Conditions

2020
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Transit Services Overview

Transit services are available in Collin County through various public entities such as Dallas Area Rapid Transit (DART), McKinney Urban Transit Direct (MUTD), and Denton County Transportation Authority (DCTA). This report studies the following types of transit services:

- **Fixed Route**: Fixed route transit system involves utilizing buses, light rail, and other vehicles to operate on a pre-determined route according to a pre-determined schedule. It is the most common and basic mode of transit system in United States.

- **Flex Route**: Flex route transit system is a hybrid of fixed-route and demand-response mode transit system. It operates on a predetermined schedule but may deviate from the pre-determined route.

- **Demand-Response**: Demand-response transit system operates on a flexible route with a flexible schedule. Passengers make advanced reservations to travel with this mode of transit system. Demand-response vehicles may be dispatched to pick multiple passengers prior to reaching destination. Ridesharing is a type of demand-response transit system. It is the second largest type of public transit system in United States.
Transit Service Providers

DART

Dallas Area Rapid Transit (DART) was created in 1983 with the development of its original 1983 Transit System Plan. DART updated their plan in 1995 and again in 2006, with a major update now in development. DART operates transit services through light rail and buses primarily, with complementary demand response, on-demand services and partnership regional rail service in the form of the Trinity Railway Express. DART has a total fleet of 651 buses with over 11,000 bus stops and 64 Light rail transit (LRT) stations. DART has designated different colors to each of its four LRT routes (blue, red, green, and orange).

Today there are (13) thirteen member cities with over 700 square miles, including Plano, portions of Richardson & Dallas in Collin County. DART total ridership exceeded 62 million passenger trips in FY 2018, with 30.2 million of bus trips and approximately 29 million LRT trips. DART had a total budget of a little over $1 billion in FY 2019.

This section provides an overview of DART services in Collin County.

Service Boundaries

DART provides transit services in Plano and portions of Richardson & Dallas in Collin County. DART also provides Riders Assistance Program for residents of over 65 years of age or with certified disability in City of Wylie, Allen, and Fairview. DART’s service area within Collin County is shown below.

Figure 1: DART Service Area within Collin County (Source: NCTCOG TAIT)
DART is partnering with Uber for a one-year pilot program to provide North Texas riders greater flexibility and more options for their transportation needs. Using GoPass, customers can book an UberPool shared ride in each of DART’s GoLink zones in DART’s service area, including Far North Plano, Legacy West in Plano, and North Central Plano/Chase Oaks.

DART Mobility plan is divided into three zones for City of Plano: Legacy West, Far North Plano, and North Central Plano. Legacy West serves Northwest Plano Park & Ride for connections to DART buses. Far North Plano and North Central Plano serve Parker Road Station for connection to DART rail and buses. These three service area zones are shown in the image below.
DART Collin County Rides Program

DART also operates the Collin County Rides program with service from 5 a.m. to 8 p.m. seven days per week. Collin County Rides is a rider assistance program offered by DART in Wylie, Allen and Fairview. This service is for qualified residents of Wylie, Allen and Fairview that are age 65 or over or have a certified disability. To become eligible to use this service, residents must go through an eligibility approval process. Once registered, riders can schedule subscription trips (repeating on regular intervals), book trips up to two days in advance of their intended travel, with no provision for same day trip scheduling. Fares for the service are paid via a debit card, with fares starting at $2.25 plus $1.80 per mile. The debit card provides a subsidy of 3:1, with riders able to purchase up to $400 of travel credit per month for a cost of $100.

The service area for Collin County Rides is shown below. Travel may include connecting to the DART service area in Plano, inside Collin County. Connections to the DART Downtown Rowlett train station are also permitted, even though that station is outside of Collin County. More information on this service is available at https://www.dart.org/ccr/.
DART Light Rail

DART owns and operates five light rail transit stations/transit centers in Collin County. These five stations/transit centers are services by DART Red LRT and Orange LRT with Parker Road being last station on the route. DART plans to construct another station in the City of Plano (Collin County) at 12th Street in the future¹. DART Services Map shown below shows the existing rail service map in Dallas/Collin County, with Collin County stations/transit centers highlighted in yellow.

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¹ There is no information currently available on anticipated construction date of the 12th Street station.
Parker Road Station

DART’s Parker Road station is located at Park Boulevard and Archerwood Street, near North Central Expressway. It is served by DART Red (LRT) and Orange (LRT). This station serves several nearby retail and commercial destinations and is the last station on the North Central corridor. Connecting Bus Routes at this station includes 211, 350, 410, 452, Golink North Central Plano/Chase Oaks, and Golink Far North Plano. (Golink is a personalized, on-demand, curb-to-curb services by DART in Plano Zones).

Parker Road station has approximately 2020 parking spaces. At Plano’s Parker Road Station, DART has a reserved parking program limited to residents of the DART service area who display a valid resident parking permit on their vehicle, with vehicles without a valid permit subject to towing at owners’ expense.

Figure 5: Parker Road Station
Northwest Plano Park & Ride

Northwest Plano Park & Ride is located at southeast corner of Communications Pkwy. and Tennyson Pkwy. This facility serves commuters from West Plano, as well as points north, with a direct link to downtown Dallas. In addition, reverse commuters, from the southern parts of the DART Service Area, now have a direct link north from downtown to employment center in Plano.

Bus Routes at this station includes 183, 208, 211, 347, 451, 452, and Golink Legacy West. Northwest Plano Park & Ride station has approximately 564 parking spaces.

Figure 6: Northwest Plano Park and Ride
Jack Hatchell Transit Center

Jack Hatchell Transit Center is located on 15th Street, west of Coit Road. Bus Routes at this Transit Center includes 210, 350, 451, 452, and Telecom Corridor Flex Service. Transit Center has approximately 815 parking spaces. This Center provides connections to the Medical Center of Plano via Routh 451.

![Jack Hatchell Transit Center Map](image_url)

*Figure 7: Jack Hatchell Transit Center*
Downtown Plano Station

The Downtown Plano Station located at 15th Street and Avenue J intersection. It is served by the DART Rail Red and Orange lines. Downtown Plano Station provides access to the city’s municipal center, courthouse, and business district. It is served by DART Red (LRT), Orange (LRT) and East Plano Flex Service 870. There is no public parking available at the station.

Figure 8: Downtown Plano Station
Cityline/Bush Turnpike Station

Cityline/Bush Turnpike Station is located east of U.S. 75 and south of President George Bush Turnpike, the CityLine/Bush Station is served by the DART Rail Red and Orange lines. Note: Parking is located under President George Bush Turnpike, north of the station platform.

It is served by DART Red (LRT), Orange (LRT), Telecom Corridor FLEX Service (841), South Plano FLEX Service (843), and 883-UTD Shuttle. The station has approximately 1,193 parking spaces. Popular attractions near the station includes Aloft Richardson Hotel, Cisco, Cityline Development, University of Texas at Dallas (via bus route 883-UTD Shuttle) and more.

Figure 9: Cityline/Bush Turnpike Station
Ridership & Performance

DART Bus Ridership varies by route. Per DART reference Book (March 2020), in fiscal year 2019 DART buses had annual ridership of 38.7 million passenger trips on total of 161 Bus Routes and annual ridership of 28 million on light rail. DART transitioned to automatic passenger count (APC) based ridership reporting for buses and DART Light Rail ridership in FY13.

The table below from DART reference Book (March 2020) shows LRT ridership by station for last three years. (With Collin County Stations highlighted in yellow).

Cost Per Trip

DART offers a basic fare of $2.50 for a single ride (bus only), or $3.00 Local for an AM or PM pass good for travel on all DART buses and trains (including GoLink and FLEX service) and Trinity Railway Express trains between Union Station and CentrePort/DFW Airport Station. A midday pass of $2.00 for local is also available and allows unlimited travel between 9:30 a.m. and 2:30 p.m. seven days a week. For those passengers using DART round trip, needing a regional fare or for trips that go past noon, a day pass of $6.00 for Local and $12.00 for regional is recommended. Day passes are good for unlimited rides (including your return trip) until 3 a.m. the next day.

DART’s GoPass® app, one of the first transit payment apps when it was launched in 2013, added new features including the option to load value with cash at hundreds of area retailers as well as the ability to track buses and trains in real-time. DART introduced fare capping to make riding easier and cheaper. By using the GoPass® mobile app or GoPass® Tap card, riders will
never spend more than the total cost of a day pass ($6.00) in a single day, or the total cost of a monthly pass ($96.00) in a calendar month.

**Funding Sources**

Below listed table from DART FY 2020 Business plan illustrates Source and Usage of DART funds, in millions, for FY 2019 & 2020.

<table>
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<tr>
<th>Line</th>
<th>Description</th>
<th>FY19 Plan</th>
<th>FY20 Plan</th>
<th>$ Variance</th>
<th>% Variance</th>
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<td>1</td>
<td>Sales Tax Revenues</td>
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<td>$18,894.7</td>
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<td>Operating Revenues</td>
<td>2,511.2</td>
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<td>3</td>
<td>Interest Income</td>
<td>397.0</td>
<td>384.7</td>
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<td>Formulas Federal Funding</td>
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<td>1,728.7</td>
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<td>5</td>
<td>Discretionary Federal Funding</td>
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<td>720.1</td>
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<td>Long-term Debt Issuances</td>
<td>3,244.1</td>
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<td>Commercial Paper Issuances</td>
<td>600.0</td>
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<td>8</td>
<td>Other Operating Contributions</td>
<td>481.2</td>
<td>466.0</td>
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<td>Other Capital Contributions</td>
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<td>270.4</td>
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<td>Total Sources of Funds</td>
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<td><strong>USES OF FUNDS</strong></td>
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<td>Operating Expenses:</td>
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<td></td>
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<tr>
<td>12</td>
<td>Bus</td>
<td>$7,050.3</td>
<td>$7,112.0</td>
<td>$61.7</td>
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<td>13</td>
<td>Light Rail Transit</td>
<td>4,493.8</td>
<td>4,517.8</td>
<td>24.0</td>
<td>0.5%</td>
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<tr>
<td>14</td>
<td>Streetcar</td>
<td>119.2</td>
<td>119.9</td>
<td>0.7</td>
<td>0.0%</td>
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<td>15</td>
<td>Commuter Rail/RR Management</td>
<td>1,351.0</td>
<td>1,352.2</td>
<td>1.2</td>
<td>0.1%</td>
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<td>16</td>
<td>Paratransit</td>
<td>1,255.4</td>
<td>1,260.3</td>
<td>4.9</td>
<td>0.4%</td>
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<tr>
<td>17</td>
<td>General Mobility - TDM</td>
<td>52.2</td>
<td>52.5</td>
<td>0.3</td>
<td>0.6%</td>
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<td>18</td>
<td>Total Operating Expenses</td>
<td>$14,221.9</td>
<td>$14,414.7</td>
<td>$92.8</td>
<td>0.6%</td>
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<td>19</td>
<td>Capital and Non-Operating:</td>
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<td>20</td>
<td>Agency-Wide</td>
<td>$445.7</td>
<td>$502.5</td>
<td>$56.9</td>
<td>12.8%</td>
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<td>21</td>
<td>Bus</td>
<td>1,207.5</td>
<td>1,197.1</td>
<td>(10.4)</td>
<td>(0.9%)</td>
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<td>22</td>
<td>Light Rail Transit</td>
<td>2,975.5</td>
<td>2,985.6</td>
<td>10.1</td>
<td>0.3%</td>
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<tr>
<td>23</td>
<td>Streetcar</td>
<td>96.6</td>
<td>104.3</td>
<td>7.7</td>
<td>7.9%</td>
</tr>
<tr>
<td>24</td>
<td>Commuter Rail/RR Management</td>
<td>1,557.2</td>
<td>1,780.1</td>
<td>222.9</td>
<td>14.3%</td>
</tr>
<tr>
<td>25</td>
<td>Paratransit</td>
<td>5.7</td>
<td>5.9</td>
<td>0.2</td>
<td>3.0%</td>
</tr>
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<td>26</td>
<td>General Mobility - Road Impro./ITS</td>
<td>41.8</td>
<td>44.8</td>
<td>3.1</td>
<td>7.4%</td>
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<tr>
<td>27</td>
<td>Non-Operating</td>
<td>31.7</td>
<td>35.3</td>
<td>3.6</td>
<td>11.4%</td>
</tr>
<tr>
<td>28</td>
<td>Capital &amp; D, Start-Up</td>
<td>309.9</td>
<td>312.5</td>
<td>2.6</td>
<td>0.8%</td>
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<td>29</td>
<td>Total Capital and Non-Operating</td>
<td>$6,671.5</td>
<td>$6,968.2</td>
<td>$296.7</td>
<td>4.4%</td>
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<td>30</td>
<td>Debt Service</td>
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<td>Principal Payments - Long-term Debt</td>
<td>$2,655.5</td>
<td>$2,665.3</td>
<td>0.8</td>
<td>0.0%</td>
</tr>
<tr>
<td>32</td>
<td>Long-term Debt Interest Expense</td>
<td>4,022.0</td>
<td>4,012.4</td>
<td>(9.6)</td>
<td>(0.3%)</td>
</tr>
<tr>
<td>33</td>
<td>Commercial Paper Interest Expense</td>
<td>148.2</td>
<td>152.2</td>
<td>4.0</td>
<td>2.7%</td>
</tr>
<tr>
<td>34</td>
<td>Total Debt Service</td>
<td>$6,847.6</td>
<td>$6,833.0</td>
<td>(14.6)</td>
<td>(0.2%)</td>
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<td>35</td>
<td>Commercial Paper Debt Repayment</td>
<td>707.0</td>
<td>786.2</td>
<td>79.2</td>
<td>11.2%</td>
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<td>36</td>
<td>Total Uses of Funds</td>
<td>$28,648.0</td>
<td>$29,002.1</td>
<td>$454.1</td>
<td>1.6%</td>
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</table>

DART also acquire funds from sources such as cities, counties, USDOT, NCTCOG’s Regional Transportation Council, FTA, etc., for development purposes. For instance, in 2019, the U.S. Department of Transportation’s (USDOT) Federal Transit Administration (FTA) announced a
$60.76 million grant agreement with DART for construction of the Red and Blue Line Platform Extensions, which will allow DART to accommodate more riders and longer trains. The project will lengthen platforms at 28 stations along the existing Red and Blue light rail lines that currently can accommodate only two-car trains. When the project is complete, all stations on these lines will be able to accommodate three-car trains. The total project cost is $128.74 million.

The FY 2020 Financial Plan includes service along the Cotton Belt (now called the Silver Line) corridor in the northern part of the DART Service Area. The line will receive funding over the next 20 years from a variety of sources approved by the Regional Transportation Council (RTC), Dallas County, and the local communities in the corridor, some of which will help fund construction and some of which will be used to pay for annual operating and/or debt service costs.

**Future Service Plans**

In year 2006, DART developed a 2030 Transit System Plan to identify future market needs and provide a system that is efficient, cost-effective, and affordable.

In 2016, DART received a $1 million grant from Toyota Motor North America, Inc. (TMNA) to support essential transportation assistance for residents in Northern Collin County needing help getting to medical facilities and physician’s visits. The grant supports the continuation of a 90-day interim service that had been funded by the North Central Texas Council of Governments (NCTCOG) and several northern Collin County cities. The service was previously operated by Texoma Area Paratransit Service. The Toyota grant funds a taxi-type extension to the demand-response operation in Collin County provided by DART and the COG.

Since introducing GoLink in two Plano areas early last year, DART continues to expand the personalized on-demand service. A citywide GoLink zone in Rowlett replaced DART On-Call bus service in June. New GoLink service began in Far North Plano (an area that previously had no bus routes), in August 2018.

On March 25, 2019, the agency converted all remaining DART On-Call routes to GoLink as part of the March 2019 bus service change. DART also is partnering with Uber for a one-year pilot program that enables customers to book an UberPool shared ride in the Plano zones.

In 2019, DART Board selected Stadler US for the contract to assemble and build eight FLIRTs (Fast Light Intercity and Regional Train) for the Cotton Belt Regional Rail Project scheduled to go into service in 2022. The DART Board of Directors approved a resolution to name future service running on the Cotton Belt Commuter Rail as the Silver Line. The Silver Line project’s primary purpose is to provide passenger rail connections and service improving mobility, accessibility and system linkages to major employment, population and activity centers in the northern part of the DART Service Area, and in time, along the 60-mile corridor connecting Plano to Ft. Worth. The Cotton Belt Corridor will provide City of Plano residents of Collin County a straight and fast access to Dallas-Fort Worth Airport and will reduce the transit travel time from CityLine Station to Dallas-Fort Worth Airport significantly.
In February, DART’s contractors began preconstruction work, which is needed to advance the design of the Cotton Belt Regional Rail Project.

Figure 10: DART Silver Line Corridor (Cotton Belt Regional Rail Project)
Collin County Transit (MUTD & DCTA)

The City of McKinney, MUTD and DCTA provide Collin County Transit service. The service consists of a subsidized taxi voucher program, which provides efficient transit options for participating MUTD cities of Collin County including McKinney, Lowry Crossing, Melissa, Princeton, Celina, and Prosper. A total of 8,876 trips have been completed with Collin County Transit from inception in June 2017 through February 2019. The program has steadily increased from the first month of service with less than 100 trips to more than 800 trips in February 2019. The service area within Collin County is shown below.

Collin County Transit Discount Programs

Collin County has three discounted programs for its residents: Older Adult Program, The Individuals with Disabilities program, and Low-Income Transit Subsidy Program

**Older Adult Program**

The Older Adult program provides citizens aged 65 years and older with mobility solutions within Collin County. This service consists of a subsidized taxi voucher program that provides
transit options for participating MUTD cities including Celina, Lowry Crossing, McKinney, Melissa, Princeton and Prosper.

**The Individuals with Disabilities program**

The Individuals with Disabilities program provides alternative mobility solutions within Collin County for persons with disabilities. This service consists of a subsidized taxi voucher program that provides transit options for participating MUTD cities including Celina, Lowry Crossing, McKinney, Melissa, Princeton and Prosper.

**Low Income Transit Subsidy Program**

The Low-Income Transit Subsidy Program (LITSP) provides low-income families and individuals with mobility solutions within Collin County. The program launched Monday, April 2, 2018. This service consists of a subsidized taxi voucher program that provides transit options for participating MUTD cities including Celina, Lowry Crossing, McKinney, Melissa, Princeton and Prosper.

**Other Transportation Providers**

When examining options for improving public transportation services, assessing the full range of mobility providers within the study area can help to identify partnership opportunities and enhanced coordination concepts for consideration. In the case of Collin County, there are several:

**For Hire Vehicles**

Collin County is served by traditional taxi service providers as well as Lyft and Uber. Service coverage varies by provider, as do rates and availability. While taxi service providers have faced significant challenges with the arrival of Transportation Network Companies (TNCs) such as Lyft and Uber over the past several years, approximately twenty taxi providers are reported to offer service to, from or within Collin County based on an internet search. Lyft’s service area map indicates that the majority of Collin County is within its service area. Uber also indicates that service is available throughout the county. There are also several companies offering service for the general public in the form of limousines and airport and hotel shuttles.

**Nonprofit, Public and Human Service Transportation Providers**

The North Central Texas Area Agency on Aging is a part of NCTCOG and facilitates transit services for elderly (60+) within the 14 counties surrounding Dallas and Tarrant counties. They coordinate transit services through subcontracts with public transit agencies and various county committees on aging, and they currently have a contract with Meals on Wheels of Collin County to provide transportation within the county. The primary trip purpose is to bring seniors to congregate meal sites, however the service may also provide transportation to other venues when space is available.
Frisco Driverless Car Pilot Program

Frisco’s North Platinum Corridor was host to the first autonomous vehicle pilot program in Texas beginning in 2018. The Frisco Transportation Management Association (TMA) conducted an eight month pilot program that operated more than 3,000 trips using a self-driving vehicle operating along a fixed route, and a summary report of the pilot was developed in coordination with the Texas A&M Transportation Institute in August 2019, available here: https://www.friscotexas.gov/DocumentCenter/View/19826/Driveai-Frisco-Final-Briefing-2019.

Autonomous vehicles hold significant potential for mobility enhancement in a wide range of environments. While there have been setbacks over the past several years as the initial hype of autonomous cars capable of functioning in mixed traffic has been replaced by a realization that such a vision remains elusive, the potential for shared-used autonomous vehicles as a key component of a multimodal system remains strong. Within Collin County, autonomous vehicles can and should be included in future planning efforts, with roles such as first/last mile connections, shuttle services, people mover applications, and operation within a dedicated guideway holding potential to be the early deployments. As technologies continue to evolve, broader deployments, such as fully autonomous buses, trains and vans capable of operating without human intervention within the general roadway network will begin to emerge.
Key Findings and Recommendations from Previous Studies/Plans

As Michael Morris, Director of NCTCOG, indicated in the initial meeting of the study's Policy Advisory Committee meeting, the study of public transportation in Collin County has been ongoing for several decades. The proximity to a major U.S. city and one of the 30 largest transit systems in the U.S. in the form of DART, combined with explosive growth and increasing congestion that’s projected to continue into the foreseeable future, make such assessments nearly inevitable. However, as the prior section made clear, the level of transit service in the county today is low, with only a small percentage of the population having access to fixed route service, and with significant portions of the county lacking service of any kind. Following are snapshots of prior efforts to help provide a better understanding of work to date, the current situation, and to lay the groundwork for future transit plans.

NCTCOG Transit Accessibility Improvement Tool

The North Central Texas Council of Governments maintains the Transit Accessibility Improvement Tool (TAIT). The TAIT highlights demographic groups who may be more likely than others to rely on public transit services to meet their daily needs, using GIS to analyze three primary data points:

1. Percent of the population below poverty (also referred to as low income)
2. Percent of the population with a disability
3. Percent of the population age 65 and over

The NCTCOG website also provides users with other data related to potential transit usage, including zero-car households; persons aged 14 and under; and veteran population. Population density, transit provider service areas and Federal Transit Administration Title VI information is also included for reference. The current version is based on 2018 American Community Survey (ACS) data, with the map below showing areas of Collin County with the highest transit need in darker colors.
NCTCOG Mobility 2045 Plan

Mobility 2045, the current Metropolitan Transportation Plan, was adopted by the Regional Transportation Council on June 14, 2018. Mobility 2045 guides the expenditure of federal and state transportation funds based on regional goals, and makes recommendations for all travel modes through a suite of policies, programs, and projects designed to improve regional mobility and increase efficiency, safety, and system capacity. Below are summaries of plan elements as they relate to transit in Collin County.

Transit Projects in Collin County

Mobility 2045 identified several potential transit projects in Collin County, including a possible Peoplemover system in the Legacy area at the intersection of the Sam Rayburn and Dallas North Tollways. The plan also identified four transit corridor projects as shown in the map below. These include Project 2- Cotton Belt East Extension; Project 6- Frisco Line; Project 8- McKinney Line; and Project 17- Spring Creek Parkway High Intensity Bus.
NCTCOG’s Mobility 2045 Plan also identifies multiple regionally significant arterial improvements in Collin County for development. As shown in the map below, some of these corridors may represent potential opportunities for coordinated transit priority treatments, such as transit signal priority, transit stops or stations, or other possible treatments to facilitate higher quality, faster and more reliable transit services.

Figure 13: NCTCOG Mobility 2045 Transit Corridor Projects in Collin County

Regionally Significant Arterial Improvements

Figure 14: Regionally Significant Corridor Projects (Source: NCTCOG Mobility 2045)
Denton County Transportation Authority Strategic Planning Guidance Report (March 2018)

The Denton County Transportation Authority (DCTA) updated its strategic plan in March 2018 when their Board of Directors adopted the Strategic Planning Guidance Report. While, as their name suggests, DCTA primarily provides public transportation services within Denton County, they also offer connecting regional service and on-demand service in the adjacent Collin County. The document includes a total of ten Goals and Objectives, several of which relate to Collin County, including the two shown below:

- Expand DCTA’s services into areas where mobility alternatives have a strong likelihood of success;
- Coordinate regional service with other regional transportation providers

Additionally, the document provides a statement of board priorities, including again statements pertaining to Collin County:

- Sustain and grow Frisco and the McKinney Urban Transit District (MUTD) services (both locations where DCTA operates service via contractual arrangements)
- Expansion into Collin County
  - Grow relationships with communities along the Burlington Northern Santa Fe Railway (BNSF) corridor for future service
  - Sustain relationship with the McKinney Urban Transit District
  - Growth within underserved areas
- As a "Long-Term Goal" (within next 2-5+ years), the board included the following statement: Implement service on Burlington Northern Santa Fe Railway (BNSF) from Belt Line to Celina

The document also includes a map (shown below) illustrating the Frisco/MUTD service area and the potential commuter rail corridor (actually shown extending beyond Celina to near the northern Collin County border).
While the DART 2030 Transit System Plan is now almost 14 years old, it remains a “north star” document for the agency. With regard to Collin County, the plan includes a number of elements.
Figure 6-1: 2030 Transit System Plan

Figure 16: DART 2030 System Plan Map
As the “vision element” indicates, the BNSF corridor was identified by DART as an opportunity for future high-capacity transit in the 2030 Plan. The plan also identified Frisco (largely within Collin County) and McKinney (entirely within Collin County) in its “New Member City Potential” section (p. 45). In part due to the existence of freight operations in the corridor, the plan singles out “Regional Rail” as the preferred mode.

**DART Frisco Area Transit Opportunities Summary (2017)**

In July 2017, as a part of the development of DART’s 2040 Transit System Plan, the agency developed a white paper entitled “Frisco Area Transit Opportunities Summary.” DART’s concept, derived in part from NCTCOG’s Mobility 2040 document, evaluates at a high level the potential addition of a 29-mile regional rail corridor to the overall regional rail network, as indicated in the map below. DART reviewed current (2014) and future (2040) travel patterns in and along the corridor, including the use of Airsage data. The analysis identifies key future destinations as being along the San Rayburn Tollway and the Dallas North Tollway Corridor, with the rail corridor potentially providing connections to both. The analysis also utilized the Transit Competitiveness Index (TCI) to examine market potential. Importantly, the summary document includes the following statement:

*The Irving-Frisco Regional Rail line is projected to carry nearly 16,000 daily riders in 2040. This is the highest ridership of all regional rail lines evaluated for the DART 2040 Transit System Plan and comparable to the ridership anticipated for...*
TRE and Cotton Belt in the future. The Frisco portion of the line has three of the potential nine stations on the line: Virginia Parkway (North Frisco), Downtown Frisco and Sam Rayburn Tollway/SH121 (South Frisco). These three stations make up 43 percent of the daily total riders for the entire route in 2040.

The summary report also estimates ridership by segment along the proposed corridor, with the section between a potential station at Frisco/Sam Rayburn and downtown Carrolton having the highest ridership; slightly lesser ridership between Frisco/Sam Rayburn and a potential Frisco CBD station; and a significant drop-off in potential ridership between Frisco CBD and a potential station at Virginia Parkway/Frisco North (see map below). It also provides further analysis of ridership origins and destinations based on the 2040 model, and includes the following sentence in its summary section: “The growth anticipated for Frisco over the planning horizon (2040) is significant and the opportunity to provide transportation options to residents great.”

Figure 18: Irving - Frisco Regional Rail Corridor
DART Transit Choices Report (2020)

DART initiated a bus network redesign study to comprehensively examine their fixed route network across their service area, resulting in an April 2020 report. The study cited four primary reasons to undertake this effort: an outdated system; declining bus ridership (since 2004); better aligning transit values and goals; and the opportunity to reconsider the system with a ‘blank slate’ approach. Because DART’s bus network only serves Plano within Collin County, the direct impacts are relatively limited, but the two “bookend” proposals (one focused on service coverage and the other on ridership and productivity) both affect DART’s service in the county, and many of the findings related to challenges and opportunities for fixed route bus service in the region are largely applicable to Collin County as well.

The initial plan is currently going through a public review process, with an update to be provided to the DART Board in summer 2020 and work on a Draft Plan proposed to be presented for public and stakeholder review in early 2021. If the Board elects to adopt the New Bus Network Plan (with presentation scheduled for Spring 2021), implementation could begin as early as January 2022.
Access North Texas- Regional Public Transportation Plan for North Central Texas (2018)

NCTCOG prepared the Access North Texas and it was adopted by the NCTCOG Board on March 22, 2018. The report addresses the full DFW region, with one chapter devoted to Collin County, and focused on public transit-human service coordination. The plan used research, analysis and public input to identify the transportation needs of individuals with disabilities and lower incomes as well as senior adults. The plan identified eight regional strategies to improve public transportation along with specifics for each county. The effort also made use of the TAIT to identify areas with higher needs for public transportation services, with the resulting map for Collin County shown below.

Based on the TAIT, areas were identified with the greatest needs: east of US 75 in McKinney, north of US 380 in Princeton, along US 380 in eastern Farmersville, along US 75 in Plano, near the Dallas North Tollway in Frisco, and near the intersection of SH 5 and US 75 in Allen. Other highlights from the analysis include the continued rapid population growth within the county and the significant mismatch between jobs and labor within the county (350,000 jobs as of 2014 relative to only 146,000 employees), resulting in more than 200,000 commuters coming into the county each weekday to access jobs. Interesting, more than 250,000 Collin County residents were found to leave the county for employment in the same time period.

The planning process includes a public meeting and poll to gain community input, with primary issues including the ‘patchwork’ of service providers; services primarily oriented to elderly and persons with disabilities; and very limited weekend service. Findings from the poll included a desire for additional local bus and/or dial-a-ride service within the county; connections to major activity centers within and beyond the county limits; and a call for a comprehensive, long-term approach to general transit for the citizens of the county.

The plan provides nine prioritized strategies for the public and policymakers to use to advance transit in the county, however, the strategies do not include specific action steps, assignments or details on needed funding – all of which would be requirements to move towards implementation.
Likely the most detailed and complete assessment of transit needs in Collin County to date was this document, developed in 2013. While now seven years old, the plan's statement “For a county with such a large population, Collin County has very few public transportation options, particularly outside of the Plano area which is relatively well served by DART services” remains generally as true in 2020 as it did at the time of publication. The Needs Assessment and Planning Study included the following main sections (plus an associated Executive Summary), each summarized briefly herein:

- **Introduction**: The report provides an overview of purpose and details relevant studies. For the sake of minimizing redundancy, the prior work cited in this document are not re-summarized here, and can be accessed instead here:
Demographics, Activity Centers and Travel Analysis- This section of the report provides information on Collin County’s population, growth and demographic characteristics generally related to the likelihood of using public transportation. It also documents major employers and activity centers in the county, including the following map (note that most of the items identified in the legend, with the notable exception of services formerly operated by TAPS, remain today).

Figure 21: Activity Centers in Collin County

The section concludes by assessing the travel patterns within, into and out of the county, information that will be updated in the current effort.

Existing Transit Services- Most notably, this report highlighted the role of TAPS and the fixed route within McKinney and countywide paratransit services (both ADA-required within ¾ miles of the two fixed routes and countywide door-to-door service)
they offered at the time. These services were subsequently discontinued in late 2015 and for the most part not replaced. Additional information regarding the TAPS services ridership and productivity were recorded and, while now dated, will help inform the current study. DART services and facilities were also summarized and will be referenced for comparative purposes.

- **Stakeholder Interview**: Five issues were cited as being primary in the minds of those interviewed: traffic congestion; poor quality and availability of transit services within the county; limited options for seniors, persons with disabilities and low-income residents; auto-focused planning; and the fact that DART rail service does not extend beyond Plano. The study also gathered top perceived transit needs, with the following emerging as most commonly cited: service for transit-dependent populations; commuter transit; DART service improvements; improved service in McKinney; special event transit; and better coordination. There was significant input on the need to build support for more and better transit in the county as well.

- **Transportation Toolbox for Collin County**: A relatively comprehensive list of mobility options are detailed in this section, with an assessment of their applicability across five geographic groupings to reflect differing service needs, including countywide; rural communities; suburban/employment base; suburban/bedroom communities; and small urban community. Each mobility option is described across seven variables and which of the geographic groupings that could be appropriate.

- **Evaluation of Alternatives and Presentation of Preferred Strategies**: The consultant team recommended evaluating alternatives against four primary criteria: Community; Transportation Benefits; Financial; and Implementation. Their assessment is summarized in the following table:

![Figure 22: Evaluation of Short-Term Transit Service Alternatives](image)
Top ranking service all-county alternatives included carpools; community shuttles; general public dial-a-ride (which with technology advances is now equivalent to on-demand shared ride); with other services being more appropriate to one or more of the geographic types. Local fixed routes were not well-ranked due to low population densities and relatively high cost.

- **Implementation Considerations**: This section of the report cites some of the key challenges to developing a more robust transit system within Collin County, including this statement: "Collin County's cities view transportation as one of many services they could offer, but it is generally a low priority." An important part of the current study will be to determine the degree to which this finding has shifted over the seven plus years since this report. The report also identifies seven key considerations that will also be revisited herein to assess any changes over time and better understand the current state of transit in Collin County.

- **Funding Strategies**: This section describes the current situation, noting presciently that “...TAPS can rely on its available resources...but funding has not been generated within Collin County which suggests that ongoing transit operations, especially in rural and suburban bedroom communities, are uncertain” (TAPS service was terminated approximately two years after this report was completed). The report goes on to outline currently available funding sources and then estimates the cost for the range of services described previously. Subsequent sections describe the range of potential funding sources from local, state, federal and private sectors that could potentially be made available to support transit services in the county.

**North Central Texas Council of Governments Regional People Mover Initiative**

As noted on the NCTCOG website ([https://www.nctcog.org/trans/plan/transit/emerging-transit-trends/people-mover](https://www.nctcog.org/trans/plan/transit/emerging-transit-trends/people-mover)), “People movers circulate travelers across a geographically small area, typically using automated, electrically-powered vehicles operating on elevated guideways. People movers connect districts or single destinations to larger-scale regional transit. While these systems are similar to regional light rail, people movers typically operate smaller vehicles that serve small areas with stations spaced closer together and a more frequent level of service." Within the DFW region, two people mover systems are currently in operation- the DFW International Airport Skylink and Las Colinas Area Personal Transit (APT) system. NCTCOG continues to explore the potential for additional people movers in the region, including several areas within Collin County, based on prior work including a concept study, a feasibility study and a conceptual engineering study.
Transportation Equity and Access to Opportunity for Transit-Dependent Population in Dallas (October 2017)

The City of Dallas in coordination with the University of Texas at Arlington produced a report in 2017 assessing transportation equity and access. While the report focused on the City of Dallas, some regional analysis was also conducted and has relevance for Collin County. By examining four characteristics commonly associated with transit dependency (minority population, senior population, low-income population, and persons with disabilities population), the study identified transit dependent “hot spots”, or areas where the need for public transportation is greater. Notably, while only the southern portions of Collin County are included in the analysis, no areas within the county are considered to be “hot spots” for transit dependency.

Another relevant part of the analysis completed by this effort relates to growth in low wage jobs relative to residential locations of low wage individuals. As the map clearly indicates, Collin County and the area immediately east were, by far, the fastest growing locations for low wage jobs in the region for the 2002-2014 time period. This has implications for the types of transit
service to be provided and the apparent need for regional connectivity to address the spatial mismatch and better link jobs with housing.

Figure 24: Spatial Mismatch of Jobs and Households

Collin County Mobility Plan (2014)

The Collin County Mobility Plan was developed by Colin County in 2014 with a comprehensive scope. Regarding public transportation, the plan identifies two primary findings in its recommendations section:

- “The results of the travel demand modeling indicate that there are several major thoroughfares that will have demands far beyond their capacity by 2035 (some by 2020). Further study is needed to investigate opportunities for providing alternative forms of mobility that better matches the capacity with the demand. One of the options is the expansion of light rail or commuter rail transit, even though rail transit will not totally solve this problem.”
• “Another option for evaluation is the potential for Bus Rapid Transit (BRT), which connects terminals with express bus or rapid bus service operating in dedicated lanes or shared lanes with high occupancy vehicles. It is recommended that the further study examine the use of dedicated lanes within arterial medians, along power-line easements, or other express bus routes for cross-town movement. These BRT routes should connect to rail or bus transit stations and transfer centers.”

Finally, the plan offers the following finding of relevance for public transportation and alternatives to auto travel: “An observation that one can make when reviewing the elements of the CCMP is that there are many roadway segments in the 2035 Level of Service map that are projected to operate at a Level of Service F - basically “gridlock”. These projected deficiencies indicate it is not feasible to build enough roadway lane miles to relieve all future congestion.”

Other Studies

There is no doubt that additional studies, including a very recent confidential assessment of microtransit services in the county, have been conducted for Collin County and surrounding areas in some form or fashion. Some may not have been identified, other studies have only a peripheral connection to the study topic and were therefore excluded, and others were excluded due to their proprietary nature. In the event that new or additional studies or analyses become available, the project team will consider those during the balance of the effort.

Summary

Collin County is ranked 20th among 100 fastest growing U.S. counties with 10,000 or more population. Its population increased by approximately 33-percent in the last ten years. It has an existing population of over one million with growth rate of approximately 2.93 percent. Collin County has few and limited transit services with most of the resident’s commute on their personal cars, with the exception of the Plano area that is served by DART. DART offers relatively robust transit with a mix of fixed route, paratransit and light rail in the City of Plano only, while the remaining cities are serviced by DCTA and the MUTD led transit programs.

This planning study is occurring during the COVID-19 pandemic and a time when public transportation systems nationwide (and globally) have experienced unprecedented ridership losses. Not surprisingly, this has led to discussions about the ongoing viability of transit, as well as cities and many other aspects of daily life. Researchers have begun investigating the impacts and their potential consequences as the world gradually recovers from the pandemic, yet it is simply too early to know the full effects. Nonetheless, fundamental conditions of human environments have not changed: the need and desire for social interaction; the need for travel to accomplish activities and to meet a wide range of needs; and the basic living/housing accommodations for the vast majority of people within the United States. Within major metropolitan areas, this implies that mobility needs will also continue to be significant, and that a substantial percentage of the population’s mobility needs will not be able to be met by single-occupant vehicle travel. Seniors, persons with disabilities, children, low-income communities...
that cannot afford the cost of automobile ownership all will continue to need mobility choices. Ongoing societal challenges such as sustainability, economic opportunity, equity, public health and other issues also will not disappear as a result of the pandemic, and here too the value of a diverse range of mobility choices other than dependence on the automobile should not be discounted. In summary, COVID-19’s long-term impact on Collin County’s mobility needs cannot be fully known at this point in time, but there is little cause to suggest that planning efforts towards a transportation system that is resilient, multimodal and that meets the needs of the entire community should not continue.

Despite the additional uncertainties imposed by the pandemic, there continues to be significant interest and continued focus on the potential for regional line along the BNSF corridor to Frisco and Celina within Collin County, something that this effort will expand upon. There is also a recognition by many stakeholders that the current, and relatively limited transit options beyond Plano are not adequate for future needs, yet reaching consensus on governance, funding and implementation remains a significant barrier to improvement. This is compounded by structural barriers at the state and local levels to both governance and funding, as will be detailed in the “Funding Plans” section of this study.