ROUND ROCK TEXAS

TRANSIT DEVELOPMENT PLAN

Final Report

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SECTION 1. INTRODUCTION

The City of Round Rock's last vision for transit in the community was set in 2015, and, since that time, there has been fixed-route service and complementary ADA paratransit implemented. Despite national transit ridership trending downward since 2013, transit utilization in the city prior to the COVID-19 pandemic seemed to be growing based on federally-reported statistics. But with the City's growth, there is widespread recognition that an updated vision is critical to help enhance mobility in the community going forward.

This planning effort was initiated by the City of Round Rock to update the prior 2015 vision and develop the City's first Transit Development Plan (TDP) to guide transit planning for the next 10 years. This TDP represents the City's vision for public transportation during this time period and functions as City's strategic guide for public transportation for its residents and visitors.

GOALS OF THIS PLAN

The primary goal of this plan is to help Round Rock make transit a viable option for travel within the city and its immediate region. Beyond simply making transit services more efficient and attractive to persons not currently using it, the City also aspires to use this plan to ensure that the service addresses ongoing development and growth, meets the connectivity needs of patrons for first mile/last mile access, and implements technological advances to support ease of use.

As this is also a strategic vision, the TDP identifies needs in an unconstrained fashion. However, it also acknowledges current fiscal realities and, as such, assesses local transit needs and policies and prioritizes potential service improvements to prepare a practical implementation plan for the growth and development of transit services over the course of the plan horizon. This helps ensure that the improvements will be sufficiently logical, palatable, and actionable so that, once prioritized, they truly will be implementable.

Furthermore, this Plan also ties in and supports the City's goals and objectives of providing high-value services, improving mobility, supporting tourism, increasing desirability of the community, creating an exciting community destination, and supporting sustainable neighborhoods through connectivity.

ORGANIZATION OF THIS TDP

The following sections detail the steps to developing a logical plan to provide the City and its citizens with a sustainable, implementable vision for public transportation services over the next 10 years and beyond that will guide the future growth and financial needs of Round Rock's transit services.

This report is organized into 10 major sections, including this **Introduction.**

Section 2 summarizes the **Existing Operating Environment** assessment for transit services in Round Rock. This includes a review of the study area, population and employment profiles, and demographic and socioeconomic characteristics and trends that may impact transit services. Additionally, travel behavior and commuting trends also are reviewed, including vehicle ownership, modes of commuting, regional commute flows, and journey-to-work characteristics. Land use trends, major activity centers, and traffic conditions also are explored.

Section 3 summarizes the **Fixed-Route Service Analysis** conducted for the TDP. The analysis uses data for the current fixed-route services from Round Rock Transit and the National Transit Database (NTD), a national repository of validated transit data for all federally-subsidized transit agencies across the U.S., presenting a detailed examination of operating performance for Round Rock Transit. In addition, a route performance review was conducted. Furthermore, a performance trend analysis presents a detailed examination over time of operating data for Round Rock Transit's fixed-route services.

Section 4 presents the **Public Involvement Summary**, including a summary review of the outreach efforts completed and the associated findings. TDP outreach efforts included stakeholder interviews, rider and public input surveys, discussion groups workshops, general public workshops, and presentations, as well as use of online platforms and tools.

Section 5 presents the **Plans Review**, which examines relevant local and external planning and policy documents to better understand the nature of the local planning environment in which transit is operating today. The assessment of these plans may help identify and evaluate applicable federal and state policies, as well as local community goals and objectives that relate to transit and mobility.

Section 6 presents the **Transit Demand Assessment** summarizing various demand and mobility needs assessments conducted for this TDP. Included is a market assessment that provides an examination of potential service gaps and latent demand using GIS-based analyses. Furthermore, a travel/commuter flow analysis was conducted to identify existing travel flows to key activity centers and hubs locally and regionally.

Section 7 discusses the **Future Transit Needs** development process and results. The process identified a set of vision scenarios that represent the possible transit improvements that could be implemented to address local transit needs for the next 10 years and beyond. These alternative visions for the City were developed without consideration for any funding constraints.

Section 8 summarizes the **Evaluation of Transit Needs.** The set of vision scenarios were prioritized and ranked in this section using an evaluation process developed to assess them. The resulting rankings of the vision scenarios were then used to develop the recommended service and implementation plans, presented and discussed in subsequent sections.

Section 9 summarizes the **Recommended Transit Plan** developed for Round Rock Transit. The Plan shows the recommended service and policy improvements for the TDP timeframe. It also includes a discussion of potential revenue funding sources with the assumptions of costs used.

Section 10 lays out the **Implementation Plan and Action Steps,** including a detailed implementation schedule for the plan. This section also identifies a set of actions items for the City's consideration to make the implementation of the TDP a reality.

SECTION 2. EXISTING OPERATING ENVIRONMENT

Public transit services in Round Rock function best when they respond appropriately to the socio-economic, geographic, regulatory, environmental, land use, developmental, and political environment present in the city. All of these factors can impact the provision of services at varying levels, so it is crucial for the City to first review and understand them.

The purpose of this section is to analyze and present data on relevant baseline conditions to help gain an understanding of the environment in which the current transit routes are operating.

Figure 2-1 shows the key components that were reviewed as part of this assessment.

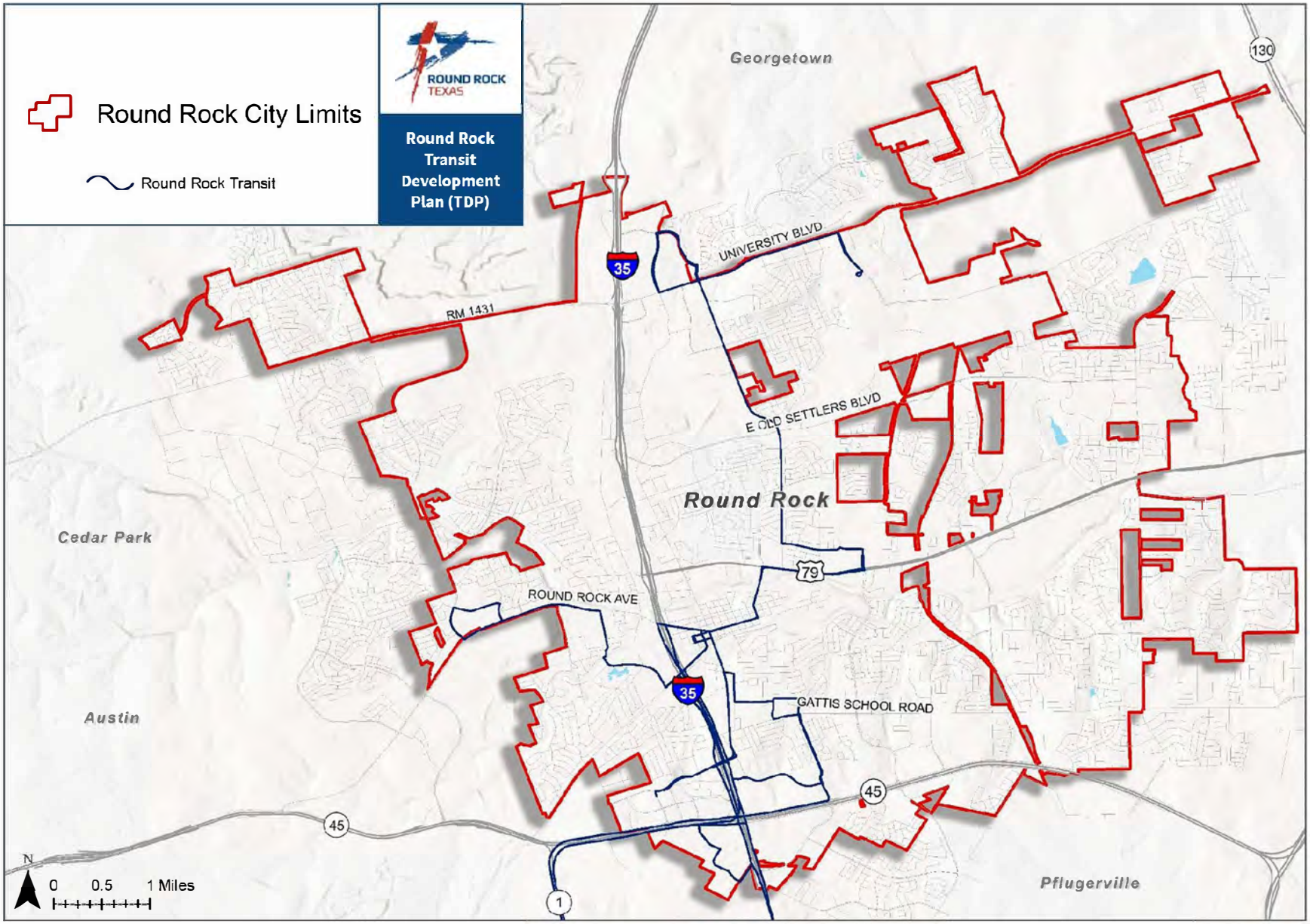
Figure 2-1: Components of Existing Operating Environment

A series of user-friendly maps, figures, and tables is used to illustrate these baseline conditions in the remainder of this section. Data from various local, state, and national sources were used, including but not limited to the US Census Bureau, the Texas Demographic Center, the City of Round Rock, and the Capital Area Metropolitan Planning Organization (CAMPO). These data were supplemented by other data from local and regional agencies, as available.

DESCRIPTION OF STUDY AREA

The study area for the TDP, as shown in Map 2-1, is the entire City of Round Rock, located in central Texas and primarily in Williamson County but with some areas in Travis County, which is home to the City of Austin. Round Rock is surrounded to the north by Georgetown, on the south by Pflugerville, on the east by Hutto, and on the west by Cedar Park and Austin. Round Rock covers 38 square miles of land area, with approximately 3,200 people per square mile, and is a part of the Austin-Round Rock-San Marcos Metropolitan Statistical Area (MSA). Three major roadways intersect Round Rock—I-35, US-79, and SR-45. Recent studies, based on Census data, have shown that Round Rock is among the top 10 fastest-growing cities in the United States.

Map 2-1: Study Area



POPULATION PROFILE AND TRENDS

Population information from the 2000 and 2010 Census, supplemented with information from the 2019 American Community Survey (ACS), were used to develop a population profile for the study area. As shown in Table 2-1, the population of Round Rock increased 106 percent from 2000 to 2019, from 60,407 to 124,434. Although there was a high rate of growth for population, the number of households grew at a slower rate, approximately 88 percent, from 20,926 to 39,243. From 2000 to 2019, the labor force also continued to grow, almost directly proportional to population, at approximately 99 percent. Persons per household grew at a faster rate than workers per household, suggesting that Round Rock rapidly increased population density from 2000 to 2019.

Table 2-1: Population Profile and Trends

CHARACTERISTIC	2000	2010	2019	% CHANGE 2000-2019
Population	60,407	102,441	124,434	106%
Households	20,926	34,092	39,243	88%
Workers	33,267	50,505	67,488	99%
Person per household	2.9	3.0	3.2	10%
Workers per household	1.6	1.5	1.7	6%

Sources: 2000 and 2010 Census, ACS 5-Year Estimates 2015-2019

POPULATION DENSITY

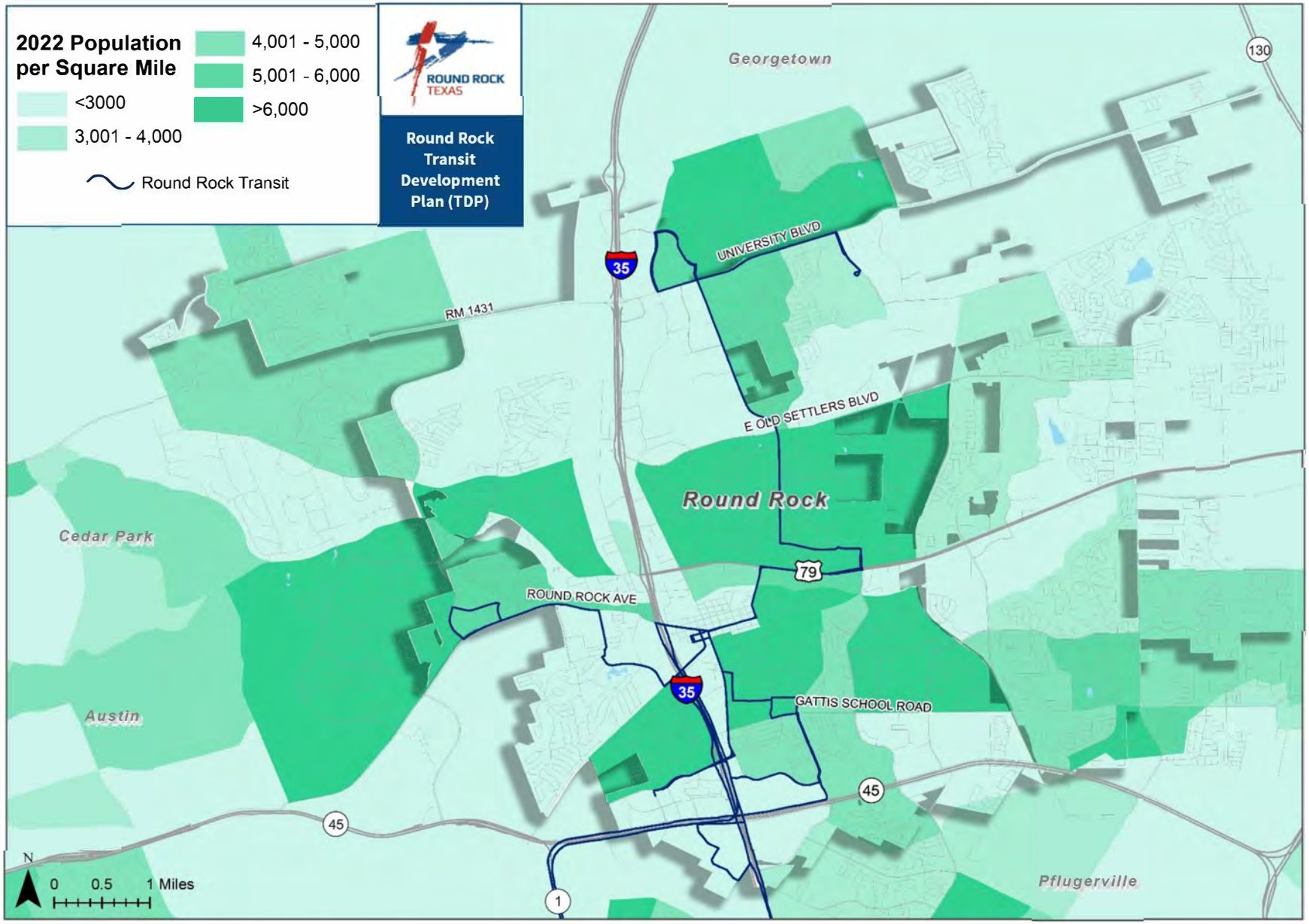
Population density is often one of the key indicators of a healthy transit market. In terms of an area's transit market, areas of high population density have the capability to provide more residents within the traditional ¼-mile walk ridershed of a single bus stop. Additionally, areas with high population density often are associated with uses that promote multimodal transit use and amenities that promote pedestrian and bicycle activity.

Round Rock currently has a citywide average of over 3,200 persons per square mile, with much higher densities in the central areas adjacent to US-79 and much lower densities in the north central areas adjacent to I-35 south of RM-1431.

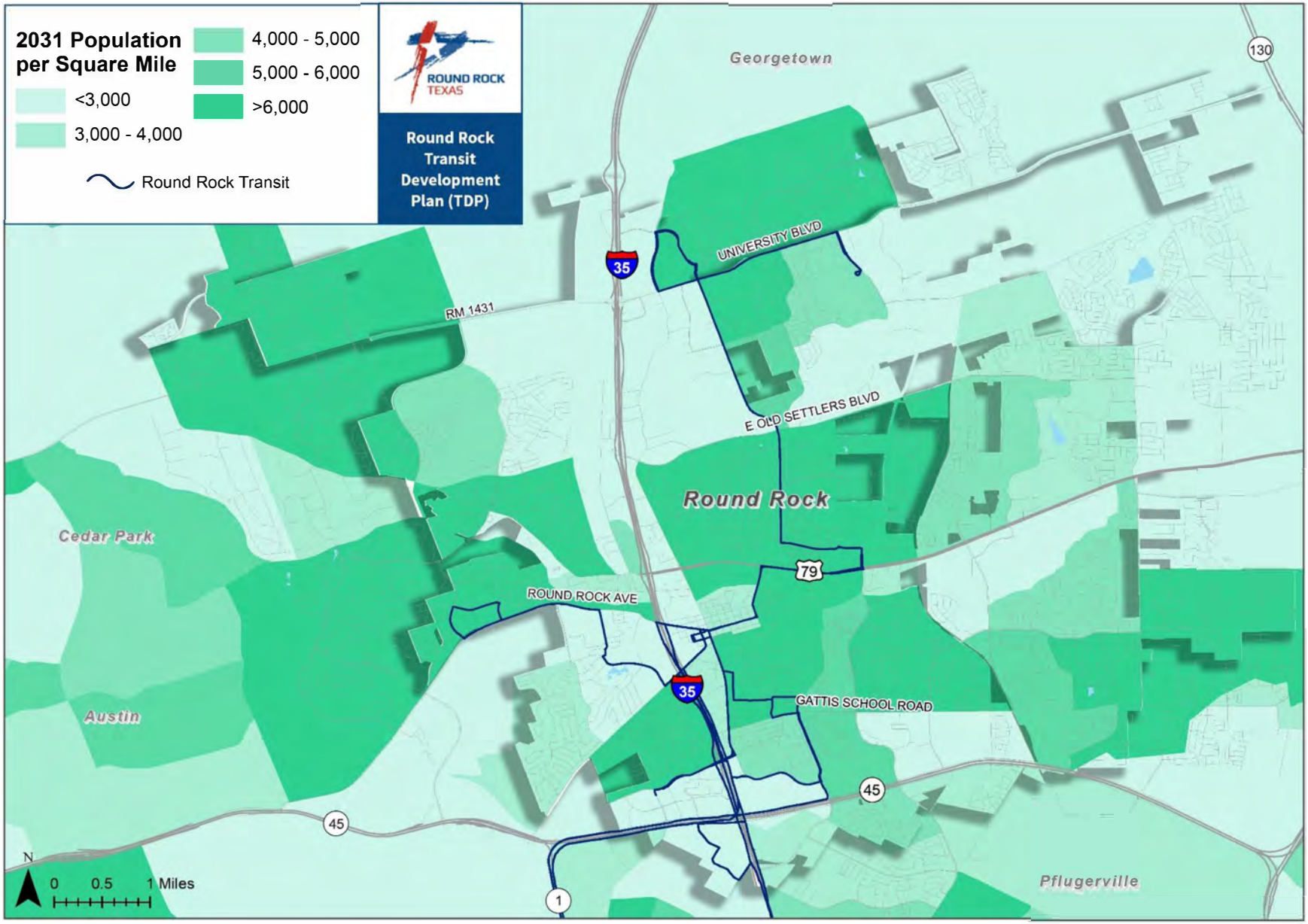
Map 2-2 shows the projected population density, persons per square mile by Traffic Analysis Zone (TAZ) for 2022 (TDP base year), calculated based on socioeconomic data developed for CAMPO. Higher-density TAZs (6,000 persons per square mile) are concentrated along US-79, Gattis School Road, and south I-35. Other areas with density greater than 4,000 persons per square mile are adjacent to the aforementioned areas with higher densities.

Map 2-3 shows similar densities forecasted for 2031 (TDP horizon year), with density increasing in already-established areas in and around Old Settlers Boulevard, Sam Bass Road, Forest Creek Drive, and Red Bull Lane.

Map 2-2: 2022 Population



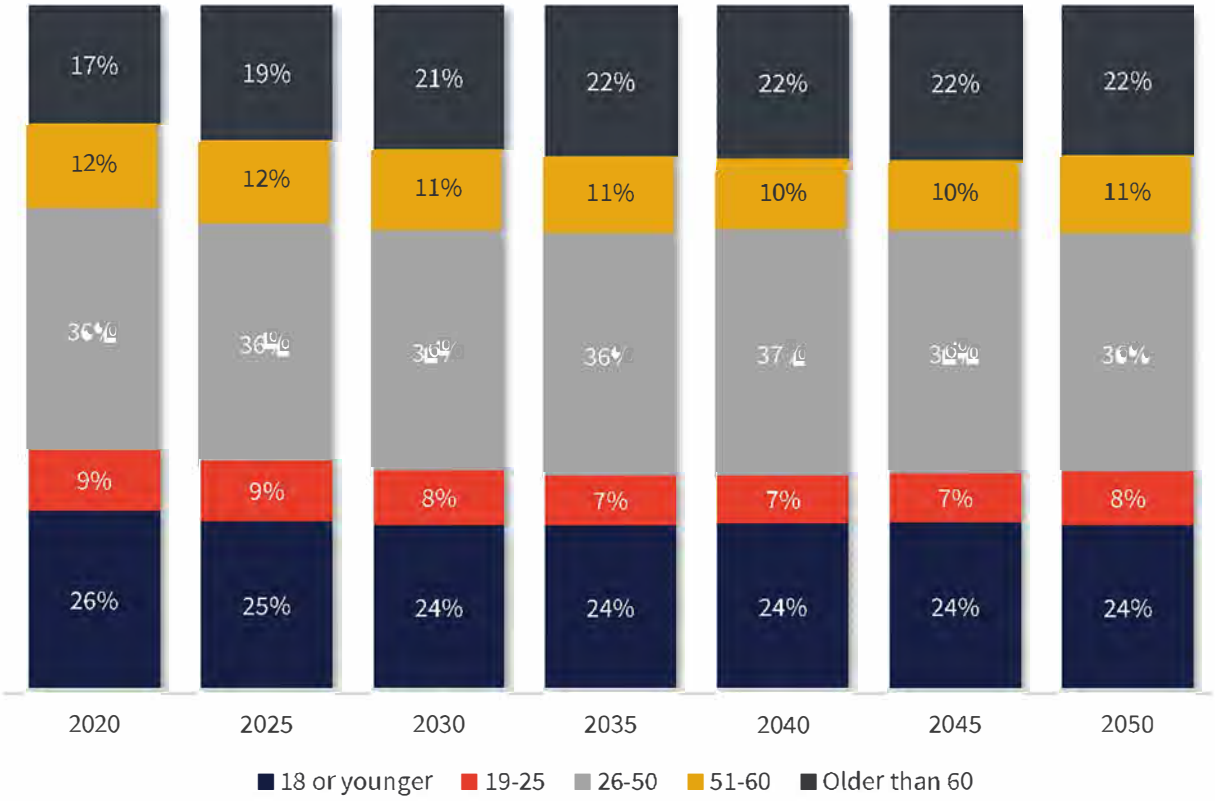
Map 2-3: 2031 Population



AGE DISTRIBUTION

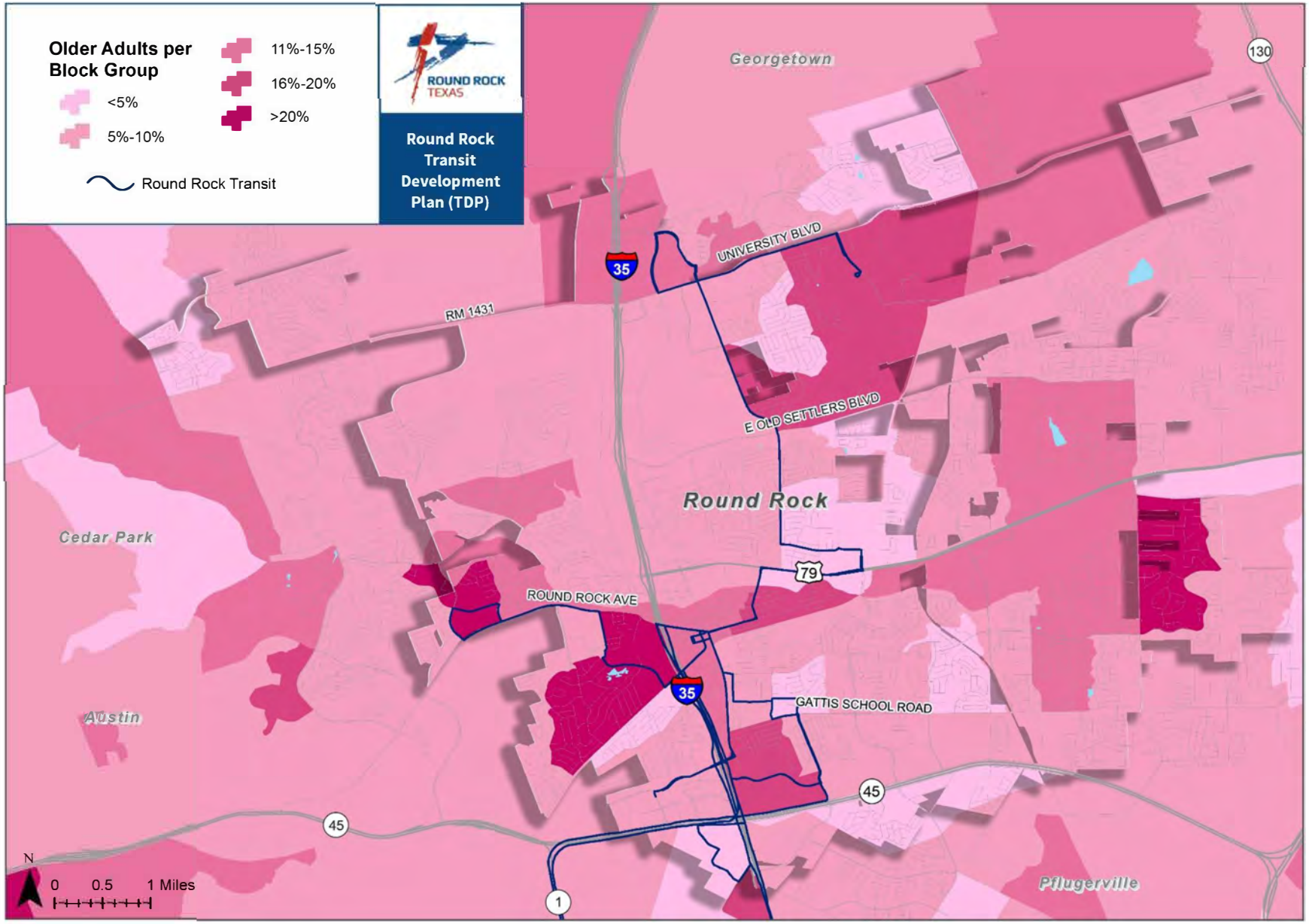
Age is an important factor affecting transit demand, as data show some age segments have a larger tendency to rely on transit than others. As shown in Figure 2-2, approximately 43 percent of the population of Williamson County, where Round Rock is located, is below age 18 or above age 60, two groups that have a higher propensity for using public transportation. According to projections from the Texas Demographic Center, the share of those age groups will grow to 46 percent by 2050. Furthermore, the population of groups that typically make up the workforce, ages 26–50, will continue to be approximately 36 percent of the population through 2050. Map 2-2 shows the geographical distribution of older adults.

Figure 2-2: Age Distribution, Williamson County, 2020–2050



Source: Texas Demographic Center

Map 2-4: Older Adults (Age 60+), 2019



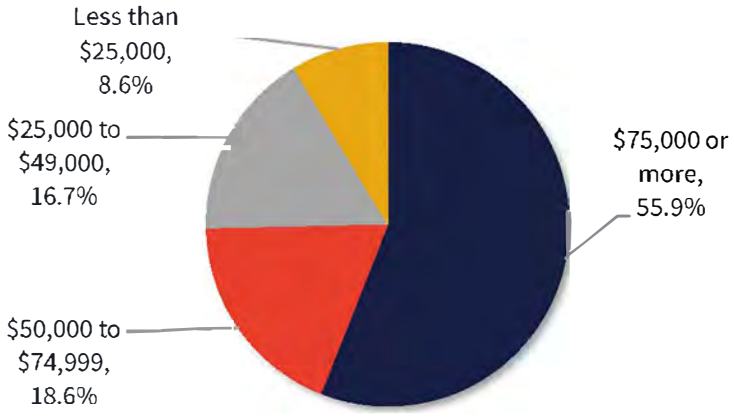
DEMOGRAPHICS

In addition to population, the analysis looked at key demographics such as income distribution, racial and ethnic origin, limited English proficiency, zero-vehicle households, and education attainment to better understand the Round Rock community, as summarized below.

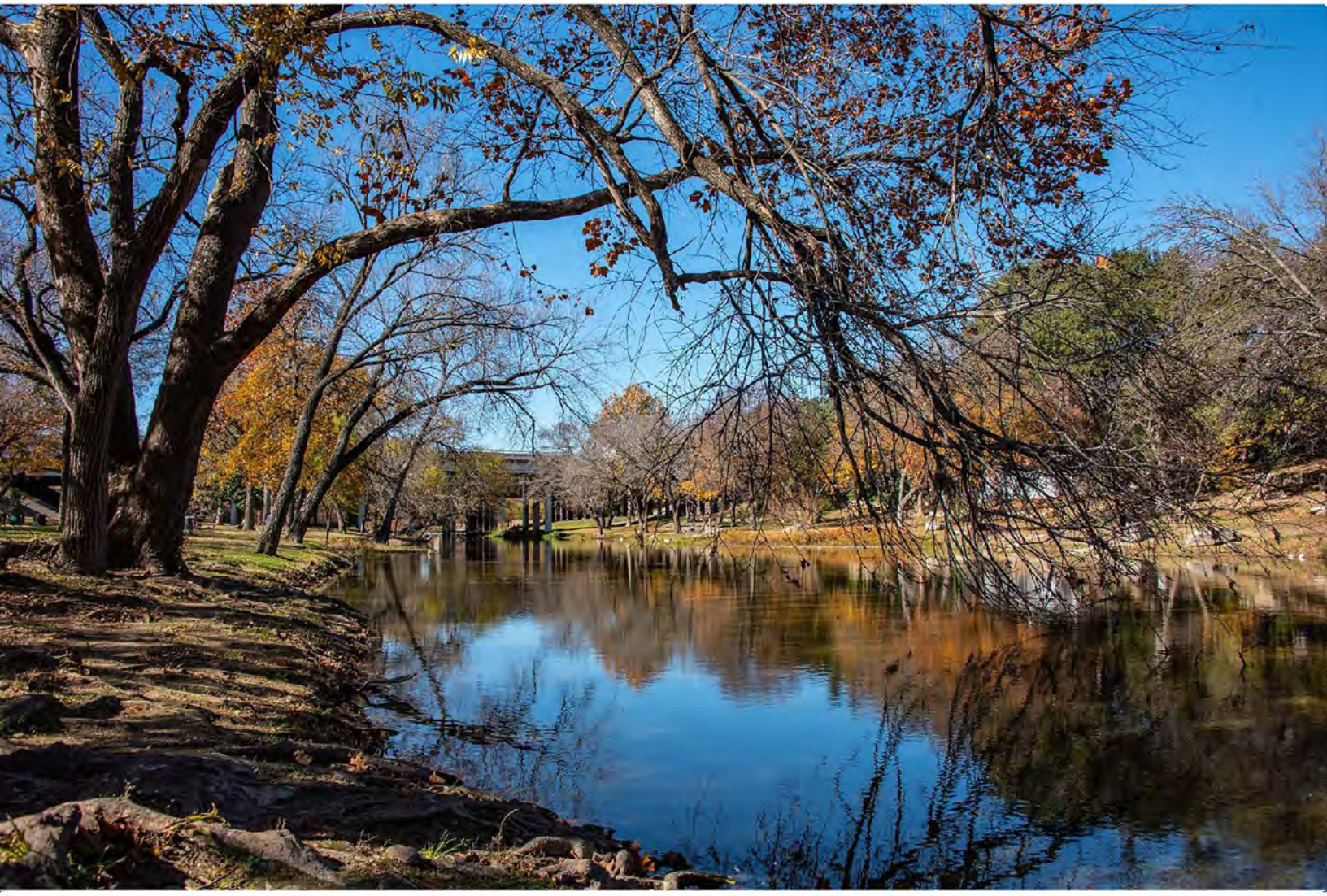
INCOME DISTRIBUTION

Earned annual income also can be a key indicator for determining public transit needs of an area, as transportation is typically the second largest expense after housing. According to 2019 ACS data, a significant amount of Round Rock's 39,243 households, nearly 56 percent, had an annual income of more than $75,000. The second largest segment, approximately 35 percent of households, earned between $25,000 and $74,999, and 8.6 percent earned less than $25,000. Figure 2-3 shows the annual household income range for current residents of Round Rock.

Figure 2-3: Income Distribution, 2019



Source: ACS 5-Year Estimates 2015–2019



POVERTY LEVELS

The US Census Bureau defines the poverty threshold as under $26,500 for a family of four with two children. Round Rock has more than doubled the proportion of households in poverty since 2000, when only 2.8 percent were considered in the category.

Although the proportion of households that fall into that category has increased from 2000, more recent trends show that the percentage of households below poverty has marginally declined from 8 percent in 2010 to 7 percent in 2019. The spike of households in poverty in 2010 may be attributed to the economic downturn, and the recent decline may be from the recovering economy. Additionally, the percentage of Round Rock households in poverty is significantly lower than the proportion in Texas, but follows similar fluctuating trends. Figure 2-4 shows the percentage of households in poverty for 2000, 2010, and 2019 for Round Rock and Texas. The percentage of low-income households by block group is shown in Map 2-5.

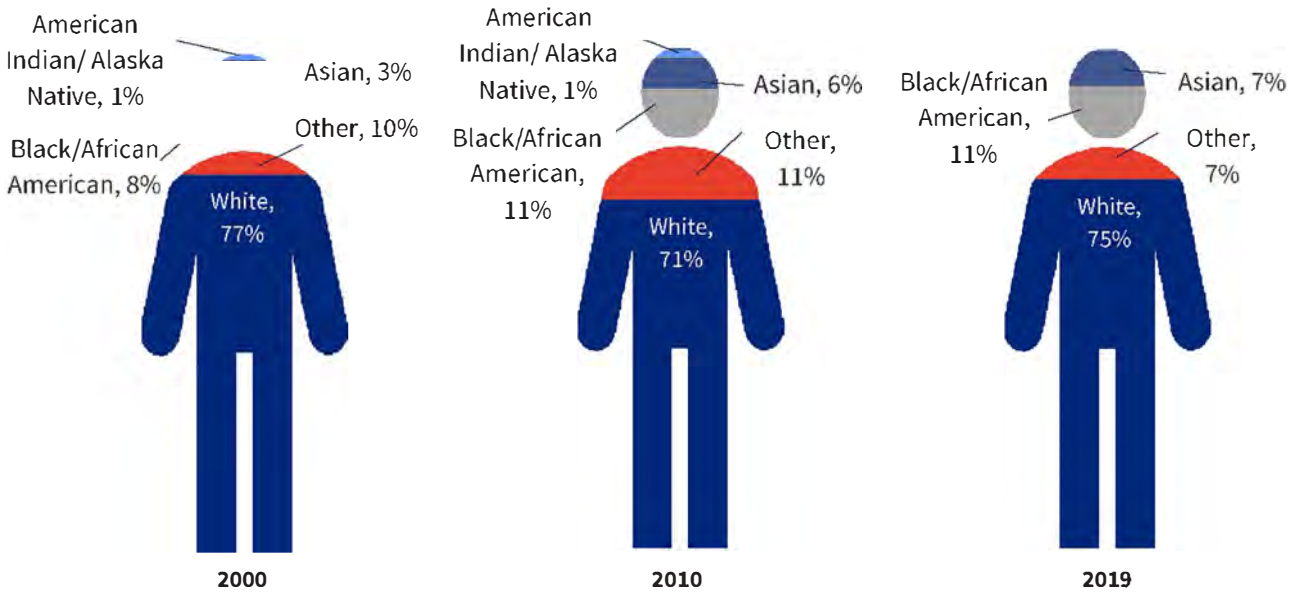
Figure 2-4: Percentage of Households in Poverty, 2019, Round Rock and Texas

Sources: 2000 and 2010 Census, ACS 5-Year Estimates 2015–2019

RACE

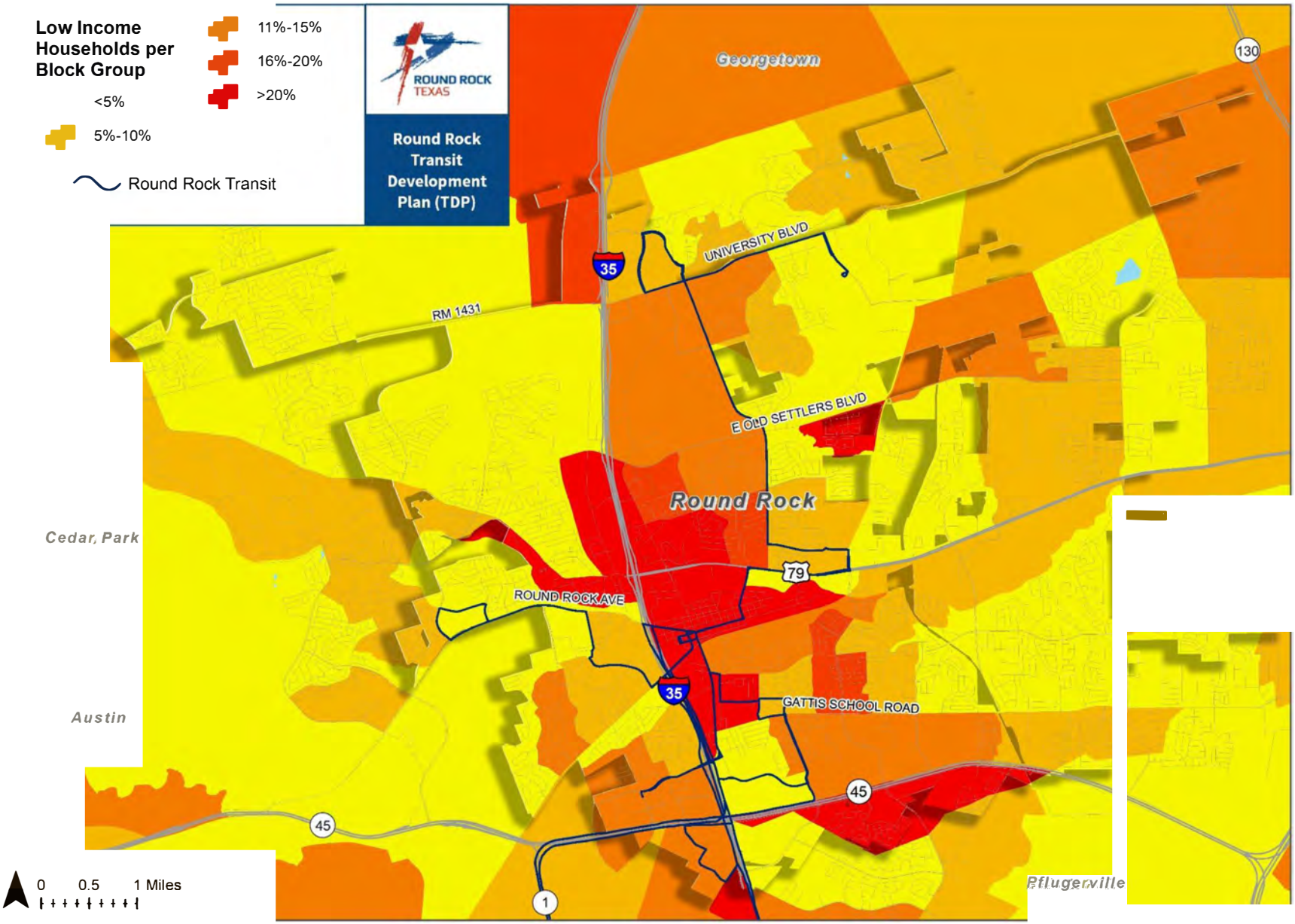
Round Rock is becoming more ethnically diverse. The percent of residents identifying as Asian and Black/African American increased from 2000 to 2019, by 4 percent and 3 percent, respectively. The proportion of residents identifying as Other has fluctuated from 10 percent in 2000, to a marginal increase in 2010 (11%), to a notable decrease in 2019 (7%), as shown in Figure 2-5. During the same time period, the proportion of American Indian/Alaska Native decreased from 1 percent to zero. The proportion of residents that identify as Hispanic/Latino has also fluctuated from 2000 to 2019. In 2000, 23 percent of Round Rock residents identified as Hispanic/Latino; in 2010, this increased to 30 percent. A marginal decrease was observed in 2019, with the proportion of Hispanic/Latino residents as 29 percent of the total. Map 2-6 shows the geographic distribution of minorities in Round Rock.

Figure 2-5: Race, 2019

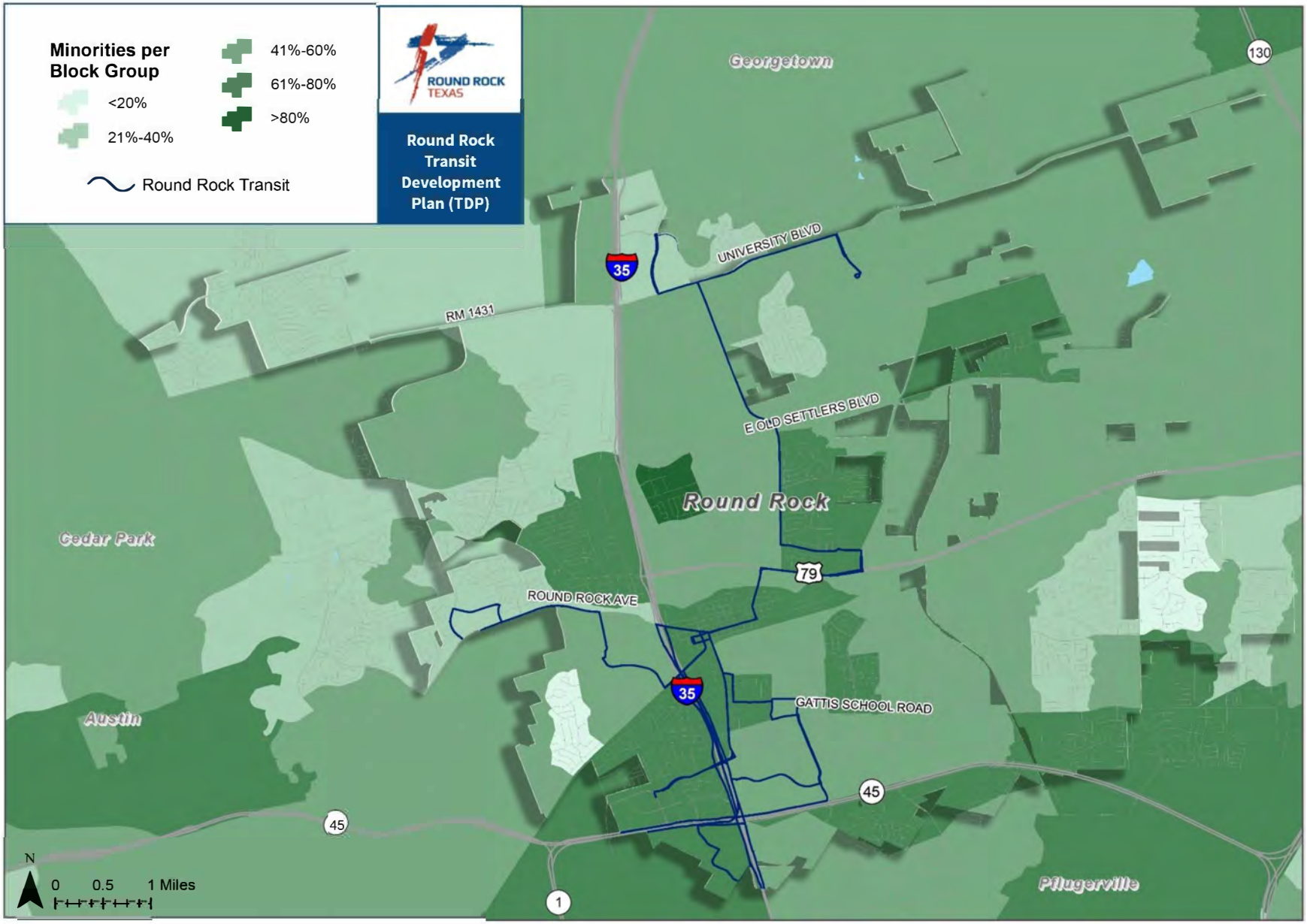


Sources: 2000 and 2010 Census, ACS 5-Year Estimates 2015–2019

Map 2-5: Low-Income Households, 2019



Map 2-6: Minorities, 2019



LIMITED ENGLISH PROFICIENCY (LEP)

Transit may also provide Round Rock residents described as having Limited English Proficiency (LEP) with additional means of travel options to services and jobs. Approximately 32 percent of households speak another language, and 3.8 percent of households in Round Rock identify as LEP households. As previously noted, the number of Hispanic/Latino residents is approximately 30 percent, so it is reasonable that Spanish is the most popular non-English language. Approximately 21 percent of households speak Spanish, and 2.5 percent are considered LEP. According to ACS data, 22 percent of transit riders in Round Rock speak English "less than well." Table 2-2 shows an overview of households that speak other languages, and Map 2-7 shows the geographic distribution of LEP households. LEP households are clustered along I-35 from Hesters Crossing Road to Brushy Creek.

Table 2-2: Limited English Proficiency (LEP) Households, 2019

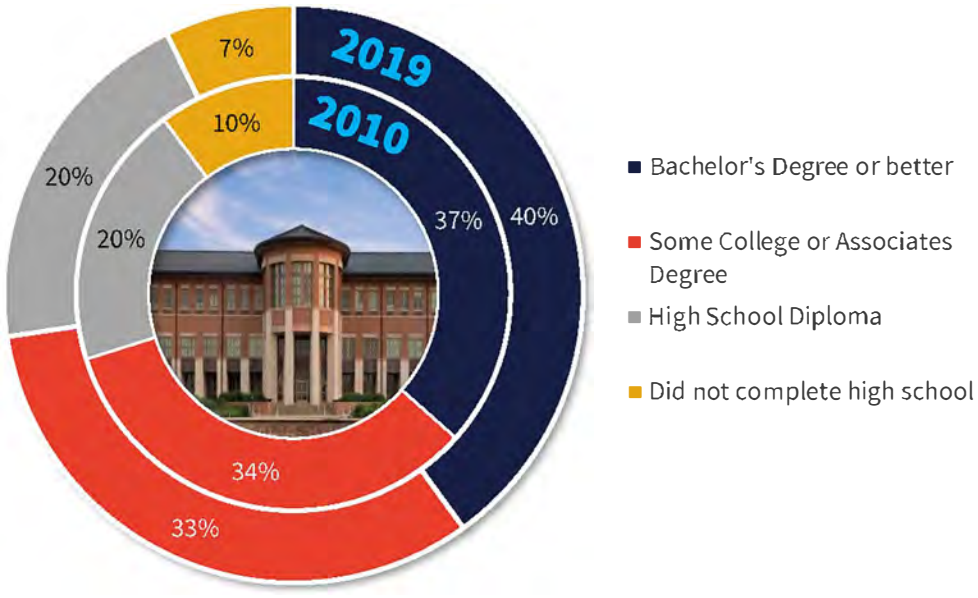
LANGUAGE SPOKEN	TOTAL HOUSEHOLDS	LEP HOUSEHOLDS	LEP %
Total households	39,243	1,479	3.8%
English only	26,749		
Spanish	8,287	983	2.5%
Asian and Pacific Islander	1,992	310	0.8%
Other	2,215	186	0.5%

Sources: ACS 5-Year Estimates 2015–2019

EDUCATION ATTAINMENT

Education level is an important factor in understanding an area's population make-up. The level of education has been shown to correlate with income, which affects the chances of the population using public transit. Round Rock's education attainment has increased since 2010. Since then, the percentage of people who hold a bachelor's degree or higher has increased by 3 percent, from 37 percent in 2010 to 40 percent in 2019. Concurrently, the percentage of people who do not have a high school degree or the equivalent has fallen 3 percent, from 10 percent in 2010 to 7 percent in 2019. Notably, there are higher education centers within and around Round Rock, which could be a key catalyst for the increase in advanced degrees. Figure 2-6 shows the level of educational attainment that Round Rock citizens have achieved, according to the 2010 Census and 2019 ACS estimates.

Figure 2-6: Educational Attainment, 2010 and 2019



Source: 2010 Census, ACS 5 Year Estimates 2015–2019; photo from The University of Texas

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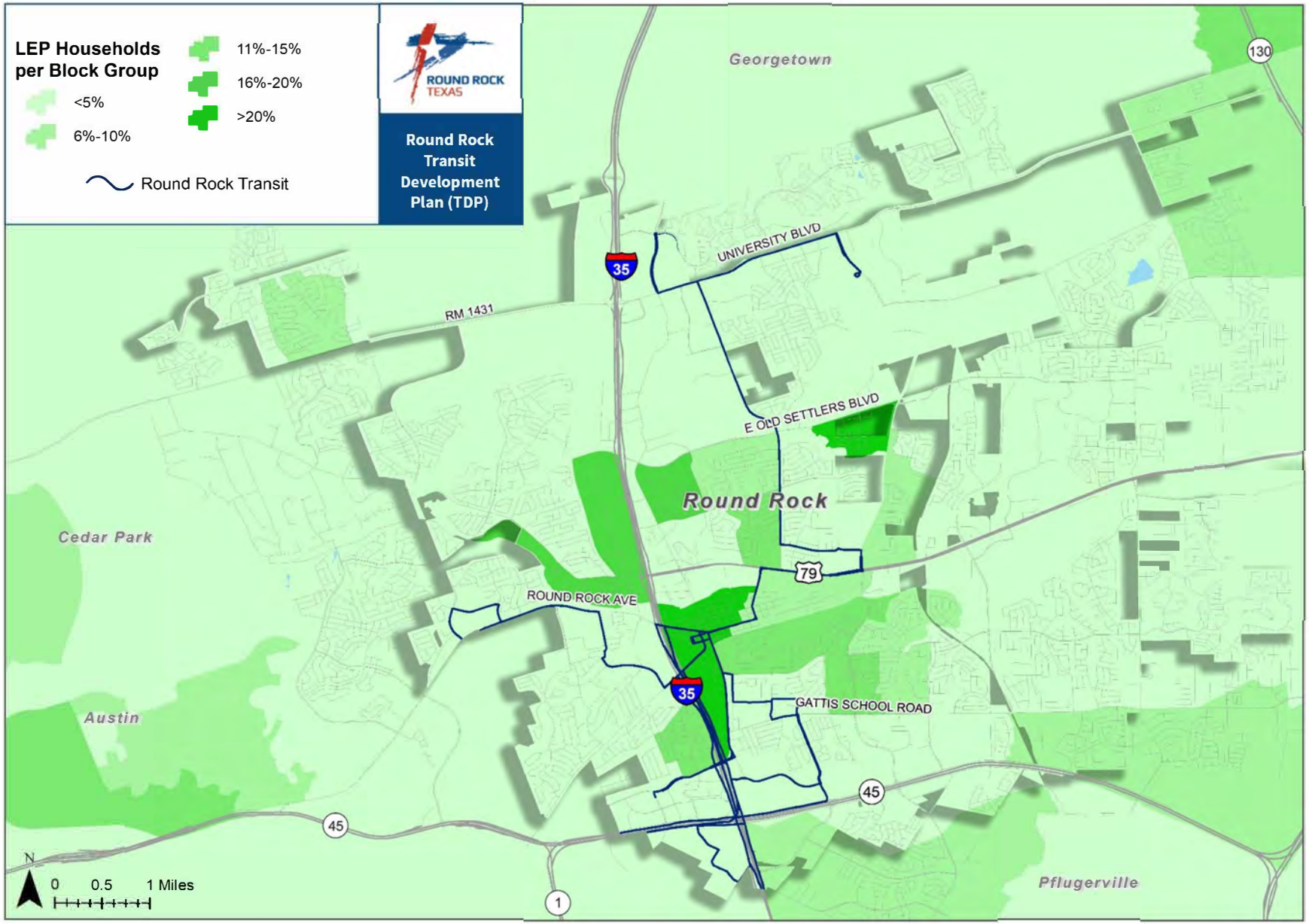
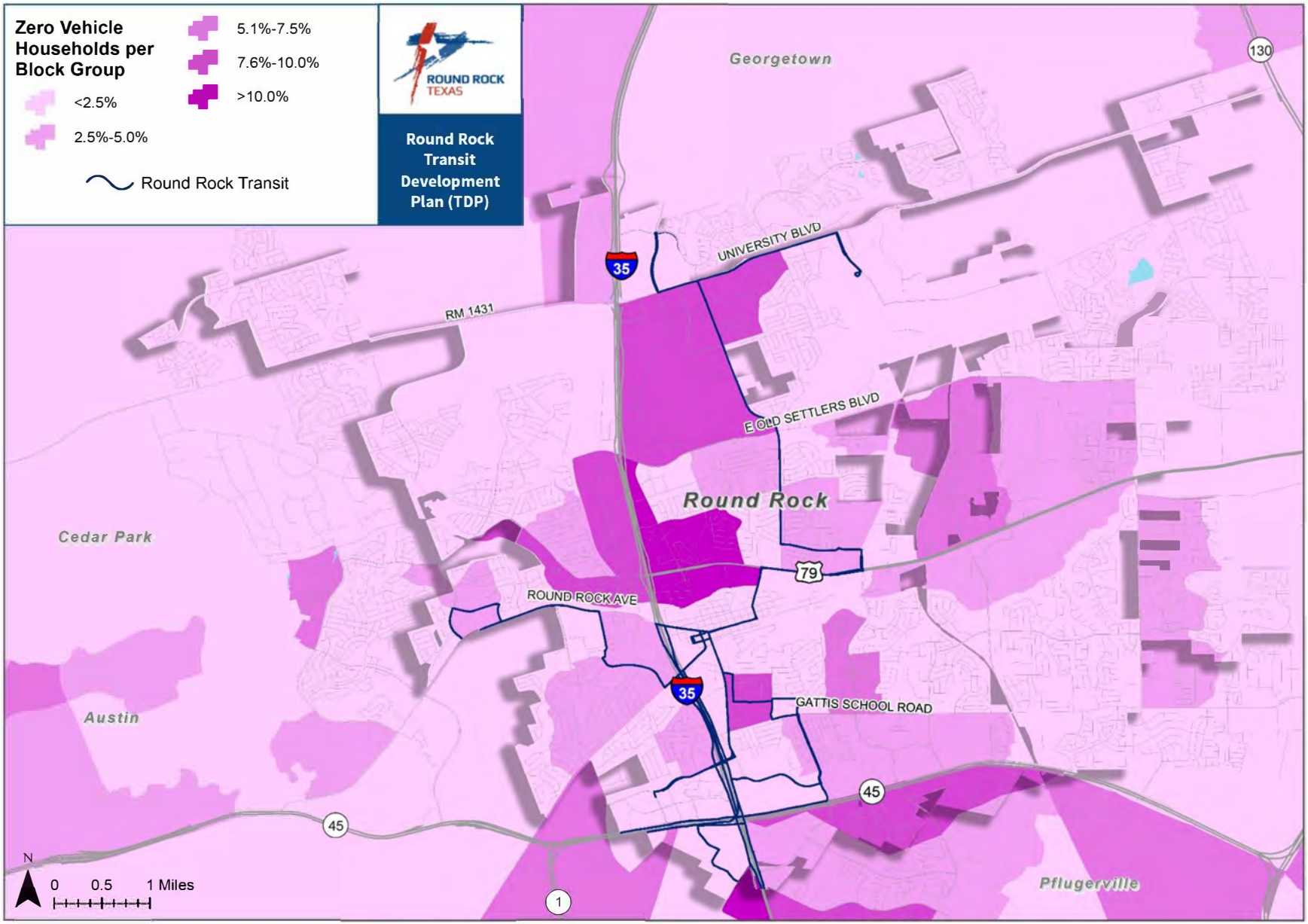
Map 2-7: Limited English Proficiency (LEP)



ZERO-VEHICLE HOUSEHOLDS

Owning a vehicle can be a significant financial burden, particularly for households already near or below the poverty line. Households that do not own a vehicle are considered "zero-vehicle households" and are more likely to be dependent on public transportation for work, education, and recreation. According to 2019 ACS estimates, approximately 1.9 percent of households were considered zero-vehicle households in Round Rock, much lower than the rate of 5.4 percent zero-vehicle households in Texas. Approximately one-third of households have one vehicle available, and approximately 65 percent have two or more vehicles available. The greatest concentration, over 10 percent, is in central Round Rock adjacent to US-79 and I-35 (Map 2-8).

Map 2-8: Zero-Vehicle Households



EMPLOYMENT

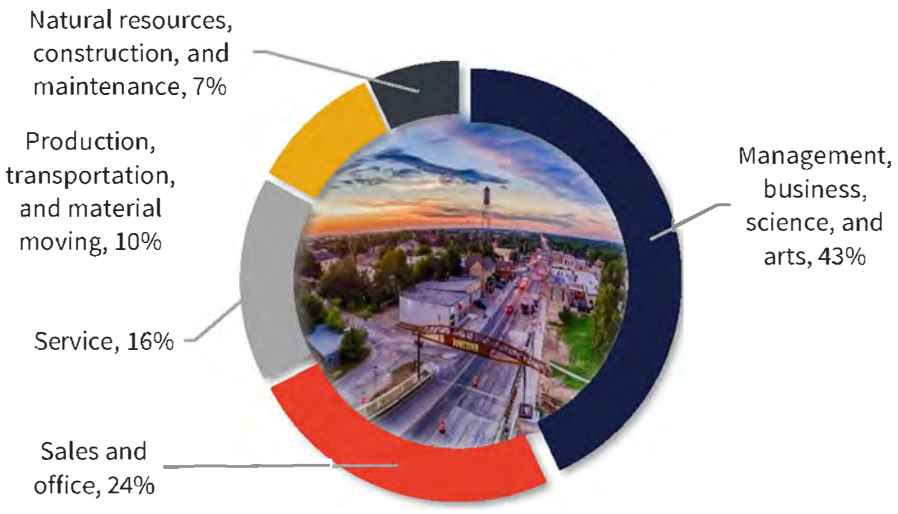
Employment density is another important factor to consider when analyzing a transit market. Areas of high employment density often include activity centers that cluster shopping centers, medical offices, and/or educational centers that attract transit trips. Downtowns also have higher employment densities and often limited parking capacities, which also can help increase transit demand.

Map 2-9 shows the projected employment density, jobs per square mile by TAZ for 2022, calculated based on socioeconomic data developed for CAMPO. The highest concentrations of employment density are in central and south Round Rock, areas that report clusters of 5,000 jobs or more per square mile, with some TAZs exceeding 6,000 jobs per square mile. Other areas in the city that report moderate levels of employment density include south of Round Rock Avenue, west of I-35; east of I-35, north of Old Settlers Boulevard; and parts of north Round Rock. These are projected to continue to be high-density employment areas over the next 10 years, with some growth adjacent to the established areas, as shown in Map 2-10.

LABOR FORCE

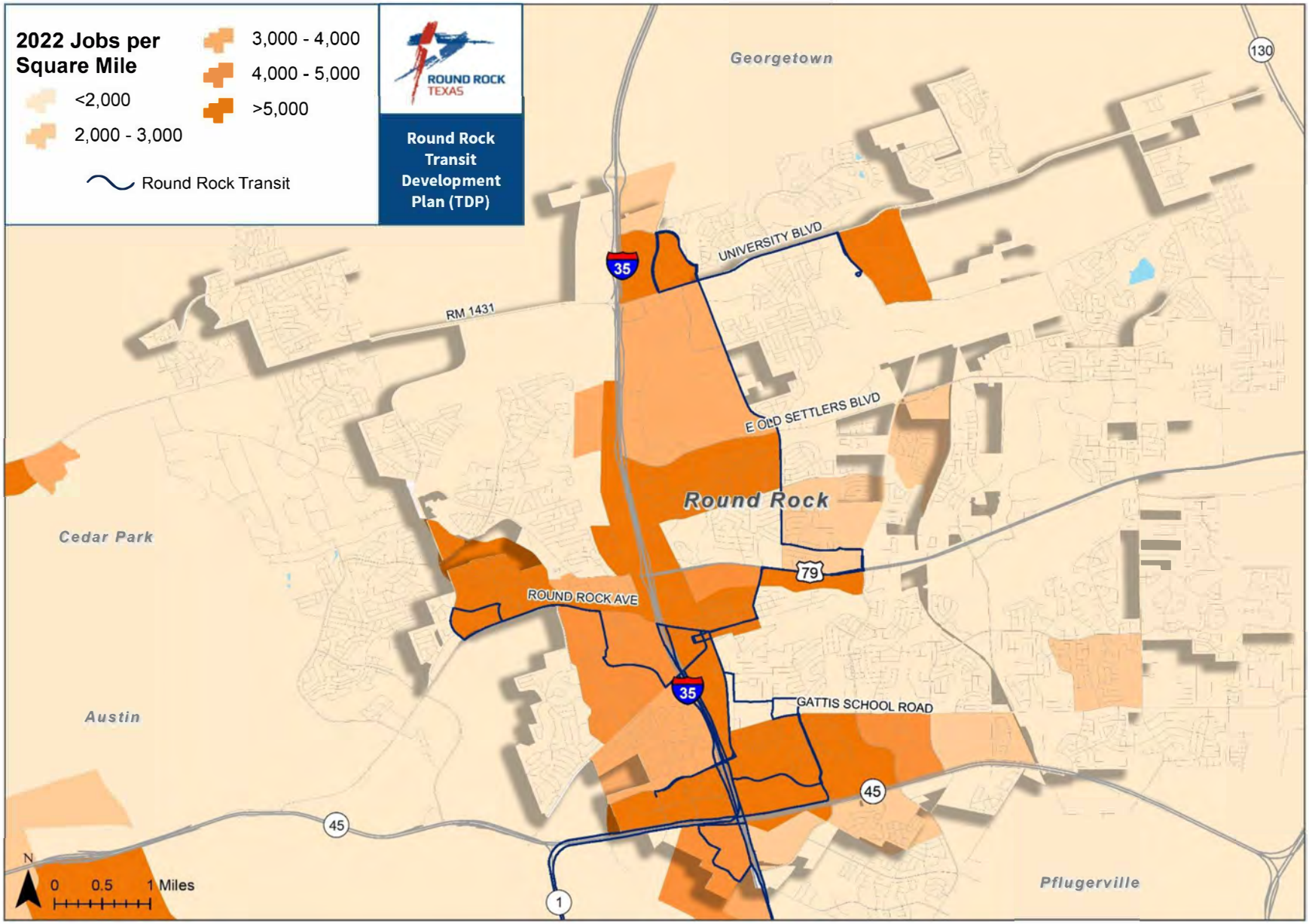
A review of the type of employment in Round Rock was conducted using ACS data, with the Round Rock economy broken down by occupation, as shown in Figure 2-7. Based on these data for 2019, the largest sector is Management, Business, Science, and Arts occupations (43%), indicating the impact that Dell Technologies has on the City's employment composition. That category and Sales and Office occupations (24%) make up approximately two-thirds of the City's employment. The economy is rounded out by Service occupations (16%); Production, Transportation, and Material Moving occupations (10%); and Natural Resources, Construction, and Maintenance occupations (7%).

Figure 2-7: Jobs by Occupation, 2019

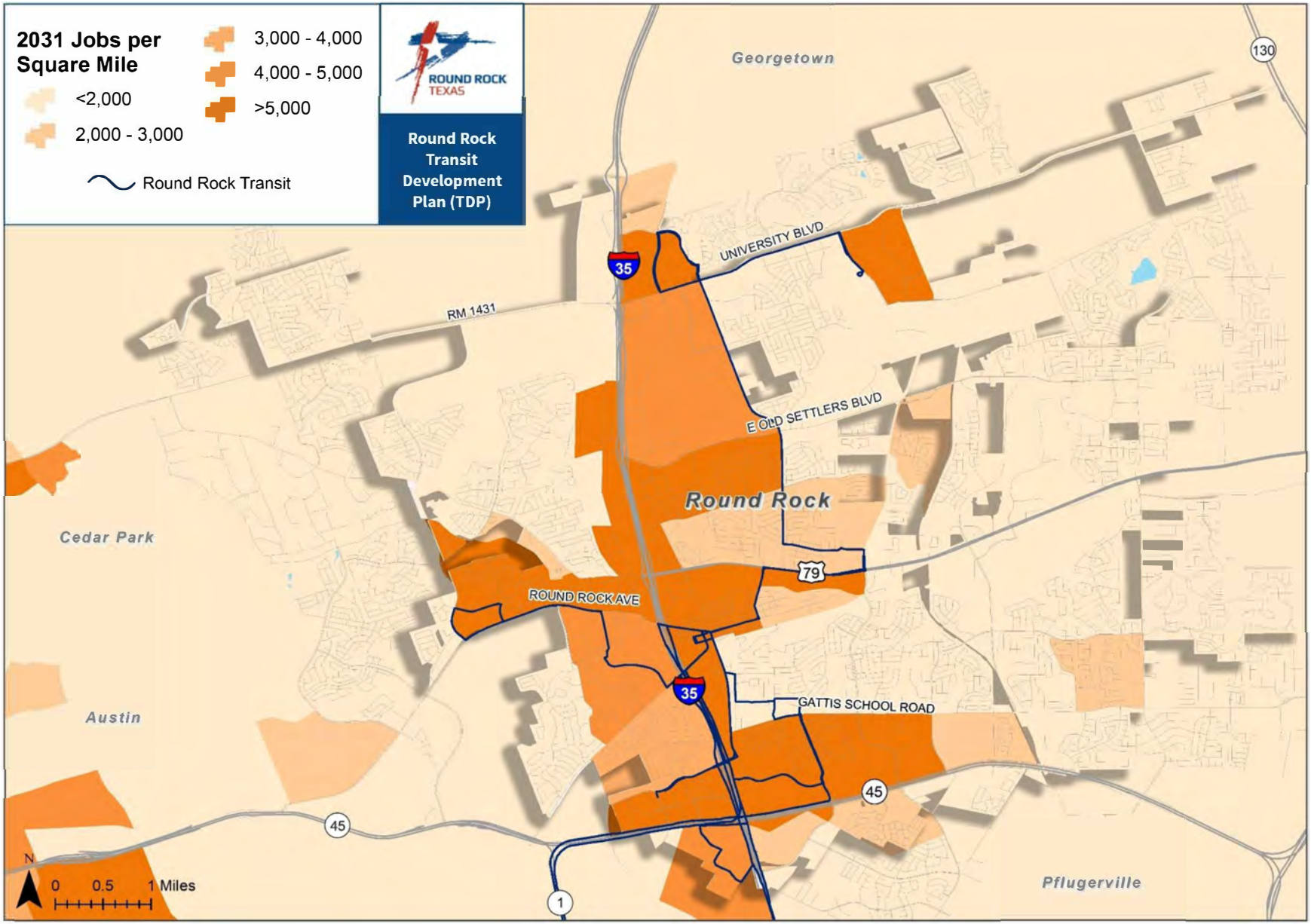


Source: ACS 5-Year Estimates 2015–2019

Map 2-9: Jobs per Square Mile, 2022



Map 2-10: Jobs per Square Mile, 2031



MAJOR EMPLOYERS

A key set of trip generators in an area is its major employers. The top 10 major employers in Round Rock are listed in Table 2-3 with the number of employees for each. The largest employer, Dell Technologies, has its US corporate office in Round Rock. Other major employers include major shopping and healthcare providers. In addition to these major employers, Round Rock is also home to major education centers.

Table 2-3: Major Employers

#	COMPANY	EMPLOYEES	INDUSTRY
1	Dell Technologies	13,000	Technology/Computing
2	Kalahari Resorts and Conventions	1,000	Hospitality/Tourism
3	Round Rock Premium Outlets	800	Hospitality/Tourism
4	Ascension Seton Williamson	750	Life Sciences/Healthcare
5	Baylor Scott & White Healthcare	750	Life Sciences/Healthcare
6	St. David's Round Rock Medical Center	689	Life Sciences/Healthcare
7	Emerson Automation Solutions	682	Technology/Computing
8	Amazon	600	Logistics/Distribution
9	United Parcel Service	563	Professional/Financial
10	Shop LC	475	Innovative Manufacturing

Source: Round Rock Chamber of Commerce

AFFORDABLE HOUSING

Research shows that transportation costs can be a burden on a household; transportation is typically estimated to be the second largest household expense after the cost of housing. Personal transportation is often needed to reach jobs and other economic opportunities that can help support household income. Affordable housing and transit have a symbiotic relationship and can create connected communities that are more budget friendly.

A combination of federal and local programs provides funding assistance for subsidized and affordable housing for populations including older adults, families, farmworkers, the homeless, and those who are low-income or have disabilities. To identify areas with affordable housing, Low-Income Housing Tax Credit Qualified Census Tract data were evaluated. According to the US Department of Housing and Urban Development (HUD), Low-Income Housing Tax Credit (LIHTC) Qualified Census Tracts are defined as areas that have more than 50 percent of households with incomes below 60 percent of the Area Median Gross Income and/or have a poverty rate of 25 percent or more. To

incentivize affordable housing projects in these areas, investments financed with the LIHTC are eligible for a 30-percent increase in their tax credit basis.

Additionally, HUD reports that homeownership affordability remains above the historic average in 2021, as mortgage rates are low and national trends are showing rental affordability is a challenge due to rising rents. According to the 2019 ACS estimates, approximately 60 percent of houses are owner-occupied in Round Rock, similar to the overall rate in Texas of 62 percent. The median gross monthly rent in Round Rock is $1,316, which is higher than the Texas average of $1,045.

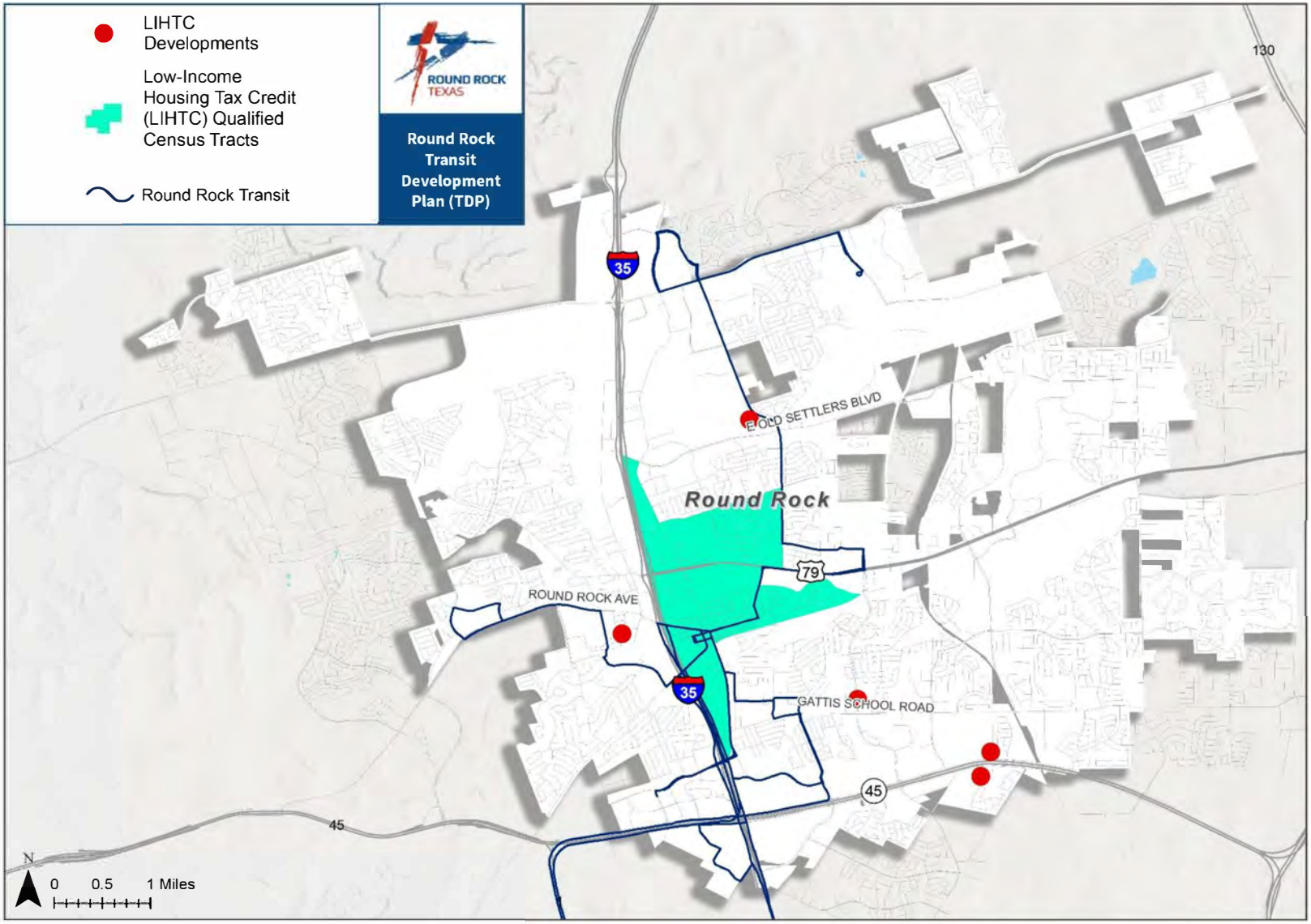
Table 2-4 shows the development, total number of units, and number of units reserved for low-income residents. The majority of affordable housing properties throughout Round Rock are not served by transit, with three of the five not within proximity to Round Rock bus routes. Map 2-11 shows the LIHTC Qualified Census Tracts and geographic distribution of the developments in Round Rock. These areas are along I-35 from Hesters Crossing Road to Old Settlers Road.

Table 2-4: LIHTC Developments

DEVELOPMENT	TOTAL NUMBER OF UNITS	NUMBER OF LOW-INCOME UNITS
Round Rock Village Oak Apartments	23	23
Henna Townhomes	161	160
Meadow Ridge Apartments	232	95
Red Hills Villas	168	168
Waters at Sunrise	300	Not indicated

Source: US HUD

Map 2-11: Low-Income Housing Tax Credit (LIHTC) Qualified Census Tracts and Developments



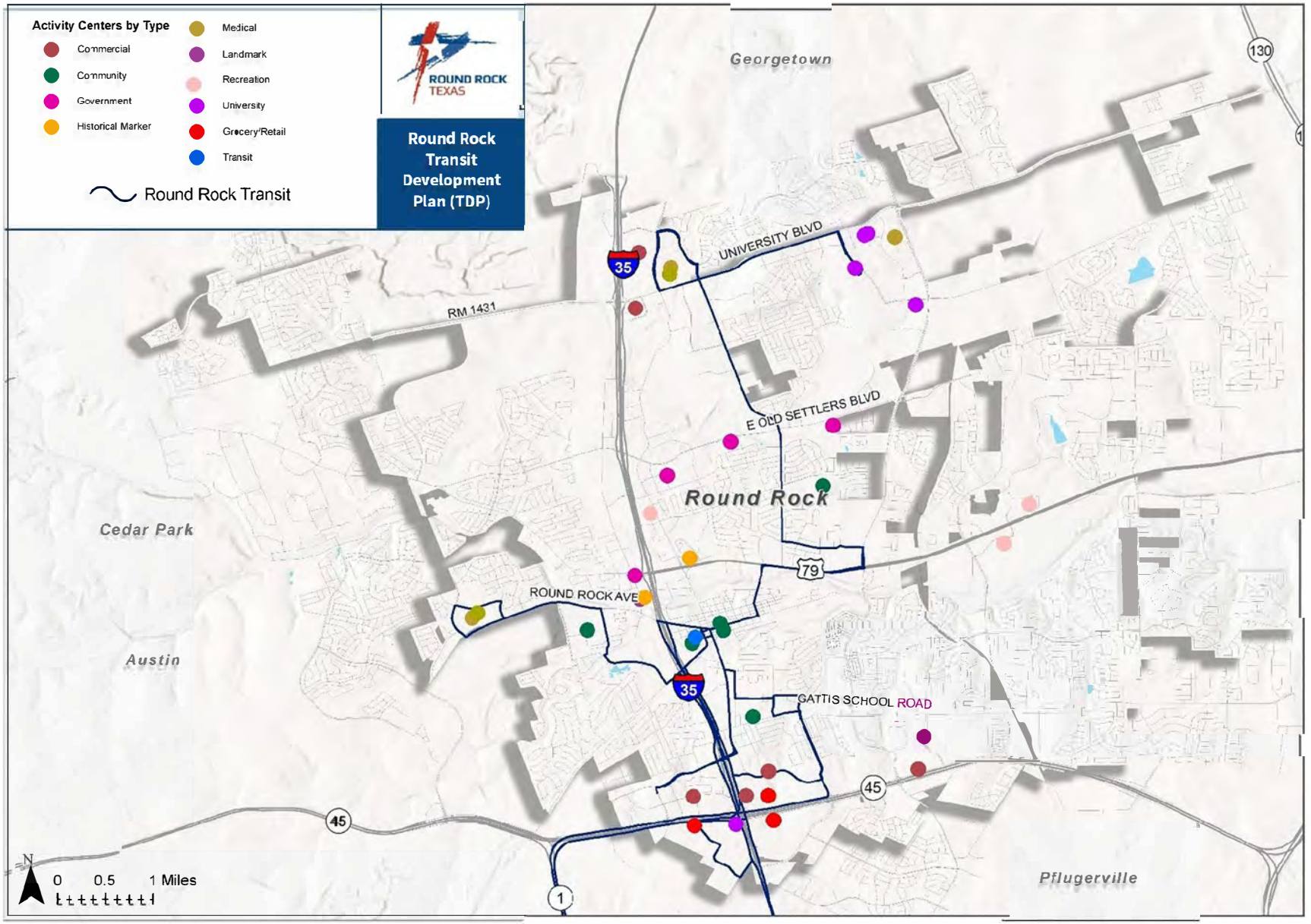
ACTIVITY CENTERS

Major trip attractors are places that generate a great need for residents to travel to them either for employment, recreation, or shopping and include medical facilities, recreational areas, educational establishments, major shopping centers, and government or business offices. Table 2-5 shows the major activity centers that are shown by type in Map 2-12.

Table 2-5: Key Activity Centers in Round Rock

LOCATION	TYPE
Round Rock Premium Outlets	Commercial
La Frontera	
Ikea	
Dell	
Boardwalk	
Allen R Baca Senior Center	Community
Round Rock Public Library	
Round Rock City Hall	
Round Rock High School	
Stony Point High School	
Success High School	
Wilco Annex	Government
Us Postal Office	
The Salvation Army	
Walmart	Grocery/Retail
Target	
Texas Baptist Child. Home	Historic Marker
The Round Rock	Landmark
Baylor Scott & White Hospital	Medical
St. David's Hospital	
Round Rock Medical Center	
Seton Medical Center	
Clay Madsen Rec. Center	Recreation
Dell Diamond	
Kalahari Resort and Conventions	
YMCA	
Round Rock Transit Center	Transit
Austin Community College	University
Texas A&M Health Center	
Texas State University	
The Art Institute Of Austin	

Map 2-12: Activity Centers



TRAVEL BEHAVIOR AND COMMUTING TRENDS

Data available on travel flows were analyzed to assess general travel behaviors and patterns in Round Rock. If offered as an attractive option, transit can become an effective mode to connect residents to economic opportunities and link to recreational/other activities. By better understanding commuting behaviors and travel patterns, Round Rock can serve its residents and visitors with transit services more effectively. This analysis attempts to understand current travel patterns and behavior, including the modes used to commute to work, commute time and choices, and regional commuting patterns.

COMMUTE CHOICES

Table 2-6 shows that the most popular commute choice for persons in Round Rock continued to be driving alone (80.1%), which not changed since 2010 (80.2%); carpooling decreased from 12.1 percent to 9.9 percent. Working from home increased the most, from 5.3 to 7.6 percent, and using public transit increased from 0.2 percent in 2010 to 0.6 percent in 2019, attributable to the City implementing fixed-route bus services during that period. The proportion of commuters walking has not changed since 2010, and persons using other means and bicycling declined marginally, at -0.2% and -0.1%, respectively.

Table 2-6: Commuting Choices, 2010 and 2019

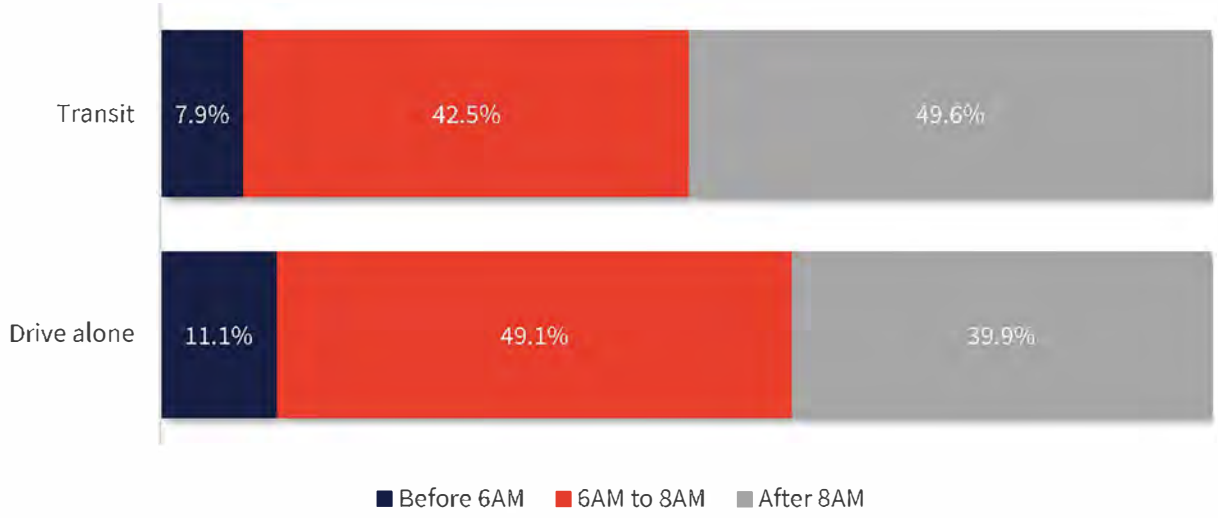
MEANS OF TRANSPORTATION	2010	2019	% CHANGE
Driving alone	80.2%	80.1%	-0.1%
Carpool	12.1%	9.9%	-2.2%
Worked at home	5.3%	7.6%	2.3%
Walked	1.0%	1.0%	0.0%
Transit	0.2%	0.6%	0.4%
Other	0.8%	0.6%	-0.2%
Bicycle	0.4%	0.3%	-0.1%

Sources: 2010 Census and ACS 5-Year Estimates 2015–2019

COMMUTING TIMES

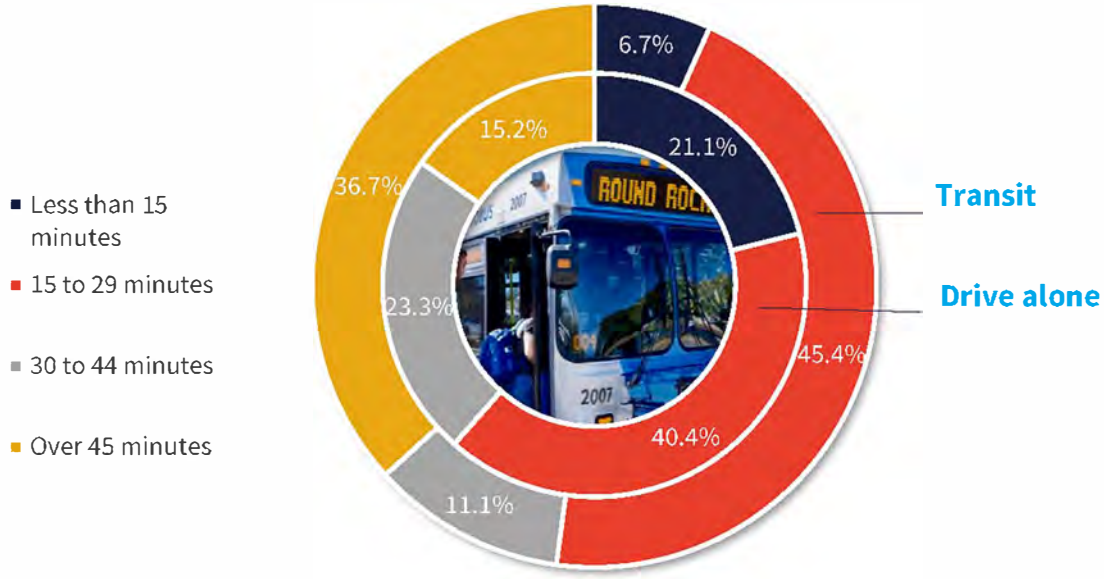
Insight into commuting patterns in Round Rock, such as departure time and average commute time, is important to understand how transit may be able to help the community's travel options. As shown in Figure 2-8, most commuters who drive alone (49.1%) travel to work between 6:00 AM and 8:00 AM, whereas most commuters who use transit (49.6%) leave after 8:00 AM. Further examination of commute times shows that the majority, 61.5 percent, of commuters who drove alone had a commute time of 30 minutes or less, and only 15.2 percent had a commute longer than 45 minutes (Figure 2-9).

Figure 2-8: Commuter Departure Time, 2019



Sources: ACS 5-Year Estimates 2015–2019

Figure 2-9: Commute Length, 2019

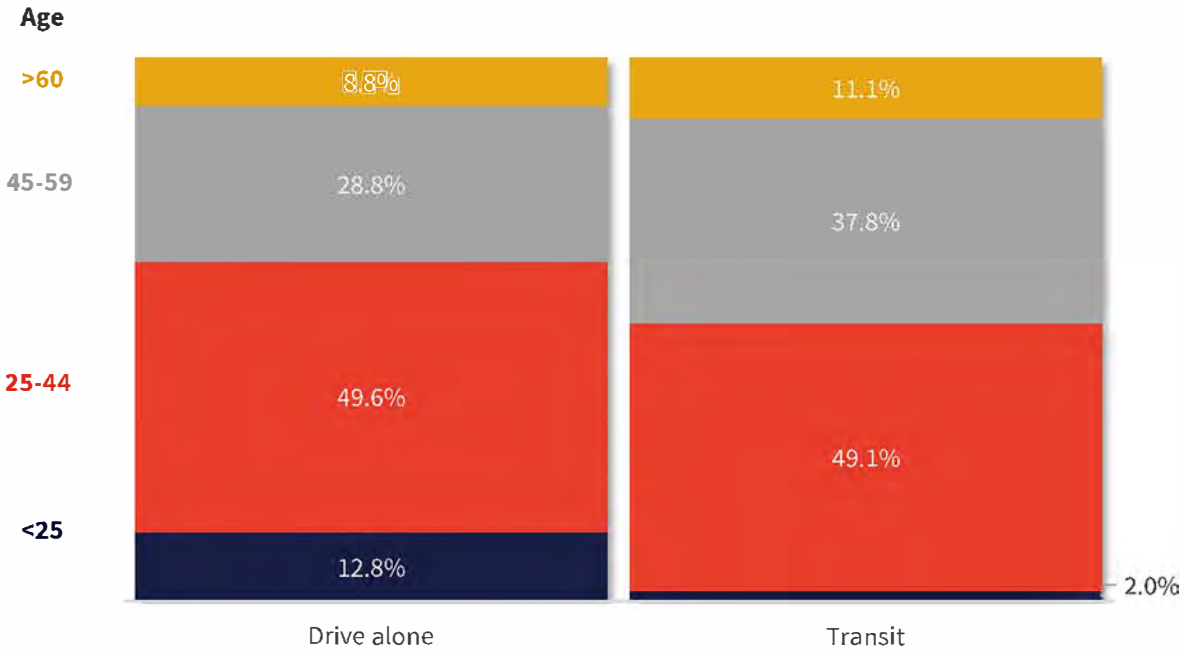


Sources: ACS 5-Year Estimates 2015–2019

COMMUTER PROFILE

Data available from the 2019 ACS 5-Year Estimates (2015–2019) were also used to assess travel behaviors and patterns in Round Rock for people who commute for work. According to the ACS, approximately 49 percent of transit riders are between ages 25 and 44, similar to those who report driving alone (Figure 2-10). As previously noted, service occupations make up 16 percent of the total number of jobs in Round Rock, so, it is worth noting that 21 percent of reported transit riders work in that industry.

Figure 2-10: Age by Commute Mode, 2019

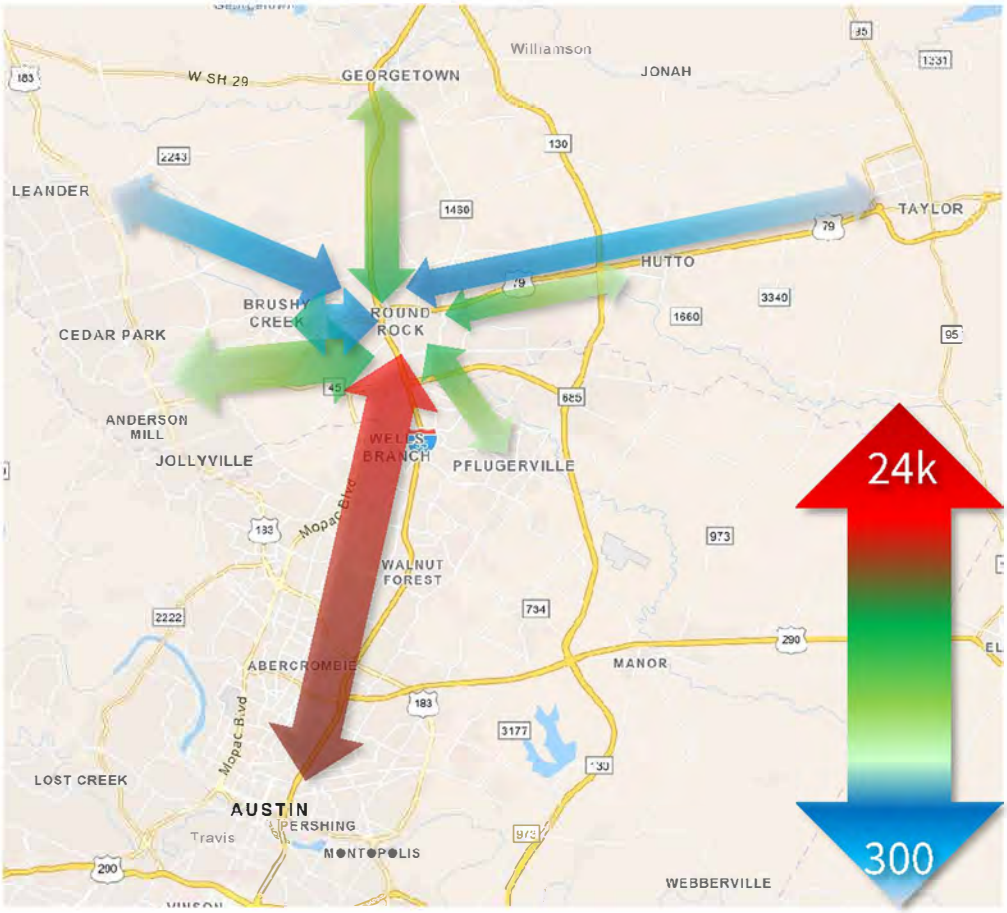


Sources: ACS 5-Year Estimates 2015–2019

COMMUTING PATTERNS

Review of commute patterns is important for evaluating existing services and the possible need to establish more internal and possibly regional connections. According to Census Transportation Planning Products (CTPP) 2012–2016 Estimates, over 20,000 of Round Rock residents stay within the city to work.

Figure 2-11: Regional Commuting Patterns



Austin residents commute daily to Round Rock. Table 2-7 shows that the three most significant commute trends besides Austin are commuters traveling from Pflugerville (3,185), Cedar Park (2,450), and Georgetown (2,415) to Round Rock daily.

Table 2-7: Travel Patterns

CITY	INFLOW	OUTFLOW
Austin	11,135	23,955
Pflugerville	3,185	1,290
Cedar Park	2,450	1,645
Georgetown	2,415	2,355
Brushy Creek	2,240	385
Hutto	1,965	315
Leander	1,280	305
Taylor	905	545

Source: Census Transportation Planning Products (CTPP) 2012–2016 Estimates

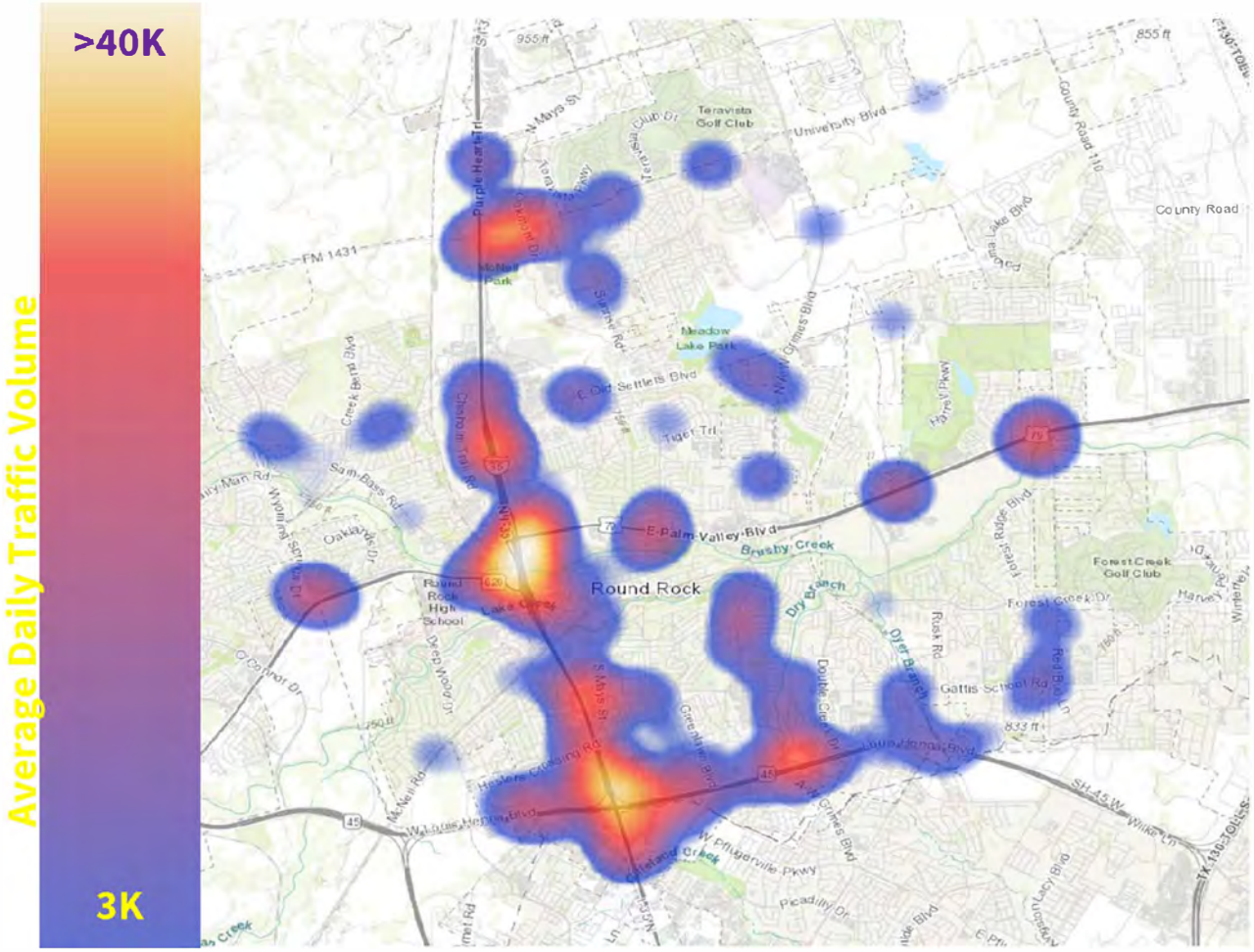
TRAFFIC CONDITIONS

Currently, congestion is not an all-day issue impacting residents of Round Rock; it is mostly observed during peak-hour travel times and on major highways. Figure 2-12 shows the Annual Average Daily Traffic (AADT) from 2019, the last year not impacted by the pandemic slowdowns.

Based on these data, areas with the highest congestion were observed at the I-35 interchange areas at Round Rock Avenue, US-79, and TX- 45, as expected. Congestion on University Boulevard approaching I-35 and some congestion hot spots on US-79 also were observed in 2019 traffic data.

However, congestion has been increasing on major roadways in the city and can be a major issue impacting the quality of life of residents if traffic conditions return to normal after the pandemic. Identifying highly-congested roadway segments or hot spots is important, as alternative modes of travel, such as transit, can be introduced or improved to help mitigate traffic congestion.

Figure 2-12: Congested Corridors and Hot Spots, 2019



Source: City of Round Rock

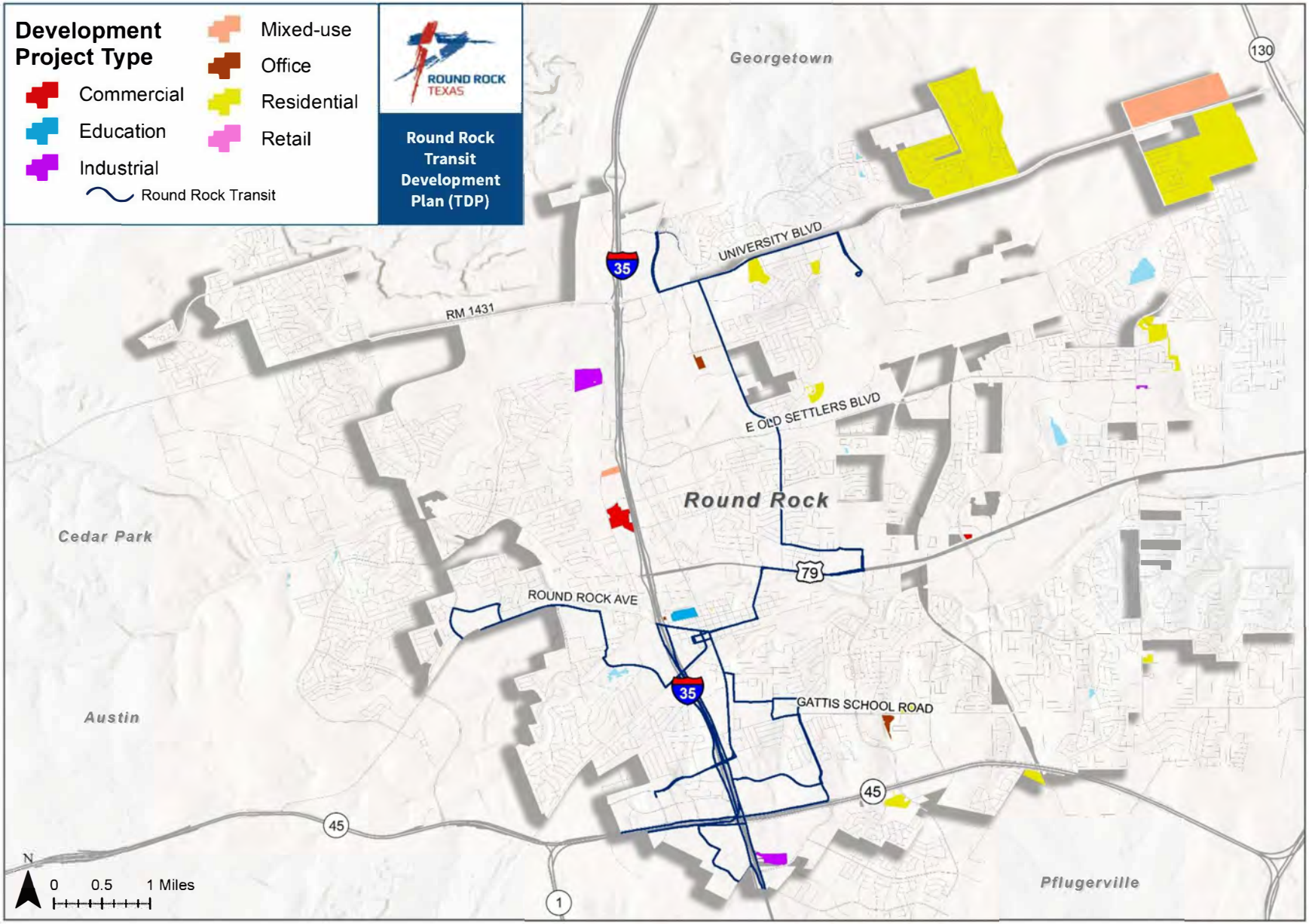
MAJOR PLANNED DEVELOPMENTS AND LAND USE

The City of Round Rock recently approved a plan to rezone 65.5 acres of currently undeveloped land just south of SH-45 and north of Greenlawn Boulevard for a mixed-use development called "The District" that would include multifamily housing, hotels, offices, retail stores and restaurants and will be developed over a 20-year period. Map 2-14 shows several other planned major commercial and residential developments scattered throughout the city.

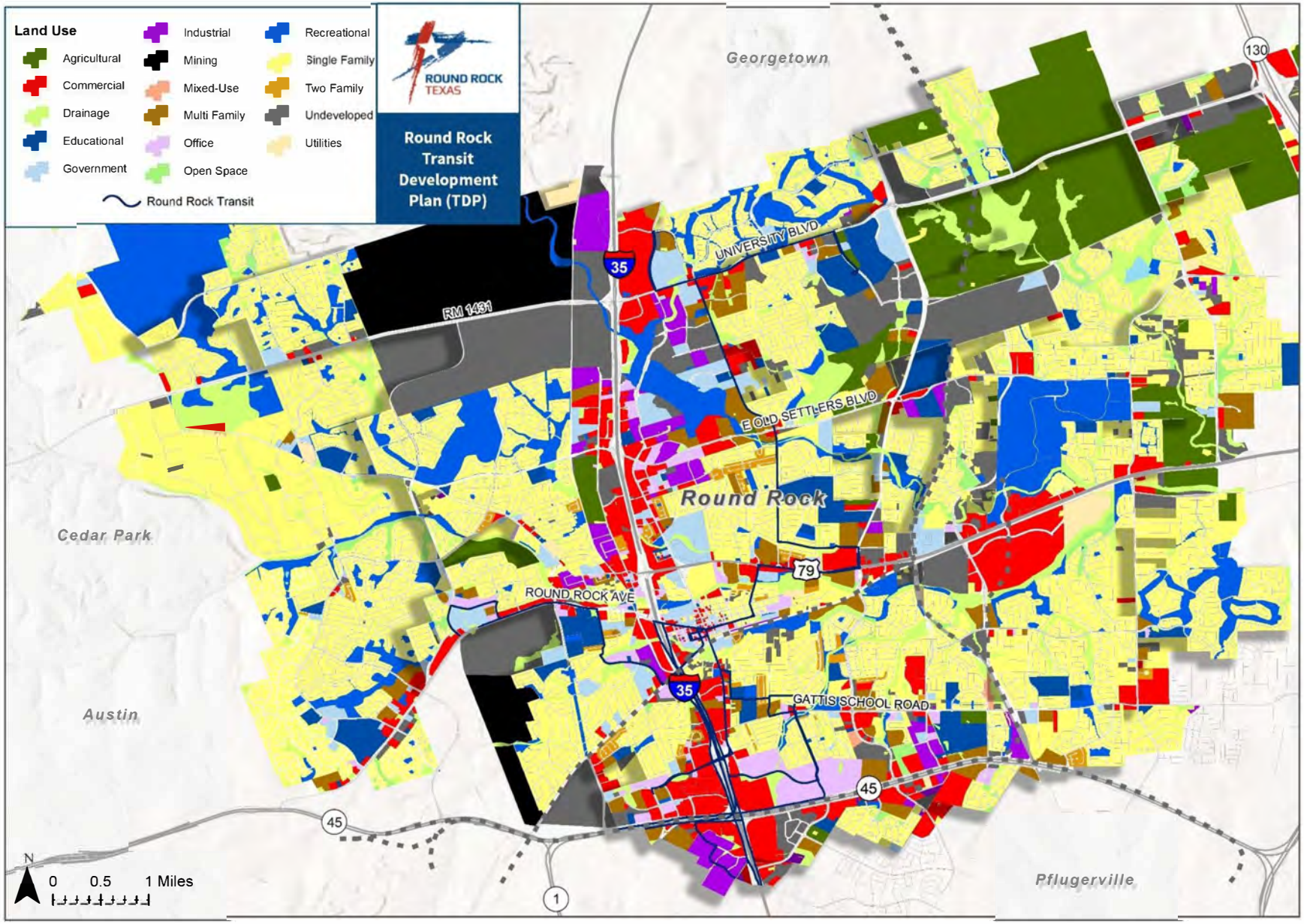
A review of future land uses was conducted for the baseline conditions assessment, with Future Land Use maps from Round Rock, shown in Map 2-13, and existing land use and major planned developments reviewed. The following key trends were observed:

- Although a majority of the city is dedicated to single-family land uses (light yellow), there is a large number of higher-density residential (brown) and mixed uses (beige) scattered throughout the city.
- Both sides of the I-35 corridor are projected to include significant commercial density (red) in addition to the area where Dell Diamond and Kalahari Resort are located.

Map 2-13: Planned Developments



Map 2-14: Land Use



SECTION 3. FIXED-ROUTE SERVICE ANALYSIS

This section provides an assessment of public transit services provided by the City of Round Rock, including details of the fixed-route bus network and supporting facilities in the transit system. In addition to fixed-route transit services, the City also provides federally-mandated complementary Americans with Disabilities Act (ADA) paratransit service to those who are eligible. An assessment of this service also is included to provide a complete picture of the transit service currently available in the city. This analysis assesses how efficiently Round Rock Transit supplies its transit service and how effectively those services meet the needs of the community it serves.

FIXED-ROUTE SERVICE OVERVIEW

Current fixed-route transit services are a result of an Interlocal Agreement (ILA) the City has established with the Capital Metropolitan Transportation Authority (Capital Metro), which serves most of the Austin area and the adjacent region. The City and Capital Metro entered into this ILA to provide for fixed-route and commuter service into Austin and reverse commuter service to Round Rock in 2017, and has continued the services since then.

The fixed-route bus system serves major destinations in and around the city and also connects the city to regional park-and-ride facilities at Capital Metro's Howard Station and the Tech Ridge area, located just south of the city. All services in Round Rock meet at the downtown Round Rock Transit Center to provide connections to various locations of the city and to the Howard Station and Tech Ridge park-and-ride facilities south of the city.

All routes—local, limited express, and express—that serve Round Rock currently operate only on weekdays. Route frequencies vary, but typically operate every 60 minutes throughout all scheduled operating hours. Current services include two local routes (50 and 51), two limited express routes (150 and 152), and one express route (980).

- Local and Limited Express Services – Route 50 serves north-south destinations in the city, and Route 150 is the limited express extension to Howard Station. Route 51 serves as a local circulator connecting St. David's Medical Center on the east side of the city to the Dell Technologies headquarters in the southwest portion of the city. Routes 50/150 and 51 meet at the Round Rock Transit Center in downtown, which also is served by Route 152, a limited express service that connects Round Rock to Tech Ridge.
- Express Service – Route 980 is a peak-hour service that connects riders from the Round Rock Transit Center to downtown Austin.

Currently, the service has a $1.25 one-way fare, and weekday bus operation begins at 6:00 AM with Route 980 and ends with Routes 50 and 150 at 8:21 PM. Further details about each route are presented later in this section.

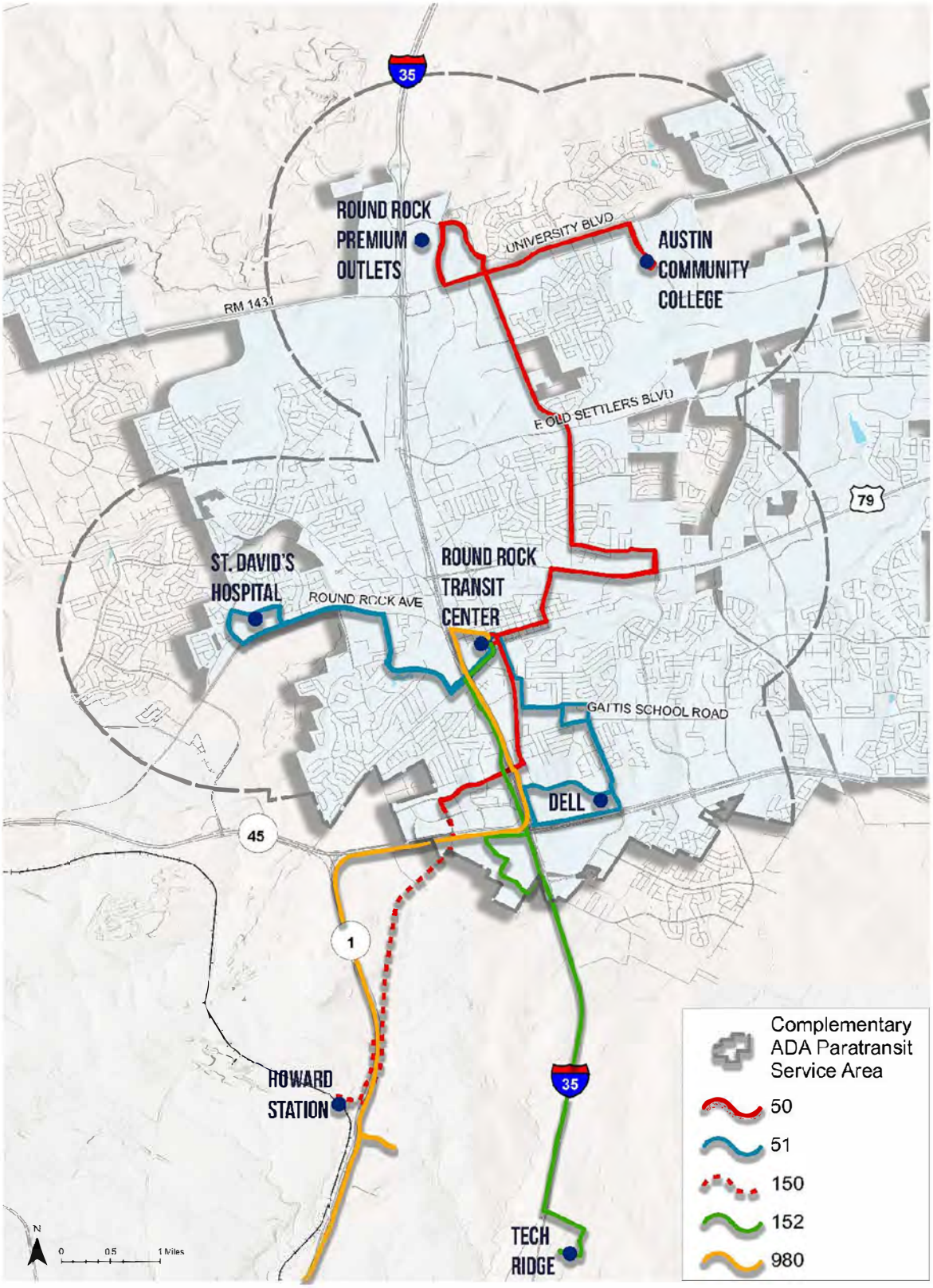
ADA PARATRANSIT SERVICE OVERVIEW

Paratransit service in Round Rock is a comparable transportation service for those individuals whose disability prevents them from using the regular fixed route. Specifically, if a person's disability prevents them from being unable to ride or disembark from any fixed-route vehicle or travel independently all or some of the time on any fixed-route vehicle, the City provides this service option as a service. However, participants in this program must qualify to use the paratransit services, as determined by the City using its ADA paratransit eligibility process. Once qualified, participants can travel from/to any origin or destination within the service area.

The current cost to ride the paratransit service is $2.00 per trip. However, the City also provides advanced trip pass cards that can be purchased from the main transit center in downtown.

Map 3-1 shows all fixed-route services, the complementary ADA paratransit service boundary, and several major destinations throughout the Round Rock service area.

Map 3-1: Round Rock Transit Services



RIDERSHIP PERFORMANCE ANALYSIS

A closer look at the ridership performance of transit services in Round Rock was conducted, including a review of fixed-route bus ridership by timeframe, route, and month, as summarized below. A number of standard service performance measures were used to gauge overall system performance.

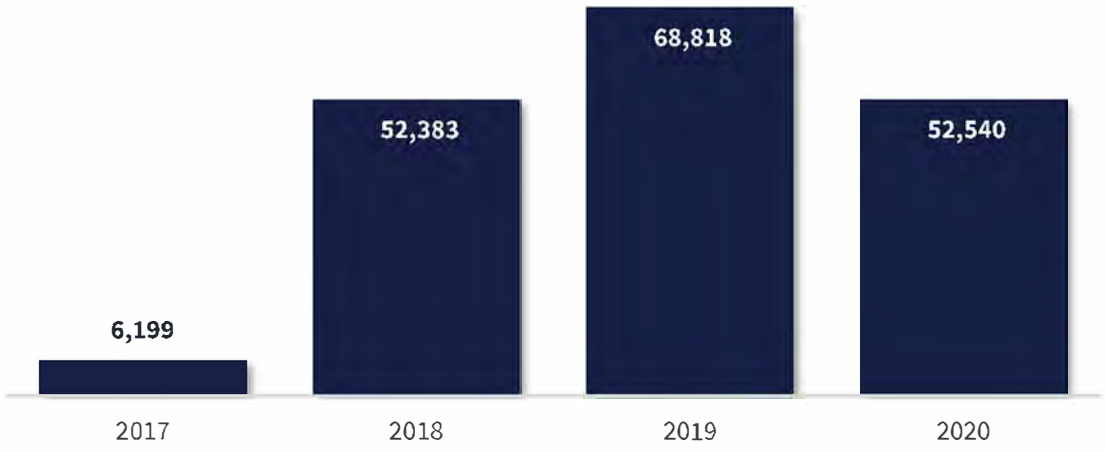
RIDERSHIP TRENDS

Round Rock Transit ridership from 2017 to 2020 is shown in Figure 3-1. Based on the data shown, ridership on routes serving the city increased from 2017 to 2019. Although 2017 ridership was not a good comparison, as the service began later that year, 2018 and 2019 data clearly indicate that demand for transit increased. The decrease in ridership in 2020 is consistent with the regional and national trends due to the COVID-19 pandemic.

As the pandemic impacts were felt beginning in March 2020, ridership has been impacted. Public health and safety concerns have dramatically changed general travel behavior nationally, in most cases much worse than the drop in ridership in Round Rock. Between April 2020 and August 2021, the City of Round Rock worked with its transit provider to maintain its services by adjusting service schedules in response to fluctuating service demands and safety guidelines.

The pandemic has impacted ridership across all Round Rock services. For transit, ridership fell to its lowest in April 2020, coinciding with stay-at-home orders; fixed-route passenger trips declined 64% from March 2020. Although the pandemic is ongoing, the most significant ridership impacts were recorded from March to August 2020.

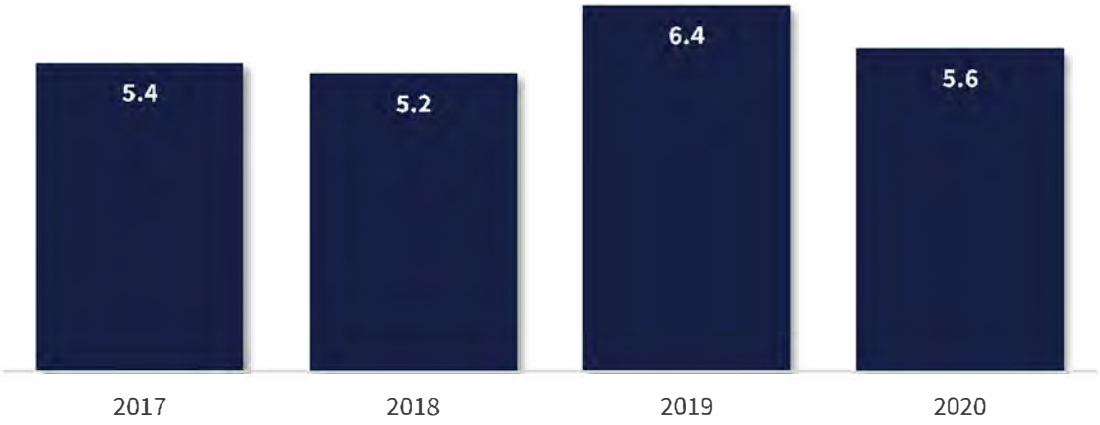
Figure 3-1: Round Rock Annual Ridership (2017–2020)



Sources: Round Rock Transit

For productivity, according to Figure 3-2, 2019 was the most productive for ridership to date, with 6.4 riders per revenue hour. Although ridership decreased due to the pandemic in 2020, the service was still more productive than in 2018, with 5.6 riders per hour. Ridership per revenue hour has not decreased at the same rate as the overall ridership, indicating that many continued to use transit even with service reductions. This suggests that Round Rock Transit is a service that is depended on and needed in the community.

Figure 3-2: Round Rock Ridership per Revenue Hour (2017–2020)



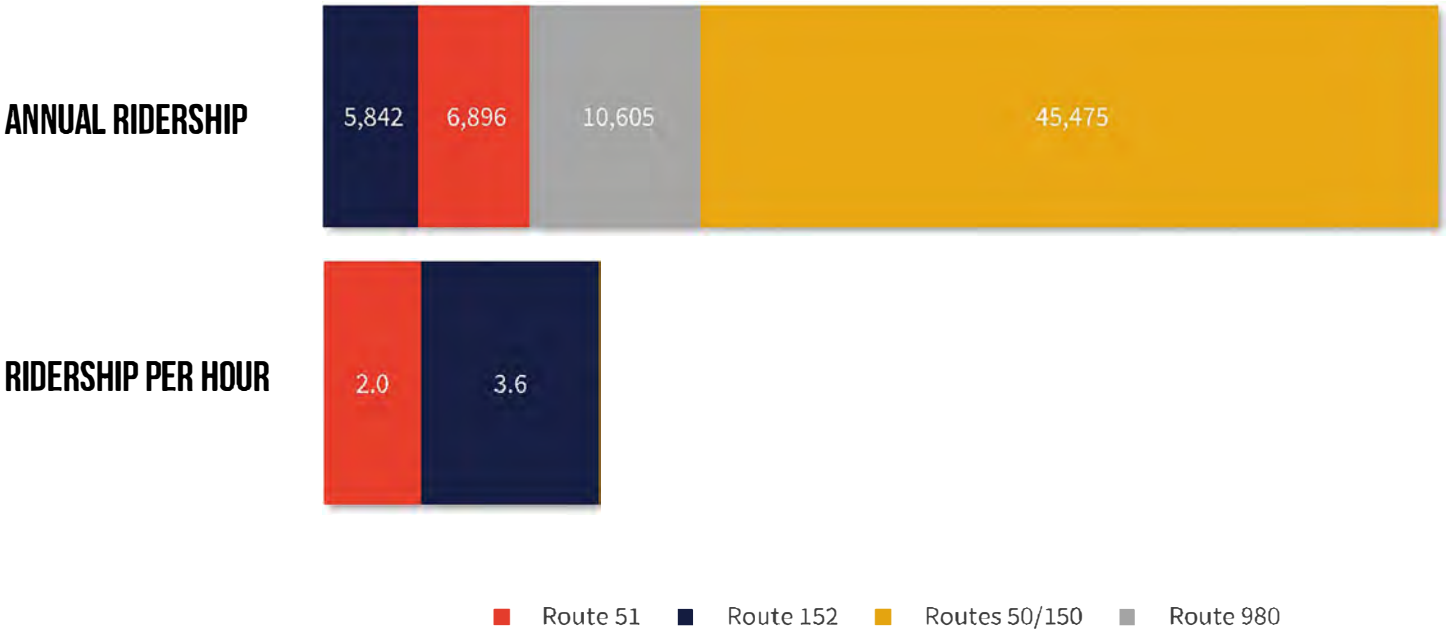
Sources: Round Rock Transit

RIDERSHIP BY ROUTE

Figure 3-3 shows the annual ridership by route and ridership per hour by route for 2019. As shown, Routes 50 and 150 have the highest annual ridership, providing over 45,000 trips in 2019, which makes up approximately two-thirds of Round Rock Transit's total fixed-route ridership of over 68,800 rides in 2019. The route with next-highest ridership demand is the peak-hour express route to Austin, Route 980, serving over 10,000 trips during the same time period.

While absolute ridership can start to paint a picture about productivity, real route productivity can be better measured by normalizing the ridership for each route, as absolute ridership will generally be higher for routes with higher frequencies or longer spans. Although Route 980 is an express route with limited hours, it was the most productive route with 10.4 riders per revenue hour. Route 50/150 was the most productive local route with 6.7 riders per revenue hour. Routes 51 and 152 with 2.0 passengers per revenue hour and 3.6 passengers per revenue hour, respectively, are the least productive routes.

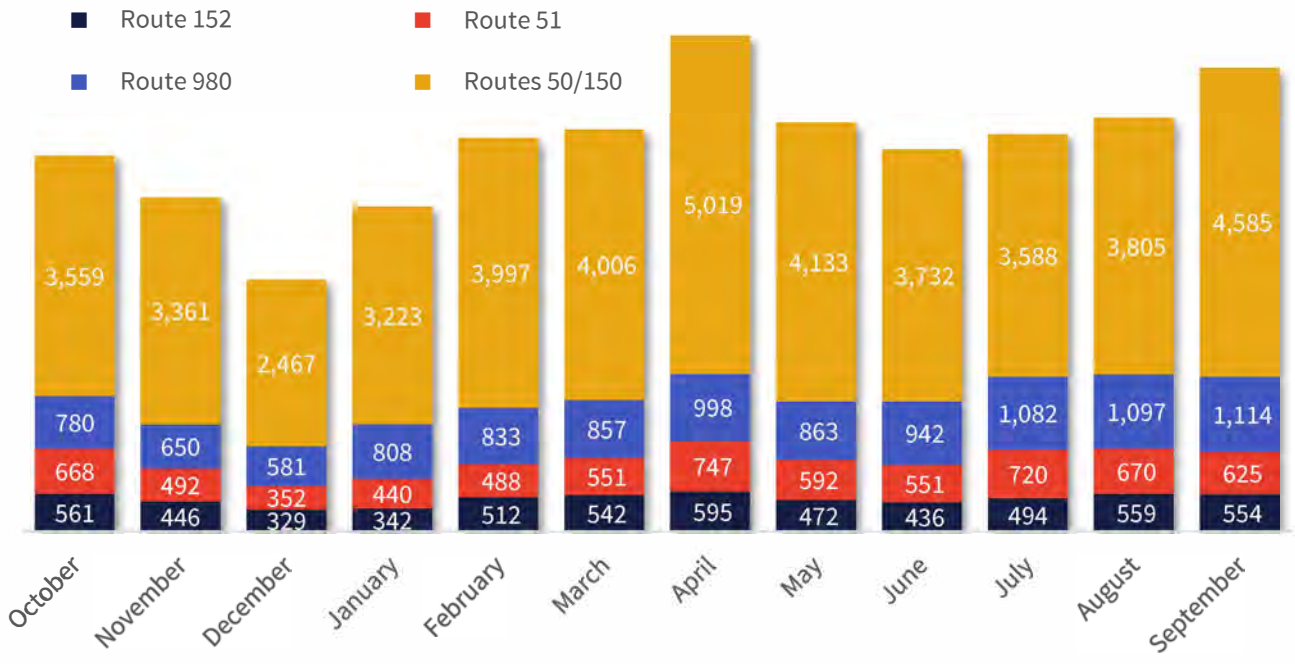
Figure 3-3: Round Rock Transit Annual Ridership by Route and Ridership per Hour, 2019



Sources: Round Rock Transit

Figure 3-4 shows the same 2019 data by route and month. April 2019 was the most productive month, with a total of 7,359 riders. Throughout the entire year, transit use averaged over 5,700 riders per month. Between October and February, there was a slight drop in ridership, with the service providing less than 5,000 rider per month. Overall, service is shown to be most productive between April and September.

Figure 3-4: Round Rock Transit Ridership by Route and MonthSources: Round Rock Transit

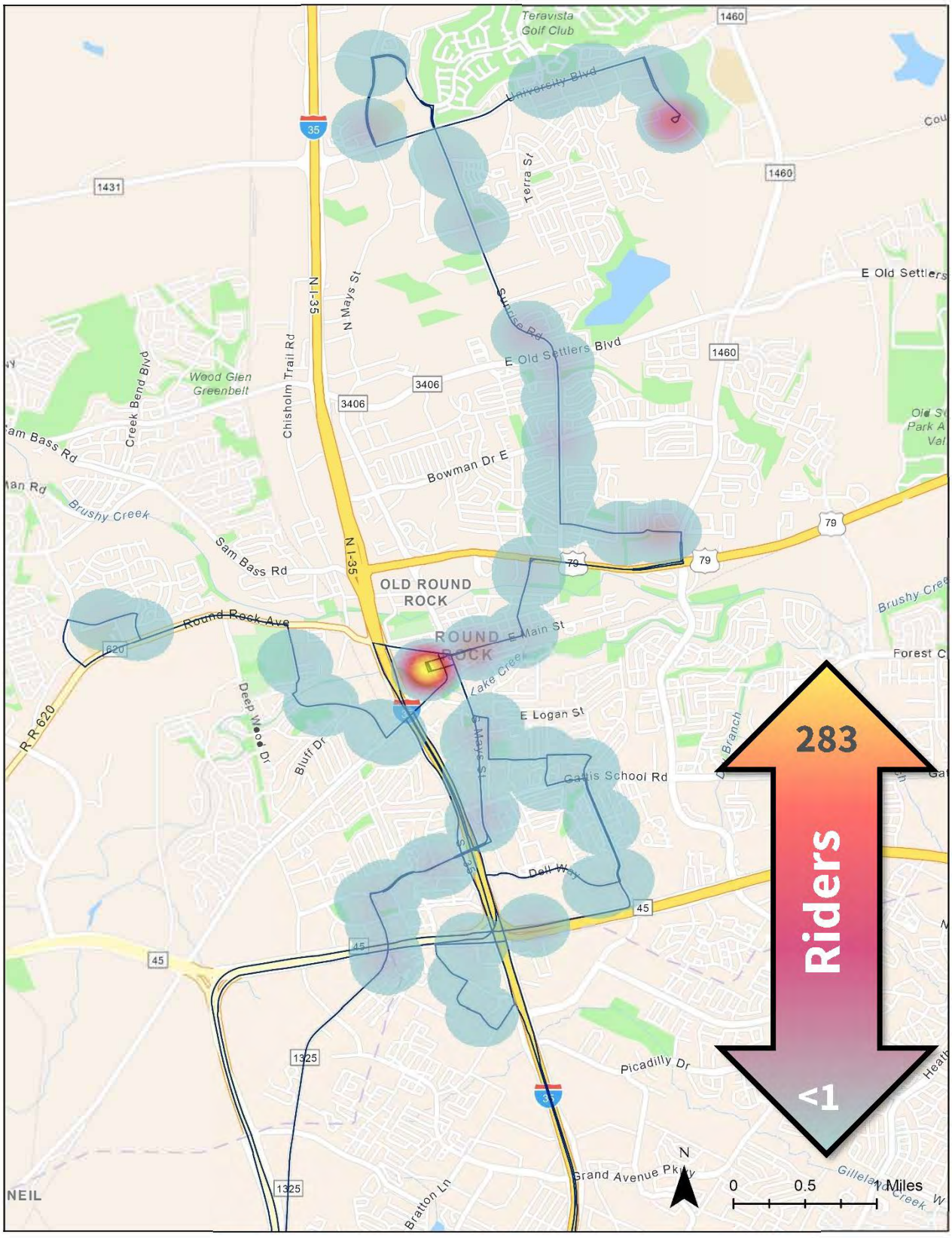


RIDERSHIP BY STOP

Bus stops play an important role in any transit system, providing riders with a safe and designated place to catch a bus and a way for the transit agency to promote its services. Currently, there are 77 bus stops served by Round Rock Transit, with all bus stops in the city having a bus stop sign and boarding/alighting pads for the benefit of its users. Major destination stops south of the city, such as Tech Ridge and Howard Station that are served by limited express and express services, have more amenities such as benches, shelters, and parking facilities for cars and bikes.

Figure 3-5 shows ridership activity at existing Round Rock Transit bus stops. As shown, the majority of stops with higher ridership are in downtown Round Rock and the ACC/Seton Medical Center/Higher Education area. Other significant activity is observed at a shopping center near US-79 and AW Grimes Boulevard, and at the Round Rock Premium Outlets.

Figure 3-5: Round Rock Transit Ridership Activity by Bus Stop, 2019



FIXED-ROUTE PERFORMANCE TRENDS

This section includes a review of selected key service performance indicators and trends for Round Rock Transit using available NTD data from the last five years. Various performance measures were used to present the data that relate to overall system performance.

To conduct this trend analysis, data were used from the NTD, a comprehensive data repository of historical and the most recent validated data for transit agencies in the US. However, as validated transit data in the NTD are typically two years behind the current operating year due to Federal Transit Administration (FTA)'s rigorous review and validation processes, performance data for 2020 were not available from NTD and were obtained directly from Round Rock Transit.

To assess how efficiently Round Rock Transit supplies its fixed-route transit service and how effectively those services meet the needs of the area, the trend analysis used key performance indicators, as summarized below.

The trend analysis, shown in Table 3-1, is organized by measure to illustrate Round Rock's performance since 2017. Although 2017 data were available, the percent change and trend were measured against 2018 and 2019, as 2018 was the first year with 12 months of service data and 2020 was impacted by the pandemic.

Table 3-1: Fixed-Route Trend Analysis

MEASURE	2017	2018	2019	2020*	% CHANGE 2018-19**	TREND**
Ridership	6,199	52,383	68,818	52,540	31.4%	↗
Revenue Hours	1,157	10,109	10,829	9,353	7.1%	↗
Revenue Miles	18,161	157,104	170,048	146,097	8.2%	↗
Operating Cost	$156,539	$975,248	$1,011,075	$916,268	3.7%	↗
Farebox Recovery	6.1%	10.5%	10.5%	2.0%	-	-
Cost per Rev. Hour	$135.30	$96.47	$93.37	$97.97	-3.2%	↙
Cost per Trip	$25.25	$18.62	$14.69	$17.44	-21.1%	↙
Trips per Revenue Hour	5.4	5.2	6.4	5.6	22.6%	↗

** Reduced service due to COVID-19 pandemic.*
***Performance comparison conducted for 2018 and 2019 only; 2017 was agency's inaugural year, and 2020 services were severely impacted by COVID=19 pandemic.*
Source: NTD and Round Rock Transit.

When comparing the two full years of regular service operated in the city, transit services in Round Rock have performed successfully. Overall ridership increased, and the two of the most important measures of performance, trips per hour and cost per trip, show a very positive trend. Service effectiveness, as measured by trips per hour, increased nearly 23 percent, and cost per trip, a measure of service efficiency, decreased by just over 21 percent.

For the last few pre-pandemic years, regional and national trends have shown a decline in passenger trips due to factors such as low gas prices, historically low unemployment rates resulting in improved economic conditions that allowed people to buy cars, and riders shifting to ride-hailing services such as Uber and Lyft. Despite these factors and with the pandemic, Round Rock has continued to be

productive and increase its trips per revenue hour. The cost per trip in 2020, even during the pandemic, was lower than 2018.

When general indicators are compared, operating cost has increased (3.7%) at a slower rate than revenue hours (7.1%) and revenue miles (8.2%), suggesting that the service has expanded but has done so efficiently. Although cost increases are not desirable in the transit industry, they are somewhat inevitable due to the impact of market and inflationary factors beyond the control of the transit agency. Nevertheless, it is notable that an increase indicates that Round Rock Transit has successfully managed to keep its operating cost increases in line with the base impact of inflation while adding revenue hours and miles. Furthermore, the farebox ratio has managed to stay consistent, at approximately 10.5 percent in both 2018 and 2019.

FARE STRUCTURE AND FAREBOX RECOVERY

Making up a portion of operating revenue, the fares paid by riders play a small role in supporting Round Rock's ability to continue to provide its services to the community. The current regular one-way adult cash fare for fixed-route services is $1.25. There also are multiple fare pass options for riders, including a Day Pass, 7-Day Pass, and 31-Day Pass, as shown in Table 3-2. Reduced fares are offered to adults ages 65 and older, children ages 6 to 18, Medicare card holders, active-duty military personnel, and individuals with disabilities, who may ride the services by showing proof via agency ID or valid school ID. An agency ID can be obtained by showing proof of disability, age, or student status and filling out the necessary application.

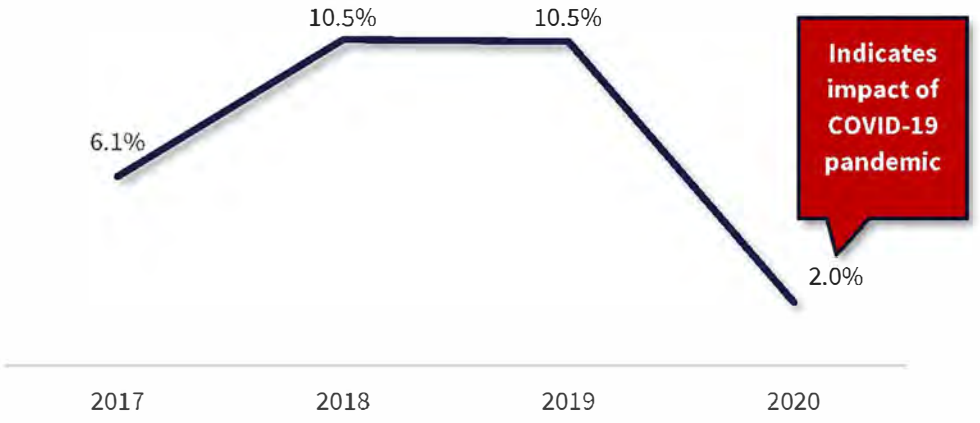
Table 3-2: Fare Structure

FARE TYPE	REGULAR FARE	REDUCED FARE
Single Ride	$1.25	$0.60
Day Pass	$2.50	$1.25
7-Day Pass	$11.25	-
31-Day Pass	$41.25	$20.60

Source: Capital Metro

Figure 3-6 shows the farebox recovery rate from 2017 to 2020. In 2018 and 2019, the farebox recovery ratio (the portion of total operating costs covered by fares) maintained approximately a 10.5 percent rate. Although the ratio expected for a larger agency is approximately 20 percent, this is consistent with a smaller network for a city such as Round Rock. Although the 2020 farebox recovery ratio is shown here, it is intended only to indicate the impact of the pandemic, which significantly affected regular service and fare collection. Also, with many agencies operating fare-free and relying on the federal government to survive, farebox ratios for 2020 and 2021 should be analyzed carefully.

Figure 3-6: Round Rock Farebox Recovery Rate, 2017–2020



Source: NTD and Round Rock Transit

ROUTE PERFORMANCE REVIEW AND SERVICE ANALYSIS

This section presents a route-by-route analysis of the transit services in Round Rock, discussing the configuration/alignment of each route in the city and its vicinity, its characteristics, overall ridership and trends in ridership, ridership at the stop level, and activity centers that can be accessed with them. Some issues/challenges with each route also are summarized with potential opportunities for enhancements.

ROUTE 50/150

Route 50 travels mainly north-south on Sunrise Road, providing transit service from the La Frontera area to the Seton Medical Center/Higher Education area. This route also provides transit services to the Round Rock Premium Outlets area, HEB off of SR-79, and the downtown Round Rock Transit Center before heading to the Hesters Crossing/La Frontera area. There, Route 50 changes its name to Route 150, becoming a limited express service that connects the La Frontera area to Howard Station. Howard Station is currently served by the MetroRail Red line and Capital Metro Route 243 that connects the station to Tech Ridge.

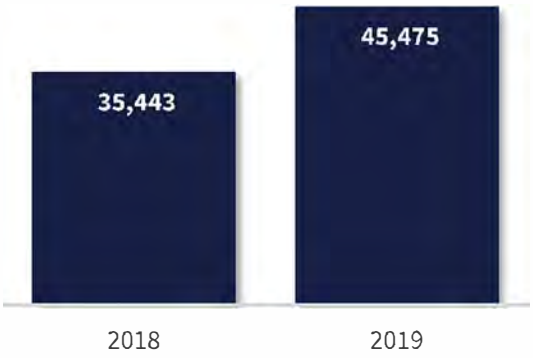
TIME POINTS

ACC Round Rock
Sunrise/Old Settlers
Plateau Vista/AW Grimes
Round Rock Transit Center
Hesters Crossing
Howard Station

ROUTE CHARACTERISTICS

ROUTE	Days	Span	Headway
50	Mon-Fri	6:15AM-8:21PM	60
150	Mon-Fri	6:30AM-8:14PM	60

ROUTE RIDERSHIP



ROUTE 51

Route 51 travels east-west on Round Rock Avenue, McNeill Road, Greenlawn Boulevard, and Dell Way, providing transit service from St. David's Medical Center to the Dell Headquarters area. This route also provides service to the downtown Round Rock Transit Center, Walmart, and Round Rock High School.

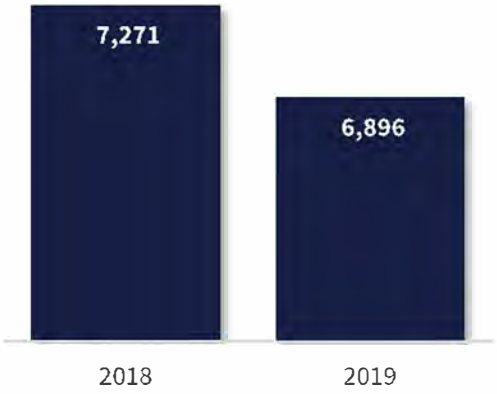
TIME POINTS

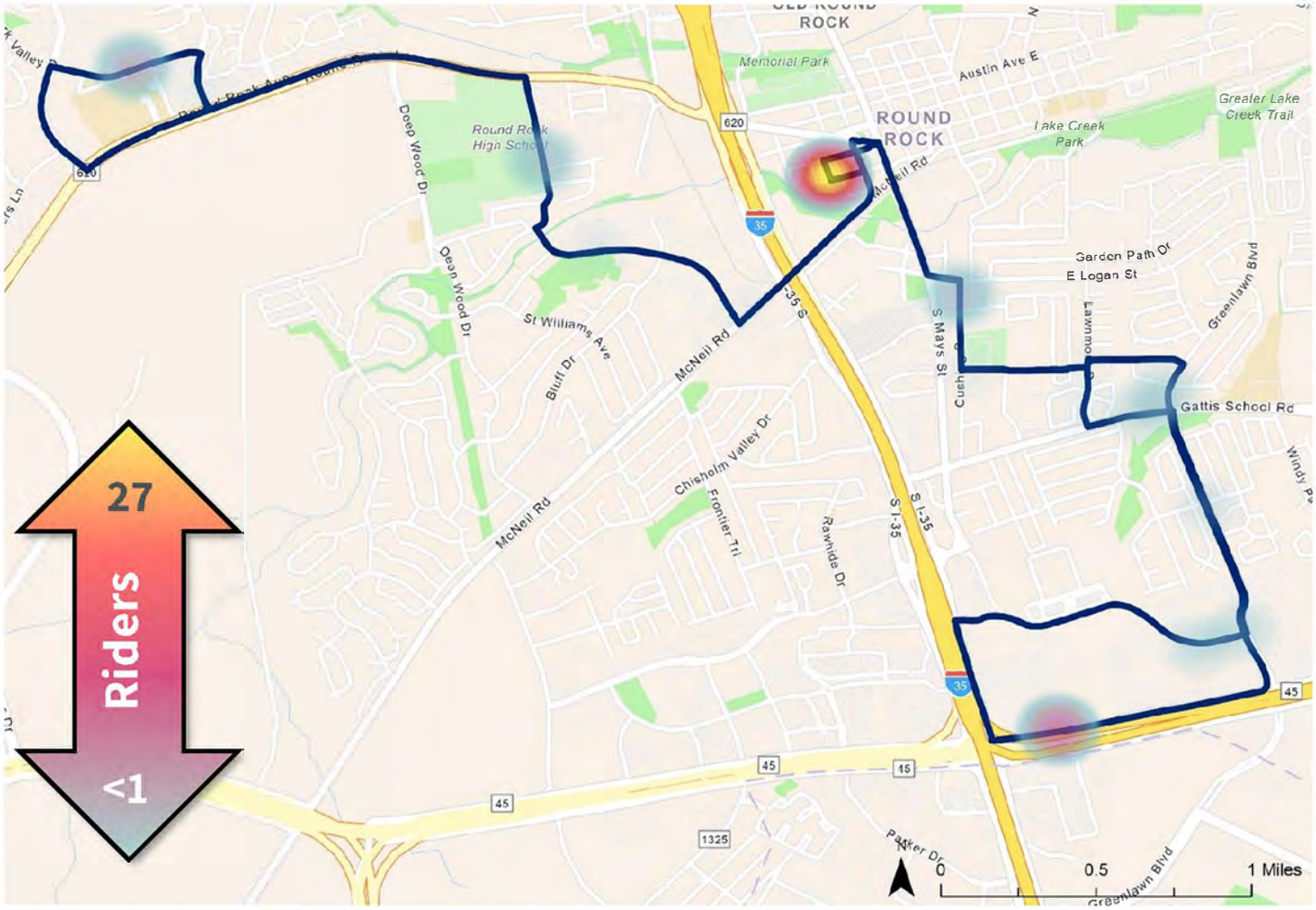
Round Rock Transit Center
Louis Henna Walmart
Peak Valley/OakWood

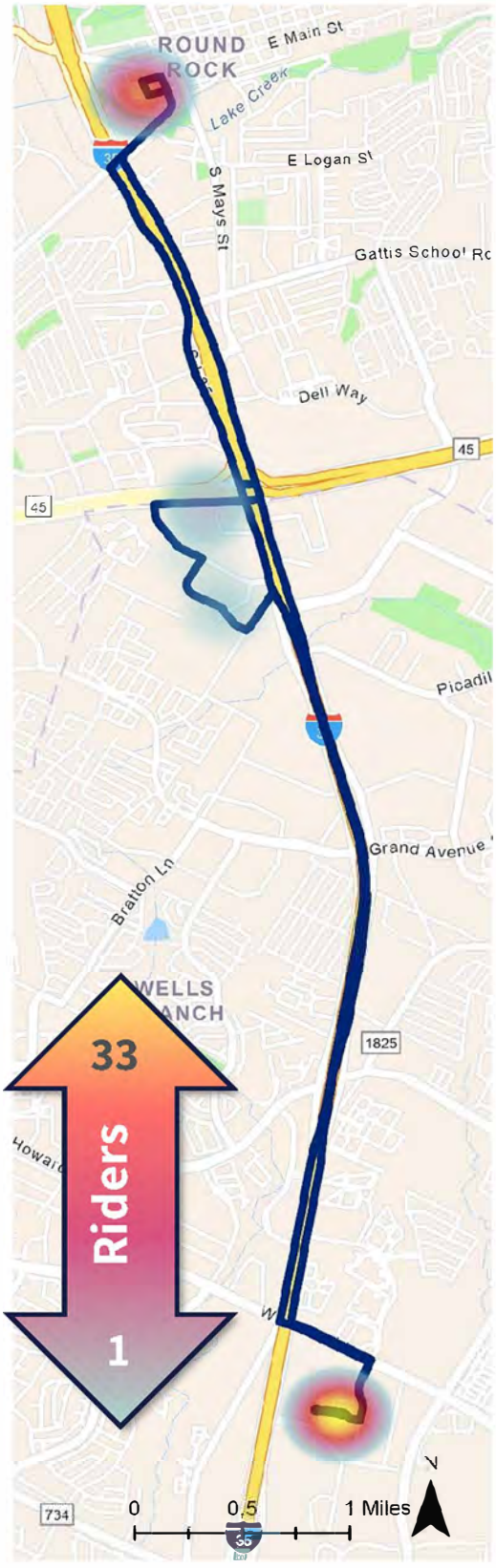
ROUTE CHARACTERISTICS

ROUTE	Days	Span	Headway
51	Mon-Fri	6:55AM-7:58PM	60

ROUTE RIDERSHIP







ROUTE 152

Route 152 is a peak-hour only limited stop express service that travels north-south on the I-35 frontage roads and on I-35 from Round Rock Transit Center to Tech Ridge. This route also provides service to the Corridor Park area, just south of SH 45. The peak-hour service makes two trips in the morning and another two trips in the afternoon to connect riders in Round Rock to Tech Ridge Park-and-Ride.

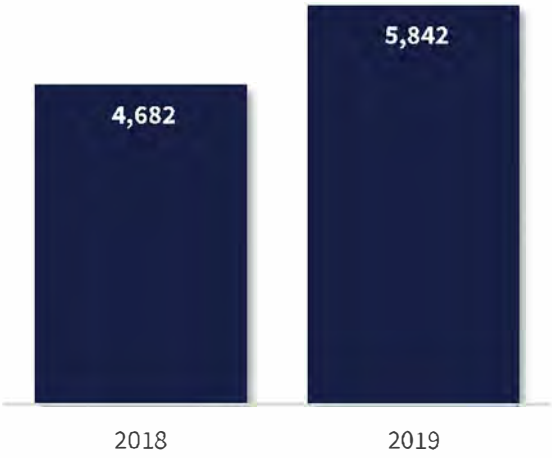
TIME POINTS

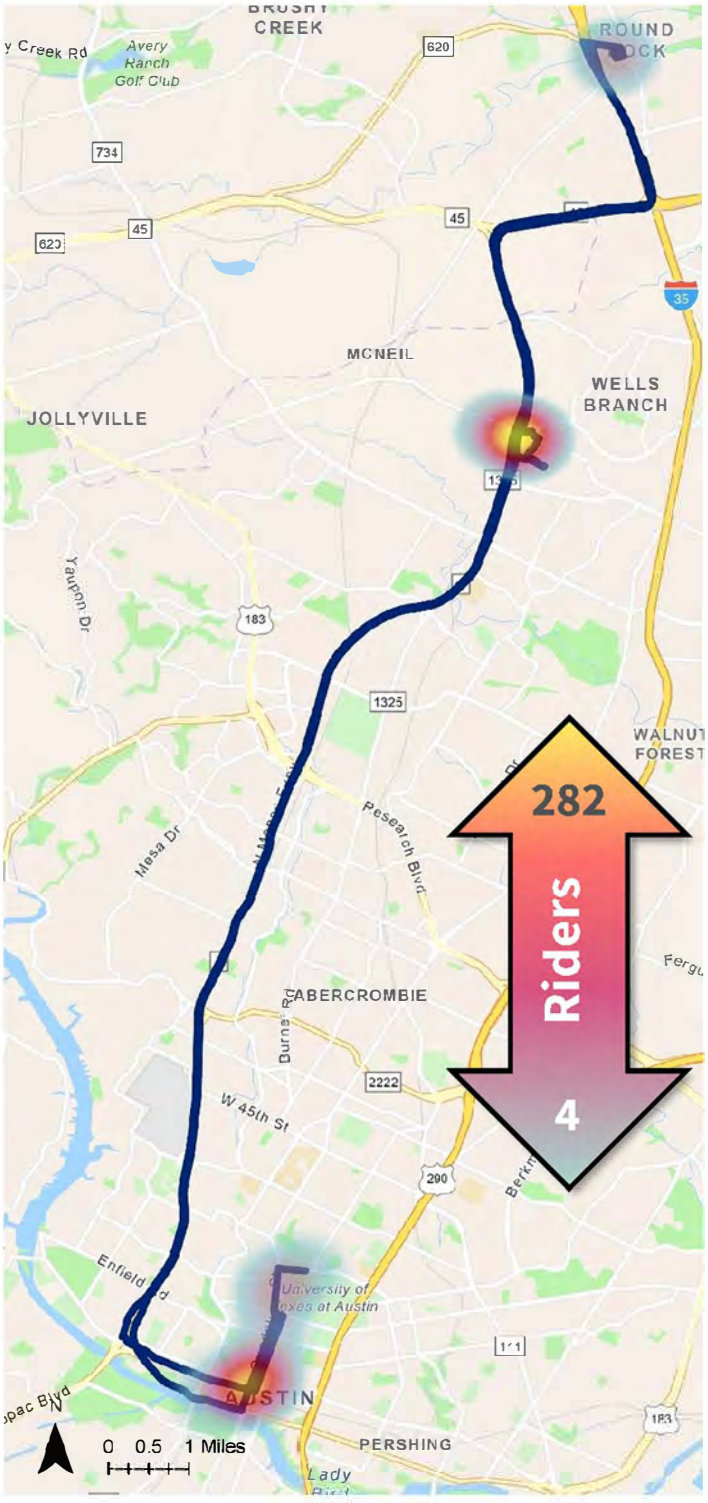
Round Rock Transit Center
Tech Ridge

ROUTE CHARACTERISTICS

ROUTE	Days	Span	Headway
152	Mon-Fri	6:07AM-5:55PM	(Peak) 60

ROUTE RIDERSHIP





ROUTE 980

Route 980 is a peak-hour express service provided by Capital Metro and travels north-south on I-35, TX-45, and the MoPac Expressway from the Round Rock Transit Center to downtown Austin. This route also provides service to MetroRail's Howard Station in the Wells Branch area. Before the pandemic, this peak-hour service made two trips in the morning and another two trips in the afternoon to connect riders. Currently, the service operates at a reduced level, with one trip in the morning and one trip in the afternoon.

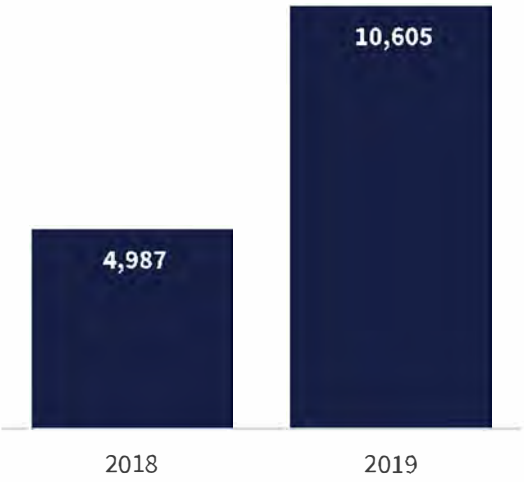
TIME POINTS

Round Rock Transit Center
Howard Station
New Life Park-and-Ride
Lavaca at 16th
Dean Keeton at Speedway

ROUTE CHARACTERISTICS

Route	Days	Span	Headway
980	Mon-Fri	6:00AM-8:33AM	-
	Mon-Fri	4:00PM-6:31PM	-

ROUTE RIDERSHIP



ISSUES/CHALLENGES/OPPORTUNITIES WITH CURRENT ROUTE NETWORK

ROUTE 50/150

- Although Route 50 serves the area of the Premium Outlets, it does not currently provide convenient access to it.
- Rerouting may be necessary to eliminate some of the unproductive segments near the Premium Outlets area and allow access to more businesses, including direct access to the Premium Outlets.
- Key employers on the south side of the Premium Outlets loop, such as IKEA, should also be considered for access.
- Ridership data indicate that Route 150 riders are using it to access Capital Metro Route 243 to get to Tech Ridge.
- The intended purpose of Route 150 may have been to provide a convenient access to the MetroRail Red Line, but data and field observations indicate high use of lateral trips to the Tech Ridge area. This may be due to riders having only a peak-hour connection to Tech Ridge from Round Rock at this time.
- Route 50 currently deviates eastward on SR-79 approximately two miles to serve the HEB off of AW Grimes Boulevard. Whereas the HEB stop has shown good ridership activity, with approximately 28 daily boardings/alightings, the segments on SR-79 and AW Grimes Boulevard have shown no ridership activity. This deviation on unproductive segments should be revisited; however, any modification/reconfiguration to the service in this area should include the HEB stop at Plateau Vista Boulevard and the stop at Mesa Park Drive (with seven boardings/alightings currently).

ROUTE 51

- This route remains the most unproductive of all bus routes in Round Rock, with only two riders per revenue hour in 2019.
- On the west side of the city, Route 51 has shown minimal to no ridership activity on most segments, except at the Park Valley/Oakwood bus stop behind St. David's Round Rock Hospital. This stop has shown five daily boardings/alightings, on average.
- On the east side, the bus stop at Walmart on Louis Henna Boulevard has shown the most ridership, with approximately 11 daily boardings/alightings, making it the most used bus stop after the main transfer center in downtown Round Rock. However, this bus stop on Louis Henna Boulevard, which is a multi-lane roadway with high speeds, currently has no bus pullout for safe boarding/alighting of riders.
- The current loop at the eastern end of the route is excessively large and with many more people at Dell Technologies now working from home, the need to provide transit access throughout the Dell campus may not be necessary.

- Some segments off Gattis School Road, such as Ferndale Drive, may not be suitable for a large bus vehicle due to narrow segments and street parking. Some parts of the roadway also include dips and humps that also may, in addition to narrow roads, slow down bus speeds.

ROUTE 152

- This route, while currently used as a peak-hour only commuter express, provides an excellent opportunity to connect Round Rock more frequently to the Tech Ridge area.
- Although not as productive as Route 50/150 at this time due to the limited service offered, this route may have the potential to become a productive all-day connection to the areas south of the city.

ROUTE 980

- Currently, this route operates as a highly-productive commuter service, with a faster, one-seat connection to Austin from Round Rock. However, it is still at a reduced service schedule (after a period of suspension during the height of the pandemic), with one trip in the morning and one in the afternoon.
- Although the routing of this service, which operates on I-35, TX-45, and MoPac Expressway, should remain, the number of trips should be increased to at least two trips in the morning and two in the afternoon.

TRANSIT FACILITY/INFRASTRUCTURE REVIEW

This section provides a review of bus transit facilities and infrastructure currently available in the Round Rock service area. Round Rock Transit connects to these facilities to accommodate the provision of its fixed-route bus and paratransit services throughout the city. The key transfer facilities used by the routes serving the city are listed in Table 3-3 and summarized in detail thereafter.

Table 3-3: Major Round Rock Transit Facilities

LOCATION	ROUTES
Round Rock Transit Center	50, 51, 150, 152, 980
Howard Station	150
Tech Ridge	152

Round Rock Transit Center

The Round Rock Transit Center is the main transfer hub at which all routes in the city converge to allow riders to transfer to access various areas of the city. Services at this location also connect to MetroRail's Howard Station and Capital Metro's Tech Ridge Park-and-Ride, which allows riders to transfer to the network of Capital Metro routes and trains serving Austin and other vicinities. The Round Rock Transit Center is located in downtown Round Rock at 300 W Bagdad Avenue and currently provides connections for three different bus routes (Figure 3-7).

The Transit Center also functions as a park-and-ride facility, with 120 parking spaces and a combination of covered and uncovered spaces. There are also designated areas within the Transit Center at which users can lock and store bicycles. The Transit Center has one restroom; however, it is

currently designated for employees only due to size. This transfer location also includes a fully air-conditioned and manned customer service booth at which passenger can purchase bus passes and access bus schedule information.

Figure 3-7: Round Rock Transit Center

EXPANSION NEEDS

Although current parking spaces seem adequate at this time, they are being frequently and primarily used by people accessing nearby offices and restaurants. This may pose an issue if more people decide to park and ride transit from downtown Round Rock due to potential transit enhancements in the near future. However, as the original structure was designed to add more levels of parking, the current building may be able to increase parking availability in the future if the need arises and necessary funding is available.

The current bus passenger loading area of the Transit Center is sheltered and provides a limited number of seats for waiting passengers. With increased use of the transfer facility due to more services provided and used, there may be a need to increase seating and other facilities/amenities such as a restroom for public use.

HOWARD STATION PARK-AND-RIDE

The Howard Station Park-and-Ride is located at 3710 W Howard Lane in Austin and is served currently by Round Rock Transit Route 150 (Figure 3-8). This route changes its name to Route 50 when in the city and serves the Premium Outlets and ACC Round Rock Campus to the north of the city, thereby making a direct connection to them from the Howard Station, which is also served by Capital Metro Route 243 and MetroRail's Red Line.

This facility provides 301 parking spots for anyone intending to use the park-and-ride, either for the train or buses toward the north or south sides of Austin. In addition to MetroRail facilities, this transfer

location provides riders going to and from Round Rock with large, covered bus shelters with seating, bike racks, and information kiosks, among other amenities.

Figure 3-8: Howard Station Park-and-Ride

TECH RIDGE PARK-AND-RIDE

This facility currently is served only during peak hours by Route 152 and is located at 900 Center Ridge Drive in Austin (Figure 3-9). It features 476 parking spaces and has covered bus shelters with seating, bus schedule information, and lighting. It also provides real-time bus information displays and other amenities as a key transfer location for seven Capital Metro routes, including 1, 135, 243, 325, 392, 801, and 935. Bike racks and a MetroBike shelter are also provided at this location. The three internal stops along Route 152 are uncovered, with limited seating amenities and no trash receptacles.

Figure 3-9: Tech Ridge Park-and-Ride

BUS STOP INFRASTRUCTURE

In addition to a review of major transfer facilities for the bus routes serving Round Rock, a review of bus stop infrastructure also was conducted. Currently, there are approximately 77 bus stops in and around the city to serve bus riders to and from Round Rock. Route 50/150, which provides local service from the Howard Station to the ACC Round Rock Campus, serves 48 bus stops, including both the northbound and southbound segments.

Along Route 50, the majority of the 40 stops the route serves includes a boarding/alighting area concrete pad with limited amenities, and some also provide benches and trash receptacles. The last stop of Route 50, located at Hesters Crossing in the La Frontera area, provides a bench and a trash receptacle (Figure 3-10). Once Route 50 becomes Route 150, a total of 8 stops are provided, including both the northbound and southbound segments. Apart from Howard Station, all stops within the Route 150 segments consist only of concrete boarding/alighting area pads and bus stop signage.

Figure 3-10: Bus Stops at La Frontera (*left*) and at ACC Round Rock (*right*)

Route 51, which provides east-west service between St. David's Round Rock Medical Center and Dell Technologies in Round Rock, serves 24 bus stops at this time. Although a majority of these bus stops includes only boarding/alighting area concrete pads, a few also provide benches and trash receptacles.

Route 152, which travels to the Tech Ridge Park-and-Ride from the Round Rock Transit Center during peak hours, currently serves 10 bus stops (northbound and southbound). These are located along the Route 152 alignment, including at the Art Institute of Austin and at several employment centers such as Dell Parmer South Campus and General Motors.

Appendix A provides more details about stops by route and information on selected bus stops and key transfer locations.

ADA PARATRANSIT SERVICE ANALYSIS

In addition to the analysis of fixed-route bus service and facilities, ADA complementary paratransit service in Round Rock was analyzed to understand the full picture of mobility services currently available in the city. ADA service is provided to residents who live or start their trip within the determined ADA service boundary but are unable to access fixed-route services due to an eligible disability. The service allows scheduling appointments for trips for those who meet the eligibility criteria up to two weeks in advance.

Although any resident in the ADA service area can apply for ADA paratransit services, those who qualify include persons with a disability that prevents them from being unable to ride or disembark from any fixed-route vehicle or travel independently all or some of the time. Appendix B includes the application form and information on the current criteria used by the City for trip eligibility.

ADA SERVICE REQUIREMENTS

The ADA is federal civil rights legislation that provides a framework for ending discrimination against people with disabilities. Among other mandates, the ADA requires transit agencies with fixed-route system service to also provide complementary paratransit for individuals with disabilities who are prevented from using fixed-route services due to a disability. It is important to note, however, that ADA regulations for paratransit are not intended to be a comprehensive system of transportation to serve all travel needs of people with disabilities. A primary goal of ADA for public transportation agencies is to make mainstream fixed-route bus and/or rail systems accessible to individuals with disabilities. Similar to other areas, ADA paratransit in Round Rock can be considered a "safety-net" for individuals with disabilities who are not able to use regular fixed-route transit services.

Federal regulations for ADA paratransit are highly specific, as shown below. ADA services must:

- Operate in the same service area as the fixed-route system, defined as a ¾-mile corridor on either side of bus routes and around rail stations.
- Have a comparable response time as the fixed-route system, defined as accommodating trip requests for a particular day during normal business hours on the previous day (i.e., next-day service).
- Have fares comparable to the fixed-route system, defined as fares that are no more than twice the base, non-discounted adult fare for fixed-route service.
- Meet requests for any trip purpose; there can be no trip purpose restrictions or priorities.
- Operate during the same days and hours as the fixed-route service.
- Operate without capacity constraints—no wait lists, trip caps, or patterns and practices of a substantial number of trip denials, untimely pick-ups, or excessively long trips.

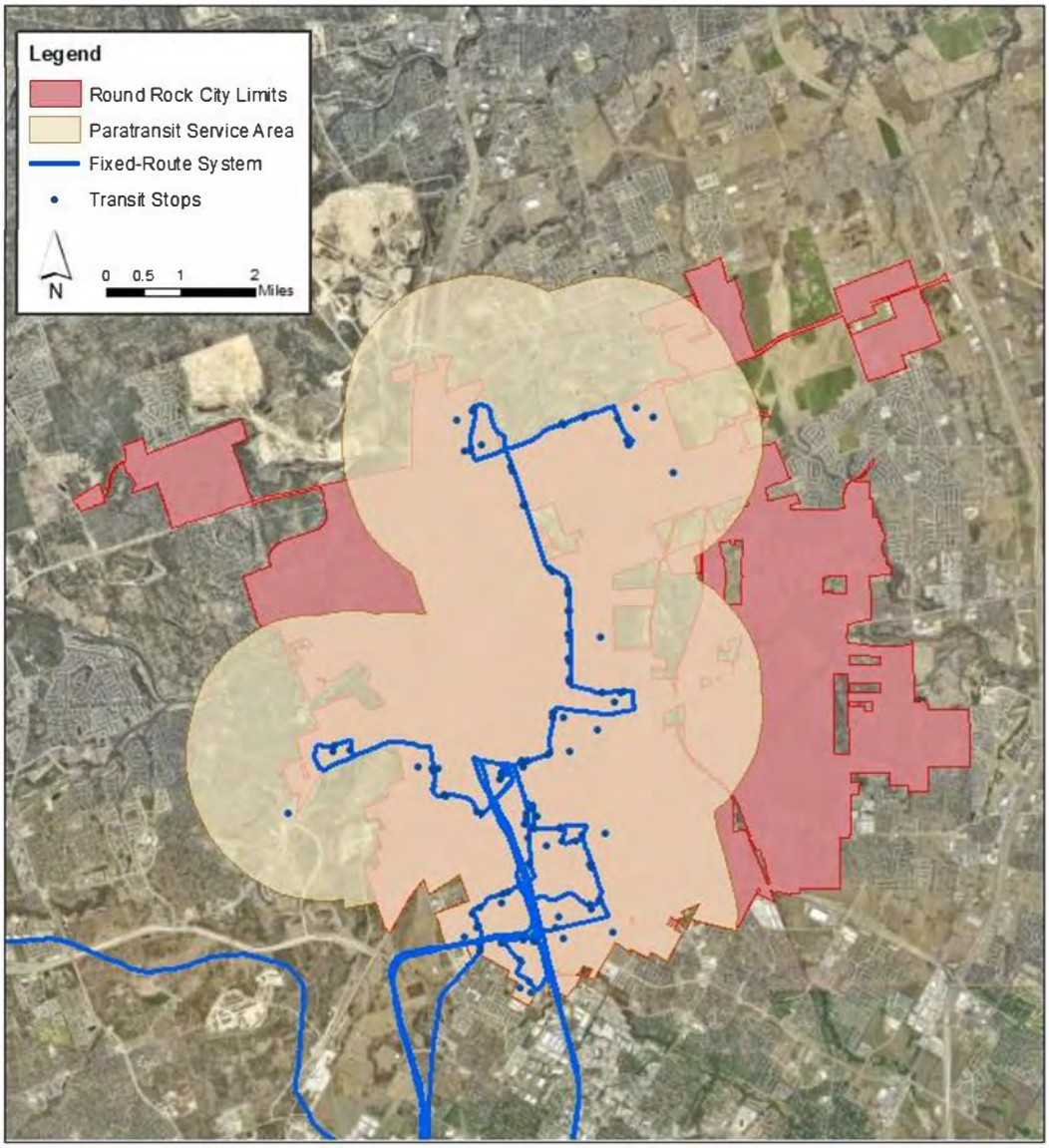
Transit service providers, such as the City of Round Rock, are subject to ADA regulations and must develop and administer a process for determining a person's eligibility for complementary paratransit service. The criteria for determining the eligibility are regulated by the ADA and require providers to have a documented process. The City of Round Rock currently has an established process that is consistent with these requirements.

EXISTING ADA PARATRANSIT IN ROUND ROCK

The City of Round Rock currently operates paratransit service in the fixed-route service areas of its two local routes, 50 and 51. No ADA service is required or provided for any express or limited express routes. The current paratransit service area consists of approximately 52.5 square miles around these routes. It is important to note that the current paratransit service area includes some areas beyond the Round Rock city limits at this time. As the federal requirement is a ¾-mile service buffer around any local fixed-route bus service, the service must be provided regardless of the jurisdictional boundaries for compliance with the ADA.

Figure 3-11 shows the current ADA paratransit service area for Round Rock Transit and the areas of the city covered by ADA service.

Figure 3-11: Round Rock Paratransit Service Area



Any origin or destination located within this service area is eligible for paratransit service. If the pick-up or drop-off location is beyond this service area, paratransit service will not be provided. However, adjustments to the service area may be made by the City on a case-by-case basis. The current service area follows ADA guidance; however, it does not provide door-to-door paratransit service to all who are eligible.

Paratransit service in Round Rock is an "origin-to-destination" service. ADA regulation 49 CFR §37.129(a) provides that, with the exception of certain situations in which on-call bus service or feeder paratransit service is appropriate, "complementary paratransit service for ADA paratransit eligible persons shall be origin-to-destination service." This term was deliberately chosen to avoid using either the term "curb-to-curb" service or the term "door-to-door" service and to emphasize the

obligation of transit providers to ensure that eligible passengers are actually able to use paratransit service to get from their point of origin to their point of destination.

From February to August 2021, Round Rock paratransit service reported serving over 250 different origins and destinations. Although eligible riders for ADA paratransit are not required to report the purpose of their trips, the following common destinations were revealed through an ADA data analysis for Round Rock:

- Grocery stores and pharmacies: HEB, Walmart, Randall's, Walgreens
- Medical facilities: Baylor Scott and White Clinic, Dialysis Centers, Wyoming Springs Medical Center
- Senior living and senior centers: Allen R. Baca Senior Center, Bluffs Landing Senior Village, Parkwood Meadows, The Rose Senior Living, Trinity Place Apartments, Waters at Sunrise
- Retail/restaurants/services
- Round Rock Transit Center

In addition to the Round Rock Transit Center, the current paratransit service also includes an accessible express bus service from Howard Station into Round Rock for varied purposes. This extension of paratransit service is in partnership with Capital Metro to serve ADA-eligible riders who need to reach destinations in Round Rock from Austin.

PARATRANSIT ELIGIBILITY

Disability alone does not determine paratransit eligibility; the decision is based on the applicant's functional ability to use the fixed-route bus and is not a medical decision. ADA regulations state that:

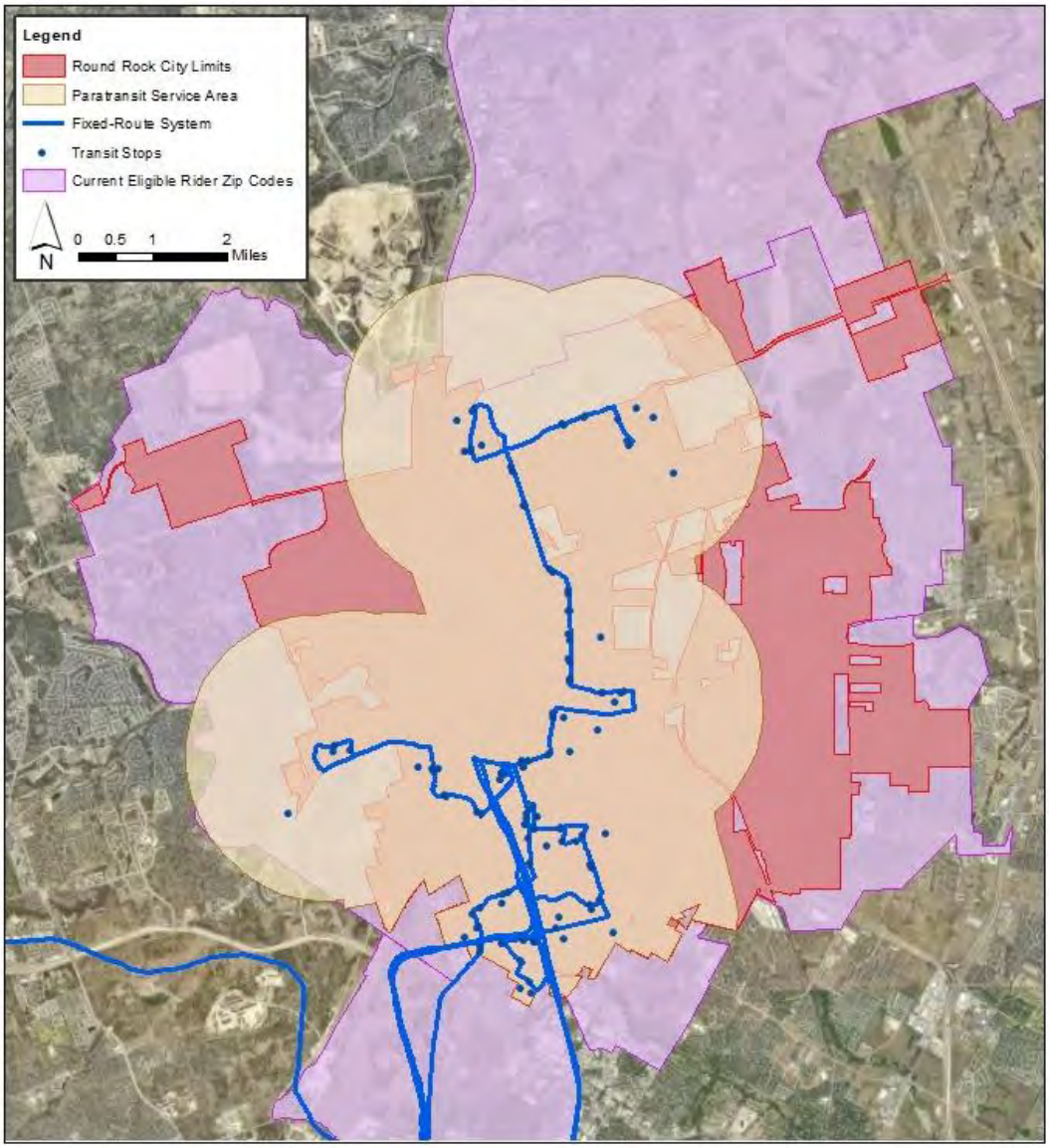
> "…the substantive eligibility process is not aimed at making a medical or diagnostic determination. While evaluation by a physician (or professionals in rehabilitation or other relevant fields) may be used as part of the process, a diagnosis of a disability is not dispositive. What is needed is a determination of whether, as a practical matter, the individual can use fixed route transit in his or her own circumstances."

Individuals interested in using Round Rock's paratransit service must submit an application to the City Transit Coordinator that includes a healthcare professional attesting to the passenger's disability and that such disability would prevent the passenger to independently travel on the fixed-route service either all or some of the time. In addition to a full application, individuals requesting eligibility must participate in an in-person interview with the City Transit Coordinator. Eligibility is determined within 21 calendar days of completing the application and interview. The current policy in Round Rock is that if an applicant has not yet received approval or denial within 21 calendar days, they are entitled to unlimited use of the paratransit service until they are notified of their eligibility determination.

With the current ADA trip policy in Round Rock, eligible paratransit riders are not required to live within the ADA paratransit service area to use the service. However, the City requires that those living outside the ADA paratransit service area (but in Round Rock) travel using another method to get to

within the service area and use the service. Figure 3-12 shows the current service area and the areas in which current eligible riders live. As shown, there are a significant number of eligible riders who do not live in the service area but may use other travel methods to get to the designated Round Rock ADA paratransit area to access the service.

Figure 3-12: Current ADA Service and Eligible Rider Areas



PARATRANSIT SERVICE PERFORMANCE

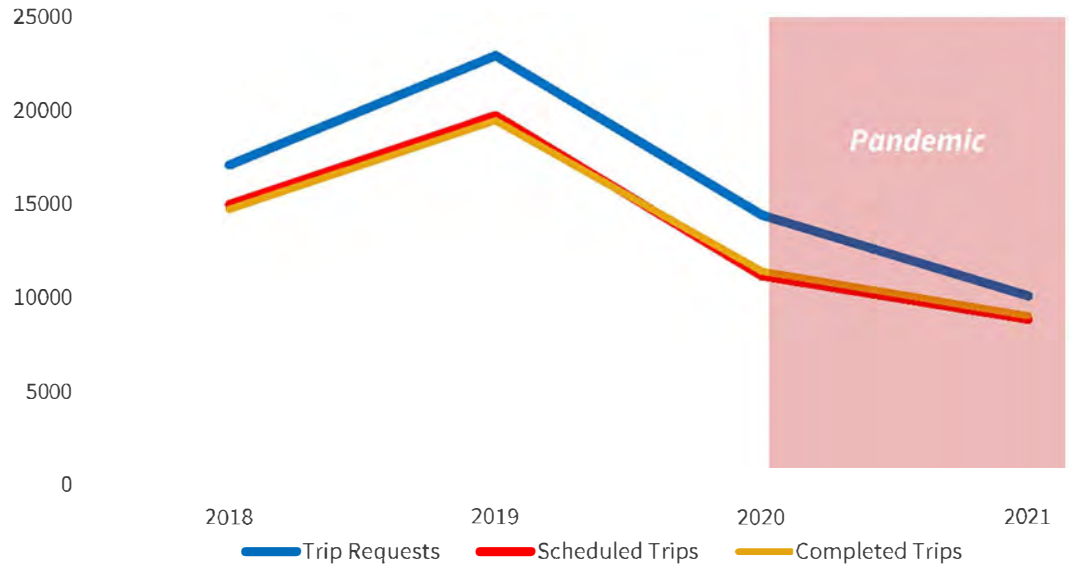
For $2.00 per ride, the City provides an origin-to-destination paratransit service, including:

- Feeder service to an accessible fixed route, where such service enables the individual to use the fixed-route bus system for part of the trip
- Curb-to-curb, shared-ride service

Currently, the City of Round Rock has contracted out this service to Star Shuttle, a private mobility service provider, for providing ADA paratransit services in the city. Funding for this purchase of ADA paratransit services currently comes from a mix of federal, state, and local funds. In 2020, total operating expenses for paratransit in Round Rock amounted to slightly over $800,000.

Star Shuttle currently uses four wheelchair-accessible vehicles to pick up and drop off eligible riders within the ADA paratransit service area. The provider operates during the same hours as the local fixed-route service in Round Rock. Eligible riders can arrange same-day paratransit service or make reservations for trips. From 8:00 AM to 5:00 PM, Monday through Friday, eligible riders can reach paratransit dispatchers to arrange rides. Any service requested on the same day from 8:00 AM to 5:00 PM is considered same-day service. Same-day service is offered as a courtesy only and is not required by the ADA. These rides, provided Monday through Friday, are only on a space/time available basis for the convenience of eligible riders. Reservations can be made up to two weeks in advance. Figure 3-13 shows the number of requested, scheduled, and completed trips over the years from 2018–2021[1].

Figure 3-13: ADA Trips, 2018–2021



It also is important to note that operating ADA paratransit services in the city has become challenging without capacity constraints, which are not allowed per federal guidelines. Reservation times may be negotiated within one hour before and after the requested pickup time. However, ADA paratransit service in Round Rock has a "no-show" policy for riders who establish a pattern of excessive missed trips. Customer no-shows are documented to limit the number of wasted trips that could be used by other riders. The average no-show rate for paratransit from the years between 2018–2021 has not exceeded more than two percent of total paratransit trips, indicating a productive service supply and efficient usage. Of note, however, is that over the 2018–2021 timeframe, the cancellation rate for

[1] 2020 and 2021 data referenced throughout this Plan have not yet been validated through NTD.

paratransit trips was significantly higher than no-show trips. Each year, the rate of canceled trips has exceeded 10 percent.

LEVEL OF ADA PARATRANSIT SERVICE

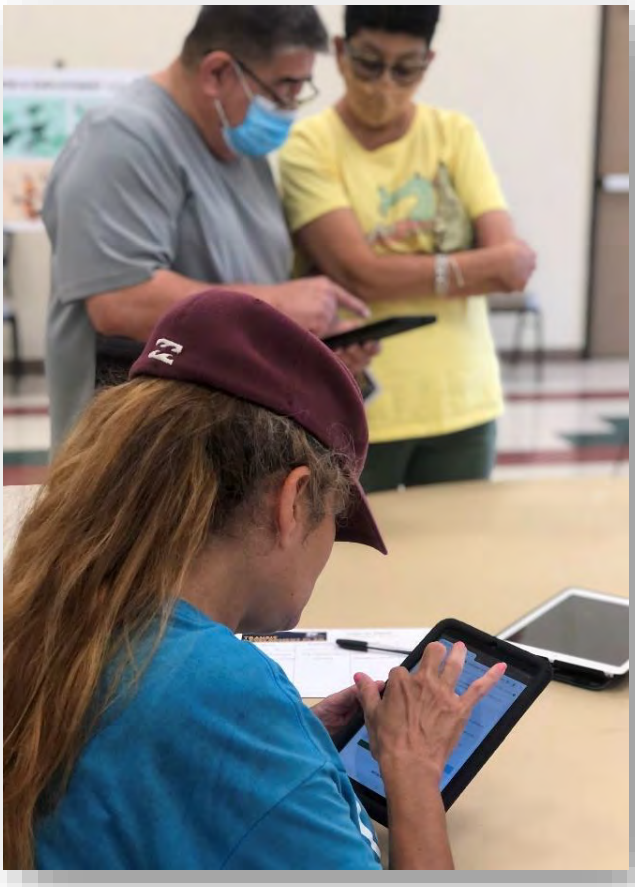
Based on stakeholder feedback, including reported complaints, paratransit service in Round Rock is well-accepted by eligible users. For 2018–2021, the average complaint rate was less than 0.5 percent. In addition, no incidents or accidents occurred during the four-year period.

Based on the current service contract with the provider, Star Shuttle, the rate of on-time trips must not go below 90 percent. For 2018–2021, less than 5 percent of trips were late pick-ups, resulting in a 95 percent on-time performance rate for paratransit trips in Round Rock. Trip denials in Round Rock have been minimal, with less than one percent of trips denied for 2020–2021.

SECTION 4. PUBLIC INVOLVEMENT

Public involvement was an integral part of the Round Rock TDP process to better develop a plan that reflects the desires and vision of the community. Public input received from a comprehensive outreach campaign for this TDP has helped the City better understand current user experiences, strengths of the existing system, and where improvements are needed, as well as origin and destination points for existing transit users and non-users. Through a variety of outreach activities, members of the public were provided with multiple opportunities and formats for providing input on the TDP.

Due to the ongoing COVID-19 pandemic, additional measures were used to reach the general public and key stakeholders. The outreach opportunities were offered in-person and virtually to ensure that anyone interested in the planning process had the opportunity to participate despite the related challenges of the COVID-19 pandemic and social distancing recommendations. Using a wide range of in-person and online tools, project-specific events, and piggy-backing on already planned public gathering opportunities, the City was able to gather a significant volume of useful data that were incorporated into the development of this TDP. Table 4-1 shows the wide range of outreach activities that were conducted and how many people were engaged through each and in total.



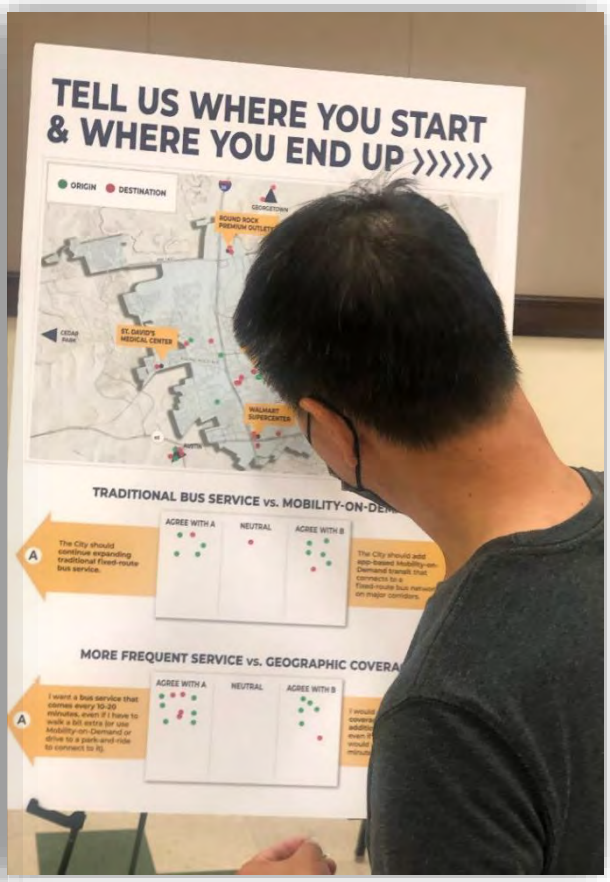


Table 4-1: Outreach Activities Summary

OUTREACH ACTIVITY	TIMEFRAME	#ENGAGED
Surveys		
Passenger Intercept Survey	August 31, 2021	41
Public Input Survey	September 8-October 21, 2021	834
Public Workshops		
Public Workshop 1 & 2	September 8-October 21, 2021	432
Public Workshop 3	December 8-22, 2021	394
Stakeholder Interviews & Discussion Groups		
Stakeholder Interviews	August-October 2021	6
Social Services & Developer Discussion Group	September 8, 2021	7
Local Businesses Discussion Group	September 9, 2021	9
Email/Web/Social Media Outreach		
Email	August-November 2021	3,162
Facebook	September December 2021	10,636
Twitter	September-December 2021	81
Instagram	December 2021	86
Nextdoor	December 2021	N/A
Other Outreach Efforts		
Public Workshop 1 & 2 E-Newsletter	August 25, 2021	10,566
Public Workshop 3 E-Newsletter	November 21, 2021	10,521
Utility Insert	September 21, 2021	21,000
Resource Expo	September 9, 2021	95
Outreach Calls/Business Visits	August-September, 2021	48
Total Engaged		**57,918***

**Does not include over 2.3 million billboard views.*

STAKEHOLDER INTERVIEWS

As part of the TDP outreach process, more than 10 key stakeholders were contacted and 6 of them agreed to be interviewed to help enhance and broaden the understanding of local conditions and transportation needs. Interviews were conducted from August to October 2021 in a virtual format. Topics discussed with the stakeholders included the existing public transit service in Round Rock, the future of transit in the City, and how to implement improvements. Table 4-2 provides a list of the stakeholders that were interviewed as part of this particular outreach effort.

Table 4-2: Stakeholders Interviewed

ORGANIZATION	NAME	DATE INTERVIEWED
City of Round Rock	Jeff Brooks	August 24, 2021
Dell Technologies	Alicia Hawley	August 27, 2021
City of Round Rock	Ed Polasek	August 27, 2021
Society Of Saint Vincent De Paul	Donna and Ian Seaton	September 14, 2021
Capital Metropolitan Transportation Authority	Julie Mazur & Roberto Gonzalez	September 22, 2021
Ikea	Natasha Vaughan-Johnson	October 12, 2021

KEY TAKEAWAYS

In general, all stakeholders supported the TDP effort and its goals and clearly recognized the need for more enhanced public transit within the community.

Transit in the City Today

- Information on transit in Round Rock is available, but riders do not know how to access it
- Perception exists that transit is mainly for those without vehicles, low-income persons, persons with disabilities, and/or the elderly
- Currently do not have enough bus stops or route frequency
- Need better accommodations for persons with disabilities
- Routes need to be better matched with employment centers and working hours
- Need bus stop improvements (shelters, benches, etc.)

Where We Want to Go

- Increase ridership and awareness of transit and its benefits to users and non-users
- Better serve communities that live farther from the city center, persons with disabilities, and underserved communities
- Incorporate additional regional connections (Pflugerville, Georgetown, Cedar Park, Hutto/Taylor)
- Add rail services

How We Get There

- Implement better technology and ride options outside of or in addition to a fixed-route system
- Expand the system geographically, offer earlier/later routes, and add bus stops at popular destination points
- Increase or expand community outreach and education on transit options and benefits
- Work with residential and commercial developers to include bus stops near their sites
- Improve the bus stops by including benches, shelters, etc.
- Improve branding to show that buses are serving Round Rock communities
- Improve accessibility to the system

DISCUSSION GROUP WORKSHOPS

Two invitation-based discussion group workshops were held using a hybrid format, allowing for both in-person and virtual participation options. The workshops were held at the Allen R. Baca Senior Center on September 8 and 9, 2021. The primary goal of these workshop was to gather more in-depth feedback on transit needs from key stakeholder groups in the City who were identified through close coordination with the Round Rock Transit Department. The workshops presented background information and considerations prior to conducting a guided open forum to discuss project

objectives, existing operating conditions, and current and emerging transit markets. A summary of each of these discussion group workshops is presented below.

SOCIAL SERVICES GROUP

The first discussion group included various social service providers and community members that regularly use transit and paratransit services offered in the City of Round Rock. The discussion was held on September 8, 2021, and had seven participants who participated in person and virtually, including representatives from the following groups and organizations:

- Community Development Block Grant
- Allen R. Baca Senior Center
- Bluebonnet Trails
- Local social services activist
- Community members that rely on transit and paratransit services

KEY TAKEAWAYS

Transit in the City Today

- Ridership has been increasing
- Community is unaware of services
- Need routes closer to social service centers and additional bus stops
- Need better accommodations for persons with disabilities and senior citizens
- Some park-and-ride locations feel unsafe

Where We Want to Go

- Need more east-west connections
- Need additional regional connections (Austin, Taylor, Georgetown) and rail services
- Preference for technology-based on-demand type transit services

How We Get There

- Implement advanced technology that everyone can use (persons with disabilities, vision/hearing/mobility impaired)
- Improve bus stops and park-and-rides
- Expand the system geographically and into neighborhoods

BUSINESSES AND EDUCATION GROUP

The second group discussion included various local businesses, developers, educational institutions, and other job-access-related organizations. The discussion was held on September 9, 2021. The discussion group had nine participants and included representation from the following organizations:

- Kalahari Resorts
- City of Round Rock Chamber of Commerce
- Dell Technologies
- Austin Community College
- Texas State University
- Mark IV Capital
- Movability
- Jail to Jobs

KEY TAKEAWAYS

Transit in the City Today

- Employees need reliable/accessible transit options other than a car
- Riders are unaware of services
- ACC and Texas State students use transit regularly to travel between campuses
- Not enough employment centers are served by existing transit system
- Premium services, like Lyft and Uber, are expensive for employees

Where We Want to Go

- Need additional regional connections (Taylor, Georgetown) and rail services
- Mobility-on-Demand is a needed service as it offers flexibility for employees
- Better serve communities that live farther from the city center
- Need improved services to get employees to jobs

How We Get There

- Expand community outreach and education to increase awareness and shift perspective that transit is only used by those who cannot drive or afford a car
- Expand the system geographically, offer earlier/later routes, and add bus stops at employment centers
- Work with residential and commercial developers to include bus stops near their sites
- Offer discounted fares for students or low-income communities

TRANSIT SURVEYS

Surveys are a great tool to gather feedback from transit users and non-users to help better understand existing and future needs related to mobility. For the Round Rock TDP, two surveys were conducted to gather information on specific transit topics while also leaving room for open-ended comments, which allowed respondents to provide additional input on areas not mentioned in the survey. Both of the surveys are summarized below. In addition, survey instruments as well as other public outreach materials are included in Appendix C.

PASSENGER INTERCEPT SURVEY

An intercept survey of Round Rock transit passengers was conducted to obtain information related to the characteristics, preferences, and satisfaction of current riders. The intercept survey methodology and implementation were coordinated closely with City staff to ensure that study objectives were met and the data collection efforts were efficiently integrated with service operations. A survey questionnaire was developed in conjunction with City staff and was provided to the passengers using printed and electronic media to facilitate the collection of data during the survey interview process.

The TDP Passenger Intercept Survey was conducted on August 31, 2021, at the Round Rock Transit Center in downtown Round Rock and also on-board some of the connecting bus routes. Given that all current fixed routes in the City connect at this transfer hub, the intercept methodology was a cost-effective way of sampling the system's riders for participation in the survey effort. It also permitted social distancing to ensure the safety of both riders and the survey staff, and comply with any COVID-19 mitigation measures in place at time of the survey. The survey covered a sample of bus riders for key times of day for a representative weekday of service. The survey application was developed in English language, but Spanish-speaking surveyors were available to assist any rider speaking this alternative language. While not everyone who was approached was willing to take the survey due to personal preferences or for COVID-related safety reasons, a total of 41 surveys were still completed by current transit riders at the transfer center or on buses.

SURVEY FINDINGS

One of the most important questions asked of the respondents was about desired improvements to the system, such as bus stop improvements, route frequency and service times, needs for more premium modes such as rail, and app-based mobility-on-demand services. The top three improvements for the current riders are noted in Figure 4-1.

Figure 4-1: What are Your Most Important Improvements

Figure 4-2 shows the main reason riders were using transit that day. Data show that a significant number of riders, more than 51 percent, use transit to access jobs while the rest of trip purposes are a split between school (college & K-12), shopping/errands, medical, and others.

Figure 4-2: What is the Purpose of Your Trip?

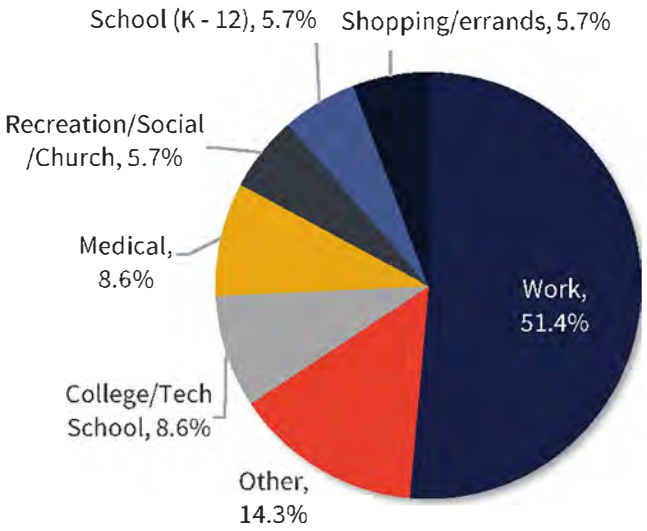
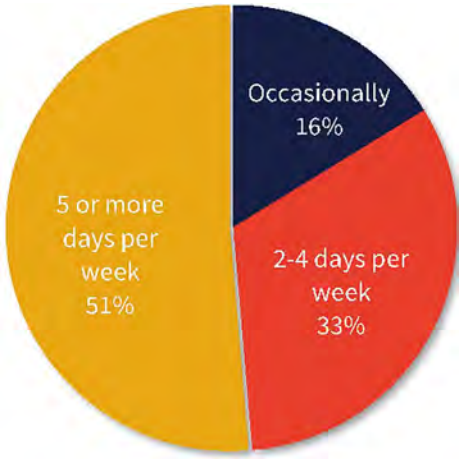


Figure 4-3 shows how often riders use transit in Round Rock. The majority of riders, 51 percent, use transit services five or more times per week, showing that many riders in Round Rock are regular transit users.

Figure 4-3: How Often Do You Ride?



PUBLIC INPUT SURVEY

The second survey effort included an instrument and process to collect input from the general public (which mostly includes the non-riding public) on awareness of transit services, existing and future uses, the need for transit in Round Rock, and their opinions on the improvements that are needed and should be considered for the future. The survey was made available online and shared through multiple different channels with help from the City's Communications and Marketing Department. In addition to TDP-specific events, such as at the public and discussion group workshops, the survey distribution included individual email communications, mass email campaigns, various social media platforms, websites, and local social service events held at key public gathering venues.

Paper versions of the survey were also available at various locations including the Round Rock Transit Center, the Allen R. Baca Senior Center, and the public library. The survey was available from September 8 to October 21, 2021, and had 834 respondents with 767 total comments.

SURVEY FINDINGS

When asked whether respondents use transit services in the City of Round Rock, 20 percent said "yes" while 80 percent said "no," as noted in Figure 4-4, indicating that respondents to this particular survey were mostly non-riders. Of the 20 percent of respondents noting that they have used transit, 15 percent noted that they are regular users, while 85 percent indicated they are not, as shown in Figure 4-5. This is further indication that the survey reached the intended audience for it, i.e., the people in the community who do not use transit or use it less often, both groups of which are critical to engage to better identify what improvements they seek to help increase ridership.

Figure 4-4: Have You Used Transit Services in Round Rock?

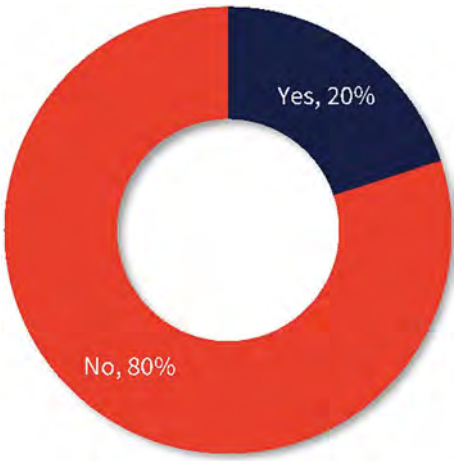
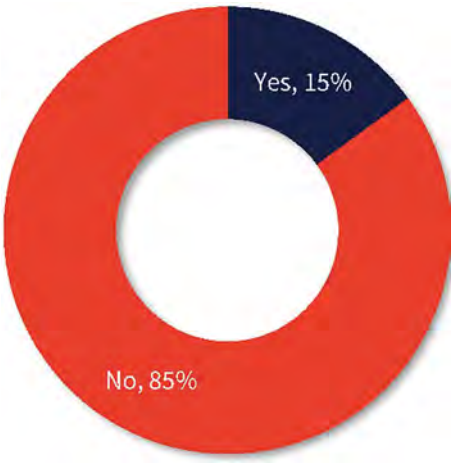
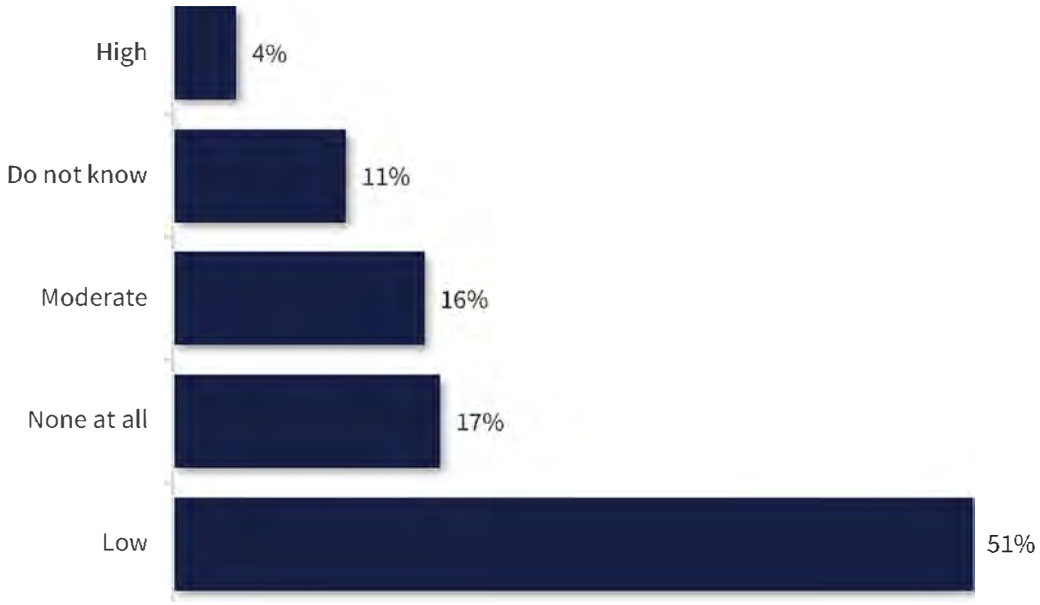


Figure 4-5: If You Chose Yes, Do You Consider Yourself a Regular User?



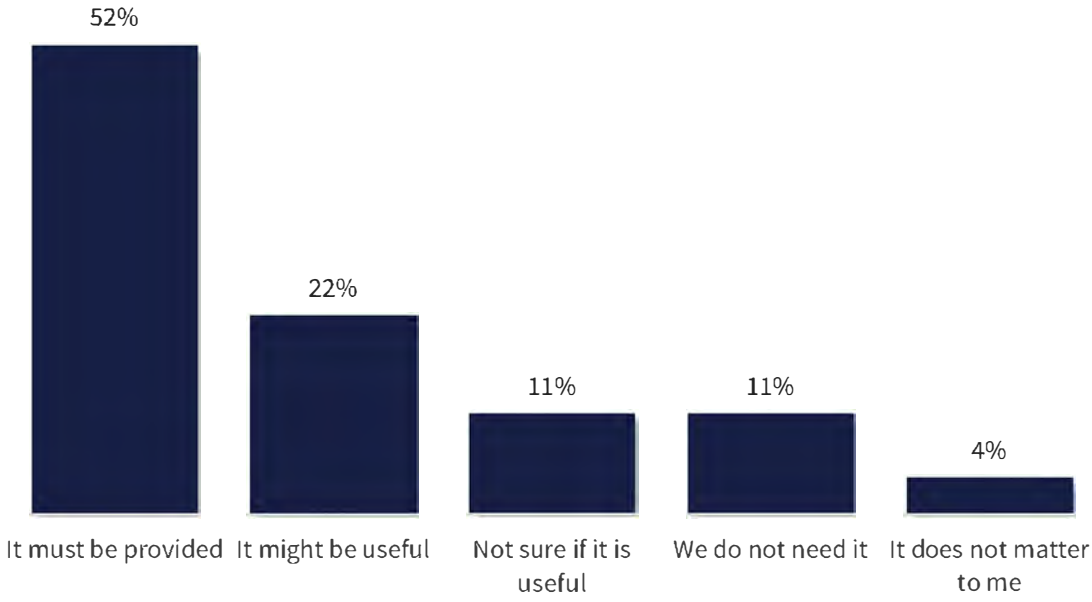
Another noteworthy finding from the public input survey is that 68 percent of respondents noted there is either low or no awareness of transit in Round Rock, as indicated in Figure 4-6. This corroborates this issue, which came up in other outreach activities, strongly suggesting a need to improve awareness of existing transit services if Round Rock wants to see more people using transit in the city. Other responses show that awareness was perceived to be moderate, 16 percent; awareness level was perceived as being high, 4 percent; or the respondents did not know how much awareness there is regarding transit, 11 percent. As noted, this is in line with other feedback received through the stakeholder interviews and discussion group workshops.

Figure 4-6: How Much Awareness is There in Round Rock about Public Transit?



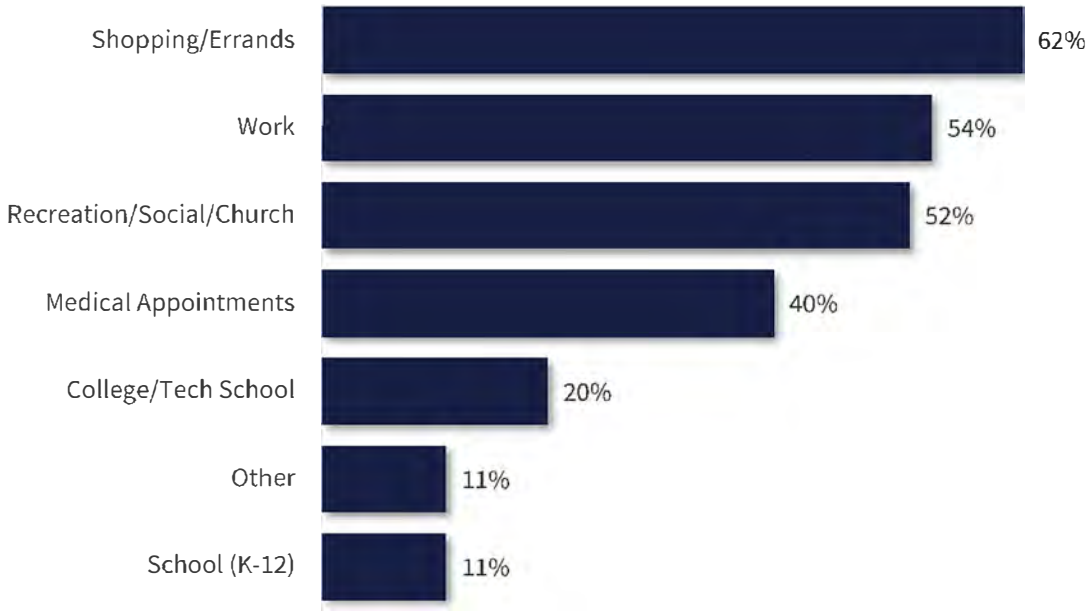
Survey respondents were also asked what they thought about transit services in Round Rock and whether they should be provided. The majority (52%) of the respondents, which recall is made up of 80 percent non-riders, said that transit must be provided. Another 22 percent said that it might be useful, while 11 percent were not sure if it was useful. Only 11 percent indicated that transit was not needed, with another 4 percent saying that it did not matter to them, as shown in Figure 4-7.

Figure 4-7: What Do You Think About Transit Services in Round Rock?



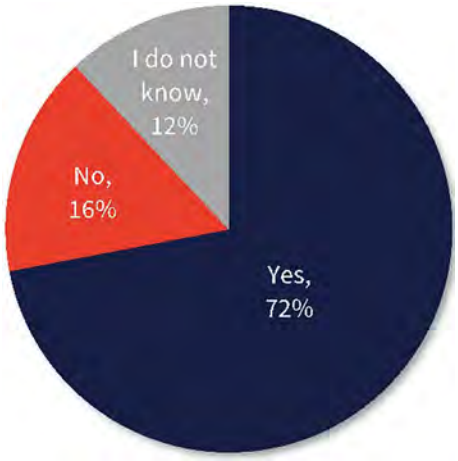
Additionally, respondents were asked where they would go if they were to use public transit. Respondents were asked to select all options that applied to them. Trip purpose options included shopping/errands, work, recreational/social/church, medical appointments, college/tech schools, school (K-12), and other. The most frequent responses from this group of respondents, who again are mostly non-riders at this time, were shopping/errands, work, and recreational/social/church, as noted in Figure 4-8.

Figure 4-8: If You Use Public Transit Now or Decide to in the Future, Where Would You Go Using it?



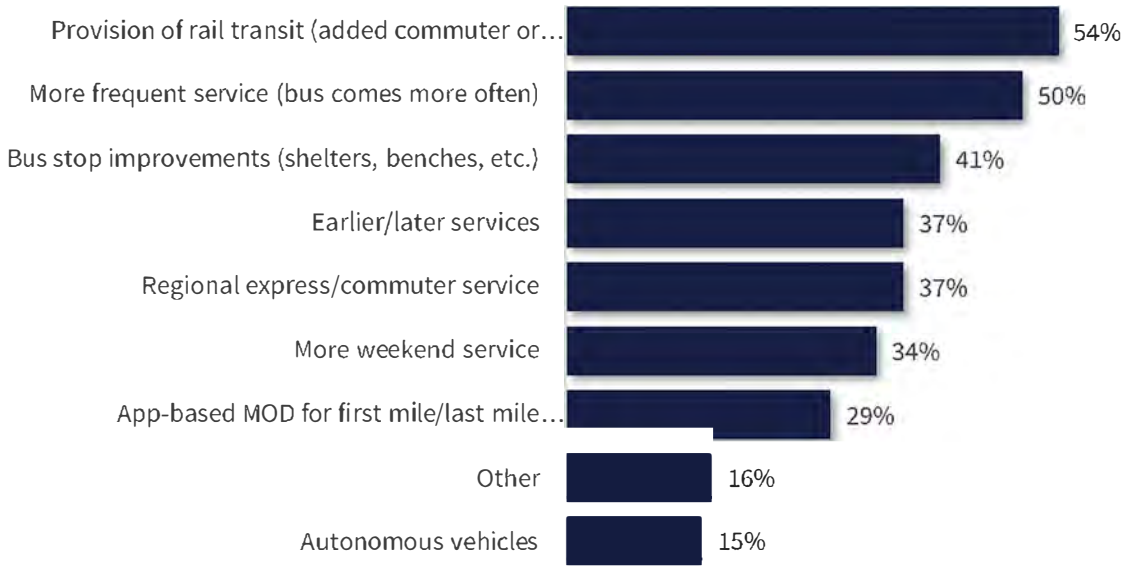
As identified in Figure 4-9, when respondents were asked whether they thought there was a need for additional or improved transit services in Round Rock, 72 percent said "yes," while only 16 percent said "no." The remaining portion, 12 percent, did not know whether improved services were needed.

Figure 4-9: Do You Think There is a Need for Additional or Improved Transit Services in Round Rock?



The most desired future improvements identified by the public input survey respondents include the provision of rail transit, more frequent service, and bus stop improvements. While most stakeholders as well as the general public understand the price tag of rail, this response was expected as the appeal for rail in Round Rock appears to be high based on the outreach input, especially to connect to Austin and avoid traffic going south. Respondents were asked to select multiple improvement options they felt were most needed, and the results are shown in Figure 4-10.

Figure 4-10: What Improvements Should be Considered as Transit Priorities for the City Over the Next 10 Years



Illustrated in the next two figures are zip code heat maps of survey respondents. Figure 4-11 shows the concentrations of where survey respondents live, while Figure 4-12 shows the concentrations of where the respondents work, go to school, shop, and more. The darker the color shading, the higher the concentration.

Most respondents, about 68 percent, noted that they live in Round Rock, followed by Austin and other surrounding areas such as Cedar Park, Georgetown, and Pflugerville with about 28 percent. About 92 percent of survey respondents work, go to school, shop, etc., in the city, followed by about 5 percent in Austin and other surrounding areas such as Cedar Park, Georgetown, and Pflugerville.

This information shows that regional connections are important to the City of Round Rock as people who live within the city and in surrounding areas travel to and from Round Rock, whether it is for fun or to go to school or work.

Figure 4-11: The Zip Code Where I Live

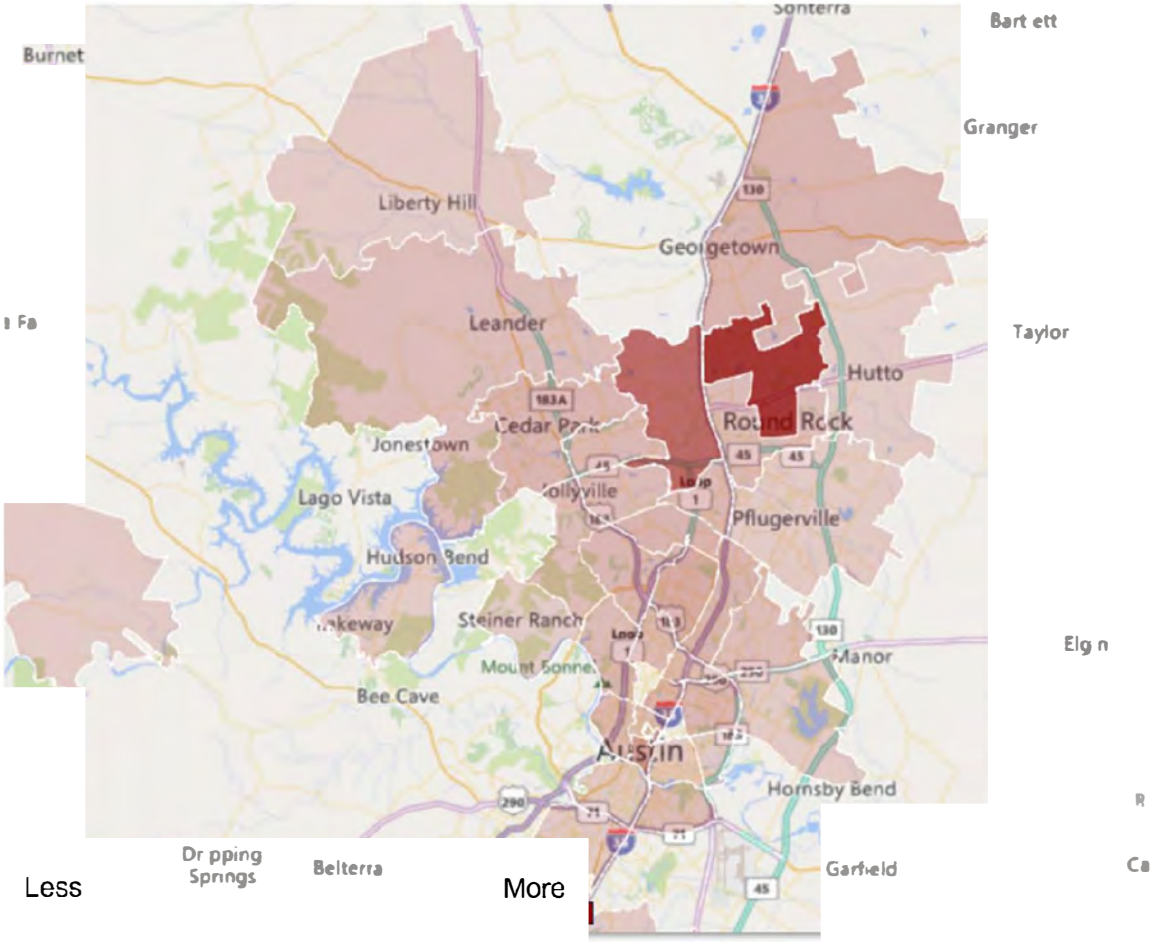
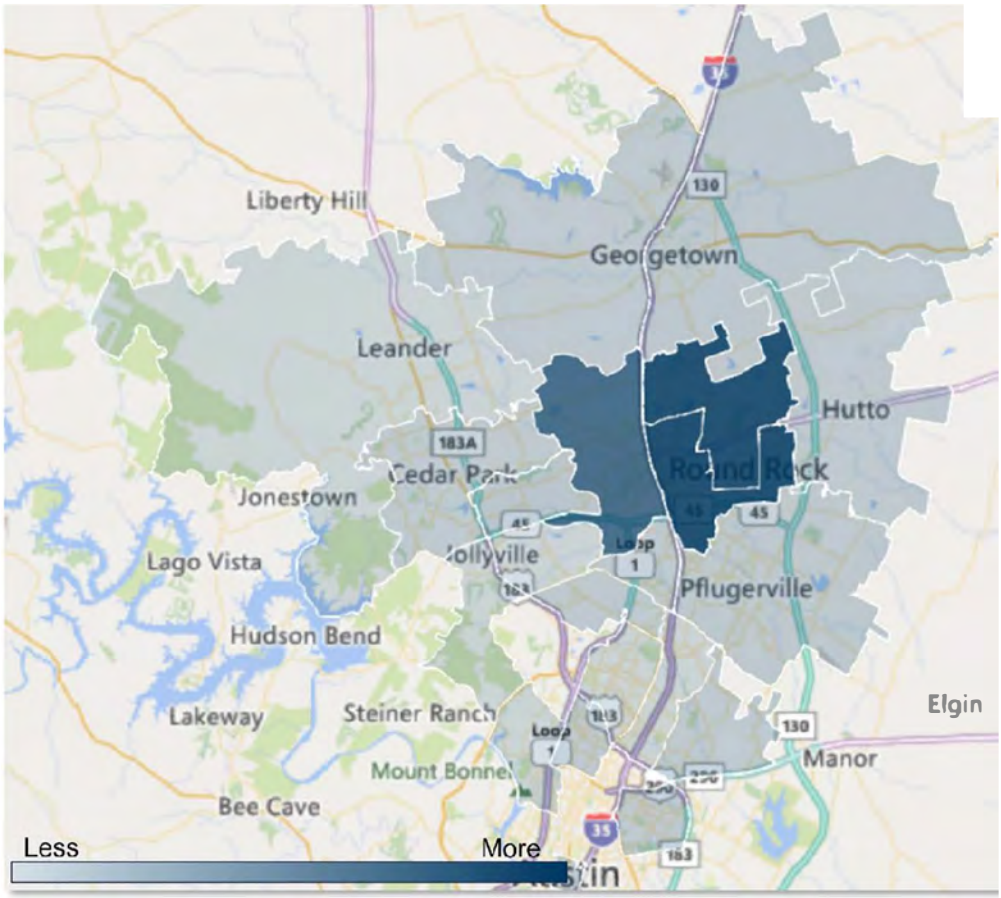


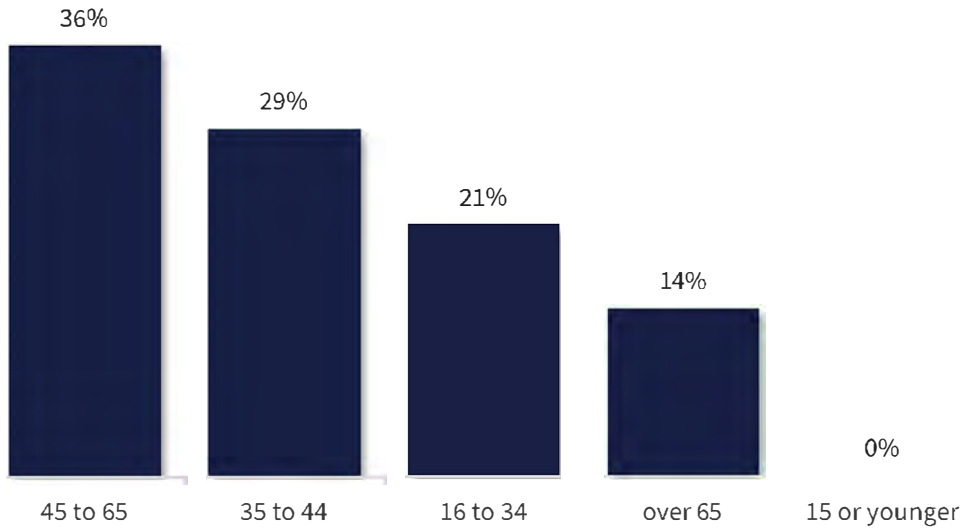
Figure 4-12: The Zip Code Where I Work/Go to School/Shop



In addition, a set of questions on respondent demographics were also included in the survey to help the City of Round Rock gauge the distribution of participants across various socioeconomic characteristics and backgrounds.

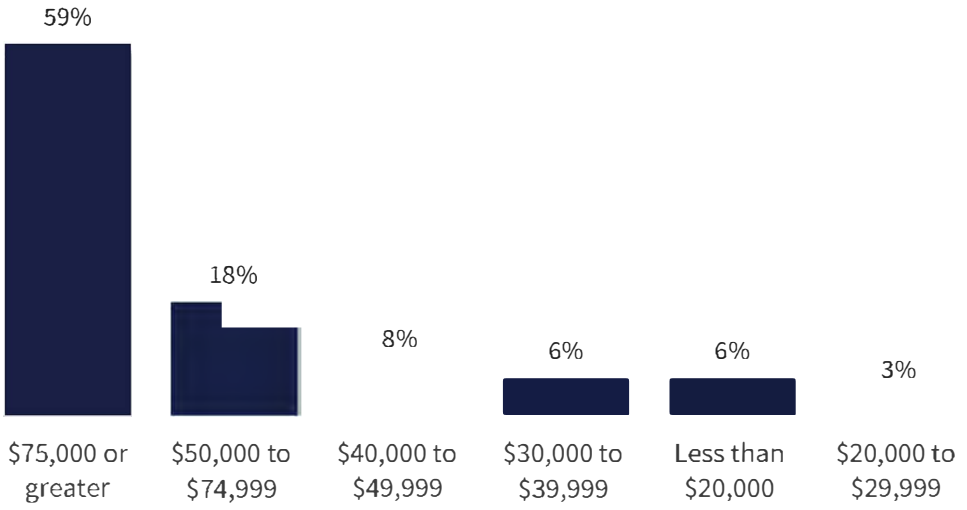
When asked about their age, most respondents, 36 percent, said they were between the ages of 45 and 65, followed by 29 percent between the ages of 35 to 44, and 21 percent between the ages of 16 to 34. In addition, 14 percent of respondents were over the age 65, a key demographic group that typically uses transit. Responses for the age question are shown in Figure 4-13.

Figure 4-13: What is Your Age?



Another demographic question on the survey asked about household income of the respondents in the previous year (2020). As shown in Figure 4-14, nearly 60 percent of respondents reported that they come from households with an income of $75,000 or greater. This information, combined with the fact that many of the respondents appear to support transit, indicates that some of them can become potential choice riders over time, that is, riders who have access to a car but may choose to ride transit anyway because of other intrinsic benefits that it brings.

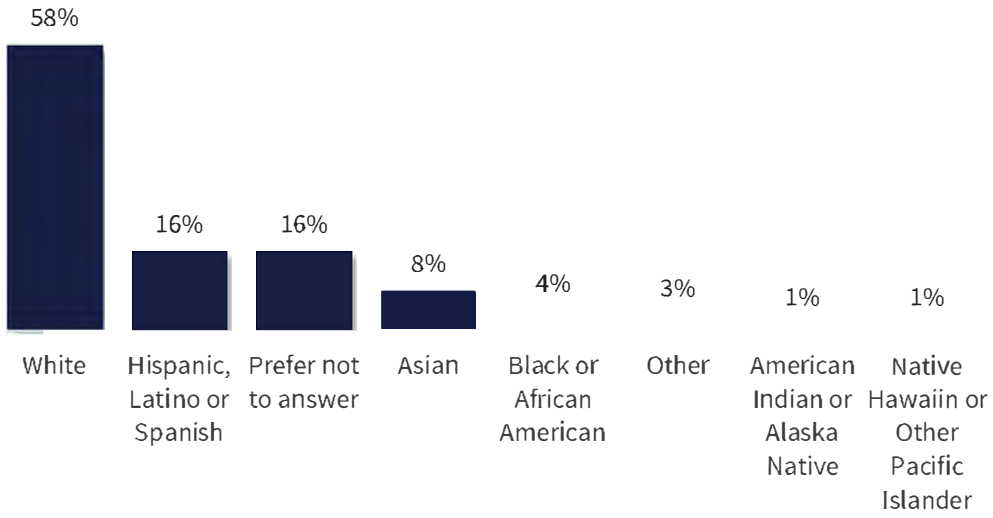
Figure 4-14: What is Your Household Income in 2020?



The next demographic question was optional and asked about respondent race and ethnicity, as shown in Figure 4-15. While White was the most common response noted with 58 percent, almost 30

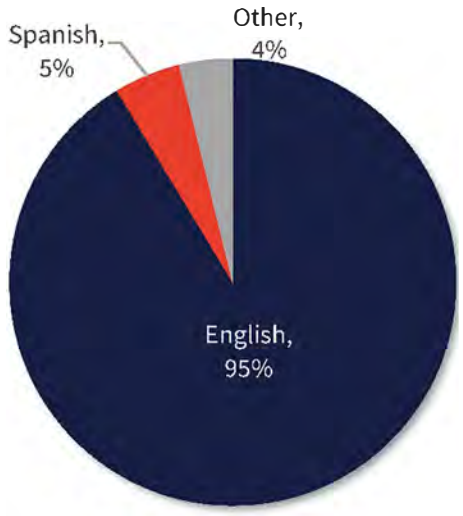
percent of the respondents identified themselves as coming from population segments with cultures that have a favorable view of transit use and, thus, a higher potential to become transit riders.

Figure 4-15: What is Your Race/Ethnicity?



The next question asked was what language was primarily spoken at home, as shown in Figure 4-16. English was the most common answer with 95 percent, while Spanish, as expected, was the next most common language spoken in the home with 5 percent. A total of 4 percent of the respondents answered "other."

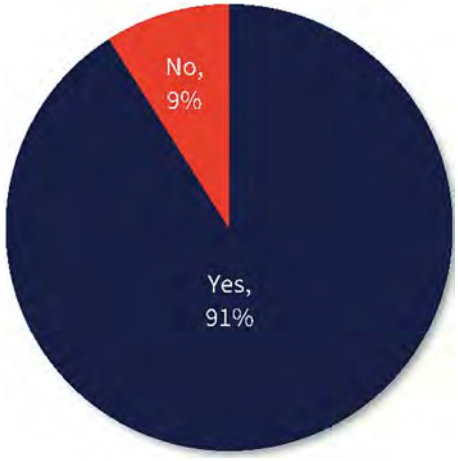
Figure 4-16: What is the Language Spoken at Home?



The last optional demographic question asked whether respondents had access to a personal vehicle. As shown in Figure 4-17, the majority of respondents, 91 percent, have access to personal vehicles while 9 percent do not. Despite this high occurrence of vehicle access, because a significant number of commute trips in Round Rock are regional in nature, it may be possible to convince such individuals

to use their vehicles for only a portion of their work trip so that park-and-ride lots can be touted as an attractive option in conjunction with a "transit leg of the trip."

Figure 4-17: Do You Have Access to a Personal Vehicle?



PUBLIC WORKSHOPS

As part of getting the community, including the City's general public and stakeholders, actively involved in its transit planning process, the City also held three public workshops, two early on (i.e. Phase I) in the TDP outreach process and the other later on (Phase II) in the process. The in-person portions of the public workshops were held in September and December 2021, at the Allen R. Baca Senior Center. Thereafter, the City also continued the workshop online, as summarized in the details below.

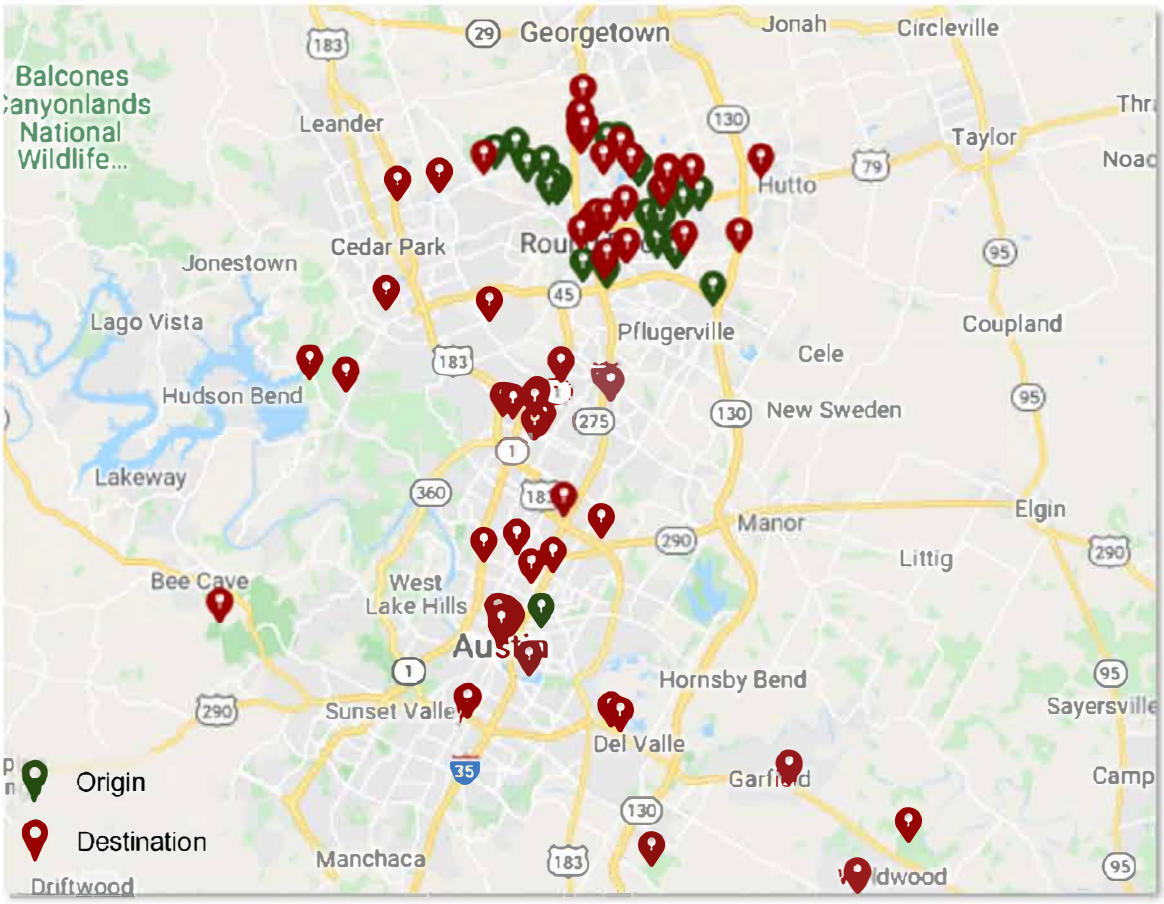
PHASE I PUBLIC WORKSHOPS

As part of the Round Rock TDP Phase I outreach, two public workshops were held on September 8 and 9, 2021, with a virtual workshop option also available through October 1, 2021. The same information was available at both the in-person and virtual workshops and focused on understanding the transit needs of the city, transit markets, transit styles, and rider patterns. A total of 432 people participated in the Phase I public workshops virtually and/or in person.

The City collected input through the Public Input Survey and through a variety of interactive exercises that were conducted during the in-person and virtual workshops.

In the first portion of the interactive exercises, shown in Figure 4-18, the attendees were asked to identify their key origin and destination points (whether they use transit or not). While there were no significantly dense origins identified, several locations were noted that included areas in east and west Round Rock. The Premium Outlets, Downtown, and the Walmart at I-35 near Dell Technologies were the most visited local destinations, while Austin, as expected, was the most visited regional destination.

Figure 4-18: Tell Us Where You Start & Where You End Up



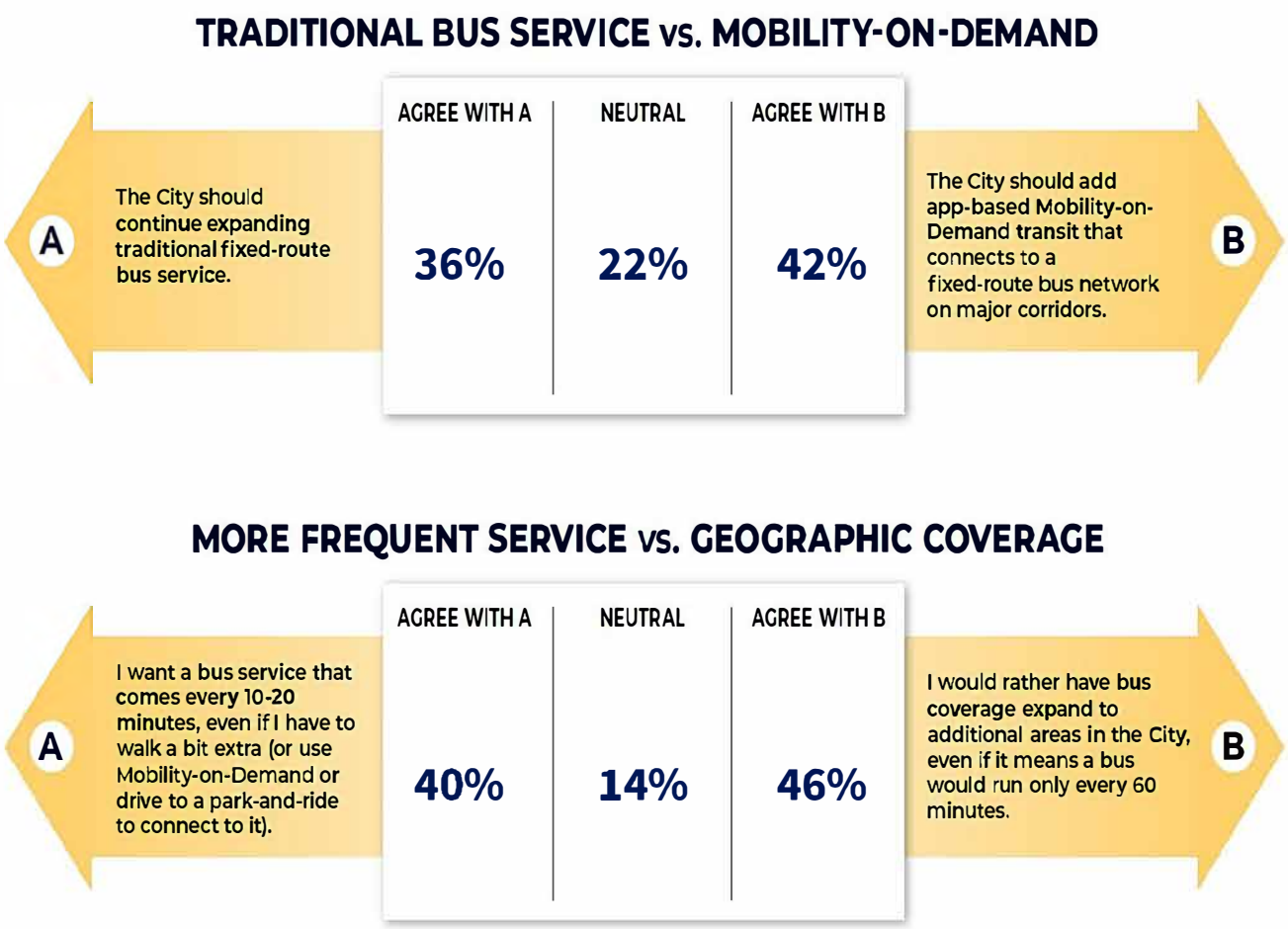
The second part of the interactive exercises asked the public to pick among options related to service type and service nature to help determine their preferences. This was done by getting participants to indicate their level of agreement with each of two statements that were offered. The first statement presented an option related to traditional bus service and mobility-on-demand service. This particular query wanted the participants to respond to whether they think, "The City should continue expanding traditional fixed-route bus service (Option A)" or "The City should add app-based Mobility-on-Demand transit that connects to a fixed-route bus network on major corridors (Option B)." Of the attendees who participated in this exercise either in person or online, 36 percent agreed with Option A, 22 percent were neutral, and 42 percent agreed with Option B.

The second of the two statements was related more to the particular preference for how the existing fixed-route transit service should be improved. That is, should the focus of enhancement be on more frequent service or on expanding the geographic coverage of the City's transit service area. In this case, the query asked participants to indicate agreement with either "I want a bus service that comes every 10-20 minutes, even if I have to walk a bit extra or use Mobility-on-Demand or drive to a park-and-ride to connect to it (Option A)" or "I would rather have bus coverage expand to additional areas in the City, even if it means a bus would run only every 60 minutes (Option B)." Of the attendees who

responded to this question, 40 percent agreed with Option A, 14 percent were neutral, and 46 percent agreed with Option B.

Figure 4-19 shows the service type and nature preferences from the in-person and online public workshop participants.

Figure 4-19: Participant Preferences on Service Types



PHASE II PUBLIC WORKSHOP

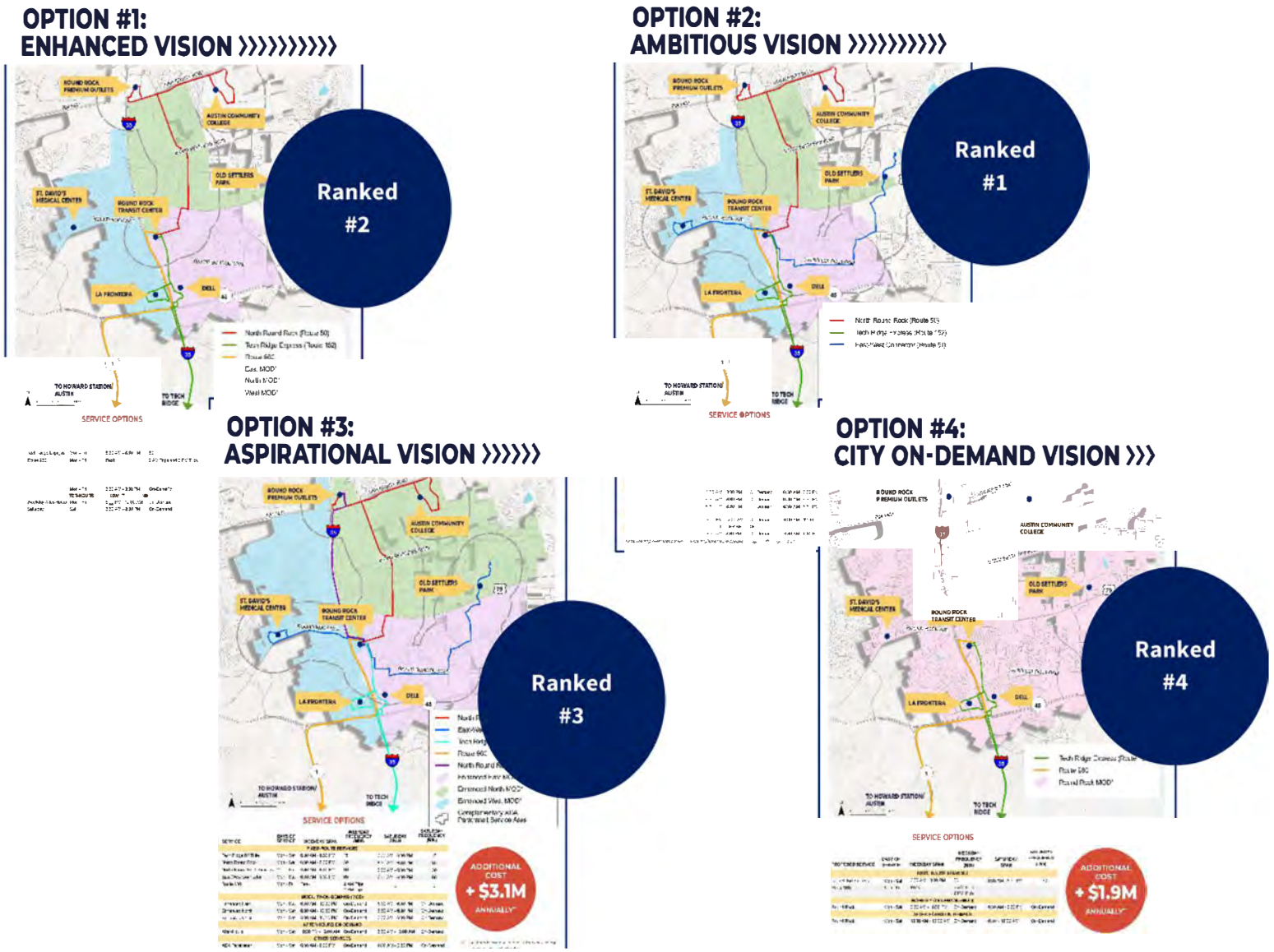
Another public workshop was conducted after the City developed its alternative Vision Plan options for future transit services within Round Rock (presented in Section 7). After working with stakeholders and reviewing feedback from the online survey and Phase I public workshops, the City held its third public workshop to share information about the possible Vision Plan options and collect additional input on them.

This third public workshop was held in person on December 8, 2021, with a virtual option available through December 22, 2021. Participants were invited to view the proposed Vision Plan options, rank the options from most to least preferred, and give feedback through a paper comment card or the

online workshop. A total of 394 people participated in this public workshop, whether virtually or in person.

From the input received on the in-person and virtual feedback forms, Option 2 was the most preferred, Option 1 was the second most preferred, Option 3 came in as the third most preferred, and Option 4 came in as the fourth most preferred, as shown in Figure 4-20.

Figure 4-20: Rank Your Most Preferred Option from 1-4



WEB/SOCIAL MEDIA/EMAIL/EARNED MEDIA

CITY OF ROUND ROCK PROJECT WEBPAGE

The City of Round Rock created a project-specific webpage to share project information, house materials for the effort, and provide links to the virtual public meeting options. Throughout the development of the Transit Development Plan, the City of Round Rock linked the project webpage on the homepage of the City's website and promoted it through email and social media, while also coordinating with local media outlets to promote the plan and input opportunities. Public workshops were also promoted through the City's event calendar.

SOCIAL MEDIA

The City of Round Rock developed social media posts to promote the project, its input opportunities, and the public workshops through the City's Facebook, Twitter, Instagram, and Nextdoor accounts. The number of participants engaged via social media are shown in Table 4-3. Figures 4-21 and 4-22 show the promotional graphics that were used on Facebook and Instagram.

Table 4-3: Social Media Outreach and Engagements

DATE	TOPIC	PLATFORM	IMPRESSIONS[2]	ENGAGEMENTS[3]
9/2/2021	Workshop promotion	Facebook	201,539	2,177
9/27/2021	Participation promotion	Facebook	245,692	7,567
9/27/2021	Participation promotion	Twitter	898	28
12/7/2021	Participation promotion	Facebook	17,688	892
12/7/2021	Workshop announcement	Instagram	2,850	86
12/7/2021	Workshop announcement	Nextdoor	1,170	unavailable
12/20/2021	Workshop reminder	Twitter	1,595	53

[2] Impressions are the number of times the content was displayed

[3] Engagements include all actions taken involving the post

Figure 4-21: Facebook – Public Workshop #1 & #2 Promotion

Figure 4-22: Instagram – Public Workshop #3 Promotion

EMAIL NOTIFICATION

Email was another tool used to inform the public about the Transit Development Plan process and its participation opportunities. Individual emails promoting the Public Input Survey and Public Workshops #1 and #2 were sent to the individuals who were invited to participate in interviews and the discussion group workshops on August 27, 2021. The email was sent to 31 individuals and included a personalized message and a flyer.

On September 20, 2021, the City sent an email campaign to the Transit Development Plan contacts and Round Rock 2030 Comprehensive Plan subscribers. In total, 3,086 people received email notifications concerning Public Workshops #1 and #2.

On November 22, 2021, the City sent out another email to the Transit Development Plan contacts and Round Rock 2030 Comprehensive Plan subscribers. In total, 3,131 people received email notifications about Public Workshop #3. Figure 4-23 shows the promotional flyers that were distributed.

Figure 4-23: Public Workshop Flyers

MEDIA COORDINATION

The City of Round Rock coordinated with local media to generate interest in and increase public awareness of the online surveys and Public Workshops #1 and #2.

Local news stations, including KXAN, the Austin American-Statesman, and Community Impact, published news articles announcing the initial public workshops as well as the online survey (Figure 4-24). Gary Hudder, Round Rock's Director of Transportation, was also interviewed about the Transit Development Plan.

Figure 4-24: KXAN Online Article

OTHER OUTREACH AND PROMOTION

E-NEWSLETTER

On August 25, 2021, the City included a Transit Development Plan article in its regular e-newsletter that was delivered to 10,566 people.

On November 21, 2021, the City included a Transit Development Plan article in its e-newsletter that was delivered to 10,521 people who subscribed for Transit Development Plan updates and Round Rock 2030 Comprehensive Plan updates.

UTILITY INSERT

On September 21, 2021, a notification of the two initial public workshops was announced through the City of Round Rock's printed utility bills. A total of 21,000 Round Rock residents received the utility bill advertising the public workshops.

YARD SIGNS

On September 1, 2021, yard signs were placed throughout Round Rock promoting the two initial public workshops and inviting community members to take the online survey. Signs were placed at the Clay Madsen Recreation Center, the Play for All Abilities Park, the Joanne Land Playground, the Round Rock Public Library, and the Round Rock Transit Center.

On December 2, 2021, yard signs were placed throughout Round Rock announcing the third public workshop and inviting community members to participate. Signs were placed at the Clay Madsen Recreation Center, the Play for All Abilities Park, the Joanne Land Playground, the Round Rock Public Library, and the Round Rock Transit Center (Figure 4-25).

Figure 4-25: Yard Signs Placed at Play for All Abilities Park and Clay Madsen Recreation Center

OUTREACH CALLS/BUSINESS VISITS/EVENTS

The Transit Development Plan outreach team made outreach calls and conducted visits to local businesses, educational institutions, community centers, and social service providers in the City of Round Rock to share information on the Transit Development Plan and distribute the flyer promoting the survey and first two public workshops. A total of 17 contacts were made and are listed below.

- Baylor Scott and White *(called and sent virtual flyer)*
- Lonestar Circle of Care *(called and sent virtual flyer)*
- Ascension Seaton (called)
- Texas A&M *(called)*
- St. David's Foundation *(called and sent virtual flyer)*
- St. David's Round Rock *(called)*
- Workforce Solutions of Williamson County *(called and sent virtual flyer)*
- Round Rock Housing Authority *(called and sent virtual flyer)*
- Round Rock Area Serving Center *(called and sent virtual flyer)*
- Round Rock Fire Department *(called and sent virtual flyer)*
- Round Rock Transit Center *(posted and left flyers)*
- Allen R. Bacca Senior Center *(posted and left flyers)*
- Round Rock Library *(posted and left flyers)*
- Round Rock City Hall *(posted and left flyers)*
- Round Rock Chamber of Commerce *(posted and left flyers)*
- Texas State University *(posted and left flyers)*
- Austin Community College *(posted and left flyers)*

The team also attended the Resource Expo at the Allen R. Bacca Senior Center on September 3, 2021, to share information on the plan, announce input opportunities, and administer surveys. The event had approximately 95 attendees.

BILLBOARD

A billboard advertising the Transit Development Plan was placed in Round Rock at I-35 and SH 45 from August 30 to September 23, 2021 (Figure 4-26). It is estimated that the billboard made 2,358,760 total impressions throughout its running time.

Figure 4-26: Billboard Promotion

ALLEN R. BACA SENIOR CENTER AD

The City of Round Rock coordinated with the Allen R. Baca Senior Center to promote the Public Input Survey in its September/October newsletter (Figure 4-27).

Figure 4-27: Ad Placed in Allen R. Baca Senior Center Newsletter

SECTION 5. PLANS REVIEW

As a part of the TDP development process, various regional, county, and local plans that may be relevant to the TDP were reviewed to inform the TDP as well as stay consistent with other local and regional planning efforts to enhance transit. The documentation from the following planning efforts were reviewed for the Round Rock TDP as part of this literature review, as listed in Table 5-1.

Table 5-1: Reviewed Plans

PLAN TYPE	REVIEWED PLAN
REGIONAL	CAMPO 2045 Regional Transportation Plan
	CAMPO 2045 Regional Transit Study
	CAMPO 2045 Regional Transportation Demand Management Plan
	Coordinated Public Transit – Health and Human Services Transportation Plan
	Capital Metro Project Connect
COUNTY	Williamson County Long-Range Transportation Plan
LOCAL	Round Rock 2030
	Round Rock Transportation Master Plan
	Round Rock Transit Plan
	Round Rock Downtown Master Plan

REGIONAL PLANS

CAMPO 2045 REGIONAL TRANSPORTATION PLAN

The Regional Transportation Plan (RTP) is adopted by the CAMPO Transportation Policy Board (TPB) every five years and forecasts the region's needs for at least 20 years into the future. The plan is required to be multimodal, meaning it incorporates a variety of transportation modes—not only roads and highways, but also transit, walking, and biking. The plans and studies that CAMPO regularly undertakes inform the recommendations of the RTP. The 2045 RTP was adopted May 4, 2020. The vision statement for the 2045 RTP states:

> *"Coordinate regional infrastructure and operations investments for better safety, connectivity, personal mobility and access that balances economic growth, stewardship of scarce resources and regional competitiveness."*

Goals for the 2045 RTP encompass the categories of safety, mobility, stewardship, economy, equity, and innovation. Specifically on public transportation, the 2045 RTP states that projections for 2045 show employment and trip generators throughout the region, not exclusively the core business and downtown districts shown in the past. With such a projection, the RTP suggests that transit must be adaptable to changing travel patterns and commuters' preferred transit options.

The 2045 RTP considers Capital Metro's Project Connect, as well as additional analyses and community outreach, and forecasts future transit needs for the Capital Area. The technical analysis, review of local governments' and transportation agencies' future plans, and input from the community identify the need for a continued coordinating effort for planning and implementing a comprehensive regional transit network. The network would range from smaller four-to-six person

vehicles to an expanded express bus service on the region's arterials to additional commuter rail. Within the RTP constrained project list, from 2021 to 2024, the RTP lists approximately $5.2 million in project investment for City of Round Rock public transit operations. There are 18 projects listed in the RTP related to roadway enhancements and improvements.

CAMPO 2045 REGIONAL TRANSIT STUDY

The CAMPO 2045 Regional Transit Study augments the CAMPO 2045 RTP. As stated in the RTP, the region's transportation plan should be multimodal in nature and meet a variety of transportation and travel needs. The 2045 Regional Transit Study examines transit needs in the coming decade for the Capital Area. The study focuses on the area outside of the Capital Metropolitan Transportation Authority's (Capital Metro) service area, while also considering future connections and compatibility with the agency's system and plans through Capital Metro's Project Connect. Information presented in the Regional Transit Study can be used by local transportation agencies and governments to plan for transit project for the next five years.

Revealed through the Study's extensive stakeholder outreach was the need for direct transportation from rural suburban communities to other rural and suburban communities for various purposes, such as accessing work, medical services, and leisure activities. Stakeholders also indicated that the primary reasons for not utilizing transit include lack of routes to and from relevant destinations, infrequent or irregular service, and the length of transit trips.

Because the Study focuses on the area outside of Capital Metro's service area, the Study was developed in coordination with the Capital Area Rural Transportation System (CARTS) on future needs and services for the non-urbanized area, as well as connections to Capital Metro and other urbanized areas' transit services. CARTS' future plans outlined in the Study include:

- Technology upgrade in transit vehicles to improve safety and efficiency;
- Intercity bus service between Jarrell and San Antonio;
- Express bus routes and microtransit serving a wider-spread area; and
- New CARTS intermodal stations with park-and-ride facility improvements.

The Study provides insights on rural and urban communities, as well as those transitioning from rural to urban. After the City of Round Rock became an urban community, it chose to receive Section 5307 funds directly from FTA for eligible expenses. As a direct recipient, Round Rock is responsible for the management of funds and assumes all responsibility for federal compliance, certifications, and local match.

The Regional Transit Study provides an in-depth analysis of the region's current travel patterns, projected travel patterns, population and employment growth, and future activity/employment centers. The Study also includes a Transit Toolkit. The toolkit lays out many options that can be deployed by local government project sponsors to meet their community's needs while staying sensitive to its context and character. Additionally, the toolkit discusses ridesharing and transit supportive infrastructure such as vanpool programs and park-and-rides.

CAMPO 2045 REGIONAL TRANSPORTATION DEMAND MANAGEMENT PLAN

The Regional Transportation Demand Management (TDM) Plan was prepared in August 2019, in conjunction with CAMPO's 2045 RTP. The TDM Plan was developed in partnership with Movability Austin and looks at alleviating congestion during peak travel times using a variety of strategies.

Specifically, the TDM plan aims to:

- Foster the implementation of TDM concepts within the CAMPO planning process by incorporating revised TDM project scoring criteria to select and fund TDM projects in the CAMPO call for projects process;
- Promote a regional view that advances TDM practices throughout the CAMPO region for safer mobility, increased choice, and improved system reliability by defining and implementing a vision and goals for the region;
- Recommend the establishment of a TDM Subcommittee within CAMPO's Technical Advisory Committee to advance TDM in the region across the full spectrum of applications and processes; and
- Support the CAMPO 2045 planning effort with actionable steps to advance TDM in the region.

The five goal areas outlined throughout the TDM Plan include: regional coordination, the incorporation of TDM into the transportation planning process, provision of education and outreach, improvement of the transportation system, and increasing mobility choices for travelers.

The TDM Plan states that transit is typically offered in urbanized areas along fixed routes of travel, but also can be demand-responsive for routine, scheduled trips in areas of the region not supported by a fixed-route transit system. As a result, transit as a share of work commutes can be a smaller share across a broad region, but is critical for providing services to populations that otherwise do not have access to needed services. The TDM Plan suggests that to improve the existing regional transportation system, transit centers are another strategy to provide connection for the suburban area, for instance connecting CARTS services to Capital Metro's. The Plan states, transit centers serve as efficient hubs that gather transit riders from various locations at a central point to take advantage of express trips or other route-to-route transfers. Additionally, the Plan recommends increasing mobility choices for travelers through first and last mile partnerships with transit agencies and integrating bike access to transit stations and terminals.

COORDINATED PUBLIC TRANSIT – HEALTH AND HUMAN SERVICES TRANSPORTATION PLAN

The Coordinated Public Transit – Health and Human Services Transportation Plan (HSCP) was completed in 2017 with coordination between CAMPO and the Capital Area Regional Transit Coordination Committee (RTCC). The HSCP assessed the current rural and medical/human service-based transit options available throughout the region. Though the HSCP focuses primarily on human services-related transportation, the needs and services identified in the Plan could be supplemented or fulfilled by a more robust regional transit system.

The HSCP provides information on the existing City of Round Rock transit operations, as it relates to human and health services and identifies priority areas of needs for the region.

Ultimately, the HSCP includes recommendations for strategies, projects, and partnerships. The strategies are separated between coordination strategies and service strategies. Coordination strategies include planning, mobility management, coordination of services, and travel information gathering. The recommended service strategies revolve around growth in future transit options.

CAPITAL METRO PROJECT CONNECT

Project Connect is the ongoing, long-term, unconstrained vision plan for Capital Metro. Project Connect provides a framework for growing multimodal travel across the Capital area and creating a robust transit system in Central Texas. Planning within Project Connect is restricted to the Capital Metro planning area; however, it also is intended to augment a regional-level system vision. The planning process aims to study specific corridors for high-capacity transit. Though Project Connect is a multimodal planning effort, the Plan vision remains "mode agnostic." High-capacity corridors are currently being studied individually to determine which modes best address transportation needs.

The Plan considers bus rapid transit, rail, and emerging mobility technologies.

Ongoing planning efforts build on two completed corridor studies: Project Connect Central Corridor and Project Connect North Corridor. The Central Corridor study identified a locally preferred alternative for transit in Central Austin, while the North Corridor study investigated transit expansion north of Austin. The North Corridor study provides in-depth analysis of travel options in the region that are north of Capital Metro's service area. Potential solutions in Round Rock include:

- Express bus service to Round Rock via University Boulevard;
- Strategically located park-and-rides in Round Rock, Pflugerville, and Hutto; and
- Extensions of Capital Metro's existing MetroRapid service from its current northern limits to Round Rock and Georgetown.

The MoKan rail corridor is also included as a potential dedicated bus way, with limited stops between downtown Austin and Pflugerville. Though the Plan focuses on transit, Project Connect also considers park-and-rides, transit priority treatment in managed lanes, and bicycle/pedestrian access as important elements of this proposed system. The Plan proposes eight new park-and-rides, most of which link drivers to express bus service. The implementation of Project Connect heavily relies on regional partnerships, as many of the proposed improvement areas are not yet eligible for federal transit funding through Capital Metro. In November 2020, voters approved Proposition A, which approved the City's property tax rate and dedicates 8.75 cents of the operations and maintenance portion of the tax rate for Project Connect. The approval of Prop A ensures the funding of the initial investment of Project Connect.

COUNTY PLANS

WILLIAMSON COUNTY LONG-RANGE TRANSPORTATION PLAN

The Williamson County Long-Range Transportation Plan (LRTP) was adopted October 13, 2009, and amended March 30, 2016. The LRTP focuses on what road and transit improvements ought to be developed or improved over the next 25 years to help address expected growth in the county. The Plan serves to guide and aid in decision-making for future capital improvements. Additionally, the Plan serves as a blueprint for future bond programs and will provide opportunities to partner with

cities in making decisions about infrastructure improvements throughout the county. The Plan sought to guide relationships with developers and landowners regarding land-planning and preservation.

The LRTP includes a variety of proposed projects that are anticipated to start throughout a 20-year period that started in 2016. Through extensive coordination with other communities and counties, the Plan identifies projects that were submitted for CAMPO's 2035 MTP. The recommendations include transit, bicycle, pedestrian, trail, and bottleneck projects. The LRTP recommends several roadway projects within the City of Round Rock. Specifically for transit, the Plan suggests transit-oriented development (TOD) at Dell World Headquarters, downtown Round Rock, and Avery Centre. The Plan recommended adopting the Round Rock Rail Line, connecting Austin, through Round Rock to Georgetown.

CITY-WIDE PLANS

ROUND ROCK 2030

Round Rock 2030 is the comprehensive planning document for the City of Round Rock. Round Rock 2030 was adopted June 25, 2020. Every 10 years, the comprehensive plan is updated to make thoughtful land use decisions that meet the needs of current and future populations. The vision for Round Rock 2030 is:

> *"Round Rock is a safe, desirable, family-oriented community that balances progress and prosperity with its history, by prioritizing quality of life, mobility, economic development and thoughtful land use planning."*

Round Rock 2030 provides a thorough analysis of Round Rock's land use, including current land use patterns, future land use, and criteria for future development. Round Rock 2030 also includes a 10-year Historic Preservation Plan and summaries of land use-related plans, goals, and strategies from the adopted plans of the Utilities and Environmental Services, Parks and Recreation, and Transportation Departments.

Round Rock 2030 outlines 12 policies and corresponding implementation strategies to provide direction across the proceeding decade. Accomplishments from the past helped inform how the recommended policies and strategies further Round Rock 2030's vision. The recommended policies relevant to transit are outlined below.

- Quality of Life: Focus economic development initiatives on those that improve quality of life while remaining fiscally responsible. Invest in community gathering spaces for all ages that support the arts, culture, recreation, and entertainment.
- Economic Development: Continue to be the "City of Choice" for new and existing businesses by focusing on quality development standards that promote and sustain economic growth while providing sufficient infrastructure and services.
- Downtown: Manage and guide the revitalization of downtown as a safe and pedestrian-friendly community destination for all.
- Commercial Centers: Foster maintenance, reuse, or redevelopment of aging commercial centers while adapting to shifts in consumer preferences.

- Mobility: Develop transportation options within and between neighborhoods and local destinations.
- Mixed-Use: Encourage mixed-use development in locations that are compatible with the surrounding area and supported by employment and transportation infrastructure.
- Adapting to Change: Adapt development codes to reflect transportation innovations, evolving technology, and changing consumer preferences.

One important limitation the Plan mentions is the effect of the explosive growth of Central Texas. The Plan states that increased growth beyond Round Rock's planning area will impact the transportation network within the community, resulting in increased traffic on city roads and major roadways leading into the community. While transportation improvements will lessen the impact, increased congestion is an ever-present reality. This challenge is compounded by the fact that a mass transit system has not been identified nor planned for the region.

ROUND ROCK TRANSPORTATION MASTER PLAN

The City of Round Rock adopted its Transportation Master Plan Update in 2017. The Transportation Master Plan (TMP) defines goals and policies for growth and recommends transportation investments to prepare for the future mobility needs of the community. It aims to meet ultimate build-out traffic demands, guides development, and establishes organized growth within a transportation network. The TMP also seeks to preserve the environmental, aesthetic, historic, and natural resources of the area, while providing safety and mobility.

To plan for the ultimate growth of Round Rock, the TMP establishes an enhanced roadway network and protects adequate ROW to meet future transportation need for all modes, including cars, pedestrians, cyclists, and transit. The goals of the TMP are:

1. Ensure citizens of Round Rock are afforded an adequate future transportation system.
2. Ensure efficient utilization of the 1997 ½-cent sales tax dedicated to roadway improvements.
3. Identify major deficiencies in the existing transportation network.
4. Maintain the quality of life enjoyed by the citizens of Round Rock.

Ultimately, the TMP provides recommendations for an updated thoroughfare plan, improved roadway network, intersection safety improvements, and multimodal improvements. The TMP acknowledges that public transportation helps to lessen transportation impacts on the environment, provides more personal opportunities for mobility, and contributes to time savings and reduced fuel costs. The Plan also states that implementing new transit services and connections to regional destinations will help meet the demands of growing population, employment, and travel patterns. Specifically, for transit, multimodal improvements outlined in the TMP include adding bus stop amenities for riders, right-turn only lanes except buses, signal timing improvements, and sidewalk extensions.

ROUND ROCK TRANSIT PLAN

The Round Rock Transit Plan was developed in November 2015 and has laid the foundation for the establishment of bus transit in the City of Round Rock. (This TDP planning effort was initiated by the City to update this vision set previously in 2015).

The primary purpose of the Plan was to develop a guiding document for implementing transit services within the City of Round Rock and establishing connections to regional destinations while maintaining cost-effectiveness. The recommendations made in the plan aim to:

- Improve local mobility and access to jobs, education, medical facilities, and shopping destinations;
- Enhance connectivity to regional transit hubs; and
- Provide a convenient and reliable option for Round Rock residents commuting to Austin.

Findings from the existing service analysis, as well as community engagement efforts, served as the basis for the service recommendations made in the Plan. The recommendations were divided into phases spanning across 2017 to 2025. The Plan proposed four routes: Howard Station, Round Rock Circulator, Austin Express, and Tech Ridge. In addition to proposed routes, the Plan recommended two future routes: North Mays/Old Settlers and South Mays/Gattis School. Bus vehicles, bus stops/amenities, and safety measures are considered in the Plan's recommendations, as well.

Ultimately, the Plan made recommendations and identified opportunities around four key areas: branding, buses and bus stops, online information, and customer service representatives and outlets.

ROUND ROCK DOWNTOWN MASTER PLAN

The City of Round Rock adopted its Downtown Master Plan in January 2010. The primary goal of the Downtown Master Plan is to create a design and policy strategy for a thriving town center featuring a mix of retail, entertainment, residential, and public spaces in a walkable and historically-sensitive environment to enhance the sense of place, economy, and quality of life. The Plan seeks to create a bustling town center beyond its two-block historic area that will feature a viable mix of uses in a walkable environment, and to enhance the community's economy, quality of life, and sense of place. The Plan aims to achieve five objectives:

1. Accentuate the area's assets and build upon past planning efforts.
2. Present a cohesive vision and identity for the Plan area.
3. Describe place-making concepts to achieve an activated and attractive downtown.
4. Provide strategies to implement the urban design concepts.
5. Stimulate responsible and foresighted growth in downtown.

The Downtown Master Plan presents a multi-pronged approach for overall implementation including identifying seven "Catalytic Projects," development/implementation of a form-based code, and recommendation of policy initiatives. As a part of the planning process, the Plan addresses transit-orientation. The recommendations made in the Plan incorporate transit in the reduction of vehicular traffic through downtown Round Rock. Lastly, the Downtown Master Plan provides a design guide serving as a pattern book. It includes a variety of plan view images, 3-D drawings, street networks, and development photos.

SECTION 6. TRANSIT DEMAND ASSESSMENT

All the planning efforts in this study thus far have been intended to help the City gather information for identifying transit needs in the city. The demand assessment is the next important step in the overall TDP preparation process as it brings together many key pieces of the information previously gathered, to form a foundation from which the City can then develop and prioritize a logical set of service improvement strategies to meet the identified needs.

The demand assessment helps the City identify transit service needs as well as other related enhancements that may be necessary to bolster mobility within the City of Round Rock. The information and analytical results from this assessment will be critical to developing logical recommendations for new service and/or service enhancements. The service demand and supply in the City must first be understood to enable the identification of any existing and potential geographic and/or temporal gaps between needs and services.

This section presents the analysis of the transit markets conducted to assess the transit demand. The market demand analysis conducted for the City of Round Rock, as summarized next, included using several innovative and transit-specific planning strategies and market analysis tools to identify transit-supportive populations and travel markets in and around the city.

TRANSIT MARKETS

An important aspect of Round Rock TDP process was to ensure that the resulting future vision for transit for the City accommodates areas within the current operating environment that are underserved or not served but have latent demand for more or new transit services. To address the possibility of unserved/underserved demand in the city, a transit market analysis was completed that also serves as a continuation of other data collection and analyses performed for this TDP.

Demand from specific transit markets within the city was carefully analyzed to identify the potential need for public transit services. Data show that a significant portion of current transit trips in the city are used for work purposes while most potential transit trips may be used for purposes such as recreation and shopping, indicating that potential users may want to take shorter trips than lengthier commute trips that take riders out of the city.

To identify these travel markets in the city and its vicinity, the market demand analysis conducted included an evaluation of the study area from three perspectives: the traditional and discretionary rider markets—the two predominant ridership markets for transit service—and the travel market flows between various areas of the city and its vicinity. These markets are described as follows:

- **Traditional Rider Markets** are areas with population segments that historically have had a higher propensity to use transit or are dependent on public transit for their transportation needs. Traditional transit users typically include older adults, youths, and households that are low-income or have zero vehicles for use. An analytical tool that uses spreadsheet models and GIS were used to assess this market. The tool measures the levels of transit dependency within a particular geographical area to help assess existing transit coverage in comparison to areas with population that have a propensity for potential transit use.

- **Discretionary Rider Markets** are areas with population segments living in higher-density areas that may choose to use transit as a commuting or transportation alternative. The analysis conducted used industry-standard density thresholds to identify the areas within the study area that exhibit transit-supportive residential and employee density levels today as well as in the future.
- **Travel/Commuter Markets** are areas that residents and visitors most commonly travel to and/or from that are located within and outside the city. Various data sources that track such travel flows were used to identify travel patterns to and from key locations in and around the city.

These tools were used to determine whether existing transit routes are serving areas considered to be transit-supportive for the corresponding transit market.

TRADITIONAL RIDER MARKET

A traditional rider market refers to population segments that historically have had a higher propensity to use transit or are dependent on public transit for their transportation needs. Traditional transit users include older adults, youth, and persons from households that are low-income and/or have zero vehicles available for use, as shown in Table 6-1.

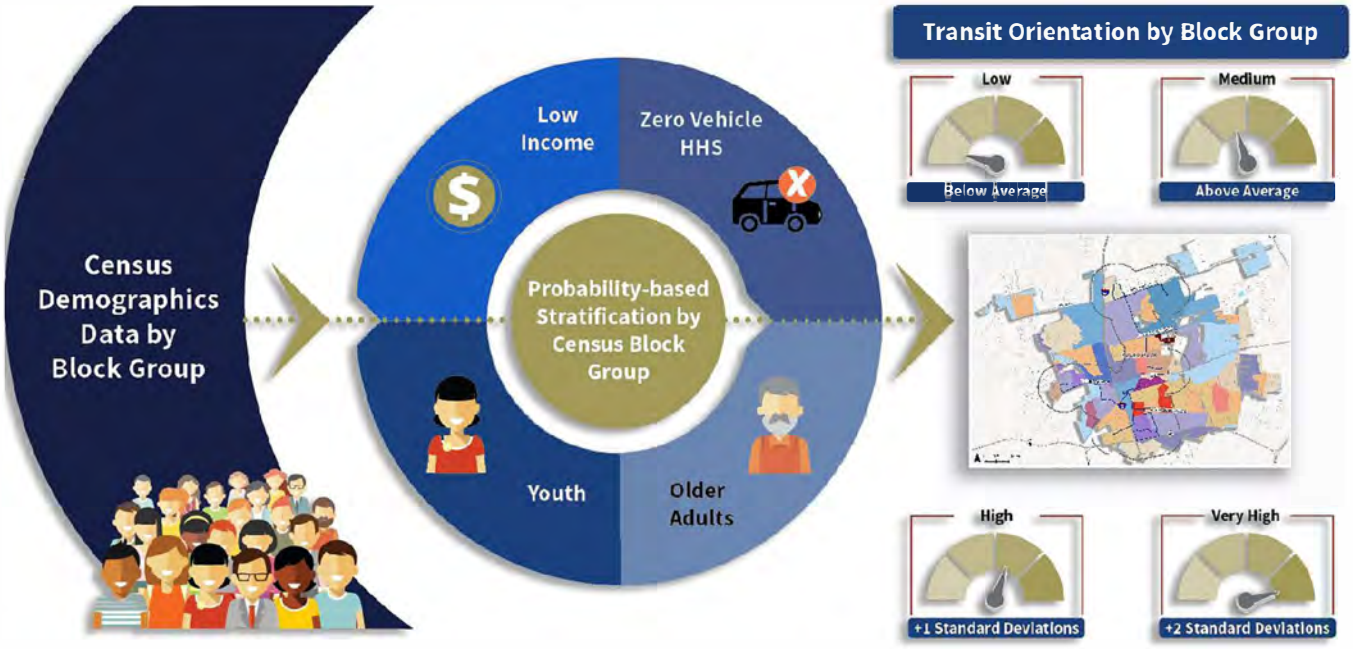
For some individuals, the ability to drive is greatly diminished with age, so they must rely on others for their transportation needs. Likewise, younger persons not yet of driving age but who need to travel to school, to employment, or for leisure may rely more on public transportation until they reach driving age. For lower-income households, such as those with no private vehicle available for use, transportation costs are particularly burdensome. These households tend to spend a greater portion of income on transportation-related expenses than higher-income households do; therefore, they typically have an increasing reliance on public transportation for their mobility needs.

Table 6-1: TOI Variables

VARIABLE	MEASURING UNIT
Youth	Population Age 14 and under
Low-Income Population	$25,000 or less annual income for 4-person household
Zero-Vehicle Households	Households with zero vehicles
Older Adults	Population at or over age 65

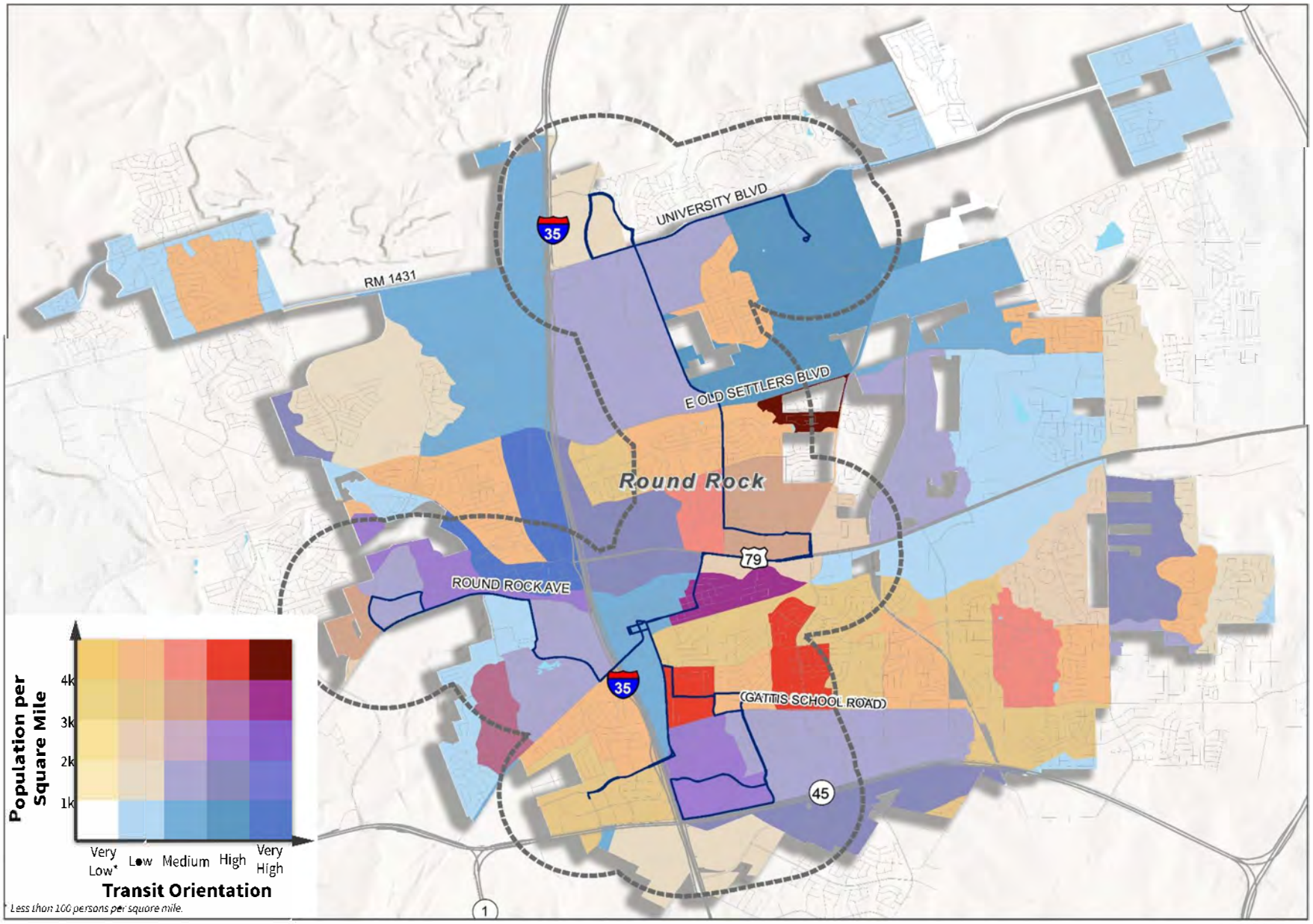
A Transit Orientation Index (TOI) was developed to assist in identifying areas of the city where these traditional rider markets exist. To create the TOI for this analysis, demographic data from the 2020 ACS with 5-Year Estimates (2015-2019) were analyzed at the block group level for the demographic and economic variables. Using data for these characteristics and developing a composite ranking for each census block group, each area was ranked as “Very High,” “High,” “Medium,” or “Low” in their respective levels of transit orientation. The methodology and benchmarks are shown in Figure 6-1.

Figure 6-1: Transit Orientation Index Methodology



Map 6-1 illustrates the 2020 TOI, reflecting areas throughout the city with varying traditional market potential. The existing transit route network shows how well Round Rock Transit covers those areas with its current network of services.

Map 6-1: 2020 TOI



TOI SUMMARY OF FINDINGS

- The areas that exhibit "very high" orientation toward transit and have a high population density are between Old Settlers Boulevard and A.W. Grimes Boulevard and north of the railroad tracks, south of Brushy Creek, by Georgetown Street.
- Areas exhibiting a "very high" orientation toward transit with low population density are west of I-35, between Sam Bass Road and Brushy Creek.
- Areas considered to have a "high" orientation with high population density are located north of Gattis School Road along A.W. Grimes Boulevard, and between Mays Street and Lawnmont Drive.
- Areas considered to have a "high" orientation with lower population densities are found between Old Settlers Boulevard and University Boulevard, east of Sunrise Road near A.W. Grimes Boulevard. Other areas include south of TX-45 between I-35 and Meister Lane, east of I-35 between Old Settlers Boulevard and Brushy Creek, and east of Red Bud Lane south of CR-123.
- Areas that are considered to have "medium" orientation with higher population density are found north of US-79 between A.W. Grimes Boulevard and Egger Avenue. Another area that meets the criteria is north of Gattis School Road east of Rusk Road, along Forest Creek Drive.
- The majority of areas that have a "medium" or higher orientation to transit with high population density are adjacent to a transit route.

DISCRETIONARY RIDER MARKET

As noted previously, the discretionary market consists of potential riders residing in higher-density areas of Round Rock that may choose to use transit as a commuting or transportation alternative. The analysis was conducted using industry-standard density thresholds to identify the areas that exhibit transit-supportive residential and employee density levels today as well as in the future. Socioeconomic data for Round Rock, including dwelling unit and employment data based on information developed for the Capital Area Metropolitan Planning Organization (CAMPO), were used to develop the DTA for 2022 and 2031.

Three density thresholds, developed based on industry standards/research, were used to indicate whether an area contains sufficient density to sustain some level of fixed-route transit operations:

- *Minimum Investment* – Reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., local fixed-route bus service).
- *High Investment* – Reflects increased dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., more frequent service, longer service span, etc.) than areas meeting only the minimum density threshold.
- *Very High Investment* – Reflects very high dwelling unit or employment densities that may be able to support more significant levels of transit investment (i.e., very frequent services, later

service hours, weekend service, premium modes, etc.) than areas meeting the minimum or high-density thresholds.

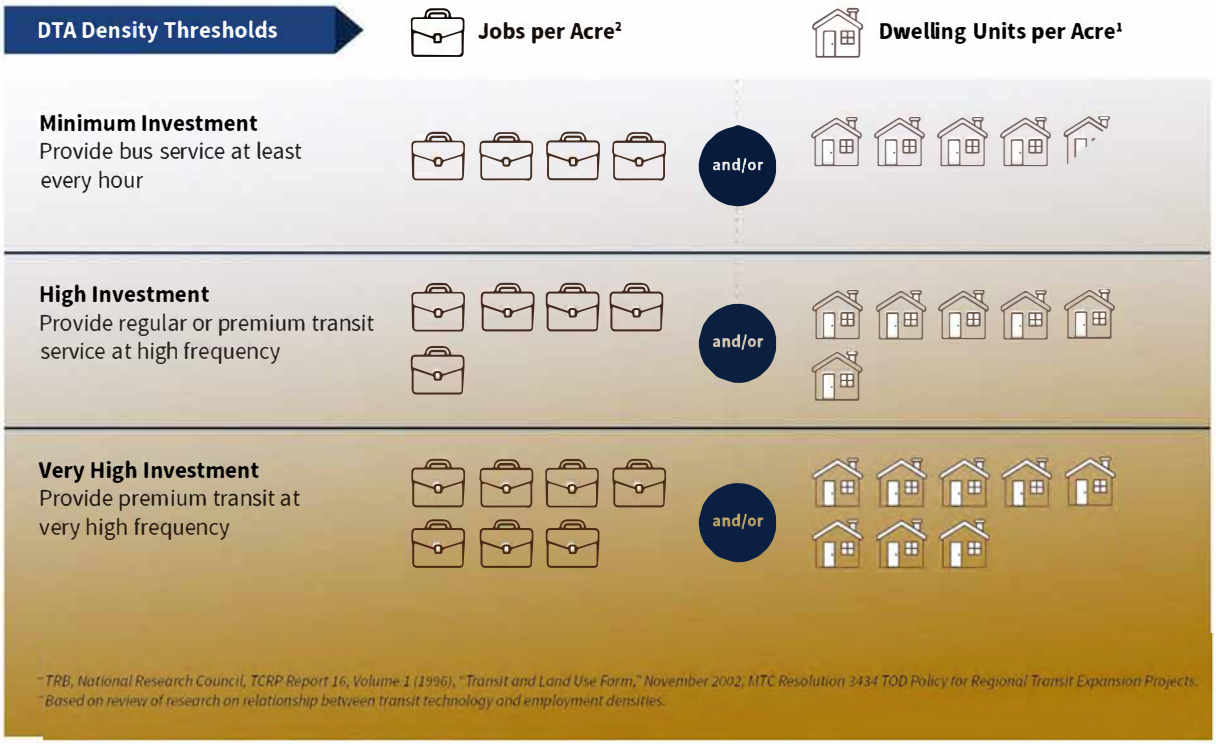
Table 6-2 and Figure 6-2 present the dwelling unit and employment density thresholds associated with each level of transit investment described above.

Table 6-2: Transit Service Density Thresholds

LEVEL OF TRANSIT INVESTMENT	DWELLING UNIT DENSITY THRESHOLD[1]	EMPLOYMENT DENSITY THRESHOLD[2]
Minimum Investment	4.5–5 dwelling units/acre	4 employees/acre
High Investment	6–7 dwelling units/acre	5–6 employees/acre
Very High Investment	≥8 dwelling units/acre	≥7 employees/acre

[1] TRB, National Research Council, TCRP Report 16, Volume 1 (1996), "Transit and Land Use Form," November 2002, MTC Resolution 3434 TOD Policy for Regional Transit Expansion Projects.
[2] Based on review of research on relationship between transit technology and employment densities.

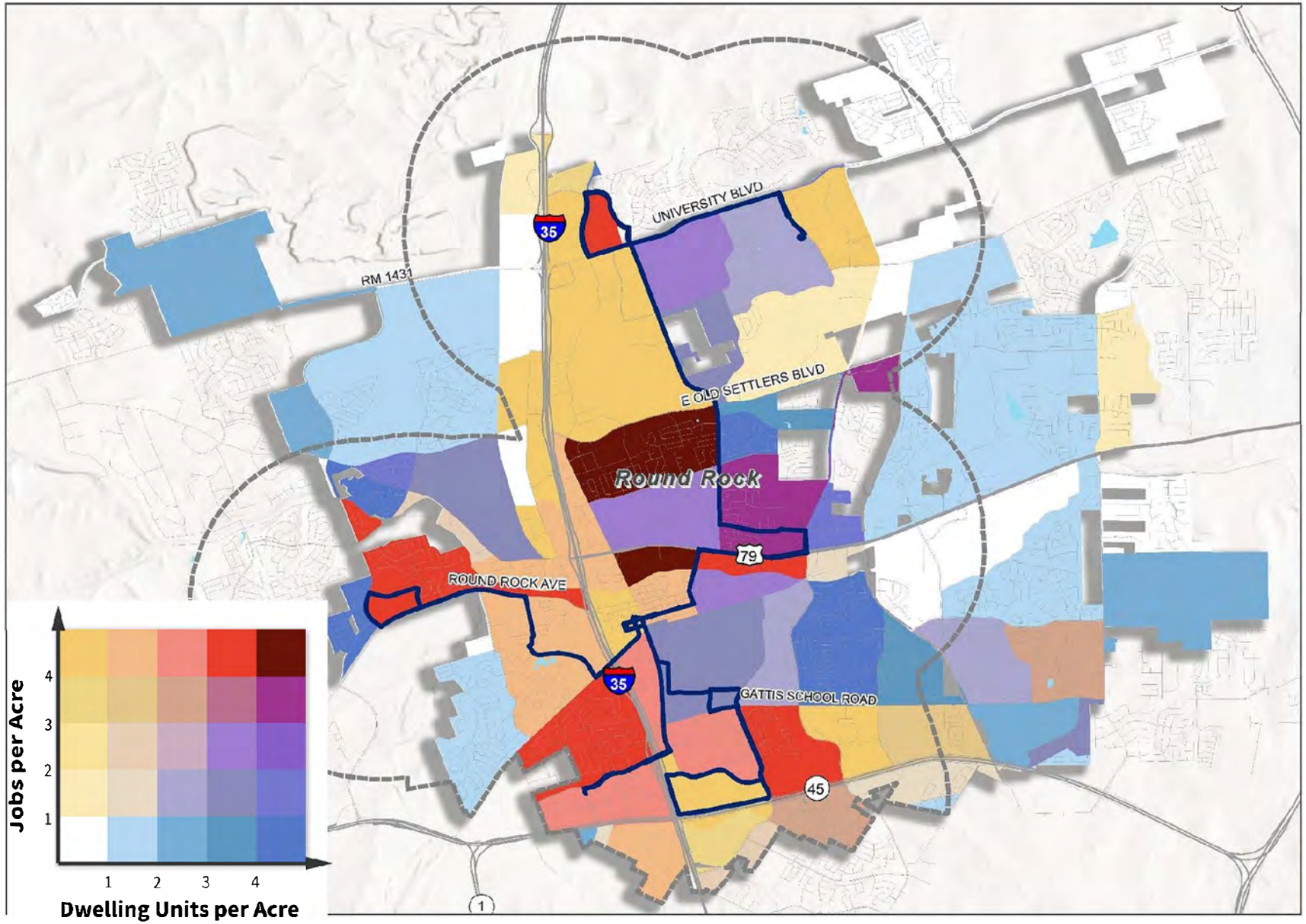
Figure 6-2: Transit Service Density Thresholds



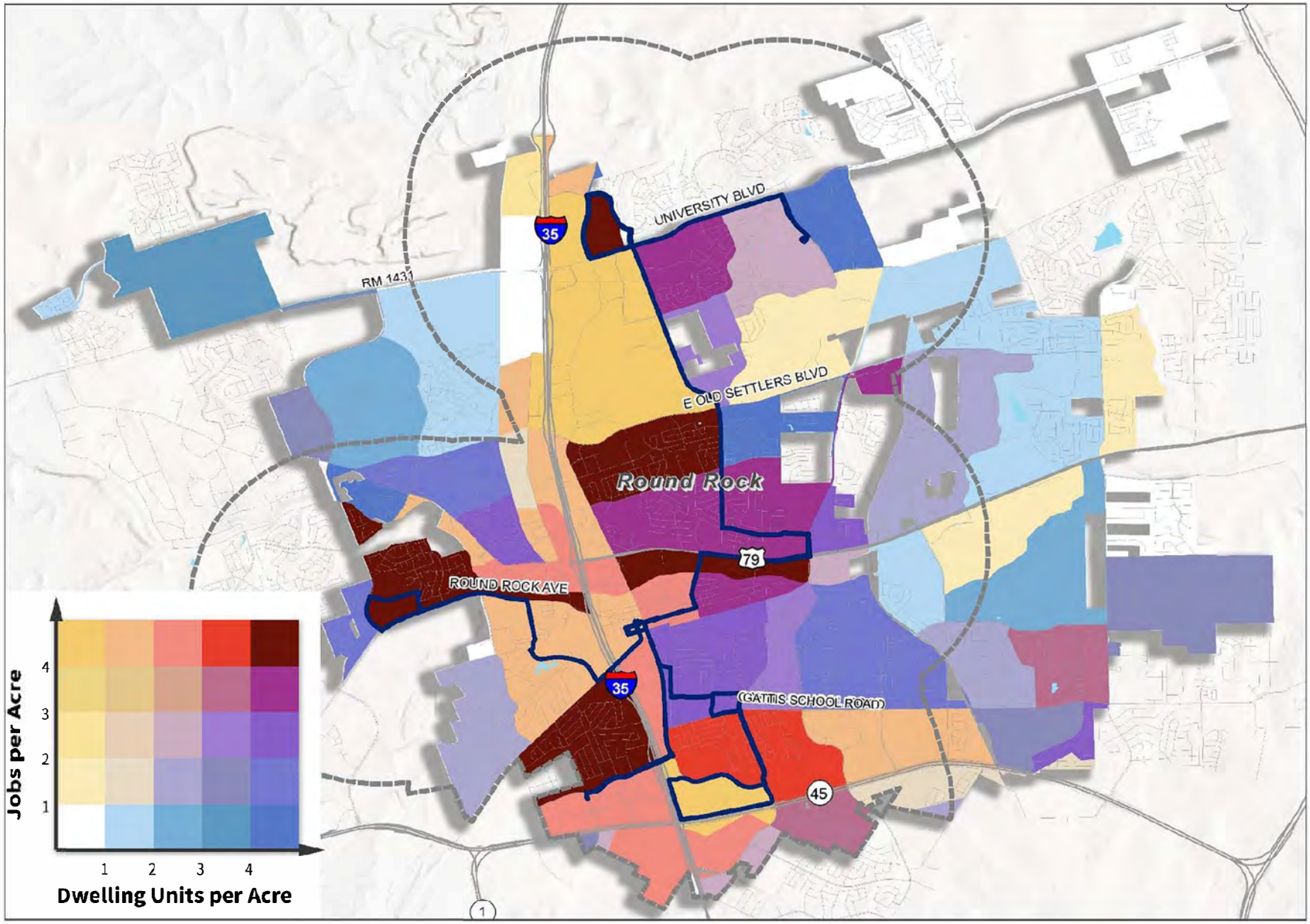
Maps 6-2 and 6-3 illustrate the results of the 2022 and 2031 DTA analyses conducted for Round Rock, respectively, identifying areas that support different levels of transit investment in those time frames, based on existing and future dwelling unit and employment densities.

These maps also include an overlay of the Round Rock Transit network to gauge how well the current transit network covers the areas that are considered supportive of at least a minimum level of transit investment. The results of these analyses also will be critical for subsequent use in the assessment of transit needs and demand.

Map 6-2: 2022 DTA



Map 6-3: 2031 DTA



DTA SUMMARY OF FINDINGS

The 2022 DTA analysis indicates that the discretionary transit markets are derived mainly from employment densities rather than from dwelling unit densities and can be summarized as follows:

- Areas that meet the "high" employment thresholds for transit investment areas are located throughout Round Rock. The area in the northeast part of Round Rock is east of I-35, south of University Boulevard, and west of Sunrise Road. The area in the northwest is west of Chisolm Trail bordering the railroad. In west Round Rock, west of I-35, there are areas south of Round Rock Avenue, south of Sam Bass Road, and bordering TX-45.
- All areas that are considered to meet the "very high" employment thresholds for transit investment areas are located in the following areas:
    - East of I-35, north of University Road at the Round Rock Premium Outlets and Baylor Scott and White Medical Center.
    - West of A.W. Grimes Boulevard, east of College Park Drive, and south of University Road at the Higher Education Center and the Seton Medical Center.
    - A cluster of areas west of I-35, north of US-79/Sam Bass Road, east of the Chisolm Trail.
    - Between Round Rock Avenue and Sam Bass Road, along Wyoming Springs Drive, bordering other areas that meet the "very high" threshold near I-35.
    - Areas south of Old Settlers Boulevard, north of US-79, between I-35 and Sunrise Road.
    - A group of areas in central Round Rock, between US-79 and TX-45, along I-35, west of Double Creek Drive. These areas include the Dell Headquarters, the Boardwalk area, and downtown Round Rock.
    - The La Frontera Shopping Center area, west of I-35, north of TX-45, and south of Hesters Crossing.
    - The area that meets the minimum employment density is located west of I-35 along McNeil Road.
- Areas that meet the "high" or "very high" thresholds for dwelling units in Round Rock are located:
    - East of Sunrise Road between Bradley Lane and US-79, west of A.W. Grimes Boulevard.
    - Between Hairy Man Road and Round Rock Avenue, west of Wyoming Springs Drive.
- The majority of areas that meet at least the minimum DTA thresholds are currently served by transit services.
- Based on the 2031 DTA analysis, all areas in the 2022 DTA that meet the "high" or "very high" thresholds for dwelling units and/or employment will remain. New areas that meet the "minimum" requirement will be adjacent to established areas in the following areas:
- Multiple areas will increase dwelling unit density along Gattis School Road to meet the "minimum" threshold. One area east of Mays Street, south of the railroad tracks; another area

east of Double Creek Drive, north of Gattis School Road; and south of Gattis School Road between High Country Boulevard and Red Bud Lane.

- Areas along TX-45 areas will increase employment density to meet the "minimum" threshold, including south of TX-45, between I-35 and A.W. Grimes Boulevard. Another area is located between TX-45 and Gattis School Road between Double Creek Drive and Westview Drive.

TRAVEL/COMMUTER FLOW MARKETS

An understanding of general travel/commuter flows is important for identifying origin and destination (OD) pairs with potential for new or increased transit services. The analysis of travel flow markets builds on the information derived from the prior assessments by identifying overall travel flows to key activity centers/hubs in the city and its adjacent areas.

This OD analysis for the Round Rock TDP was conducted using data from Replica, an activity-based travel demand model that uses information derived from road traffic, mobile phone data, and financial transactions to model mobility trends. The data analysis provided an understanding of the magnitude of all average daily trip patterns to key activity centers/hubs in the city and its adjacent areas.

The main purpose of the travel flow analysis is to identify OD pairs with high travel demand to inform the TDP demand analysis and ultimately provide a basis for recommending transit service strategies and improvements to help move some of those automobile trips to alternative modes like transit. The findings can be helpful in planning future transit services tailored to local as well as regional travel, such as express and high frequency/high-capacity transit services.

Four key activity center destinations in Round Rock were selected for this travel flow analysis, as listed below.

- Downtown Round Rock
- Round Rock Premium Outlets
- La Frontera/Dell area
- Higher Education Complex/Seton Medical Center

Figures 6-3 to 6-6 show average weekday trips per square mile originating from the city and its vicinities that end in the key destinations selected for study. The data reflect travel for the months of May to September 2019, which provides a picture of the "normal" pre-pandemic travel flows.

Additional maps with a much wider regional geographic coverage for the same destinations can be found in Appendix D.

Downtown Round Rock

The downtown Round Rock area located adjacent to I-35 hosts many restaurants, businesses, government offices, and a major social service center, making it the destination for over 10,000 daily trips. Most are made using a private automobile (75%) and are used to access food service establishments or to commute to work (41%). Additionally, the most popular times to travel to the area are 8AM and 5PM, which is typical of downtown travel flows that occur primarily in the AM and PM peak periods. Most trips to downtown Round Rock have originated from areas just east of I-35 and on the east side of the city. The regional origins of trips to downtown extend farther east and north. Concentrated travel to downtown is also observed from northwest Taylor and central Georgetown (Figure 6-3).

Trips from the areas farther south of the city (as shown in Map D-1 in Appendix D), also showed high concentrations of origins in downtown Austin between Congress Avenue and Lamar Boulevard and by the University of Texas at Austin.

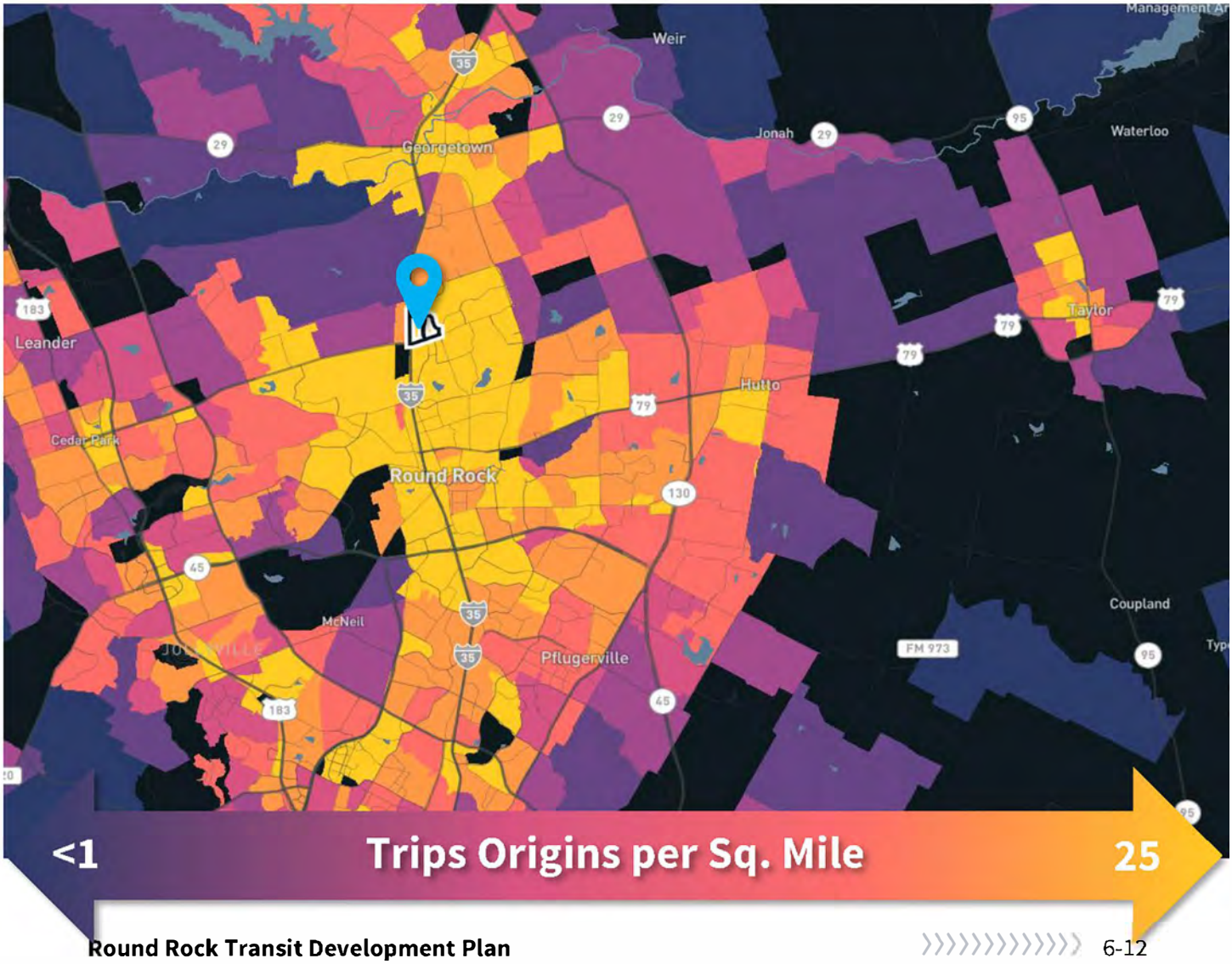
Figure 6-3: Travel Flow Destination - Downtown Round Rock

Round Rock Premium Outlets

The Round Rock Premium Outlets is a major shopping center and dining area in the northwest part of the city and draws approximately 11,000 trips daily. As would be expected, the top trip purpose is to access the area for shopping (51%). Most trips are made around 5PM and by private automobile (78%). Similar to downtown Round Rock, the majority of trips originated from nearby areas to the south of the city, with a concentration of trips originating from areas west of I-35 from University Boulevard to TX-45. Additionally, there are concentration of originating areas along US-79 from I-35 to CR- 110.

Regionally, a significant amount of daily travel from Georgetown was observed. The regional origins to the area extend farther east and west, as well, with travel to the shopping center observed from parts of south Hutto, northwest Taylor, and parts of central Cedar Park, as illustrated in Figure 6-4. Origins in areas south of Round Rock are found along the I-35 and FM-734 junction, by the University of Texas at Austin, and in downtown Austin from Lamar Boulevard to I-35, as shown in Map D-2 in Appendix D.

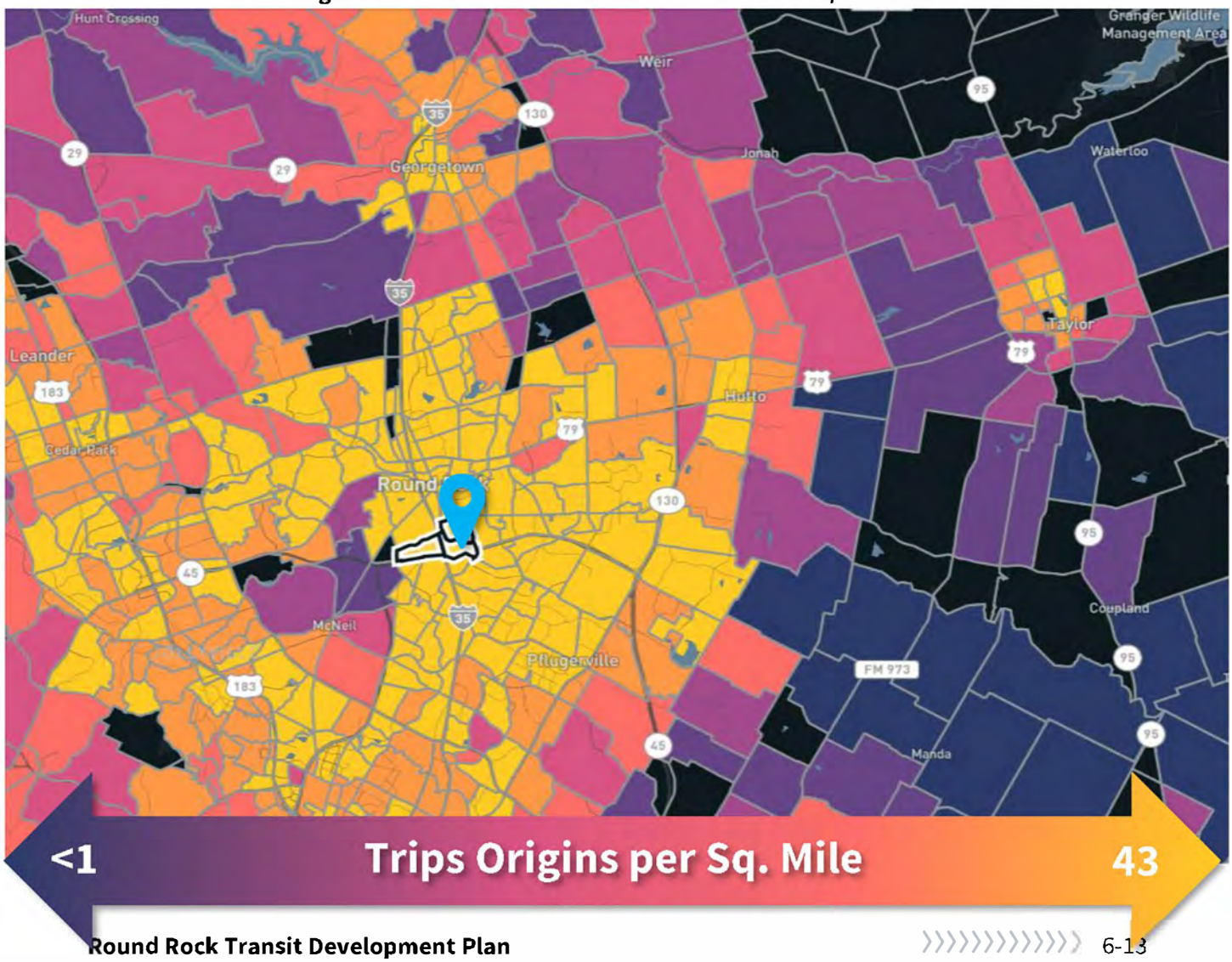
Figure 6-4: Travel Flow Destination - Round Rock Premium Outlets



La Frontera/Dell Area

The La Frontera/Dell area is in the southern part of the city limits, just north of TX-45. With its major shopping, employment, and dining areas, as well as the headquarters for Dell Technologies, this area draws approximately 52,000 daily trips. The heaviest travel to this area is at 8AM and 5PM, which would be expected given the heavy volume of work trips that would occur during peak travel times. The top trip purposes are work and shopping, at 37.1 percent and 32.3 percent, respectively. The majority, 82 percent, use a private automobile to reach the area. The bulk of trip-originating areas are located along I-35 from Westinghouse Road north of Round Rock to Palmer Lane in Pflugerville. Additionally, there are concentrations of trip origins in eastern Round Rock along US-79 from I-35 to CR- 110 and TX-45 from I-35 to TX-130. As the area is in the southern part of Round Rock, there is a large concentration of trips originating from Pflugerville, just south of Round Rock. As shown in Figure 6-5, the other regional origins include Georgetown, Hutto, and east of I-183. Additionally, as shown in Map D-3 in Appendix D, concentrations of origins from south of Round Rock were observed adjacent to I-35 closer to Austin, along the I-35 and TX-290 junction, in the Dellwood area, and in downtown Austin along the Colorado River.

Figure 6-5: Travel Flow Destination - La Frontera/Dell area

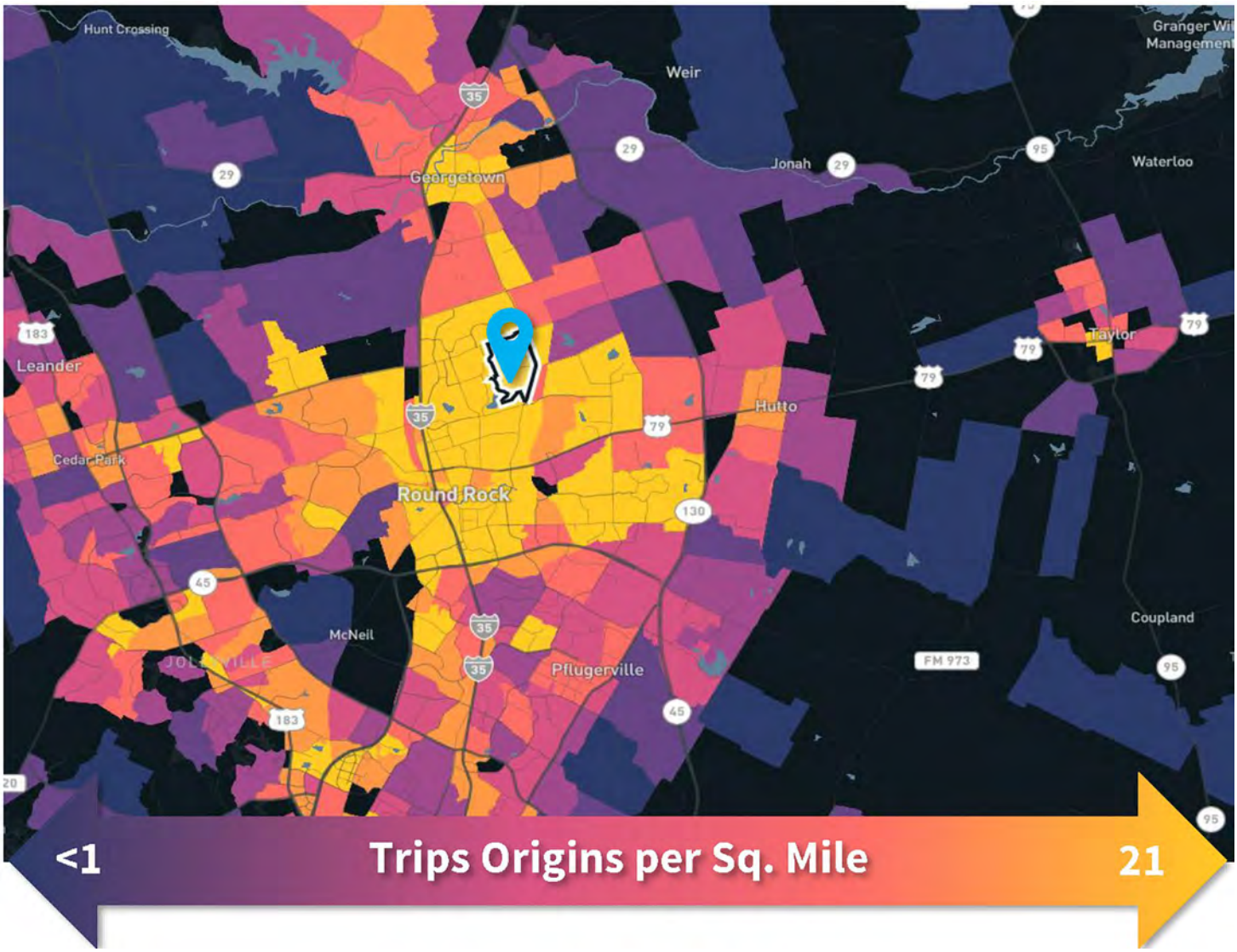


Higher Education Complex/Seton Medical Center

As shown in Figure 6-6, this growing area is in the northeast area of the City of Round Rock and is currently home to three higher educational centers, a medical center, and multi-family housing. The area draws approximately 7,500 daily trips, with travelers mainly accessing the educational establishments (29%) and the medical center (25%). The majority of trips are made in the morning time around 8AM by private automobile (70%). Overall, the majority of trips originate from the central part of Round Rock. However, there is a cluster of trips originating between US-79 and TX-45 to the west of CR-130. Central Georgetown and parts of Taylor also have some concentration of areas that have trips ending at this destination.

There are not as many trips to the area originating from areas south of the city. The majority of those originating in downtown Austin are between Guadalupe Street south of 9th Street and north of 4th Street (Map D-4 in Appendix D).

Figure 6-6: Travel Flow Destination - Higher Education Complex/ Seton Medical Center area



SECTION 7. FUTURE TRANSIT NEEDS

This section summarizes specific strategies and improvement scenarios to help address the future transit needs in the City of Round Rock. These needs were developed based on findings from the market analysis summarized in the previous section of this technical memorandum, in addition to the findings from the baseline conditions analysis, input from the public and key local and regional stakeholders, as well as plan and policy direction from City leadership.

The elements of the overall Round Rock transit needs assessment are illustrated in Figure 7-1 and summarized thereafter. This is followed by a discussion of future transit needs for the City, including potential improvement scenario options for implementation in the next 10 years.

Figure 7-1: Development of Transit Needs

- **Community Needs & Direction** – Throughout the TDP planning process, the City used many direct and indirect public outreach techniques to obtain input from its residents and visitors on a desired transit vision and corresponding mobility needs. Public input surveys, public workshops, rider surveys, and numerous other efforts using various printed and online media platforms were used to gather input from the general public and transit riders. Key findings from these efforts were reviewed to identify the transit needs as well as the desired directions of the community regarding transit for the next 10 years.

- **Key Stakeholder Feedback** – To help enhance and broaden the understanding of local and reginal conditions, the City also gathered perceptions and ideas about public transportation and mobility needs from a number of key selected stakeholders in the City. Their feedback about the role, efficacy, and future vision of transit in the City, which was obtained via one-on-one interviews as well as open forum-style small group discussions, were also used to identify the necessary transit needs and strategies.
- **City Vision & Guidance** – The guidance from and the vision of City leadership on Round Rock's "mobility future" provided insight into transit needs within the community and the potential means with which to meet them. The City leaders' direction to develop a logical plan to provide its citizens with a sustainable, implementable vision for transit services for the next five years and beyond was the primary consideration in developing future transit needs. In addition, every effort also was taken to ensure that the future network of transit services and facilities also:
    - Addresses ongoing development and growth,
    - Meets connectivity needs, including first mile/last mile access, and
    - Implements technological advances to attract more riders and increase ease of use.
- **Transit Demand Assessment** – As presented previously, an assessment of transit demand and needs also was conducted for the City. The assessment included the use of various GIS-based analyses, travel demand model and software tools, and methodologies that examined demographic data conducive to transit. These technical analyses, together with the baseline conditions and network efficiency assessments previously conducted, also were used to help identify areas and population segments with transit-supportive characteristics when developing the future transit needs for the City.

FUTURE TRANSIT NEEDS IN ROUND ROCK

A toolbox of options was developed for the fast-growing City of Round Rock so it also can grow its mobility options and further enhance the quality of life for its residents. Four improvement options/scenarios were developed to provide practical and implementable solutions that can enhance mobility and support the overall growth in the city.

These scenarios may also help Round Rock to further its quest to become the city it has envisioned to be by 2036, a family-friendly community that is safe and distinctive by design, and a major medical and educational destination in the region.

The future transit service scenarios are defined as follows:

- **Option #1: Enhanced Vision** – Recommendations include realignments and enhancements to existing fixed-route bus transit services and adding app- and phone-based Mobility-on-Demand (MOD) services. This scenario provides the lowest cost enhancement option (cost details of each scenario are discussed later) with some necessary adjustments to the current transit network in the city. A key feature of this scenario would be the all-day service to Tech Ridge, a much-desired regional connection that is limited in scale at this time.

- **Option #2: Ambitious Vision** – Recommendations under this scenario begins to create a well-connected and more available (and frequent) transit network for the City. A moderate cost option, this scenario builds on Option #1 and would double the frequency of service on the most popular current bus route in the city (Route 50) while also adding new services and services on the weekends.
- **Option #3: Aspirational Vision** – With a set of service recommendations that would increase travel options and convenience significantly in the city as well as regionally, this scenario expands Option #2 to provide a higher-cost, higher-access improvement option for the transit network in Round Rock. This scenario would not only significantly increase connectivity within the city, but it would also make high frequency regional connections, as well, making the City's medical and educational destinations as well as its downtown much more easily accessible.
- **Option #4: City On-Demand Vision** – While it is not a step up of services from the Aspirational Vision previously discussed, this scenario offers a more unique service and moderate cost option for the City to enhance its alternative travel modes for its residents and visitors. With this scenario, the City would switch to a non-traditional, no-fixed route bus option within the city while still using traditional bus services to connect regionally. In this scenario, technology-based on demand mobility would be the primary transit travel option within the city. This scenario would make on-demand transit available in all of the areas of the city currently served by fixed-route bus service.

The four service scenarios are presented in greater detail in the remainder of this section, including the improvements to existing services as well as the new services added. This is followed by a list of infrastructure, capital, technology, and policy strategies that may be necessary to support the successful implementation of any of these service strategies.

It should be noted that, other than for some regional connections, existing route nomenclature has been revised. Most of the proposed route improvements are renamed to reflect the locations and/or purpose they serve. While keeping these name changes are recommended to help promote the local identity of the City's transit services, it is not a requirement to implement any of the scenarios described herein.

OPTION #1: ENHANCED VISION SCENARIO

With the rapid growth in population and employment in the city, this scenario brings revisions to the existing services and adds new mobility options to efficiently connect people their local and regional destinations. This scenario focuses on efficiency enhancements at a minimal additional cost. Improvements in this scenario build on or enhance the existing fixed-route network and it also adds technology-based mobility options.

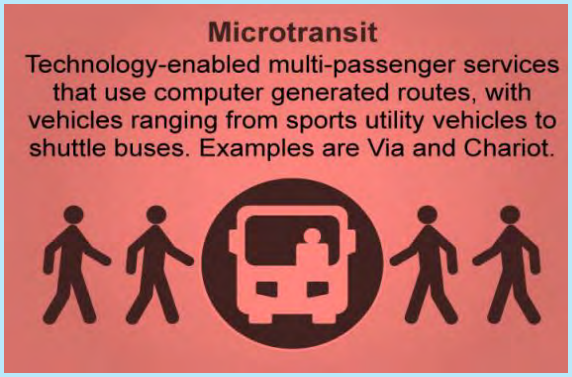
The following improvements are recommended for the Enhanced Vision scenario.

- ***North Round Rock (Revised Route 50)*** – This current route is realigned to better serve the Premium Outlets shopping mall and other nearby locations and has also expanded its reach

at the end of the current terminus at ACC. Operating every 60 minutes, this route will continue serve the Round Rock Transit Center, Sunrise Road, the Round Rock Premium Outlets, ACC, Texas State University, Texas A&M, and the Seton Medical Center. This route would continue to operate Monday through Friday. It would also continue the current 14-hour service span.

- ***Tech Ridge Express (Revised Route 152)*** – The current peak-hours-only Route 152 is enhanced to an all-day, every 60-minute route to Tech Ridge from the Round Rock Transit Center. This route is realigned also to serve La Frontera and the Dell Technologies campus and nearby areas. Like the North Round Rock route, this route would operate Monday through Friday from 6:30PM-8:30PM.
- ***Route 980*** – This current express route from Round Rock to downtown Austin will continue the two trips in the morning and two trips in the afternoon, similar to its schedule established before the pandemic.
- ***Mobility on Demand (MOD) Microtransit in Three Zones*** – As a pilot to assess public interest in shared mobility services and expand the transit availability for a much greater geographic area than the current service area, three areas were identified for establishing demand-based microtransit services in the City. The service will be provided with smaller vehicles/vans (the TDP field review indicated a need for smaller vehicles to easily maneuver the City's neighborhoods. Also, using non-transit-looking vehicles was preferred over the use of typical transit buses in the city during public outreach, preferably electric-propulsion vehicles to minimize the City's carbon footprint, where riders can quickly book a ride using an app or call a phone number to request a ride.

  Excluding the modified walk access area of any local bus routes, all other area in the zones identified in Map 3-1 will be connected. (A transit walk access area was defined for these MOD Zones as being 1/8-mile or a 2-minute walk from a bus route to make it a more comfortable walk than the ¼-mile threshold typically used in the industry).[4]



Source: GAO Report 18-539

FTA defines microtransit as "IT-enabled private multi-passenger transportation services (such as Bridj, Chariot, Split, and Via) that serve passengers using dynamically-generated routes and may expect passengers to make their way to and from common pick-up or drop-off points. Vehicles can range from large SUVs to vans to shuttle buses. Because they provide transit-like service but on a smaller, more flexible scale, these new services

[4] FTA defines a ¼ -mile buffer as a comfortable walking distance to access transit, commonly considered to be the transit walk access buffer. This plan assumes a 1/8-mile buffer to make using transit even more convenient and easy in Round Rock.

For using the Round Rock MOD microtransit services, a distance-based fare structure is recommended. The following tiered fare structure is proposed.

- Trips from 0-1 miles: $3.00
- Trips from >1-2 miles: $3.50
- Trips from >2-3 miles: $4.00
- Trips from >3-4 miles: $4.50
- Trips over >4 miles: $5.00

MOD microtransit fares, based on data from MOD services implemented in most areas nationally, are typically higher than the fares for using regular fixed-route bus transit services. This is due to the added convenience MOD provides and also may be beneficial to help make sure that anyone who can conveniently use regular fixed-route bus transit for the same trip continues to use it instead of switching to MOD. However, since no ADA complementary paratransit will be available in any of the MOD zones, any eligible ADA paratransit users would still pay only the current ADA fare of $2 per one-way MOD trip to access fixed-route services, regardless of the distance.

These services would also serve as first/last-mile service for riders of regular fixed-route transit services. For such riders, the service could be at a reduced fare, as they have already paid or will pay fare for regular bus service.

The MOD zones described below were identified based on demand analyses and findings from the TDP public outreach.

- *Round Rock East MOD Microtransit* – Encompasses the area between Round Rock Transit to University Boulevard east of I-35 to Old Settlers Park. This app-based service would connect eligible riders in this high population/employment area to locations within the designated MOD zone.
- *Round Rock West MOD Microtransit* – This zone expands the reach of Round Rock's transit services in the western part of the City and establishes connectivity to many areas that previously did not have transit access. This zone spans west of I-35, south of Old Settlers Boulevard, and follows the city limits to the west and south. The traditional transit market segments and residents/workers in this zone who are without easy access to fixed-route services will be connected to locations in the zone and the Round Rock Transit Center.
- *Round Rock North MOD Microtransit* – This service would provide on-demand coverage to neighborhoods and businesses in north Round Rock along with the University Oaks Shopping Center and IKEA. While data have shown a potential ridership demand, especially from traditional rider markets, currently there is no local neighborhood service in the area other than the current Route 50. This zone would span as far north as University Avenue and as far west as I-35. To the south, the zone would stretch to meet the East MOD zone at the Round Rock Transit Center and along US-79.

The service will use geofencing to ensure that the population living/working close to any local fixed bus routes (defined as within 1/8-mile) are excluded. The Round Rock TDP recommends two possible options for establishing this service:

- *Fixed-Route Service Provider* – Includes working with the fixed-route bus service provider in the city (currently Capital Metro), to operate this service. With its presence in the area as the traditional transit service provider for the City and having maintenance and other facilities, Capital Metro may be considered for providing this service if it fits the technological needs and financial framework for the City. Technological needs include the ability to implement and administer an on-demand service, including a rider app, a driver app, administrative consoles/dashboards, etc. Another related option may be to partner with a transportation technology company to provide the technology platform and then use Capital Metro to procure the vehicles, recruit drivers, and manage operations.

- *Transportation Technology/Rideshare Company* – In recent years, several rideshare providers have entered the transit service industry by providing technology-based MOD services. Based on research conducted for this study, using a transportation technology company such as Via, Moovit, RideCo, or Freebee that has experience providing such services may be the best strategy in Round Rock, especially given the community's desire/need to have smaller vehicles and "non-transit-looking" transit. Options typically provided with Via and other similar providers include the following:

    - *Technology-Only Option* – The company provides the technology to administer an on-demand service, including the technology platform, a rider app, a driver app, an admin console, and access to data dashboards and reports. The company would not operate the service, but would train the fixed-route bus operator on how to use these tools and provide support and service optimization to help the operator throughout the duration of the service. The City would need to partner with Capital Metro or another service provider for procuring vehicles, recruiting drivers, and managing ongoing operations.

    - *Service and Technology Option* – The City would directly hire the transportation technology company to provide the technology and support described above and also to fully operate the service. The company would procure vehicles and recruit drivers and would provide customer support, vehicle maintenance, etc. The City would operate as a strategic partner to ensure that the company is meeting the City's goals/expectations.

- ***After Hours and Saturday On-Demand Program*** – The data analysis conducted to identify travel patterns and needs in the city, combined with the public input, also indicated that there may be a demand for connectivity after the current transit services in Round Rock cease to operate. In addition, there was also the need expressed by current riders as well as potential users about not having any transit options on Saturday or Sunday. Currently there is no service during the weekends.

  To address both of these needs, but in a more financially affordable fashion and due to the uncertainty of the actual demand, a subsidized after-hours on-demand trip program is recommended. The program will allow people needing to use transit to have access to a subsidized voucher program for using ride-hailing services from TNCs such as Uber or Lyft to get around when regular service is not available on week nights (after regular services

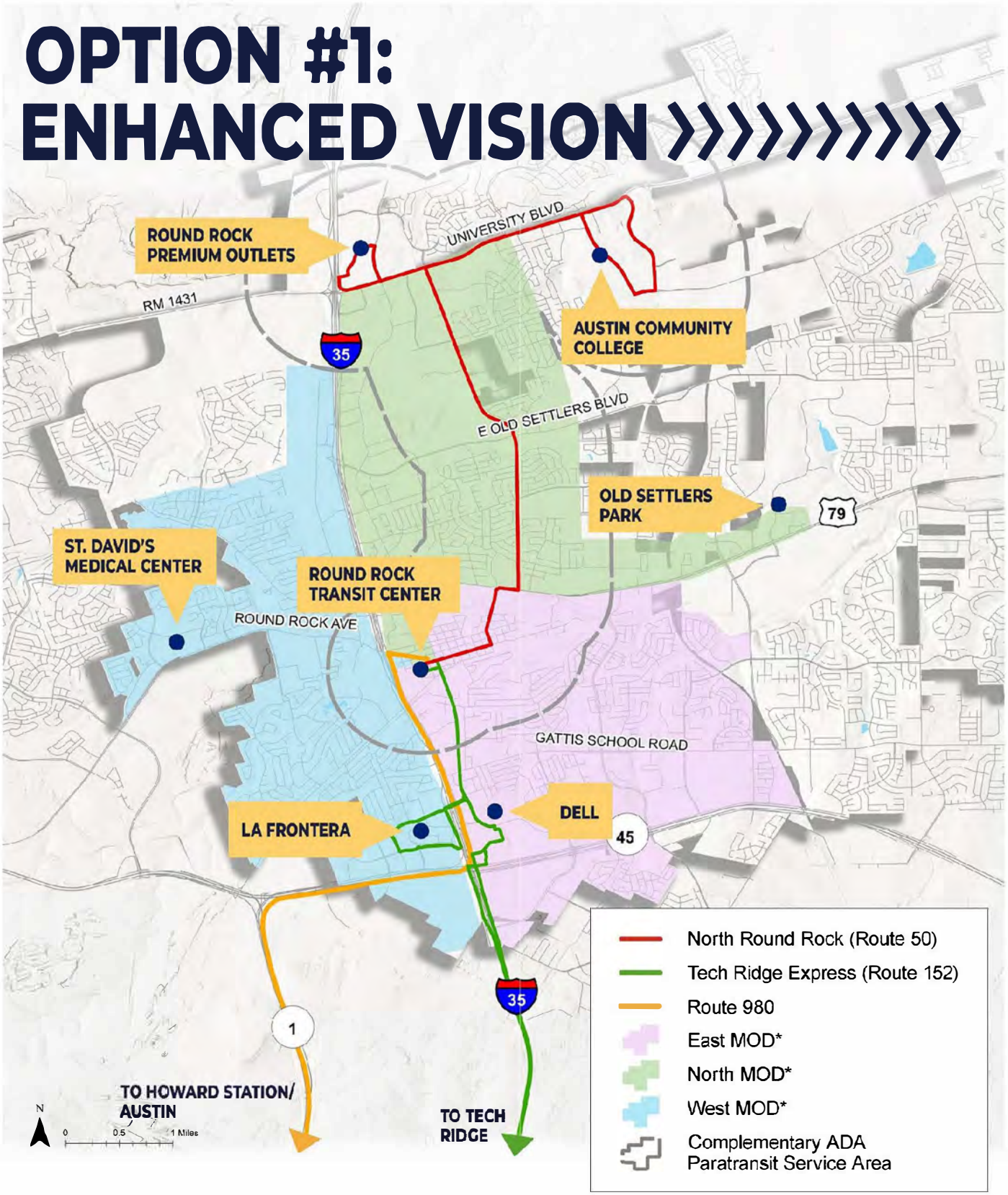
end), and on Saturdays. The program would subsize the first $5.00 of a one-way trip for riders using the program. For example, an after-hours rider taking an $8.00 Uber ride would be charged only $3.00 under this program, and the program would cover the remainder of the cost up to $5.00.

Key service characteristics, with the annual operating costs, of the improvements for the Enhanced Vision scenario are summarized in Table 7-1, below. In addition, Map 7-1 shows the Enhanced Vision transit network for the City of Round Rock.

Table 7-1: Enhanced Vision Scenario Implementation Plan

SERVICE TYPE	PROPOSED SERVICE	DAYS OF SERVICE	SPAN OF SERVICE	FREQUENCY (MIN.)	ANNUAL OPERATING COST (2022$)
			2023-2032		
FIXED-ROUTE	North Round Rock	Mon-Fri	6:30AM-8:30PM	60	$307,270
	Tech Ridge Express	Mon-Fri	6:30AM-8:30PM	60	$307,270
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	$76,258
			2023-2032		
MOD	East	Mon-Fri	6:30AM-8:30PM	On-demand	$428,400
	North	Mon-Fri	6:30AM-8:30PM	On-demand	$642,600
	West	Mon-Fri	6:30AM-8:30PM	On-demand	$428,400
			2023-2032		
AFTER-HOURS	Weekday After-Hours	Mon-Fri	8:30PM-12:00AM	On-demand	$100,000
	Saturday	Sat	6:30AM-8:30PM	On-demand	$100,000
			2023-2032		
OTHER	ADA Paratransit	Mon-Fri	6:30AM-8:30PM	On-demand	-

Map 7-1: Enhanced Vision Network Scenario



OPTION #2: AMBITIOUS VISION SCENARIO

This scenario implements higher frequency service and additional connections on arterial roads to key destinations and activity centers, some of which currently are not served by transit. Based on direction from local stakeholders and the community for increasing service frequency on high demand corridors/areas throughout the city, this scenario increases frequency on the north-south transit service and adds a new east-west service, which also is a need identified during public outreach. Enhancing frequencies can help attract new discretionary riders as well as improve the quality of service for current riders using the system.

The ambitious vision scenario is shown on Map 7-2.

- ***North Round Rock*** – To help reach the higher frequency network over time that the community desires, this scenario would increase the operating frequency on the North Round Rock route. This enhancement would increase the service frequency primarily on Sunrise Road to a bus every 30 minutes from every 60 minutes. This would decrease wait times and more quickly connect residents and visitors to economic opportunities, shopping, and other activities. The route would continue to connect with other routes at the Round Rock Transit Center. Additionally, this service would include Saturday service from 6:30AM to 6:30PM.
- ***Tech Ridge Express*** – This service would have the same alignment and frequency as the Enhanced Vision scenario, and similar to the North Round Rock route, would add Saturday service from 6:30AM to 6:30PM.
- ***Route 980*** – Similar to the Enhanced Vision scenario, the express route to downtown Austin would maintain the two trips in the morning and two trips in the afternoon on weekdays.
- ***East-West Connector (Revised Route 51)*** – Input from the community and stakeholders as well as the data analyses indicated that there is a strong demand to strengthen connections between the east and west parts of the city. To address this need, service from St. David's Hospital to Old Settlers Park will be implemented. The frequency will be every 60 minutes during weekdays from 6:30AM to 8:30PM, and on Saturdays from 6:30AM to 6:30PM. This route would also connect with Round Rock Transit Center, the Gattis School Road areas, Kalahari Resort, and many other locations in between.
- **Enhanced MOD Microtransit in Three Zones**
  - *Enhanced East MOD* – This zone would have the same boundaries and characteristics as the Enhanced Vision, but would include an additional vehicle for enhanced services. Additionally, it would also add Saturday service from 6:30AM to 6:30PM.
  - *Enhanced North MOD* – Similar to the East MOD zone, the boundaries and characteristics remain the same, but an additional vehicle is implemented to ensure more supply of service. This MOD zone would also have Saturday service from 6:30AM to 6:30PM.
  - *Enhanced West MOD* – This zone will continue to serve the same areas with the same weekday span with the addition of Saturday service from 6:30AM to 6:30PM. Like the other zones, it will have an additional vehicle.

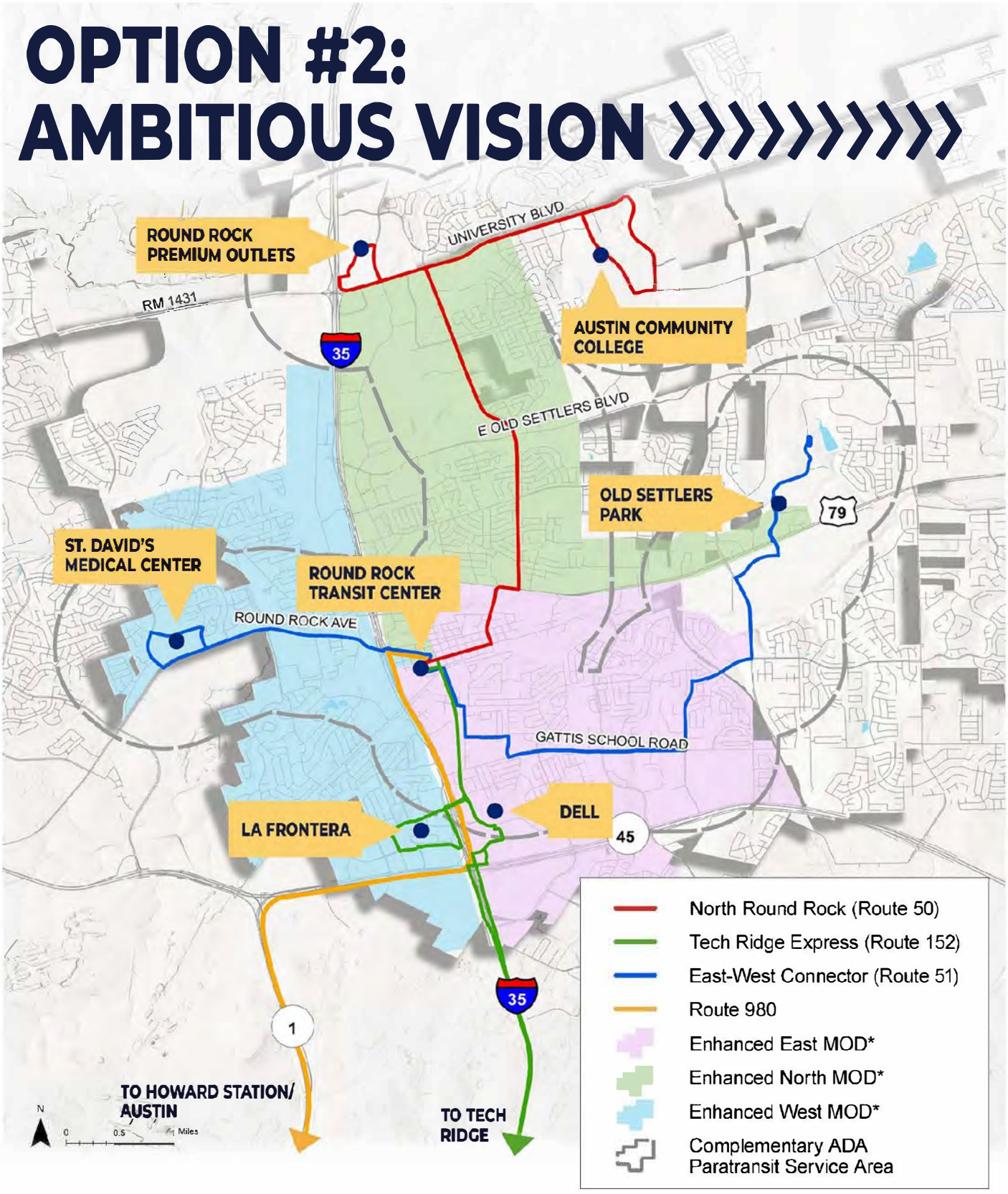
- ***After Hours On-Demand Program*** – As the fixed-route and other MOD services would implement service on Saturdays with this option, this trip subsidy program would provide only after-hours service in the city.

Key service characteristics and annual operating costs of the improvements for the Ambitious Vision scenario are summarized in Table 7-2, below. In addition, Map 7-2 shows the Ambitious Vision transit network for the City of Round Rock.

Table 7-2: Ambitious Vision Network Scenario

SERVICE TYPE	PROPOSED SERVICE	DAYS OF SERVICE	WEEKDAY SPAN	WEEKDAY FREQUENCY (MIN.)	SATURDAY SPAN	SATURDAY FREQUENCY (MIN.)	ANNUAL OPERATING COST (2022$)
				2023-2025			
FIXED-ROUTE	North Round Rock	Mon-Fri	6:30AM-8:30PM	60			$307,270
	Tech Ridge Express	Mon-Fri	6:30AM-8:30PM	60			$307,270
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips			$76,258
				2026-2032			
	North Round Rock	Mon-Sat	6:30AM-8:30PM	30	6:30AM-6:30PM	30	$721,955
	Tech Ridge Express	Mon-Sat	6:30AM-8:30PM	60	6:30AM-6:30PM	30	$360,978
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips			$76,258
	East-West Connector	Mon-Sat	6:30AM-8:30PM	60	6:30AM-6:30PM	60	$360,978
				2023-2025			
MOD	East	Mon-Fri	6:30AM-8:30PM	On-demand			$428,400
	North	Mon-Fri	6:30AM-8:30PM	On-demand			$642,600
	West	Mon-Fri	6:30AM-8:30PM	On-demand			$428,400
				2026-2032			
	Enhanced East	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,006,560
	Enhanced North	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,006,560
	Enhanced West	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$754,920
				2023-2025			
AFTER-HOURS	After-Hours	Mon-Sat	8:30PM-12:00AM	On-demand	6:30AM-8:30PM	On-demand	$100,000
				2026-2032			
	After-Hours	Mon-Sat	8:30PM-12:00AM	On-demand	6:30PM -12:00AM	On-demand	$100,000
				2023-2032			
OTHER	ADA Paratransit	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	

Map 7-2: Ambitious Vision Network Scenario



OPTION #3: ASPIRATIONAL VISION SCENARIO

The Aspirational Vision scenario was developed to create an efficient network with improved frequencies and technological enhancements to make transit a truly viable option for travel for the City locally and regionally. While costlier than the existing services, it would increase the service levels of local and regional connections significantly. Part of that enhancement would be expanded and enhanced on-demand services within the City. Additionally, the Aspirational Vision network would provide more coverage throughout central Round Rock, provide direct connections to north Round Rock, and connect to new developments in southern Round Rock.

- ***North Round Rock*** – The weekday and Saturday spans, alignment, and frequencies would remain the same as that for the Ambitious Vision scenario, with service every 30-minutes from Monday to Saturday.
- ***Tech Ridge BRT-Lite*** – This improvement would provide a high-frequency premium transit connection from Tech Ridge to the Round Rock Transit Center via the implementation of a branded Bus Rapid Transit (BRT) route between the two locations. The proposed service would operate in mixed traffic, hence, the "BRT-Lite" designation since service as a full-scale BRT would typically use an exclusive guideway for at least half of its route. The BRT service would connect Round Rock to Tech Ridge every 15 minutes on weekdays and Saturdays while also still serving La Frontera and the Dell Technologies campus. With a transfer to Capital Metro's BRT services at Tech Ridge, this route would effectively provide a fast connection to Austin approximately every 15 minutes.
- ***East-West Connector*** – For this service, the weekday and Saturday spans, alignment, and frequencies would remain the same as that for the Ambitious Vision scenario.
- ***North Round Rock Commuter Express*** – This new route would provide an express service, operating mostly on I-35, to quickly connect the Round Rock Transit Center/downtown to key employment and activity centers in northern Round Rock, providing a one-seat express route to the Round Rock Premium Outlets. The North Round Rock Commuter Express would operate every 30 minutes on weekdays from 6:30AM to 8:30PM.
- ***Route 980*** – Like the previous scenarios, the express route to downtown Austin would continue with two trips in the morning and two trips in the afternoon.
- ***Expanded MOD Microtransit in Three Zones***
    - *Expanded East MOD* – This zone would expand its boundaries from the previous scenario's zone area toward east of I-35 and south of US-79 out to Red Bud Lane. More vehicles would be added to increase service supply. The weekday service would operate from 6:30AM to 10:30PM and Saturday service would operate with a span from 6:30AM to 6:30PM.
    - *Expanded North MOD* – The boundaries for this MOD zone would also expand to include areas south of University Boulevard from I-35 to the eastern city boundaries. Additional vehicles would be added and this MOD zone would also have weekday service from 6:30AM to 10:30PM and Saturday service with a span from 6:30AM to 6:30PM.

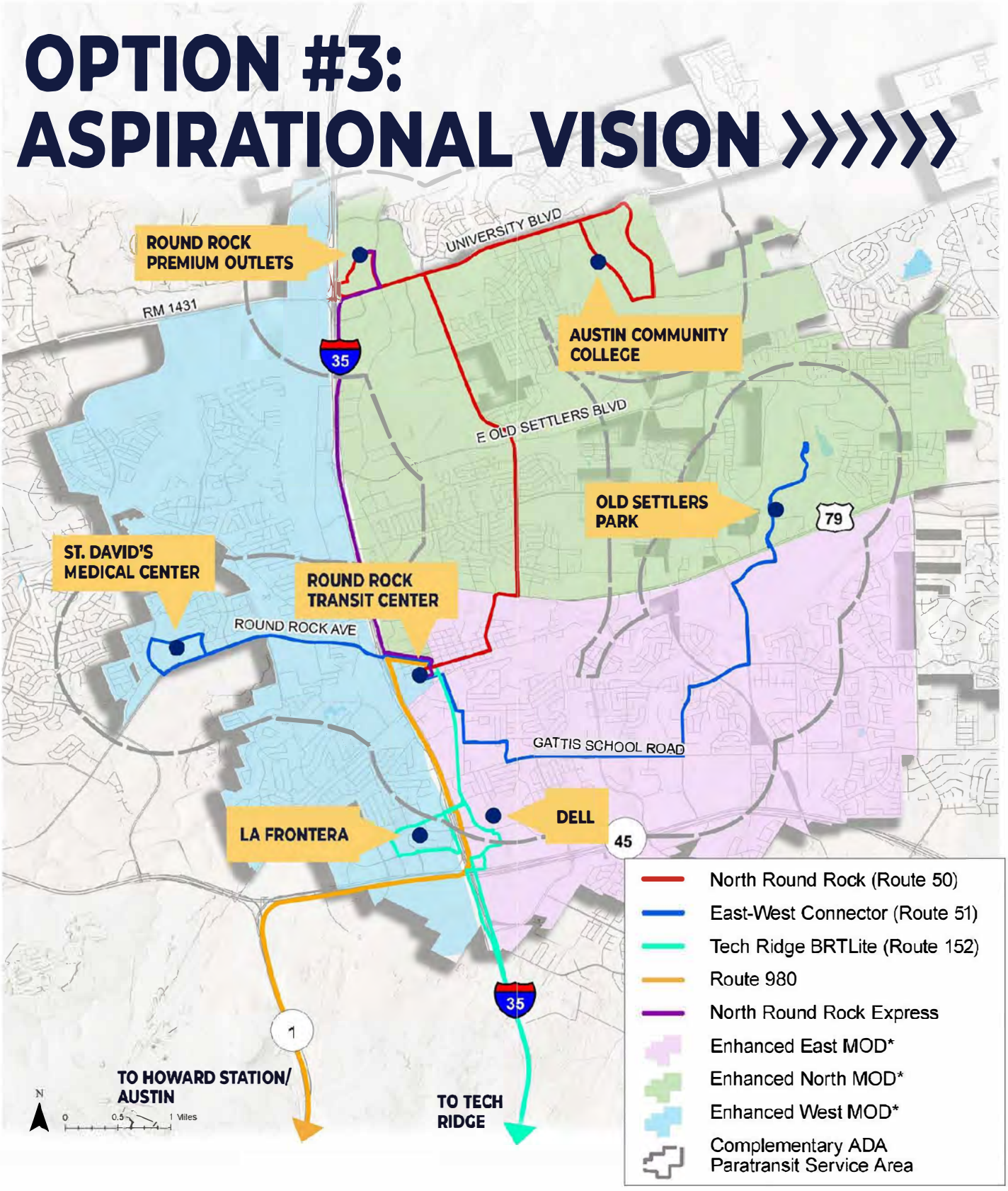
- *Expanded West MOD* – Similar to the expanded East and North MOD services previously discussed, this zone would also add more vehicles and provide weekday service from 6:30AM to 10:30PM and Saturday service from 6:30AM to 6:30PM.

- ***After Hours On-Demand Program*** – This trip subsidy program to help riders connect to their homes and other locations after the regular service ends on weekdays would remain similar to program proposed for the Ambitious Vision scenario.

Key service characteristics and operating costs of the improvements for the Aspirational Vision scenario are summarized in Table 7-3, below. In addition, Map 7-3 shows the network of services for this scenario.

Table 7-3: Aspirational Vision Network

SERVICE TYPE	PROPOSED SERVICE	DAYS OF SERVICE	WEEKDAY SPAN	WEEKDAY FREQUENCY (MIN.)	SATURDAY SPAN	SATURDAY FREQUENCY (MIN.)	ANNUAL OPERATING COST (2022$)
			2023-2025				
	North Round Rock	Mon-Fri	6:30AM-8:30PM	60	-	-	$307,270
	Tech Ridge Express	Mon-Fri	6:30AM-8:30PM	60	-	-	$307,270
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	-	-	$76,258
			2026-2029				
	North Round Rock	Mon-Sat	6:30AM-8:30PM	30	6:30AM-6:30PM	30	$721,955
FIXED-ROUTE	Tech Ridge Express	Mon-Sat	6:30AM-8:30PM	30	6:30AM-6:30PM	30	$721,955
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	-	-	$76,258
			2030-2032				
	North Round Rock	Mon-Sat	6:30AM-8:30PM	30	6:30AM-6:30PM	30	$721,955
	Tech Ridge BRT Lite	Mon-Sat	6:30AM-10:30PM	15	6:30AM-6:30PM	15	$1,214,620
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	-	-	$76,258
	North Round Rock Express	Mon-Sat	6:30AM-8:30PM	30	6:30AM-6:30PM	30	$360,978
	East-West Connector	Mon-Sat	6:30AM-8:30PM	60	6:30AM-6:30PM	60	$360,978
			2023-2025				
	East	Mon-Fri	6:30AM-8:30PM	On-demand	-	-	$428,400
	North	Mon-Fri	6:30AM-8:30PM	On-demand	-	-	$642,600
	West	Mon-Fri	6:30AM-8:30PM	On-demand	-	-	$428,400
			2026-2029				
MOD	Enhanced East	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,006,560
	Enhanced North	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,006,560
	Enhanced West	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$754,920
			2030-2032				
	Expanded East	Mon-Sat	6:30AM-10:30PM	On-demand	6:30AM-6:30PM	On-demand	$2,024,366
	Expanded North	Mon-Sat	6:30AM-10:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,411,200
	Expanded West	Mon-Sat	6:30AM-10:30PM	On-demand	6:30AM-6:30PM	On-demand	$1,128,960
			2023-2025				
AFTER-HOURS	After-Hours	Mon-Sat	8:30PM-12:00AM	On-demand	6:30AM-8:30PM	On-demand	$100,000
			2026-2032				
	After-Hours	Mon-Sat	10:30PM-12:00AM	On-demand	6:30PM-12:00AM	On-demand	$100,000
			2023-2032				
OTHER	ADA Paratransit	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	-


OPTION #3:
ASPIRATIONAL VISION
ROUND ROCK PREMIUM OUTLETS
RM 1431
UNIVERSITY BLVD
AUSTIN COMMUNITY COLLEGE
E OLD SETTLERS BLVD
OLD SETTLERS PARK
79
ST. DAVID'S MEDICAL CENTER
ROUND ROCK TRANSIT CENTER
ROUND ROCK AVE
GATTIS SCHOOL ROAD
DELL
LA FRONTERA
45
35
1
TO HOWARD STATION/ AUSTIN
TO TECH RIDGE
N
0
0.5
1 Miles
North Round Rock (Route 50)
East-West Connector (Route 51)
Tech Ridge BRTLite (Route 152)
Route 980
North Round Rock Express
Enhanced East MOD*
Enhanced North MOD*
Enhanced West MOD*
Complementary ADA Paratransit Service Area

OPTION #4: CITY ON-DEMAND VISION SCENARIO

As previously noted, this scenario offers a more unique service option for the City to enhance its alternative travel modes, such as transit, for its residents and visitors. This scenario would repurpose the current traditional fixed-route bus services in the City to a city-wide, on-demand transit service while still using traditional bus services to connect regionally.

This scenario would include the following improvements.

- ***Tech Ridge Express*** – Similar to the Enhanced Vision, this option would enhance the current peak-hours-only service of Route 152 to an all-day, every 60-minute route to Tech Ridge from the Round Rock Transit Center. This route would also serve La Frontera and the Dell Technologies campus and nearby area, operating Monday through Friday from 6:30PM-8:30PM.
- ***Route 980*** – This current express route from Round Rock to downtown Austin would continue with two trips in the morning and two trips in the afternoon, similar to the other scenarios.
- ***City-Wide MOD Microtransit*** – A single city-wide MOD zone would be created to provide microtransit services to all City residents and visitors through the use of an app or by calling a phone number to request a ride. The distance-based fare structure that is proposed for the MOD zones previously discussed would still be implemented. However, now that no traditional fixed-route services would be available, some adjustments would be necessary and should be considered for riders on longer trips within the city, especially the ones who may come from low-income households. The service would be provided from Monday to Saturday between the times of 6:30PM-10:30PM.

Key service characteristics and operating costs of the improvements for the City On-Demand Vision scenario are summarized in Table 7-4. Furthermore, Map 7-4 shows the network of services for this scenario.

Table 7-4: City On-Demand Vision Network

SERVICE TYPE	PROPOSED SERVICE	DAYS OF SERVICE	WEEKDAY SPAN	WEEKDAY FREQUENCY (MIN.)	SATURDAY SPAN	SATURDAY FREQUENCY (MIN.)	ANNUAL OPERATING COST (2022$)
				2023-2025			
FIXED-ROUTE	Tech Ridge Express	Mon-Fri	6:30AM-8:30PM	60	-	-	$307,270
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	-	-	$76,258
				2026-2032			
	Tech Ridge Express	Mon-Sat	6:30AM-8:30PM	60	6:30AM-6:30PM	60	$360,978
	Route 980	Mon-Fri	Peak	2 AM and 2 PM Trips	-	-	$76,258
				2023-2025			
MOD	Round Rock	Mon-Fri	6:30AM-8:30PM	On-demand	-	-	$2,142,000
				2026-2029			
	Round Rock	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	$3,019,680
				2030-2032			
	Round Rock	Mon-Sat	6:30AM-10:30PM	On-demand	6:30AM-6:30PM	On-demand	$4,233,600
AFTER-HOURS				***2023-2032***			
	After-Hours	Mon-Sat	10:30PM-12:00AM	On-demand	6:30PM-12:00AM	On-demand	$100,000
OTHER				***2023-2032***			
	ADA Paratransit	Mon-Sat	6:30AM-8:30PM	On-demand	6:30AM-6:30PM	On-demand	-

Map 7-4: City On-Demand Vision Network

CAPITAL/TECHNOLOGY/POLICY IMPROVEMENTS

Implementation of all the aforementioned transit services should be supported by necessary capital infrastructure and technology improvements to ensure an enhanced experience for riders. The following improvements are identified to support the operational investments summarized previously.

- *Additional Bus Stop Infrastructure* – Installing the right level of amenities at bus stops may help attract more discretionary riders and provide all riders with a comfortable and safe experience at City of Round Rock bus stops. Round Rock should continue installing bus shelters, benches, bike racks, and other amenities at appropriate bus stop locations. The City should include plans to invest in additional infrastructure as well to support any newly-proposed routes with new bus stops, while continuing to ensure compliance with federal ADA accessibility guidance.
- *MOD Microtransit User App* – Phone-based bus transit apps are necessary for users of on-demand services to request rides and pay fares. Once a preferred MOD provider is selected/determined, the City should coordinate with that provider to either create an app solely for MOD services or upgrade any currently-existing app to also add the City's MOD services for a one-stop shop for potential riders.
- *Expand Transit Marketing and Education Campaign* – Although it is important to make transit more convenient to use and attractive to appeal to new ridership, it is equally important to ensure that the community is aware of where/when these services are available and how they work. Based on input from the general public and stakeholders, lack of awareness and education about currently-available services and facilities are a major hurdle to making transit a more viable option in the city. Therefore, a carefully-coordinated and multi-year marketing campaign strategy that involves local stakeholders/businesses and city agencies is recommended.

TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES

Regardless of the improvement scenario implemented, or whether the City decides to implement a hybrid version of these options or just continue business as usual, Round Rock should consider additional regional connection options through TDM service strategies such as vanpool and carpool in the next 10 years.

While Austin is and should be the priority connection due to the large volume of travel between the two cities, areas such as Georgetown, Pflugerville, Cedar Park, Taylor, and Hutto should also be connected to Round Rock through some type of travel options until more established, fixed-route transit is warranted between them (and services such as the current intercity coach bus services become inadequate).

To help provide these connections, the City should coordinate with commuter assistance organizations such as Movability to facilitate TDM options such as vanpools and carpools. Movability, the Central Texas transportation management association, coordinates with employers and individuals to improve regional commuter options.

ADA COMPLEMENTARY PARATRANSIT

The City currently provides ADA paratransit trip program within a service area that is larger than what the City is required to cover based on federal complementary ADA paratransit service guidelines (the FTA-required ADA service area is a ¾-mile service buffer around the fixed-route bus service network). While some parts of this current service footprint will be reduced, the current ADA complementary paratransit program for the ADA-eligible riders would continue when and where local traditional bus service is provided.

In areas/scenarios where no local route is present, wheelchair-based paratransit trips would still be provided to the extent possible. In summary, while the FTA requirements may go away due to fixed-route local service being reduced or not being included in some scenarios, all of the scenarios would still provide paratransit trips, as well, to ensure that persons who are unable to access regular transit/MOD services also will have a travel option.

However, one major difference with current ADA trips would be the enhancements to the speed and convenience of getting a wheelchair-accessible ride. With MOD apps and dynamic scheduling technologies using rider and driver software platforms, the ease of requesting a ride and wait times would be enhanced in the City regardless of the ability of riders and/or their need to use some type of mobility aid (e.g., a wheelchair).

SELECTING THE PREFERRED VISION FOR TRANSIT

Public outreach was a key element of this TDP as City leadership intended to develop a transit plan that is community supported and a future for transit in the community that excites the City's residents and visitors. Therefore, continuing the comprehensive public outreach effort for the TDP, these improvement scenarios were shared with the community for their input and direction with in-person as well as online public workshops. Thereafter, based an evaluation process that included public input and other criteria, followed by a careful assessment of current and potential sources of funding, the preferred transit vision was selected, as rest this report summarizes.

SECTION 8. EVALUATION OF TRANSIT NEEDS

After a range of scenarios were developed, as summarized previously, an evaluation framework was developed and used to assess these future visions/improvement strategies for transit for practical applicability in Round Rock. The framework with its evaluation criteria was used to help ensure that the resulting transit vision is logical, palatable, and actionable so that, once prioritized, it will be implementable, as well.

The remainder of this section identifies and defines the evaluation criteria that were used in prioritizing the four vision scenarios and the methodology by which those criteria were applied, followed by the results of that evaluation.

The four evaluation categories identified for use in the methodological process to rank the improvement strategies are described in Figure 8-1. Table 8-1 presents the evaluation criteria and their corresponding descriptions, the associated measures that were used to evaluate each Vision scenario for those criteria, and the assigned weights for each measure and overall criteria. Thereafter, detailed descriptions of each of these criteria and measures are provided.

Figure 8-1: Transit Needs Evaluation Criteria

Table 8-1: Evaluation Measures and Weights

CRITERIA	MEASURE	MEASURE DESCRIPTION	MEASURE WEIGHT	CRITERIA WEIGHT
Public Support	Public Input	Priority rankings/outreach data on the vision scenarios	15%	30%
	Stakeholder Vision/Direction	Input/level of general direction/vision on transit	15%	
Ridership Potential	Traditional Market Coverage	General overlap with traditional market gaps (areas with "High" or "Very High" rating from Transit Orientation Index)	12.5%	25%
	Choice Market Coverage	General overlap with choice market gaps (Density Threshold Assessment areas with 6 or more jobs or dwelling units per acre)	12.5%	
Activity Hub/Center Connectivity	Connections to Key Local & Regional Hubs	Connections to popular destinations within the city and in the immediate region	15%	15%
Financial Feasibility	Political & Funding Support	Likelihood of securing stable operational funding	30%	30%

EVALUATION CRITERIA AND METHODOLOGY

To prioritize the four scenarios previously presented and identify the best one for potential implementation, it is important to weigh the benefits of each scenario against the others. Therefore, a qualitative-quantitative hybrid methodology was developed to evaluate and prioritize the vision scenarios.

The evaluation criteria used in this methodology for prioritizing the vision scenarios is discussed in further detail below.

- *Public Support* – During TDP outreach, the participants were asked to rank the vision scenarios using a feedback form available either online or in-person at the public workshops. Additionally, members of the community with a vested interest were interviewed and asked what their overall vision of and direction for transit for Round Rock would be in the next 10 years. This criterion utilizes that input from the community, including the general public support and the stakeholders' direction.
- *Ridership Potential* – The assessment of the choice transit user market (e.g., people who have access to an automobile but may decide to use transit instead) was reviewed based on results from the 2032 DTA analysis. For each vision, the extent of coverage in choice markets (areas with six or more jobs or dwelling units per acre) was reviewed. The assessment of transit demand in the traditional transit user market (transit-dependent riders such as low-income and zero-vehicle households, older adults, and youths) also was reviewed based on the results from the TOI analysis. For each scenario, the general overlap with traditional market gaps (areas with "High" or "Very High" Transit Orientation Index) was reviewed.

- *Activity Hub/Center Connectivity* – Connectivity to key activity centers/hubs plays a critical role as Round Rock focuses on enhancing and expanding its services for residents and visitors and meeting the demands of a growing city by creating a multimodal transportation system to improve connectivity. This criterion examines such services by activity centers served.
- *Financial Feasibility* – This measure reviews the policy and political support for and likelihood of securing stable operational funding for each scenario. The funding potential for each vision scenario is evaluated based on the possibility of securing sufficient federal, local, and/or private revenue sources. State funding (as discussed further in Section 9 of this report) is not considered a possibility for transit in Round Rock at this time.

ALTERNATIVES EVALUATION

As shown previously, each project evaluation criterion was assigned a weight, which affords the opportunity to measure the relative importance of each criterion. Scores were then assigned based on a relative comparison of each vision scenario. A higher score is consistent with a higher ranking for a given scenario for the criterion being evaluated. Table 8-2 shows the thresholds and scoring for each criterion used in the evaluation.

Table 8-2: Evaluation Scoring Thresholds

CRITERIA	RANGE	SCORE
Public Input – Survey Results	Low	1
	Moderate	3
	High	5
	Very High	7
Stakeholder Vision/Direction	Low	1
	Moderate	3
	High	5
	Very High	7
Traditional Market Coverage	Low	1
	Moderate	3
	High	5
	Very High	7
Choice Market Coverage	Low	1
	Moderate	3
	High	5
	Very High	7
Connections to Popular Hubs	Low	1
	Moderate	3
	High	5
	Very High	7
Political & Funding Support	Low	1
	Moderate	3
	High	5
	Very High	7

ALTERNATIVES EVALUATION RESULTS

Each vision scenario was evaluated using the criteria and process summarized previously. As shown in the results matrix presented in Figure 8-2, each vision scenario was given a ranking of “Very High,” “High,” “Medium,” or “Low” based on the hybrid evaluation process. An overall ranking was calculated by assigning a score to each of the ratings, where “Very High” received the highest score (7)

and "Low" received the lowest score (1), and a weighted score was derived based on the weight of each category/criterion for each scenario.

Figure 8-2: Alternatives Evaluation Results Matrix

SCENARIO	PUBLIC SUPPORT	RIDERSHIP POTENTIAL	ACTIVITY CENTER CONNECTIVITY	FINANCIAL FEASIBILITY	WEIGHTED SCORE	PRIORITY RANK
Enhanced Vision					5.6	1
Ambitious Vision					5.0	2
Aspirational Vision					4.6	3
City On-Demand Vision					3.6	4

Based on the evaluation across these multiple qualitative and quantitative criteria, the Enhanced Vision Scenario presented itself as the best vision option for the City to improve transit going forward. As this highest-ranking scenario moves forward into the next phase of the Round Rock TDP, the financial and implementation planning phase, it should now be carefully assessed and adjusted, as necessary, so that it delivers a practical and implementable plan that is also funded.

SECTION 9. RECOMMENDED TRANSIT PLAN

The recommended plan for the City of Round Rock, which will advance transit improvements that will best meet the desired vision and priorities of the community in the most practical and implementable way possible, is summarized in this section. It provides a summary of the operating and capital components of the recommended plan followed by assumptions for and a summary of the operating and capital costs associated with the plan. In addition, a review and evaluation of existing and potential new sources of funding also is conducted to identify the funding feasibilities for the recommended vision. Finally, a schedule of estimated costs and projected revenues is provided that will help the City program and implement the plan over the next 10 years.

SERVICE RECOMMENDATIONS

The recommended transit improvement scenario will help bridge the gap between the needs of the community and currently-available services. The scenario will also support the rapid growth of the City and add new and innovative service delivery concepts. After carefully reviewing the needs presented previously, discussing the options with Round Rock staff, and taking into account the stakeholder and community input received, it was determined that the recommended transit vision scenario is the adjusted Enhanced Vision Scenario. Below is a description of the services that are recommended under this scenario, including service, capital/infrastructure, and policy improvements. On MOD, exact areas of the zone or zones will be established after an operational/feasibility analysis.

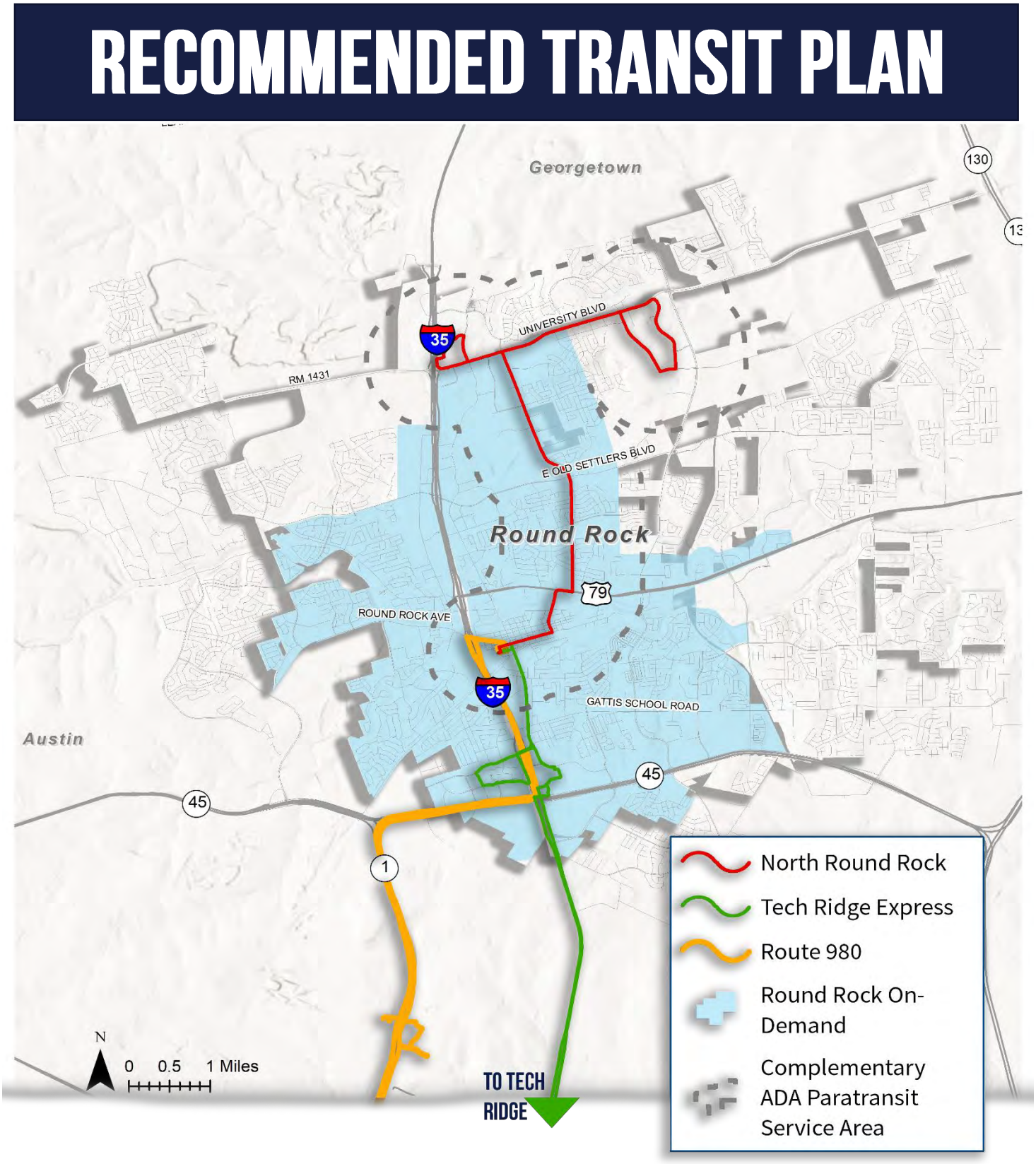
Table 9-1 summarizes the service characteristics for the recommended plan, including local and express services, on-demand mobility options, and ADA paratransit services. The services are also listed thereafter to provide additional details of each improvement.

Map 9-1 shows the recommended transit network by service.

Table 9-1: Recommended Transit Plan Characteristics

PROPOSED SERVICE	DAYS OF SERVICE	SPAN OF SERVICE	FREQUENCY (MIN.)
FIXED-ROUTE BUS SERVICE			
North Round Rock	Mon-Fri	6:30AM-8:30PM	60
Tech Ridge Express	Mon-Fri	6:30AM-8:30PM	60
Route 980	Mon-Fri	Peak	2 AM & 2 PM Trips
MOBILITY ON DEMAND			
Round Rock On-Demand (Wkdy)	Mon-Fri	6:30AM-8:30PM	On-demand
Round Rock On-Demand (Sat)	Sat	8:00AM-6:00PM	On-demand
AFTER HOURS ON DEMAND			
After-Hours On-Demand	Mon-Fri	8:30PM-12:00AM	On-demand
ADA PARATRANSIT			
ADA Weekday	Mon-Fri	6:30AM-8:30PM	On-demand
ADA Saturday	Sat	8:00AM-6:00PM	On-demand

Map 9-1: Recommended Transit Plan



FIXED-ROUTE SERVICES

- *North Round Rock* – Local service every 60 minutes on realigned Route 50, with service from the Round Rock Transit Center in downtown to ACC, Texas State University, Texas A&M, and the Seton Medical Center on the east side of University Boulevard and Round Rock Premium Outlets on the west side.
- *Tech Ridge Express* – Limited stop service every 60 minutes on realigned Route 152 from the Round Rock Transit Center to Tech Ridge.
- *Route 980* – Continues current peak hour only service from Round Rock Transit Center to downtown Austin.

MOBILITY ON DEMAND SERVICES

- *Weekday and Saturday MOD* – On-demand microtransit service zone in the City with weekday and limited Saturday service. The service will be provided with smaller vehicles/vans, preferably electric vehicles where riders can quickly book a ride using an app or call a phone number to request a ride. Excluding the modified walk access area of a local bus route, all other areas in the MOD zones identified in Map 9-1 will be connected. (As defined previously, a transit walk access area was defined for these on-demand zones as being 1/8-mile or a 2-minute walk from a bus route to make it a more comfortable walk than the ¼-mile threshold typically used in the industry).

For using the Round Rock MOD microtransit services, a distance-based fare structure will be used, as shown below in Table 9-2.

Table 9-2: Proposed MOD Fare Structure

ONE WAY TRAVEL DISTANCE	MOD FARE
0 to 1 mile	$3.00
1 to 2 miles	$3.50
2 to 3 miles	$4.00
3 to 4 miles	$4.50
Over 4 miles	$5.00

WEEKDAY AFTER-HOURS ON-DEMAND

- A subsidized after-hours on-demand trip program on weekdays to continue some form of public transit travel option available into the late hours. The program will be a subsidized voucher program for using ride-hailing services from TNCs such as Uber or Lyft to get around when regular service is not available on weeknights (i.e., after regular services end). The program would subsize the first $5.00 of a one-way trip for riders using the program.

ADA PARATRANSIT

- ADA complementary paratransit service will continue to be provided for the North Round Rock local service, as required by FTA. (FTA requires transit providers to offer ADA service within the ¾-mile service buffer around local fixed-route bus services.) The service will be

provided by the same provider operating the MOD service in the city. Any eligible ADA paratransit users (the City will continue its eligibility requirements and certification process for the ADA riders) would continue to pay the current ADA fare of $2 per one-way trip to access fixed-route services, regardless of the distance. While the City is not required to accommodate such services outside of that ADA buffer, wheelchair-based trips would be provided in other areas of the MOD zone, as well, to the extent possible.

CAPITAL/TECHNOLOGY/POLICY RECOMMENDATIONS

Implementation of the transit service recommendations previously summarized will be supported by necessary capital infrastructure and technology improvements as summarized below, to ensure an enhanced experience for riders.

- *MOD Microtransit User App* – Once a preferred MOD provider is selected/determined, the City will coordinate with that provider to either create an app solely for MOD services or upgrade any currently-existing app to also add the City's MOD services for a one-stop shop for potential riders.
- *Transit Marketing and Education Campaign* – A multi-year marketing/education program that involves local stakeholders/businesses and City agencies is recommended. Continuing the coordination and support from the City's Communications and Marketing Department, the program should build on the material, resources, and connections developed for the TDP.
- *TDM Strategies* – The City should coordinate with commuter assistance organizations such as Movability to facilitate TDM options such as vanpools and carpools to connect to Georgetown, Pflugerville, Cedar Park, Taylor, and Hutto.

DEVELOPMENT OF COSTS

A financial plan was developed to help facilitate the implementation of the recommended plan. First, various operating and capital/technology cost assumptions that were developed to estimate the plan costs in the financial plan are presented below. This is followed by a review of existing and potential new revenue projections to identify sources that can be reasonably expected to fund the plan. Then, the annual costs and revenues are summarized for the recommended transit plan.

OPERATING COST ASSUMPTIONS

Numerous assumptions were made to forecast transit operating costs for a 10-year period, from 2023 through 2032. These assumptions are based on a variety of factors, including historical service performance data for transit services in Round Rock, information from and discussions with City staff, and industry data. The key operating cost assumptions are summarized below.

- Annual operating costs for fixed-route bus services were developed based on the information from the most recent interlocal agreement on transit service provision in the City and input from City staff. Based on the projected fixed-route operating cost per revenue hour data from these sources, a per-hour cost of $86.07 (2022$) was assumed.
- Cost per revenue hour of service for providing microtransit was assumed at $60, based on industry data for providing these types of services. (The cost for providing microtransit

services by the MOD provider can range from $40–$60 per service hour; therefore, $60 was used for projecting Round Rock MOD costs to stay conservative.) This service is assumed to be fully-operated by a TNC or other microtransit service provider that would procure the vehicles, recruit drivers, and provide customer support and vehicle maintenance.

- The cost of providing after-hours on-demand mobility services is assumed at $50,000 annually. This includes a total of 10,000 annual trips (or 39 late night trips per day) with a trip subsidy of up to $5.00 per trip. For example, an after-hours rider taking an $8.00 Uber ride would be charged only $3.00 under this program, and the program would cover the remainder of the cost up to $5.00. This cost per trip would still be less expensive than providing a fixed-route bus trip, which currently costs an average of $17.44 per trip.
- The complementary ADA paratransit costs are included in the MOD costs. The MOD provider will utilize vehicles with wheelchair access when necessary to provide paratransit service. Operating MOD offers the ability for Round Rock to provide an on-demand, dynamic, real-time, shared-ride, general public dial-a-ride service equally available and accessible to both persons who are ambulatory and persons with disabilities.

CAPITAL AND OTHER COST ASSUMPTIONS

- No new fixed-route bus vehicle purchases or maintenance costs are assumed. For fixed-route bus services, the current process of annually paying for their use will be continued. Based on data obtained from City staff, the capital and maintenance cost that the City pays for its current fixed-route transit provider was used, at $6,134 (2021$) per vehicle annually.
- No vehicle purchases or maintenance costs for MOD services were assumed, either. The provider that will be selected by the City for this service will be responsible for procuring the necessary vehicles and maintaining them.
- The one-time set-up fee to purchase technology to power an on-demand MOD service was assumed at $50,000 (2022$). This includes a rider app, a driver app, an administrative console, and access to data dashboards and reports. In addition, an annual fee for ongoing use of the technology was assumed at $3,000 (2022$).
- An expanded transit marketing and education campaign is assumed to be $25,000 (2022$) per year.

EXISTING AND POTENTIAL REVENUE SOURCES

Once costs are estimated, it is important to identify potential funding providers and sources that may be used to implement this plan, including local, state, and/or federal resources. The first step is understanding the City's fiscal capacity by objectively documenting existing local revenue streams. Currently, Round Rock Transit is supported by federal and local funding. The following describes the funding type and how it is distributed or if it is applicable to Round Rock Transit.

FUNDING TRANSIT IN ROUND ROCK

With the TDP implementation plan developed previously indicating recommendations occurring over the coming years, it is important to identify potential sources for funds that could help make that

implementation and continued operation of such recommended service/capital/technological improvements a reality. To this end, a review was conducted of existing operating and capital funding sources identified during an assessment of the current City transit budget and finances, as well as past sources that were used previously or considered for use. This provided the analytical context for which sources have had success to date, especially at the local level. It also helped determine whether any current or previous sources have been used to their fullest extent.

In addition, other potential funding sources that are relevant to transit also were reviewed. National- and state-level information on potential funding sources for transit was reviewed for this purpose. This due diligence allows the City to be assured that a broad range of federal, state, and local funding sources have been reviewed and evaluated for possible consideration.

A summary of this effort is presented below. In addition, Appendix E provide detailed information for each of the sources discussed in this section.

CURRENT SOURCES OF TRANSIT FUNDING FOR ROUND ROCK

Currently, the City's transit services are funded with two primary sources of funds, including Federal Section 5307 formula grants and City General Funds. A closer review of these existing sources is conducted to help assess their potential for continuing to fund future transit services in the City of Round Rock, as summarized below.

- *Local Funding* – General revenue funds from the City of Round Rock are currently the largest source of funding for transit in Round Rock. Historically, the City General Fund has provided approximately half of the funding since bus transit was established in 2017 in the City. As transit operations continue to expand to accommodate a rising population and a city that continues to grow, it is important that the City's support for this important mobility option is continued.
- *Federal Funds* – The City of Round Rock is part of the Austin Urbanized Area (UZA) and currently receives Federal Section 5307 transit funding as a Direct Recipient. However, Capital Metro is the Designated Recipient for the Austin UZA for FTA Formula Funding. Round Rock's apportionment of this funding is based on a percentage of the UZA population and population density, low-income population, and bus revenue miles, and is at approximately 2.3 percent of Capital Metro's Section 5307 federal allocation. Capital Metro does not distribute any portion of its Section 5339 formula allocation at this time. In addition, the Section 5310 program funds are awarded through a competitive selection process administered by the Capital Area Metropolitan Planning Organization. The City current does not receive any Section 5310 program funding, either.

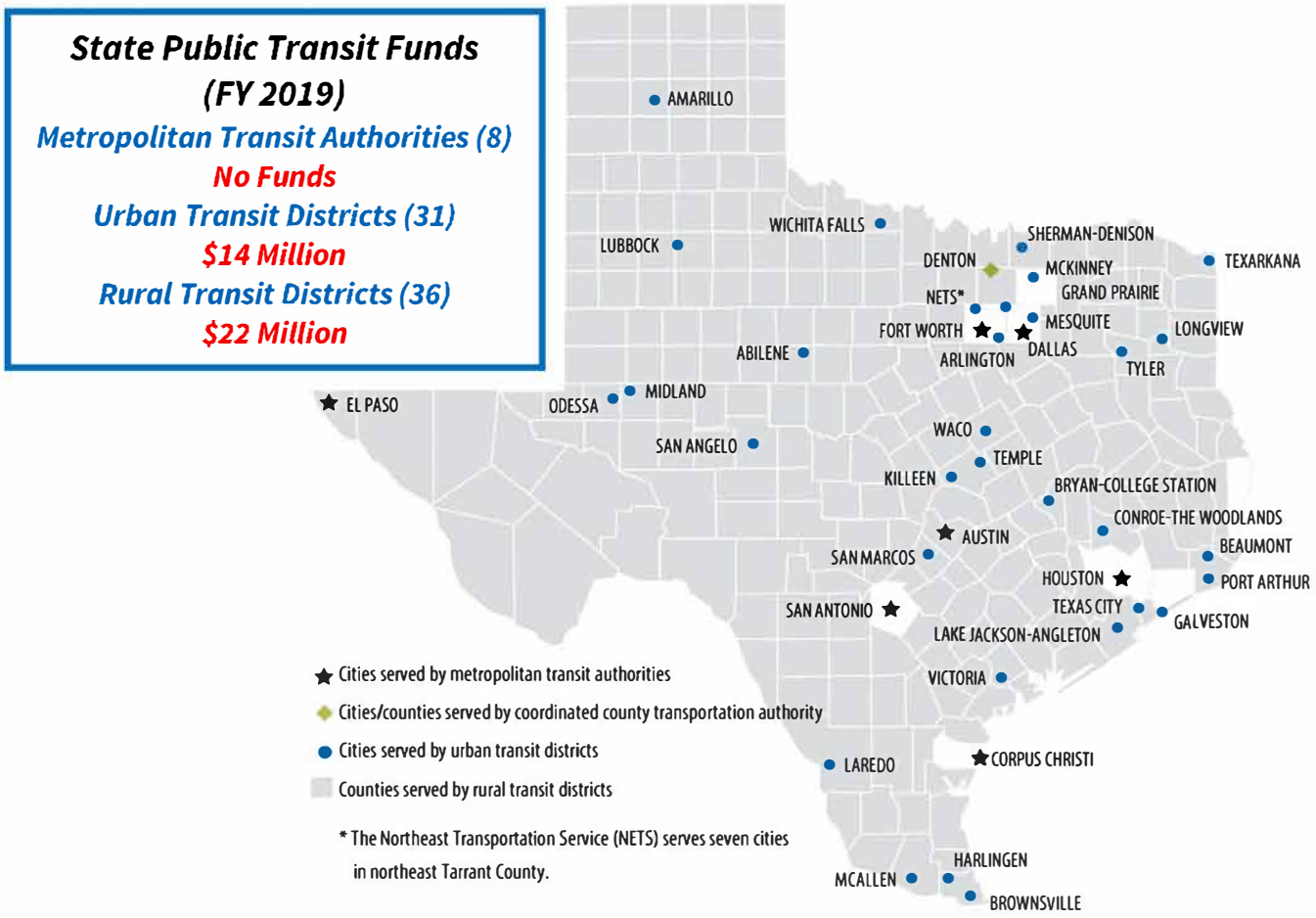
STATE TRANSIT FUNDING

The Texas Department of Transportation (TxDOT) allocates state funding based on a formula to rural, urban transit districts small urban and large urban transit districts (Figure 9-1). An urban transit district is a local governmental body or political subdivision of the state that operates a public transportation system in an urbanized area with a population of 50,000 or more but less than 200,000. An urban transit district also includes a small urban transportation provider under Texas

Transportation Code, Chapter 456, that on September 1, 1994, received public transportation money through TxDOT. This statutory provision means that urban transit districts that were small, urbanized areas with a population of 50,000 or more but less than 200,000 in 1994, but that equaled or exceeded 200,000.

The Texas Legislature allocates state funding each biennium to support urban and rural transit districts. However, no state funding is provided to Metropolitan Transit Authorities (which includes Austin), which have the authority to levy local sales taxes that range from 0.25 percent to 1 percent to help fund their operations. Currently, the City of Round Rock is not part of the Austin MTA; but, it also is not an Urban Transit District, either, so no state funding is available for the City at this time.

Figure 9-1: Texas Transit Districts & State Funding



Source: Analysis of TxDOT data.

POTENTIAL NEW FUNDING SOURCES

A review of potential funding sources also was conducted to explore opportunities for future Round Rock Transit funding. The silos of transportation funding create challenges to develop a viable funding plan that consists of several different sources. Seeking out funding is further complicated by the various eligibility, reporting, and matching requirements.

However, identifying applicable and feasible new sources is key to going beyond the recommended plan and, in the future, implementing higher frequency bus services and other more attractive elements of the Ambitious and Aspirational Visions developed by this TDP. In addition, on top of any potential new federal, state, or local sources, there may also be opportunities to explore private sector partnerships, such as employer contributions, as the City's recommended transit plan now includes non-traditional mode options such as MOD.

Table 9-3 provides a summary and an evaluation of the potential new funding sources reviewed for this TDP. Again, Appendix E provides information on each of these sources in much greater detail.

Table 9-3: Review of Potential Transit Funding Sources

SOURCE OF FUNDING	DESCRIPTION/USE OF FUNDS	FUNDING STABILITY	LIKELIHOOD OF FUNDING TRANSIT IN ROUND ROCK
FEDERAL & STATE			
DOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program	Capital and planning projects for a variety of transportation improvements	Awarded every year	Competitive funding; however, likelihood is high in Round Rock if leveraged with other transportation projects.
FTA Section 5339 - Bus and Bus Facilities Program	Capital projects only	Awarded every year; typically gets renewed	Funds tend to be for large scale projects; low likelihood on its own, but more likelihood if joined with a larger regional agency/initiative.
FTA Section 5310 - Enhanced Mobility of Seniors and Individuals with Disabilities	Capital projects and operations	Awarded every year; funding for three years	High likelihood/potential for capital and operating funds for MOD strategies for paratransit operations.
FHWA Surface Transportation Block Grant Program (STBG)	Flexible funding that may be used by states and localities for transit capital projects, including intercity bus terminals	Awarded every year	Low likelihood. Historically limited levels of funding for transit projects.
Congestion Mitigation and Air Quality Funds (CMAQ) Program	Primarily used for capital projects; small portion could be used for transit	Varied based on project type; 1-3 years	CMAQ funds may be used for operating expenses for the first three years of new or expanded transit service where there is demonstrable evidence that auto trips would be eliminated and reduce emissions; likelihood for funding is low unless joined with a larger regional agency.
FTA Small Transit Intensive Cities (STIC)	Transit projects only	Awarded every year	Competitive funding; moderate likelihood because of Round Rock population size.
FTA Mobility on Demand (MOD) Sandbox	MOD projects only	Awarded every year	Competitive funding; increased likelihood with innovative business model.
FTA Accelerating Innovative Mobility (AIM) Initiative	Transit projects only	Awarded every year	High potential with a strategic partner.
FTA Integrated Mobility Innovation (IMI)	Transit projects only	Awarded every year	Competitive funding; likelihood increases as population increases.
FTA Enhancing Mobility Innovation	Transit project only	Awarded every year	Low potential for funding unless joined with a larger regional agency/initiative.
Texas state transit funds from the Texas Transportation Commission	Transit operating and capital expenses	Awarded every two years	Low likelihood. Currently, eligible recipients for Texas state transit funds are urban and rural transit districts, as provided in the Texas Transportation Code, Chapter 458. The City of Round Rock is not designated as an urban transit district at this time to receive any state funds.

Table 9-3: Review of Potential Transit Funding Sources (continued)

SOURCE OF FUNDING	USE OF FUNDS	FUNDING STABILITY	LIKELIHOOD OF FUNDING TRANSIT IN ROUND ROCK
LOCAL & REGIONAL			
Local Sales Tax	Variety of public services including transportation	Rolling year round	The State sales tax rate is 6.25%. Local entities can increase sales tax rate up to 8.25%; cities at the 8.25% cap could use another source if elect to fund transit.
Transportation Development Credits (TDC)	Used to help meet federal match requirements	Allocated every year	These are not cash awards, but a credit earned through an accounting system that assigns value to transportation projects built with tolls. This credit can then be used for meeting a federal matching requirement on other projects.
Contract of Purchase-of-Service Revenues	Transit operating and capital expenses	Dependent on contract terms	High likelihood with strategic partner; funds then funneled back into transit.
Lease Revenues	Transit operating and capital expenses	Dependent on contract terms	High potential to lease facilities with low usage; funds then funnel back into transit.
Advertising	Transit operating and capital expenses	Dependent on contract terms	High potential advertising funds; funneled back into transit.
PRIVATE-PUBLIC PARTNERSHIPS			
Employer Contributions	Transit operating and capital expenses	Dependent on contract terms	High likelihood due to the interest shown in the TDP by employers such as Dell Technologies and Kalahari.
Funding partnerships/ interlocal agreements between the city and education/training institutions	Transit operating and capital expenses	Dependent on contract terms	High likelihood. Capital Metro already has an interlocal agreement in place with ACC to allow students, faculty, and staff members to use its services at no charge.
Special Event-based Arrangements	Transit operating	Dependent on contract terms	High likelihood, but limited in scope and funding. Agreements may be needed with Dell Diamond and other recreation venues and/or other major city events.
Service and Business Organizations	Transit capital expenses	One-time contributions	Potential for assistance on smaller transit improvement projects, such as shelter/bench replacements.

REVENUE ASSUMPTIONS FOR THE RECOMMENDED PLAN

Although there are a number of potential new revenue sources have been identified and evaluated, as summarized and evaluated previously, the recommended plan does not assume, at this time, that any of those new sources will be available in the next 10 years. This was assumed to ensure that the recommended plan is truly implementable and does not rely on any external factors to impact that implementation, especially with any funding uncertainties that can happen in the post-pandemic transit funding environment.

Therefore, the following revenue assumptions were made for the TDP for projecting the annual revenues for the next 10 years, based on input from City staff, historical service performance data, and information on federal funding programs.

- The current funding structure/composition with a mix of funding from federal, local, and agency-generated revenues (farebox) is expected to continue for the next 10 years.
- Annual revenues projections from FTA 5307 funds are assumed at approximately $767,000 (2021$).
- Local contribution from the City's General Fund is assumed to fund approximately $1.7 million annually in transit expenses in the next 10 years.
- A farebox recovery ratio (how much of a route's operating cost is covered by its fare revenues) of 10.5 percent (based on FY19 data) was assumed to calculate the annual farebox revenues. While this rate is based on fixed-route transit data, the same rate was used to calculate MOD fare proceeds as well. This is also a more conservative assumption as MOD operating costs are lower than fixed-route operating costs and also the proposed fare of $3+ is higher than the current fixed-route fare. However, coming out of a pandemic and also with a brand-new service (i.e. MOD), such a strategy may be advisable.

RECOMMENDED PLAN COSTS & REVENUES

Using the cost and revenue assumptions presented previously, a financial plan with a summary of annual costs and revenues was developed for the TDP. The summary includes annual costs for the service and capital/technology/policy improvements that are programmed for implementation within the next 10 years, together with supporting revenues that are reasonably expected to be available to fund them.

These annual costs and supporting revenues for Round Rock TDP are summarized in Table 9-4. As shown, it would cost $2.7 million annually on average to operate the recommended transit plan in the next 10 years with approximately another $52,000 in capital/technology/policy framework costs each year to support those services.

In addition, Figure 9-2 shows the total costs and revenues by year to support it, and Figure 9-3 shows the projected average annual transit revenues distributed by source.

Table 9-4: Recommended Plan Costs and Revenues

Cost/Revenue	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	10-Year Total
Operating Costs											
Fixed-Route Service	$702,769	$714,948	$727,338	$739,943	$752,766	$765,812	$779,083	$792,585	$806,320	$820,294	**$7,601,860**
Mobility On Demand	$1,525,385	$1,551,820	$1,808,665	$1,840,009	$1,871,897	$1,904,337	$1,937,339	$1,970,913	$2,005,069	$2,039,817	**$18,455,248**
After-Hours On-Demand Service	$50,867	$51,748	$52,645	$53,557	$54,485	$55,430	$56,390	$57,367	$58,362	$59,373	**$550,223**
Total Operating Costs	**$2,279,020**	**$2,318,516**	**$2,588,648**	**$2,633,510**	**$2,679,148**	**$2,725,578**	**$2,772,812**	**$2,820,865**	**$2,869,751**	**$2,919,483**	**$26,607,332**
Capital Costs											
Vehicles	**$12,481**	**$12,697**	**$12,917**	**$13,141**	**$13,369**	**$13,600**	**$13,836**	**$14,076**	**$14,320**	**$14,568**	**$135,003**
Annual Vehicle Costs	$12,481	$12,697	$12,917	$13,141	$13,369	$13,600	$13,836	$14,076	$14,320	$14,568	**$135,003**
Other Capital and Policy	**$80,340**	**$29,705**	**$30,596**	**$31,514**	**$32,460**	**$33,433**	**$34,436**	**$35,470**	**$36,534**	**$37,630**	**$382,118**
Expand Transit Marketing/Education Program	$25,750	$26,523	$27,318	$28,138	$28,982	$29,851	$30,747	$31,669	$32,619	$33,598	**$295,195**
Initial MOD costs	$51,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$51,500**
Annual MOD costs	$3,090	$3,183	$3,278	$3,377	$3,478	$3,582	$3,690	$3,800	$3,914	$4,032	**$35,423**
Total Capital Costs	**$92,821**	**$42,402**	**$43,513**	**$44,655**	**$45,828**	**$47,034**	**$48,272**	**$49,545**	**$50,853**	**$52,197**	**$517,121**
Operating Revenues											
5307 Funding	$813,361	$837,762	$862,895	$888,782	$915,445	$942,909	$971,196	$1,000,332	$1,030,342	$1,061,252	**$9,324,275**
Farebox	$73,650	$74,927	$76,225	$77,546	$78,890	$80,257	$81,648	$83,063	$84,502	$85,967	**$796,675**
Local	$1,484,830	$1,448,229	$1,693,042	$1,711,837	$1,730,641	$1,749,446	$1,768,241	$1,787,016	$1,805,760	$1,824,462	**$17,003,502**
Total Revenues	**$2,371,841**	**$2,360,918**	**$2,632,162**	**$2,678,165**	**$2,724,976**	**$2,772,612**	**$2,821,085**	**$2,870,410**	**$2,920,604**	**$2,971,681**	**$27,124,453**
10-Year Cost & Revenue Summary											
Total Revenues	**$2,371,841**	**$2,360,918**	**$2,632,162**	**$2,678,165**	**$2,724,976**	**$2,772,612**	**$2,821,085**	**$2,870,410**	**$2,920,604**	**$2,971,681**	**$27,124,453**
Total Costs	**$2,371,841**	**$2,360,918**	**$2,632,162**	**$2,678,165**	**$2,724,976**	**$2,772,612**	**$2,821,085**	**$2,870,410**	**$2,920,604**	**$2,971,681**	**$27,124,453**
Surplus/Shortfall	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Figure 9-2: Total Costs and Revenues

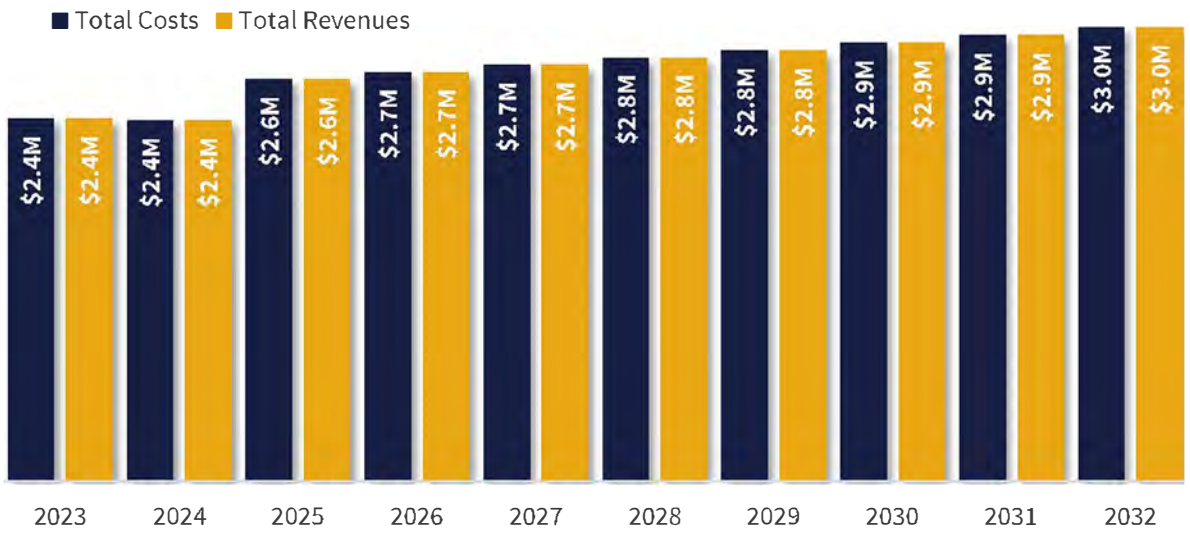
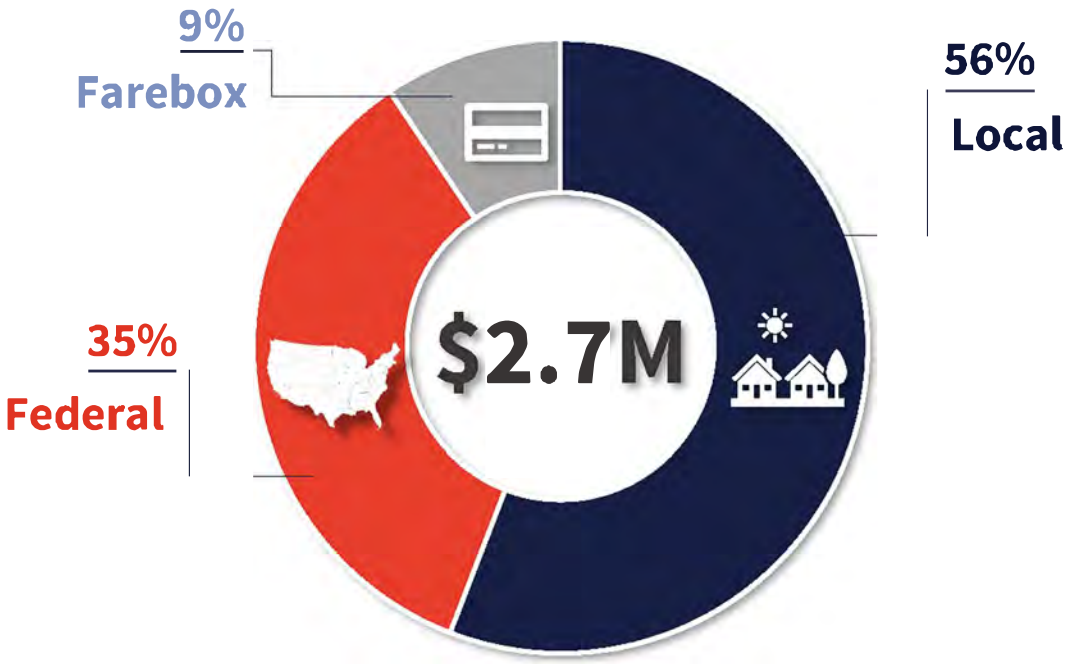


Figure 9-3: Average Annual Transit Revenues by Source



SECTION 10. IMPLEMENTATION PLAN & ACTION STEPS

While this transit plan may have been developed with the support from both the public and key stakeholders in the City of Round Rock, the implementation of it will depend on how the City will maneuver through operational and funding challenges. That hinges on obtaining continued support from the community, the general public, and stakeholders, beyond just the development of this plan. To assist the City in this effort, this section provides key elements to consider and steps to follow as the City of Round Rock implements its updated vision, as presented here, to enhance public transit locally and regionally.

TDP IMPLEMENTATION PLAN

The implementation plan for the recommended service plan presented previously is outlined in Table 10-1, including all service and capital/technology/policy improvements. However, sudden changes in the transit operating environment can occur at varying degrees, as seen with the COVID-19 pandemic, thus, demonstrating that developing and approving a plan may not ensure that implementation will also go according to the recommended schedule.

Therefore, it should be noted that the schedule shown in the table below does not preclude the opportunity to delay or advance any projects or even replace some of them with more enhanced options from the Ambitious or Aspirational Visions developed for the City. As priorities change, funding assumptions do not materialize, or more funding becomes available, this project implementation schedule should be adjusted accordingly.

Table 10-1: Implementation Plan

TDP IMPROVEMENTS	IMPLEMENTATION YEAR	ANNUAL OPERATING COST (2022$)	ANNUAL CAPITAL COST (2022$)
Service Improvements			
North Round Rock	2023	$307,270	$6,134*
Tech Ridge Express/	2023	$307,270	$6,134*
Route 980	2023	$76,258	$355
Round Rock On-Demand & ADA Paratransit (Weekday)	2023	$1,499,400	n/a
Round Rock On-Demand & ADA Paratransit (Saturday)	2025	$218,400	n/a
After-Hours On-Demand	2023	$50,000	n/a
Capital/Policy Improvements			
Transit Marketing/Education Program (Yearly)	2023-2032	-	$25,000
MOD Technology Set-Up	2023-2032	-	$50,000**
MOD Technology Maintenance	2023-2032	-	$3,000***

**Annual vehicle related fee paid by Round Rock to Capital Metro as part of the service agreement.*
***One time set-up fee to purchase technology to power the on-demand service. Includes a rider app, a driver app, an administrative console, and access to data dashboards and reports.*
****Annual cost of on-demand technology/software maintenance.*

RECOMMENDED ACTION STEPS

This section presents a set of actions for the City to take to ensure coordination and communication in the coming months and years. These actions provide the City with a starting point in its efforts to pursue funding and implementation of the recommended transit vision for the next 10 years.

REVISIT THE FRAMEWORK FOR PROVIDING FIXED-ROUTE TRANSIT

While the plan implementation should not be impacted, one of the key action items for the City will be to determine whether the current framework of purchasing fixed-route transit from Capital Metro should continue as is. The City should consider exploring the following aspects.

- ***Local Fixed-Route Bus Service –*** While this plan replaces Route 51 and repurposes Route 150, the fixed-route portion is still assumed to be operated by Capital Metro. While regional service should still be coordinated with Capital Metro as the majority of each route is operating outside of the city limits, the local fixed-route service can be either continued with Capital Metro or provided by the on-demand service provider (assuming it has the capability to do so, otherwise another vendor can be considered for it).
- ***Fair-share of Regional Service Costs –*** The current as well as proposed plan for regional service (Route 980 and service to Tech Ridge) are a mutually beneficial arrangement for Round Rock and the Austin area. However, as the proposed service to Tech Ridge (funded by Round Rock) is hourly and Route 980 (funded by Capital Metro) will only operate 4 trips per day (currently 2 trips due to the pandemic), there may be an opportunity for the City to approach Capital Metro about sharing some of the costs for the regional services in a more equitable fashion.

CONDUCT MOD FEASIBILITY/OPERATIONAL ASSESSMENT

As TDPs are planning studies, a more in-depth operational feasibility phase should follow prior to the implementation, especially for any new services such as MOD. The City should conduct a feasibility assessment to verify the service gaps and needs, and determine how MOD services would integrate with fixed-route services and also take on the provision of paratransit services. The effort should also determine a framework and functionalities required to support the service, develop a concept of operations, and describe next steps related to piloting initial services.

PROCURE PROVIDER FOR ON-DEMAND SERVICES

With a community that prefers the addition of this new type of service, a plan in place to implement it, and follow-up guidance to operationalize it, the City should then move to hire a provider to implement its MOD services. The MOD Feasibility/Operational Assessment should be used to assist this process as it may shed some light into the necessary requirements and capabilities for the City's new on-demand transit provider.

IDENTIFY POTENTIAL NEW FUNDING OPPORTUNITIES/GRANTS AND APPLY FOR FUNDING

The City should explore private and public funding opportunities to ensure continuation and expansion of fixed-route transit, as well as the city-specific strategies such as MOD microtransit services and the after-hours ride program in the next 10 years. It should also pursue partnerships to explore the study, funding, and implementation of projects in the TDP.

PUBLIC-PRIVATE PARTNERSHIPS

The City's continued coordination and collaboration with the business community and their perceived support for better transit in the city (as seen during the TDP outreach) could lead to successful public-private partnerships to generate operating or capital revenue for various aspects of transit services. With significant commercial growth in the City and the need to bring service and other workers and visitors to the area, the City is in a strong position to leverage private funding support for its transit services, especially MOD and regional bus services, which would increase access to jobs within the City and regional connectivity to/from the City.

MAXIMIZE THE USE OF THIS TRANSIT PLAN

Use the TDP as a tool to justify and explain the reasons for continued investments in transit services and facilities. With the effort Round Rock has put in, the return on investment from conducting this TDP should span at least over the next decade. One of the goals, therefore, should be to maximize this community-supported and elected officials-approved strategic blueprint at every turn possible to reach its implementation goals.

CONTINUED MARKETING/OUTREACH

A carefully crafted plan to promote the TDP after adoption will improve the likelihood of achieving the implementation plan. During the TDP process, Round Rock has conducted extensive public outreach as part of its public involvement component that can be leveraged and expanded to market any new services as they are implemented.

BUILDING ON TDP EFFORTS/RELATIONSHIPS

Throughout the TDP public outreach process, which included members of the general public as well as numerous stakeholders, Round Rock identified various advocates while also educating the public about transit. It is imperative for the City to leverage these relationships to continue building support for the planned new services. These individuals may serve as facilitators for a "grassroots" outreach program or could become transit cheerleaders/ambassadors that can provide a foundation/support network for future outreach, especially at a time when Round Rock will be amending its fixed-route network and launching new modes like on-demand transit. These future efforts can build upon the tools and lessons afforded by the TDP and aid in prioritizing specific target markets to engage.

COORDINATE WITH OTHER PLANS

Ensuring consistency with relevant regional and local studies/initiatives should also be a continued focus. For example, coordinating with CAMPO's next Long Range Transportation Plan to ensure that Round Rock's revised transit vision and unfunded needs are communicated through that regional transportation planning process should be a priority.

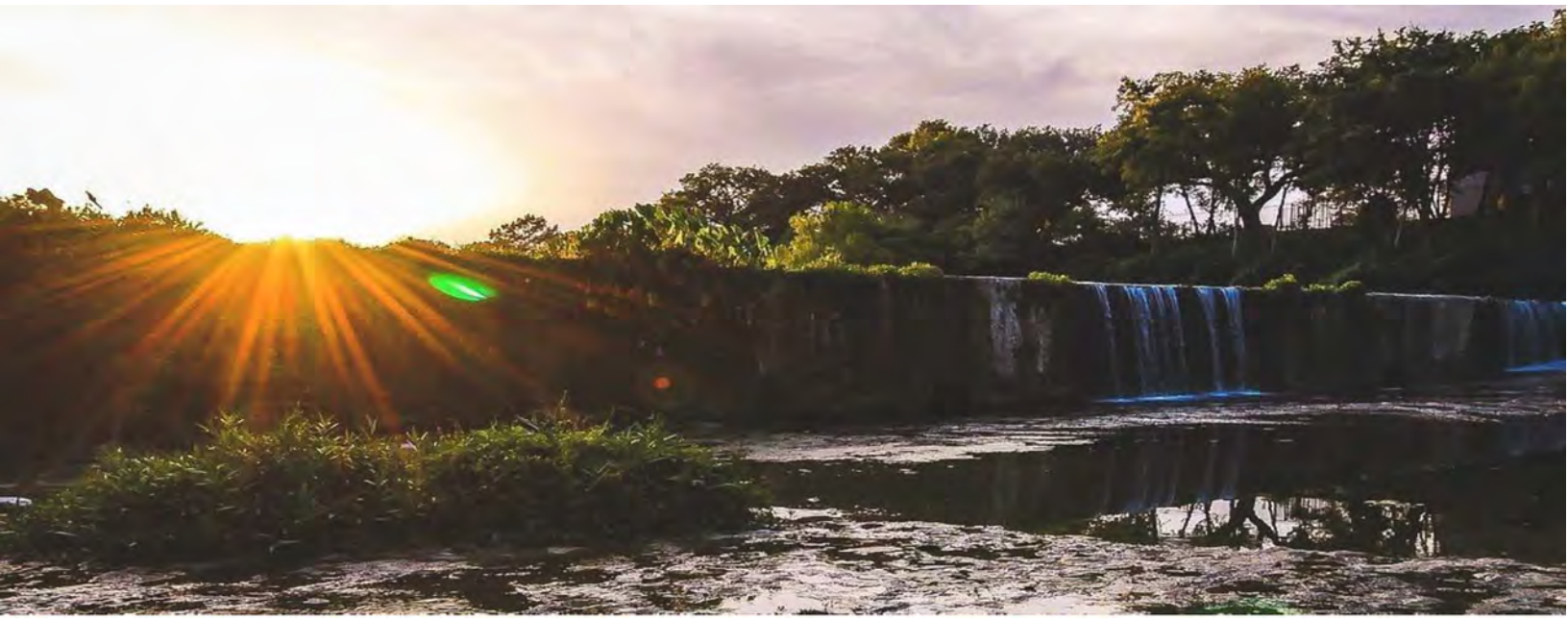
ASSESS PERIODICALLY FOR EFFICIENCY

It is recommended that Round Rock consider a Comprehensive Operational Analysis (COA) or at least a scaled-down service efficiency assessment in three to five years from the TDP implementation and also repeat it at least every five years to maintain good operational health. Effective coordination on the timing of a COA with other local transit planning efforts may be beneficial in the goal to provide

efficient transit services. The findings of a COA can be fed into the capital and operational recommendations so that system improvements can be set in a more efficient manner.

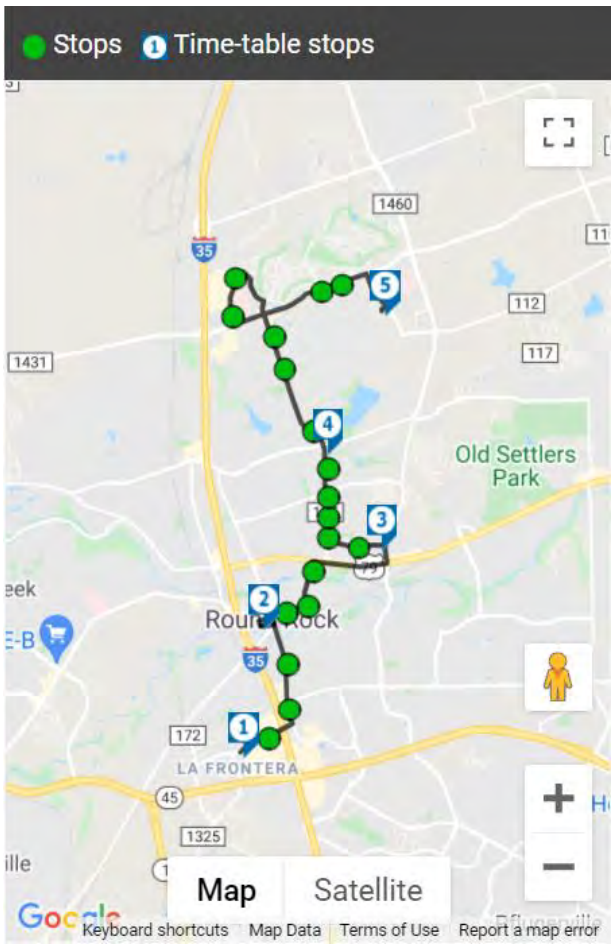
IMPLEMENT RECOMMENDED PLAN BUT ALSO BE READY TO GO BEYOND

The goal of this planning effort by the City was to develop an implementable transit vision for the City of Round Rock that is tailored primarily to the needs of the city and its immediate region. As a result of this effort, which included an extensive community outreach campaign and a multitude of data analyses, the City developed four different visions that represent different levels of financial investments in the next 10 years. While the City should focus on implementing the recommended cost affordable plan, it should also explore going even further with transit enhancements (such as implementing Tech Ridge BRTLite and more frequent service in the City, as identified in the loftier vision plans) if additional funding opportunities arise.



APPENDIX A: EXISTING BUS STOPS AND TRANSFER FACILITIES

Figure A-1: Capital Metro Route 50 (*left*) and Route 150 (*right*) with designated bus stops



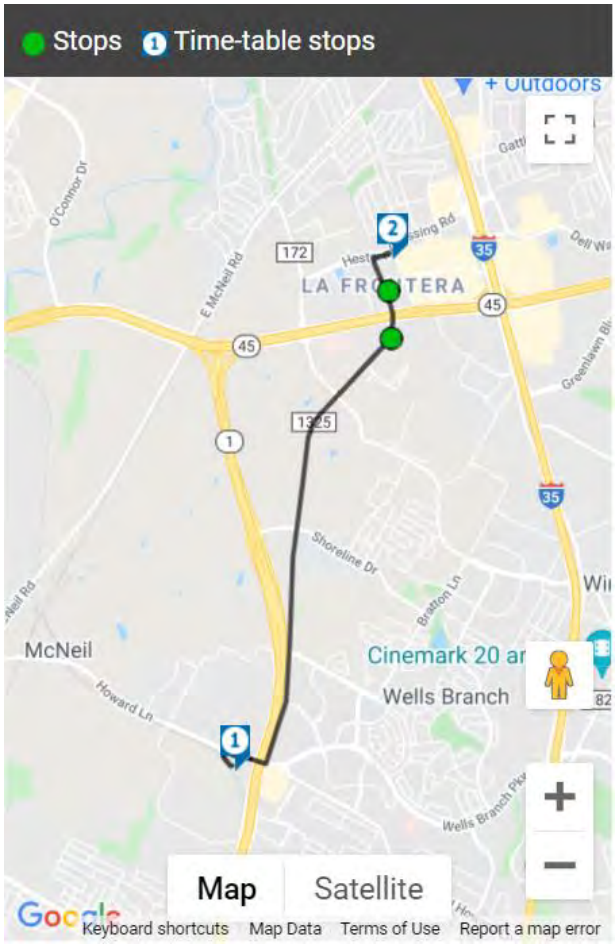


Figure A-2: Howard Station Park-and-Ride at 3710 W Howard Lane

Figure A-3: Route 150 origin at Howard Station Park-and-Ride

Figure A-4: Route 150 signage at La Frontera and Sundance Parkway stop

Figure A-5: Mays Crossing and S Mays Street stop along Route 50

Figure A-6: La Frontera and Hesters Crossing Road stop on Route 50

Figure A-7: N Mays Street and University Street stop on Route 50

Figure A-8: Georgetown Street and Main Street stop on Route 50

Figure A-9: ACC Round Rock Campus terminus on Route 50

Figure A-10: Capital Metro Route 152 map with stops

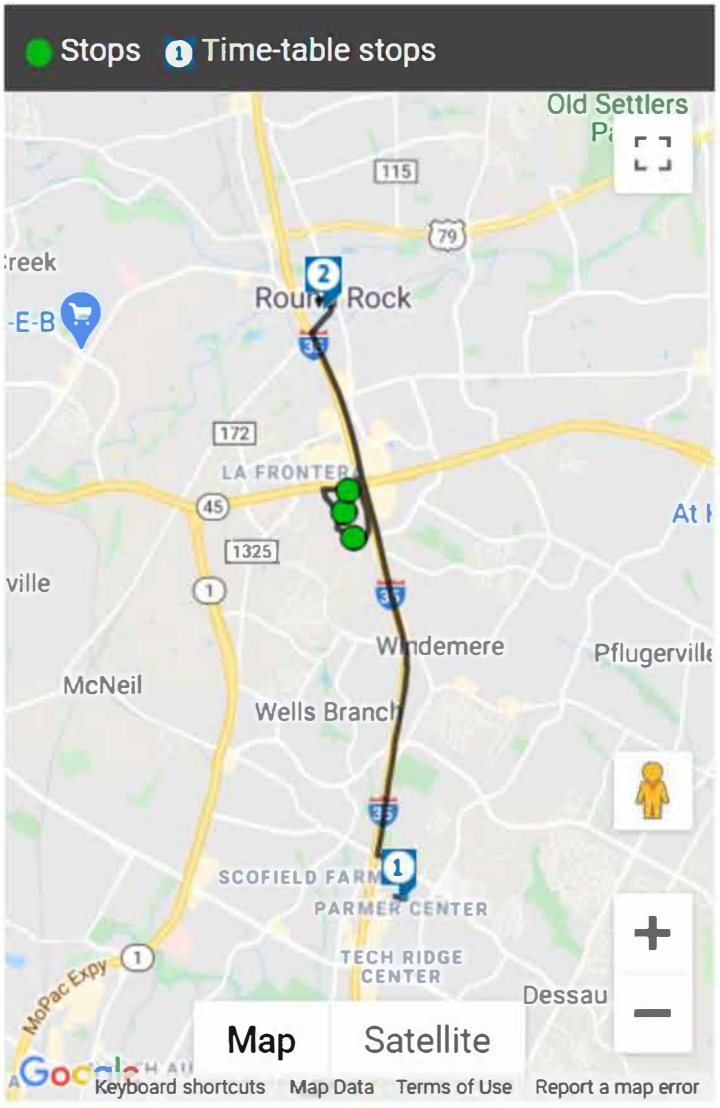


Figure A-11: Tech Ridge Park-and-Ride, 900 Center Ridge Drive

Figure A-12: Parker Drive and Jarrett Way stop on Route 152

Figure A-13: Capital Metro Route 51 eastbound (*left*) and Route 51 westbound (*right*) maps with stops

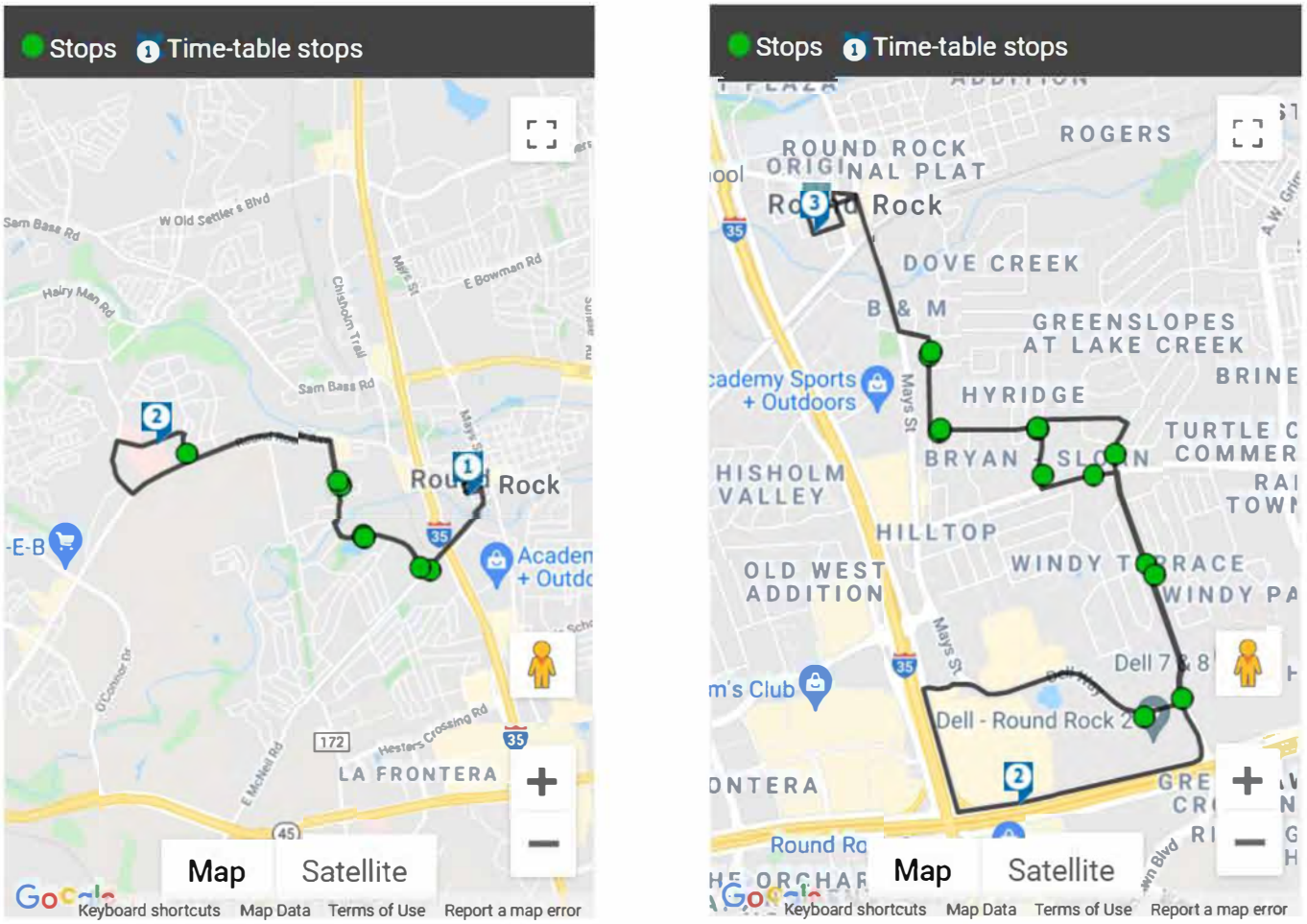


Figure A-14: Greenlawn Boulevard stop along Route 51

Figure A-15: School Days Lane and Lawnmont Drive stop on Route 51

Figure A-16: Route 51 stop at Dell Way

Figure A-17: School Days Lane and Cushing stop along Route 51 at Voigt Elementary School

APPENDIX B: ADA PARATRANSIT SERVICE ELIGIBILITY PROCESS

ADA Paratransit Eligibility Application

Round Rock Paratransit Service is for individuals with a disability which prevents them from independently traveling on the fixed route service either all of the time or some of the time. The Americans with Disabilities Act (ADA) outlines specific criteria to determine eligibility for paratransit services; therefore, an application and an in-person eligibility review are required to determine an applicant's individual eligibility.

If you need any type of alternative format of this application or have any questions please contact (512) 218-7074.

To apply for this service, you and your healthcare professional must complete this application. Other supportive documentation may be included with your application. The information you provide may be shared with other transit providers to facilitate your travel in other areas.

Please read and follow these instructions.

1
- You complete **Part A: Applicant Information & Release**
- Your healthcare professional completes **Part B: Healthcare Provider Verification**. The applicant *MAY NOT* complete this section. A healthcare professional authorized to complete **Part B: Healthcare Provider Verification** include, doctors of medicine, doctors of osteopathic medicine, doctors of chiropractic, registered nurses, physician assistants, nurse practitioners, certified nurse specialist, certified registered nurse anesthetists, clinical social worker, and physical, speech, occupational, and massage therapists.
- ***It is very important, for you and your healthcare provider, to thoroughly answer each question on the application.***

2
- Once *ALL* paperwork is complete, you may either:
  - Mail to or deliver in person to: City of Round Rock, ATTN: Transit Coordinator, 300 W. Bagdad, Round Rock, Texas 78664
  - Email to: ejohnson@roundrocktexas.gov

3
- All information received in this application will be kept **CONFIDENTIAL**

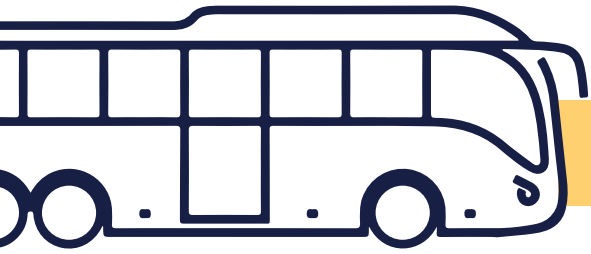
4
- You will receive your eligibility determination within 21 calendar days from the date *ALL* of the following are completed:
  - Original full application and verification received
  - In-person interview
  - Any additional requested information is received by staff
  - Any applicant who has completed the above steps but has not received an eligibility determination letter, within 21 days, will be entitled to unlimited use of the paratransit service until you are notified your eligibility determination.

APPENDIX C: PUBLIC INVOLVEMENT MATERIAL

ROUND ROCK TEXAS

TRANSIT DEVELOPMENT PLAN

The City of Round Rock is putting together a Transit Development Plan to make recommendations for updates and additional services to improve the City's public transportation system. The plan will serve as an update to the 2015 Transit Master Plan and be a guide for developing the future of public transportation in the City over the next ten years.



TELL US WHAT YOU THINK

The City is holding two Public Workshops to share information and collect feedback on existing services and needs. We want to hear from everyone, no matter how you get around town. The same information will be available at both workshops, so join us when you can!

SEPTEMBER 8 AND 9
5 TO 7 P.M.

Allen R. Baca Senior Center – 301 W Bagdad Avenue

The City of Round Rock facilities are wheelchair accessible. Persons with hearing impairments may request an interpreter or if you need assistance in participating in this meeting, please call the Transit Coordinator at (512) 218-7074 or email ejohnson@roundrocktexas.gov at least three (3) business days prior to the scheduled meeting to request an accommodation.

TAKE THE 5-MIN SURVEY TODAY

Tell us your thoughts on the current system, whether you use it or not!

Scan with your phone camera

publicinput.com/RRTransitSurvey

CAN'T MAKE IT?

You can still participate! All materials and input opportunities will be available at **roundrocktexas.gov/transitplan** from September 8 through October 1.

CONTACT INFORMATION

Edna Johnson › (512) 671-2869 › RoundRockTransit@publicinput.com

roundrocktexas.gov/transitplan

ROUND ROCK TEXAS

PLAN DE DESARROLLO DE TRÁNSITO DE ROUND ROCK

La ciudad de Round Rock está formando un plan de desarrollo de tránsito que incluirá recomendaciones para actualizaciones y servicios adicionales que ayudarán a mejorar el sistema de transporte público de la ciudad. El plan servirá como una actualización del Plan Maestro de Tránsito de 2015 y será una guía para desarrollar el futuro del transporte público en la ciudad durante los próximos diez años.

COMPARTA SU OPINON

La ciudad tendrá dos talleres públicos para compartir información y colectar comentarios sobre los servicios y las necesidades existentes. Queremos saber las opiniones de todos, sin importar cómo se mueva por la ciudad. La misma información estará disponible en los dos talleres, ¡así que acompáñenos cuando pueda!

8 Y 9 DE SEPTIEMBRE
5 A 7 P.M.

Allen R. Baca Senior Center – 301 W Bagdad Avenue

Los edificios de la ciudad de Round Rock son accesibles para sillas de ruedas. Las personas con impedimentos auditivos pueden solicitar un intérprete o, si necesita ayuda para participar en esta reunión, por favor llame al coordinador de tránsito al (512) 218-7074 o mande un correo electrónico a ejohnson@roundrocktexas.gov al menos 3 días antes de la reunión.

TOME 5 MINUTOS PARA LLENAR LA ENCUESTA

Cuéntanos su opinión del sistema existente, si lo use o no.

Escanea con la cámara de tu teléfono

publicinput.com/RRTransitSurvey

¿NO PUEDE ASISTIR?

¡Todavía puede participar! Todos los materiales y oportunidades para compartir su opinión estarán disponibles del 8 de septiembre al 1 de octubre en **roundrocktexas.gov/transitplan**

INFORMACIÓN DE CONTACTO

Edna Johnson › (512) 671-2869 › RoundRockTransit@publicinput.com

roundrocktexas.gov/transitplan

Stakeholder Interview Guide
Round Rock Transit Development Plan

A. Today

1) How much awareness of and support for transit is there in the community? Have the levels of awareness and support changed in recent years?
2) What is your perception of transit's role in the community? Any need to have more connections to the Capital Metro system/Austin area?
3) Is the transit system responsive to community needs? How are those needs communicated to the transit systems?
4) Is information on transit readily available in the community?
5) Is traffic congestion a problem in the City of Round Rock? If so, what role can transit play in mitigating this problem?
6) Is there a parking problem in the City of Round Rock? If so, how does this affect transit's role in the community?

B. Where We Want to Go

7) What goals have the community and elected officials voiced for transit? What do you see as appropriate goals for the transit system in the next 5 to 10 years?
8) What is happening in the City of Round Rock in terms of residential and commercial development? How much? Where? How can transit best respond to these trends?
9) Should Round Rock Transit be looking at new markets for transit service, or should it concentrate on its existing markets?
10) Is there a need for premium transit (rail or bus rapid transit) connections between the City of Round Rock and Austin? Other places within Williamson or Travis counties?
11) Is there a willingness in the community to consider additional local funding for transit?

C. How We Get There

12) What improvements are needed in the transit system to attract more riders and meet community goals?
13) Is there a need for more park and ride lots, possibly in conjunction with more express or limited-stop bus service to Austin and other destinations?
14) Are there areas currently not served or underserved by transit that should receive a higher priority?
15) Are there other policies that should be changed to help the transit system reach its goals?

D. Summary

16) What are the major strengths and accomplishments of existing transit services?
17) If you could pick one thing to change about the transit system, what would it be?
18) What is your vision for transit in the next 5 to 10 years?

Round Rock Transit Development Plan
Bus Rider Survey

The City of Round Rock needs your help to improve bus service. Please help us by completing this survey. ***Thank You!***

This survey is about the ONE-WAY transit trip you just made, you are making, or you are about to make!

1. Please **LIST ALL the BUS ROUTES** you took or will take to complete this **ONE-WAY trip:**

FIRST Bus Route	→	**SECOND** Bus Route	→	**THIRD** Bus Route

2. What is the main **PURPOSE** of your trip today? (Only ✓one)

- ❑ Work
- ❑ School (K-12)
- ❑ Recreation/ Social/Church
- ❑ Other (please specify):_____
- ❑ Medical
- ❑ College/Tech School
- ❑ Shopping/ Errands

3. How do you typically get **TO/FROM** the bus stop? (Only ✓ one)

- ❑ Walk: # blocks?__
- ❑ Drive & park: # miles?__
- ❑ Other (please specify):_____
- ❑ Bicycle: # blocks?__
- ❑ Ride with someone

4. IF NOT BY BUS, how would you make this trip? (Only ✓ one)

- ❑ Drive
- ❑ Would not take trip
- ❑ Moped/Scooter
- ❑ Uber/Lyft/Taxi
- ❑ Bicycle
- ❑ Other (please specify):_____
- ❑ Walk
- ❑ Ride with someone

5. On average, **HOW OFTEN** do you ride the bus? (Only ✓ one)

- ❑ 5 or more days per week
- ❑ 2-4 days per week
- ❑ Occasionally

6. HOW LONG have you been using transit services in Round Rock? (Only ✓ one)

- ❑ Less than 6 months
- ❑ 1 to 5 years
- ❑ 6 months to 1 year
- ❑ 5 or more years

7. Which three of the following **IMPROVEMENTS** would make transit better for you to use? (Please only ü three options)

- ❑ More frequent service (bus comes by more often)
- ❑ More early/later service
- ❑ Regional express/commuter service. Where? _____
- ❑ More weekend service, select one or both: ___Saturday ___Sunday
- ❑ App-based Mobility on Demand for first-mile/last-mile connections with transit
- ❑ Autonomous vehicles
- ❑ Provision of rail transit
- ❑ Bus stop improvements (shelters and benches)
- ❑ Other (please specify):_____

8. Please list any **PLACES/DESTINATIONS** in the City of Round Rock or its immediate region that you would like to access via transit but are currently unable to do so.

_____

_____

_____

_____

9. What **FARE** did you pay when you **got on this bus**? (Only ✓ one)

- ❑ Single Ride ($1.25)
- ❑ 7-Day Pass ($11.25)
- ❑ Single Ride, Reduced ($0.60)
- ❑ 31-Day Pass ($41.25)
- ❑ Day Pass ($2.50)
- ❑ 31-Day Pass, Reduced ($20.60)
- ❑ Day Pass, Reduced ($1.25)
- ❑ Other (please specify):_____

10. What is the **MOST IMPORTANT** reason you ride the bus? (Only ✓ one)

- ❑ I prefer RRT to other options
- ❑ Car is not available all the time
- ❑ Parking is too expensive or hard to find
- ❑ The bus fits my budget better
- ❑ The bus is safer or less stressful
- ❑ I do not drive
- ❑ I do not have a car
- ❑ Other (please specify):_____

11. Do you have a smartphone with a data plan? (Only ✓ one)

❑ Yes ❑ No

12. Do you have a valid driver's license? (Only ✓ one)

❑ Yes ❑ No

13. Do you have a vehicle (cars, motorcycles, trucks, vans) at home available for your use?

❑ Yes ❑ No

14. Your age is?

- ❑ 15 or younger
- ❑ 16 to 34
- ❑ 35 to 44
- ❑ 45 to 65
- ❑ Over 65

15. What is your gender?

❑ Male ❑ Female ❑ Other

16. What language is primarily spoken in your home?

❑ English ❑ Spanish ❑ Other (please specify):_____

17. What is your race? (Only ✓ one)

- ❑ White / Caucasian
- ❑ Black / African American
- ❑ Asian
- ❑ American Indian or Alaska Native
- ❑ Native Hawaiian or Other Pacific Islander
- ❑ Two or More Races
- ❑ Other (please specify):_____

18. Are you of Hispanic origin?

❑ Yes ❑ No

19. What was the range of your total household income in 2020 (Only ✓ one)

- ❑ Less than $20,000
- ❑ $20,000 to $29,999
- ❑ $30,000 to $39,999
- ❑ $40,000 to $49,999
- ❑ $50,000 to $74,999
- ❑ $75,000 or more

20. Is there anything you would like to comment on about the existing bus services or suggest for improving the service?

_____

_____

_____

_____

_____

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_____

ROUND ROCK TEXAS

THANK YOU FOR COMPLETING THE SURVEY!

Round Rock Transit Development Plan

Public Input Survey

Your Transit Today

1. Have you used transit services in the City of Round Rock? ❑ Yes ❑ No

2. If Yes, do you consider yourself a regular user? ❑ Yes ❑ No

3. How much awareness is there in the City of Round Rock about transit/public transportation?

❑ High ❑ Low ❑ Do not know
❑ Moderate ❑ None at all

4. What do you think of the transit services in Round Rock?

❑ It must be provided ❑ It does not matter to me ❑ We do not need it
❑ It might be useful ❑ Not sure it is useful

5. If you use transit now or decide to use it in the future, where would you go using it? (Select all that apply)

❑ Work ❑ School (K-12) ❑ Recreation/Social/Church ❑ Shopping/Errands
❑ Medical ❑ College/Tech School ❑ Other (Please specify) _____

Your Transit Tomorrow

6. Do you think there is a need for additional/improved transit services in Round Rock?

❑ Yes ❑ No ❑ I don't know

7. What improvements should be considered as transit priorities for the City over the next 10 years? (Select all that apply)

❑ More frequent service (bus comes by more often)
❑ More early/later service
❑ Regional express/commuter service. Where?_____
❑ More weekend service, select one or both: __Saturday __Sunday
❑ App-based Mobility on Demand for first-mile/last-mile connections with transit
❑ Autonomous vehicles
❑ Provision of rail transit
❑ Bus stop improvements (shelters and benches)
❑ Other (please specify)_____

8. Please list any places/destinations in the City of Round Rock or its immediate region that you would like to access via transit but are currently unable to do so.

_____

_____

Tell Us About Yourself

9. I reside in…

❑ Round Rock. My ZIP code is _____ ❑ Elsewhere. My ZIP code is _____

10. I work or go to school/shop/other in…

❑ The ZIP code _____

11. My age is…

❑ 15 years or younger ❑ 35 to 44 years ❑ Over 65 years

❑ 16 to 34 years ❑ 45 to 65 years

12. I have access to a personal vehicle...

❑ Yes ❑ No

13. My race is…

❑ White/Caucasian ❑ American Indian/Alaska Native ❑ Other (Please specify)

❑ Black/African American ❑ Native Hawaiian/Other Pacific Islander _____

❑ Asian ❑ Two or More Races

14. My ethnicity is…

❑ Not Hispanic/Latino ❑ Hispanic/Latino

15 The primary language spoken in my home is...

❑ English ❑ Spanish ❑ Other (Please specify) _____

16. My total household income for 2020 was…

❑ Less than $20,000 ❑ $30,000 - $39,999 ❑ $50,000 - $74,999

❑ $20,000 - $29,999 ❑ $40,000 - $49,999 ❑ $75,000 or greater

Comments

_____

_____

_____

_____

_____

_____

_____

If you want to get occasional project updates, please provide your email address below.

Email: _____

ROUND ROCK TEXAS

TRANSIT DEVELOPMENT PLAN

DISCUSSION GROUP WORKSHOP

SEPTEMBER 2021

1

AGENDA

- Project overview
- Plan objectives
- Baseline data review
- Public involvement process
- Guided forum discussion
- Next steps

2

ROUND ROCK TRANSIT DEVELOPMENT PLAN (TDP)

- Since City set its vision for transit in 2015…
  - Fixed-route and ADA paratransit **service implemented**
  - **Transit utilization growing** despite national downward trend
  - Widespread recognition that a **new vision is needed** to help enhance mobility in the community, beyond simple efficiency/service adjustments
- Round Rock TDP purpose…
  - Develop a **logical plan** to provide the City and its citizens with a **sustainable, implementable vision** for transit services over the next five years and beyond

ROUND ROCK TEXAS
TRANSIT DEVELOPMENT PLAN

3

KEY PROJECT OBJECTIVES

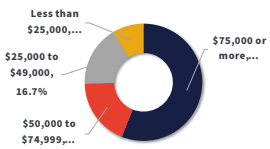
- Develop a network of transit services and facilities that:
  - Addresses ongoing **development and growth**
  - Meets the **connectivity needs** of patrons, including first mile/last mile access
  - Implements **technological advances** to attract more riders and increase ease of use

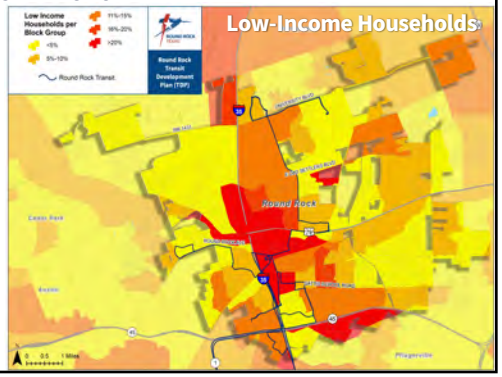
ROUND ROCK TEXAS
TRANSIT DEVELOPMENT PLAN

4

EXISTING OPERATING CONDITIONS

Income Distribution

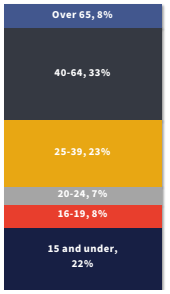


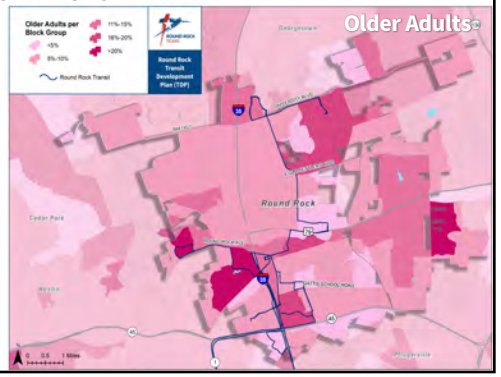


5

EXISTING OPERATING CONDITIONS

Age Distribution

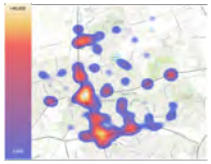




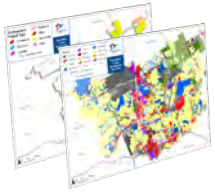
6

EXISTING OPERATING CONDITIONS

Activity Centers and Major Employers



Annual Traffic Volume

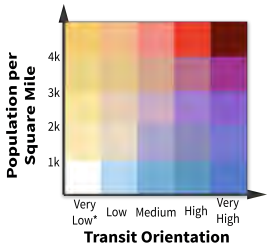


Land Use and Major Developments

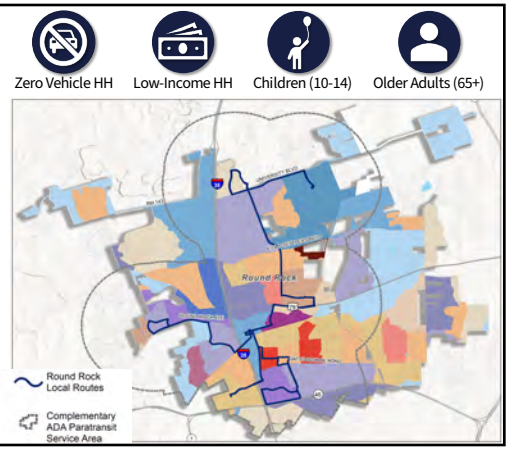
7

TRANSIT MARKETS

- Traditional Rider Markets



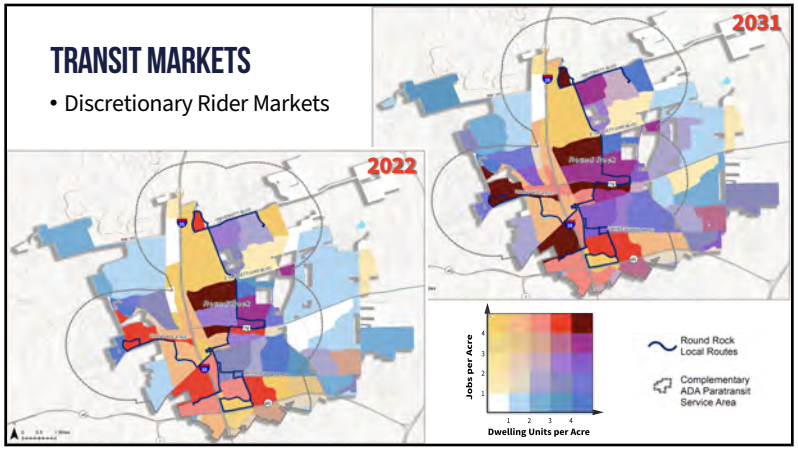
*Less than 100 persons per square mile.



8

TRANSIT MARKETS

- Discretionary Rider Markets



9

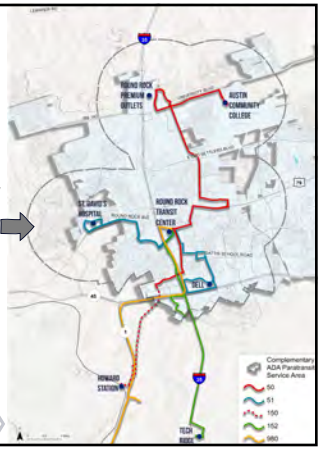
EXISTING TRANSIT SERVICE

- Five routes
  - **50 - ACC to La Frontera**
    - Monday - Friday, 6:30 am - 8:15 pm
  - **51 - St. David's Hospital to Dell**
    - M - F: 6:30 am - 6:30 pm
  - **150 - La Frontera to Howard Station**
    - Limited stop, M - F, 6:30 am - 8:15 pm
  - **152 - Round Rock Transit Center to Tech Ridge**
    - Limited stop, M - F, 2 am and 2 pm trips
  - **980 - Round Rock Transit Center to Austin**
    - M - F, 1 am and 1 pm trips
- $1.25 one-way fare

10

EXISTING TRANSIT SERVICE

- ADA paratransit for individuals with disabilities
- Application process to determine eligibility
- Any origin or destination within the service area
- $2 one-way fare

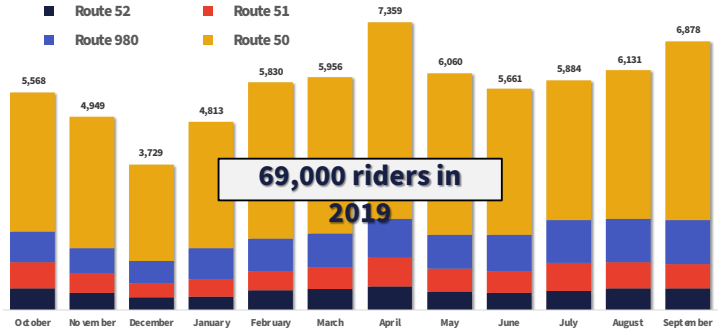


11

RIDERSHIP TRENDS (2017-2019)

12

RIDERSHIP BY ROUTE (2019)

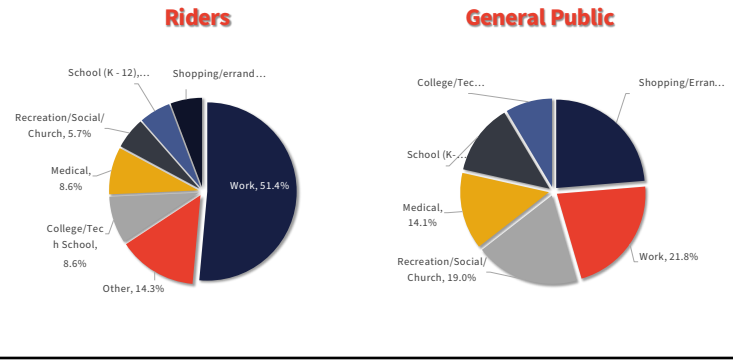


13

PUBLIC OUTREACH

14

SURVEY INPUT - TRIP PURPOSE



15

SURVEY INPUT - TOP 3 IMPROVEMENTS

Riders	General Public
1 *More Frequent Service*	1 *Rail Service*
2 *Weekend Service*	2 *More Frequent Service*
3 *Early/Later Service*	3 *Bus Stop Improvements*

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GUIDED FORUM DISCUSSION

Your Transit Today | Where Do We Want to Go? | How Do We Get There? | Final Thoughts

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Your Transit Today | Where Do We Want to Go? | How Do We Get There? | Final Thoughts

- How much **awareness of and support** for transit is there in the City? Have the **levels** of awareness and support changed in recent years?
- What is your **perception** of transit's role in the community?
  - To transport workers, elderly, low income, individuals with disabilities, tourists, etc.; to attract choice riders; to prevent congestion; to reduce emissions; to create economic opportunities?
- Is the transit system **responsive** to community needs? How are those needs **communicated** to the transit systems?

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Your Transit Today | Where Do We Want to Go? | How Do We Get There? | Final Thoughts

- Is **information on transit** readily available in the City?
  - If not, where should transit information be available?
- Is **traffic congestion a problem** in the City? If so, **what role** can transit play in mitigating this problem?
- Is there a **parking problem** in the City? If so, how does this affect **transit's role** in the City?

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Your Transit Today | Where Do We Want to Go? | How Do We Get There? | Final Thoughts

- What **goals** have the community and elected officials voiced for transit?
- What do **you see** as appropriate **goals** for the transit system in the next 5 to 10 years?
- What is happening in the City of Round Rock in terms of **residential and commercial development**? How much? Where? How can **transit best respond** to these trends?

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Your Transit Today | **Where Do We Want to Go?** | How Do We Get There? | Final Thoughts

- Should the City be looking at **new markets** for transit service, or should it concentrate on its existing markets?
- Is there a need for **additional connections** (regular or high-frequency transit) between the **City** of Round Rock **and Austin**? **Where** to make connections?
- Is there a need for **rail service** between the City of Round Rock and Austin?
- Is more **regional transportation** needed to connect Round Rock with surrounding areas?
  - More connections to Austin
  - Georgetown, Cedar Park, Hutto, Pflugerville

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Your Transit Today | **Where Do We Want to Go?** | How Do We Get There? | Final Thoughts

- Is there a **willingness** in the community to consider **additional local funding** for transit?
- If so, what type of local funding?
  - Sales tax
  - City General Revenues
  - User fees
  - Other

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Your Transit Today | Where Do We Want to Go? | **How Do We Get There?** | Final Thoughts

- **What improvements are needed** in the transit system to attract more riders and meet community goals?
- Is there a need for **more park-and-ride lots**, possibly in conjunction with more express or limited-stop bus service to Austin and other destinations?
- Are there areas currently **not served or underserved** by transit that should receive a higher priority?

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Your Transit Today | Where Do We Want to Go? | How Do We Get There? | **Final Thoughts**

- Are there other **policies** that should be changed to help the transit system reach its goals?
- What are the major **strengths and accomplishments** of existing transit services?
- If you could pick one thing to **change** about the transit system, what would it be?
- What is your **vision** for transit in the next 5 to 10 years?

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WHAT IS NEXT?

- Review and incorporate your input
- Continue public outreach
- Assess transit demand
- Develop tiered recommendations
  - Near-term (1-5 years)
  - Long-term (6-10 years)
- Prepare TDP report
- Present to City Council
  - Early 2022

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COMMENTS/QUESTIONS

We Need Your Help!

- Complete/share survey!
  - Scan QR code
  - Go to RRT website: https://www.roundrocktexas.gov/city-departments/transportation/public-transportation
- Attend Public Workshops
  - September 8th & 9th
  - 5 am – 7 pm @ Baca Center

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APPENDIX D: REGIONAL TRAVEL ANALYSIS

Figure D-1: Regional Travel Flow Destination - Downtown Round Rock

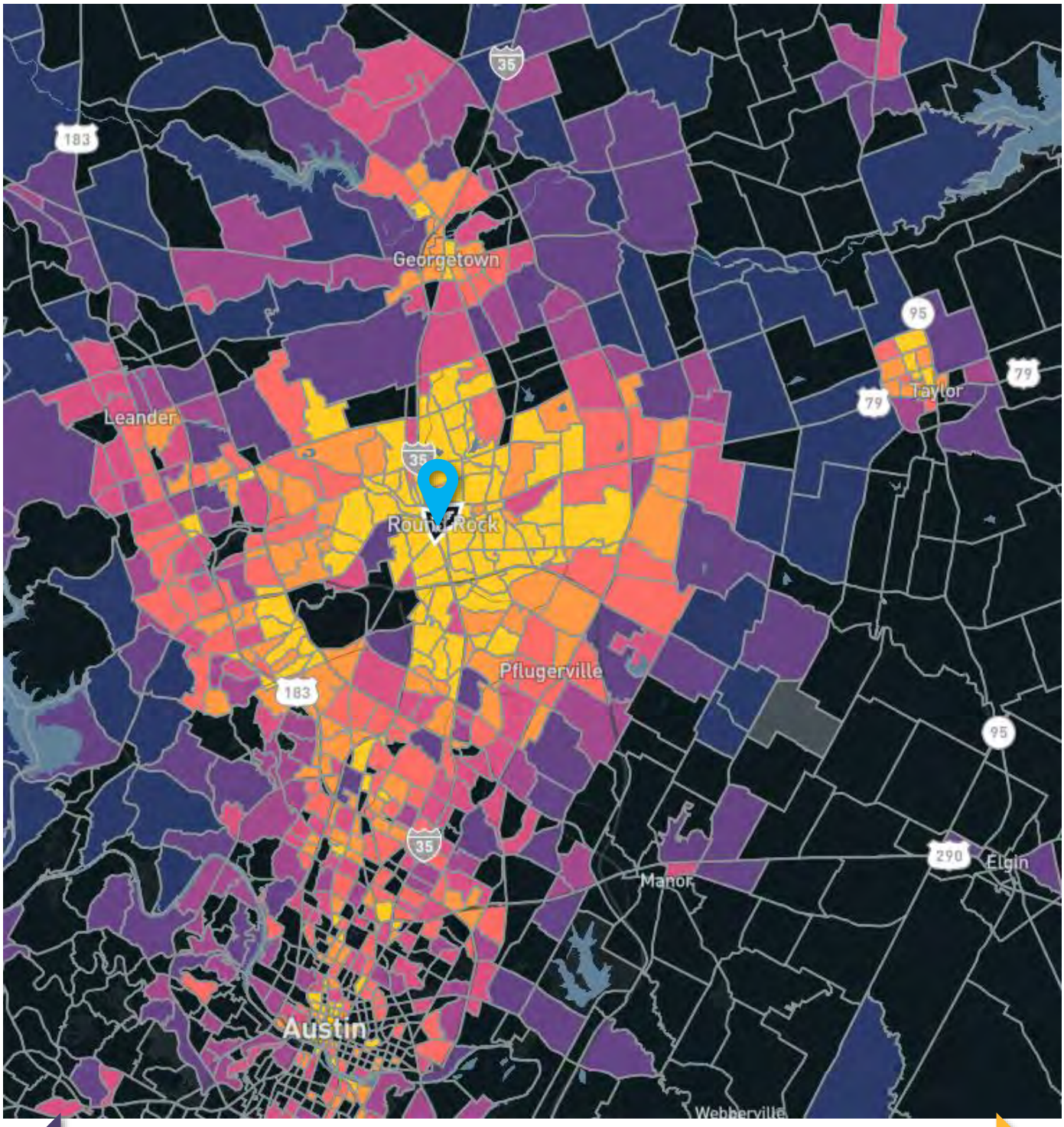

Figure D-2: Regional Travel Flow Destination - Round Rock Premium Outlets

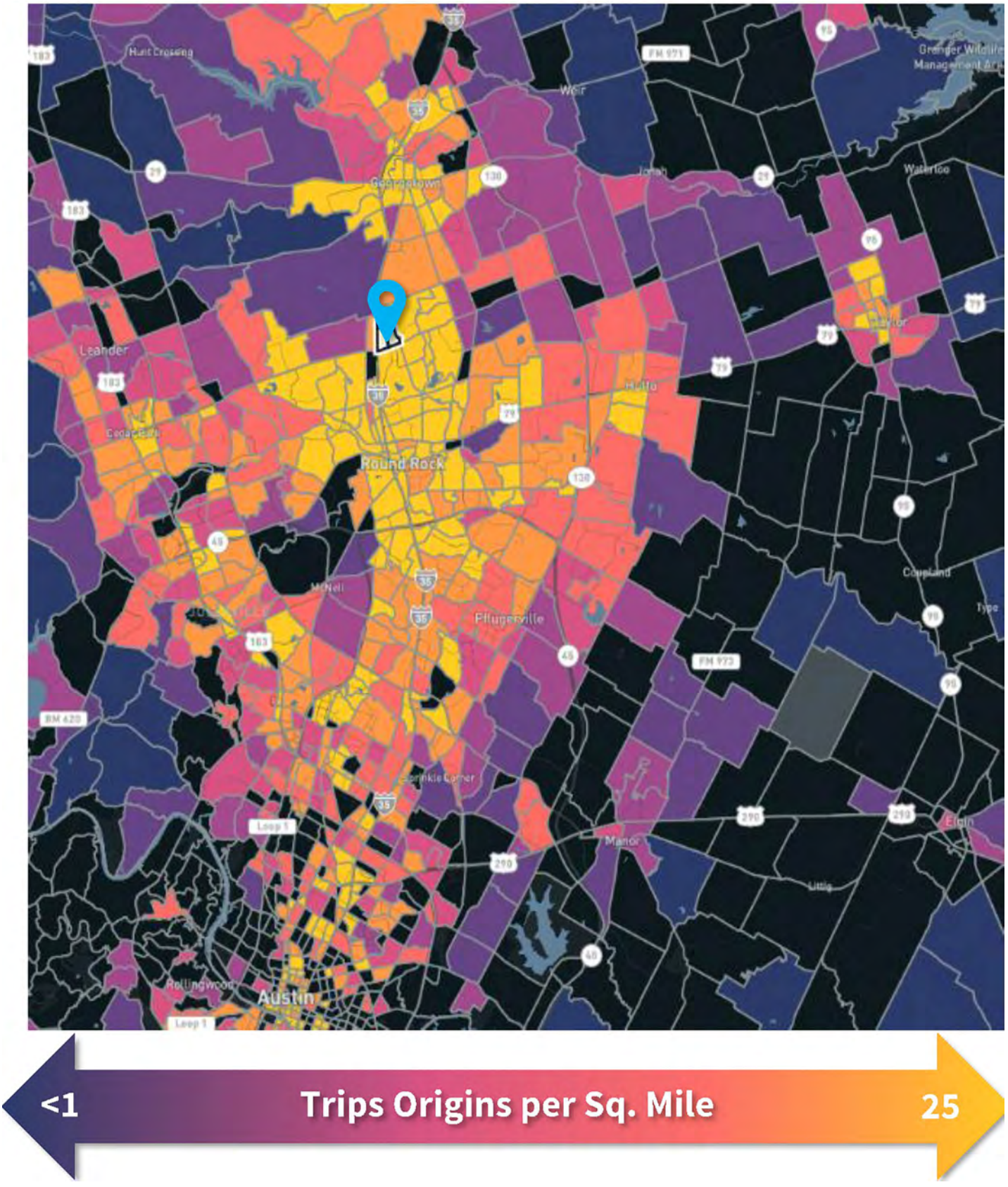

Figure D-3: Regional Travel Flow Destination - La Frontera/Dell area

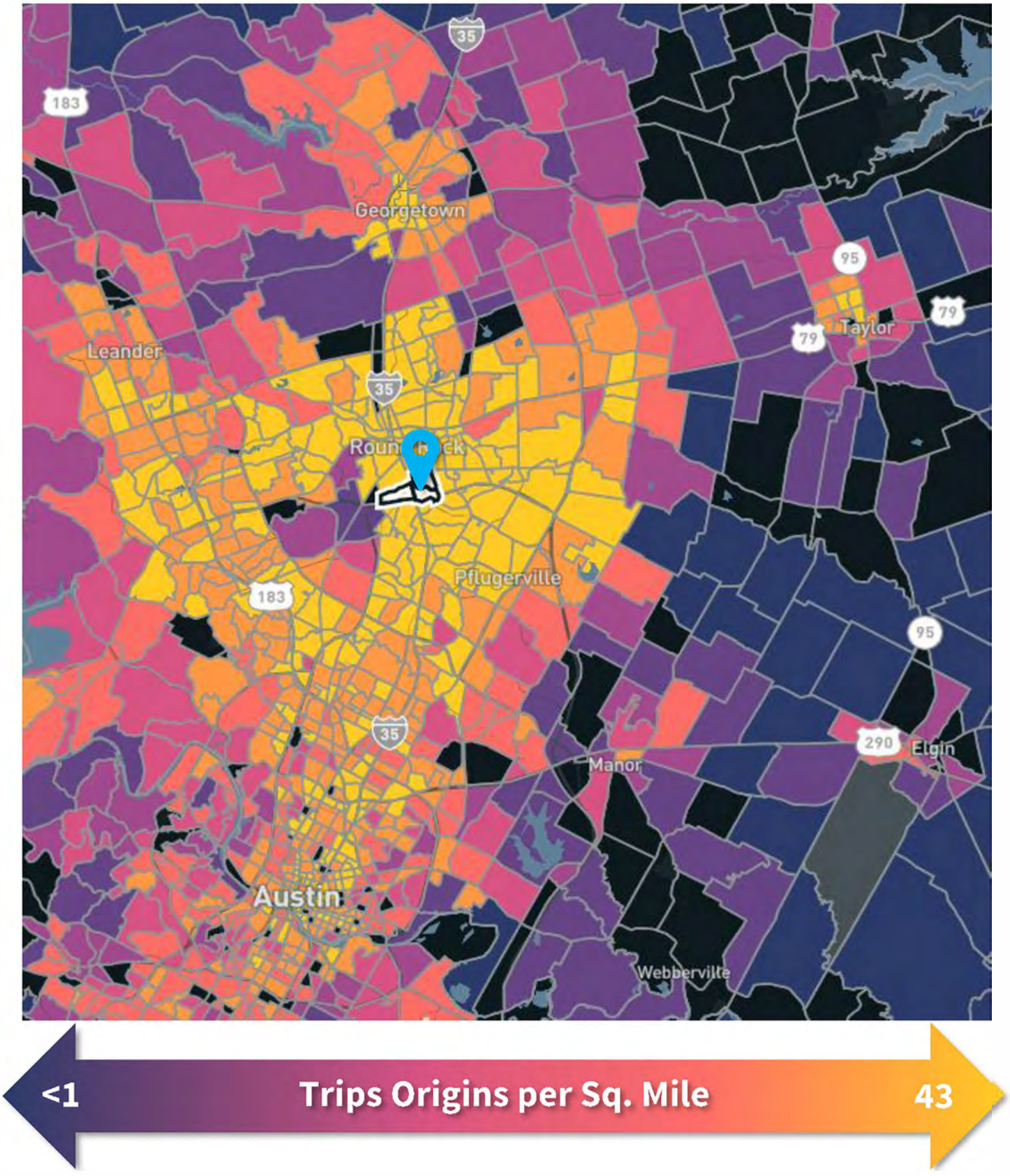

Figure D-4: Regional Travel Flow Destination – Higher Education Complex/Seton Medical Center

APPENDIX E: TRANSIT FUNDING ANALYSIS

CURRENT FUNDING SOURCES

The City of Round Rock currently operates using a mix of federal and local revenue funding. Local revenue includes the general funds that the City of Round Rock uses to support any and all public purposes. General funds are committed to support public transportation on an annual basis in amounts that can vary from budget cycle to budget cycle. Federal funding includes allocations from FTA Section 5307, Urbanized Area Formula Funds, which make federal resources available to urbanized areas and governors for transit capital and operating assistance in urbanized areas and for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S Census Bureau. For urbanized areas with 200,000+ in population, funds are apportioned and flow directly to a designated recipient selected locally to apply for and receive federal funds. For urbanized areas under 200,000 in population, funds are apportioned to the governor of each state for distribution. Funding is apportioned on the basis of legislative formulas. For areas of 50,000–199,999 in population, the formula is based on population and population density. For areas with populations of 200,000+, the formula is based on a combination of bus revenue miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles, as well as population and population density.

Round Rock receives these funds through a partnership with the City of Austin Transit Authority, Capital Metro. As population has increased in Round Rock and in Austin, Section 5307 funds have steadily increased. Table E-1 displays allocated Section 5307 funds for the three-year period from 2019 to 2021.

Table E-1: Section 5307 Funding Allocations

	2019	2020	2021
Round Rock population	112,064	115,685	119,413
Round Rock % population of UZA	7.4%	7.5%	7.6%
Funds allocated for population	$337,869	$348,223	$352,758
Funds allocated for population density	$234,558	$241,745	$244,894
Funds for low-income population	$43,363	$40,734	$41,540
Funds for City of Round Rock bus revenue miles	$51,801	$114,596	$127,479
Total City of Round Rock allocation	$667,591	$745,298	$766,671
Capital Metro allocation	$31,442,717	$33,127,587	$33,677,117

As consistent Section 5307 funding is available for Round Rock, eligible activities include planning, engineering, design, and evaluation of transit projects and other technical transportation-related studies; capital investments in bus and bus-related activities; and capital investments in new and existing fixed guideway systems. In addition, associated transit improvements and certain expenses associated with mobility management programs are eligible under Section 5307. Any preventative maintenance and some ADA-complementary paratransit service costs are considered capital costs under Section 5307 funding.

FUTURE FUNDING OPPORTUNITIES

There is a wide range of future funding opportunities for transit in Round Rock, including national, state, and local sources. The following sections provide a review of each potential funding source.

FEDERAL AND STATE FUNDING SOURCES

It is important to note that there is no dedicated State funding for public transportation in Texas and its larger metropolitan areas. This includes the Texas Department of Transportation (TxDOT), which does not have dedicated funding specifically for transit. The funding opportunities noted below typically are awarded to a State or local government for distribution to smaller entities.

The following opportunities are grants or initiatives for which Round Rock is an eligible recipient/ subrecipient.

USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program

The RAISE Discretionary Grant Program provides the U.S. Department of Transportation (USDOT) with the opportunity to invest in road, rail, transit, and port projects that aim to achieve national sustainability and equity objectives. RAISE grants, previously known as the Better Utilizing Investments to Leverage Development (BUILD) and Transportation Investment Generating Economic Recovery (TIGER) Discretionary grants, can provide capital funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, or MPOs. The RAISE program is a competitive grant for which USDOT uses a rigorous merit-based process to select projects with exceptional benefits, explore ways to deliver projects faster and save on construction costs, and make needed investments in U.S. infrastructure. Eligible projects can be rural or urban, and the selected communities have no population limit. The RAISE grant program is highly-competitive and depends on the outcome of the annual appropriations bill that funds USDOT.

FTA Section 5339, Bus and Bus Facilities Program

The Grants for Buses and Bus Facilities Program makes federal resources available to States and designated recipients to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities. Funding is provided through formula allocations and competitive grants. A sub-program provides competitive grants for bus and bus facility projects that support low- and zero-emission vehicles. Eligible recipients of 5339 funds include designated recipients that operate fixed-route bus service or that allocate funding to fixed-route bus operators, and State or local governmental entities that operate fixed-route bus services that are eligible to receive direct grants under 5307 and 5311 funds. The City of Round Rock would be an eligible subrecipient of 5339 funds in future partnerships with Capital Metro. Eligible activities under the Bus and Bus Facilities Program include capital projects to replace, rehabilitate, and purchase buses, vans, and related equipment and to construct bus-related facilities, including technological changes or innovations to modify low- or no- emission vehicles or facilities. A limitation on the use of 5339 funds is that they must be used for capital projects. Section 5339 funds could be used for larger-scale projects in RoundRock.

FTA Section 5310, Enhanced Mobility of Seniors and Individuals with Disabilities

Section 5310 funding provides formula funding for the purpose of assisting private, nonprofit groups in meeting the transportation needs of older adults and people with disabilities when transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs. The program aims to improve mobility for older adults and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options. There is no community population requirement for Section 5310 funding. Direct recipients of funding include States and designated recipients, and eligible subrecipients include private nonprofit organizations, State or local government authorities, or operators of public transportation. Section 5310 projects include buses and vans, wheelchair lifts, ramps, scheduling/routing/on-call systems, mobility management programs, and acquisition of transportation services under a contract or lease.

FHWA Surface Transportation Block Grant Program (STBG)

The STBG Program provides flexible funding that may be used by States and localities for projects to preserve and improve conditions and performance on any federal-aid highway, bridge, and tunnel project on any public road; pedestrian and bicycle infrastructure; and transit capital projects, including intercity bus terminals. Capital costs for transit projects including vehicles and facilities used to provide intercity passenger bus service are eligible for STBG funds, which go through State governments and MPOs; transit agencies also are eligible recipients of STBG funds. FHWA apportions funding as a lump sum for each State to divide among apportioned programs. The State is responsible for turning funds over to eligible recipients.

Congestion Mitigation and Air Quality Funds (CMAQ) Program

The CMAQ Program, which is jointly administered by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), provides funding to state DOTs, MPOs, and transit agencies to invest in projects that reduce air pollution in areas that do not meet National Ambient Air Quality Standards (NAAQS) (nonattainment areas). CMAQ funds can be used for a wide variety of transit uses, including programs to improve public transit, HOV facilities, Employee Trip Reduction (ETR) programs, traffic flow improvements that reduce emissions, bicycle/pedestrian facilities, park-and-ride facilities, and programs that restrict vehicle use in areas of emission concentration. Additional projects eligible for CMAQ funds include telecommuting, ridesharing, carsharing, and pricing projects. Although these funds are largely used to fund clean area capital projects, a portion can be used for operations to support a demonstration or pilot project. CMAQ capital funds could be used to purchase vehicles for transit service if it were able to be demonstrated that auto trips would be eliminated and emissions reduced.

FTA Small Transit Intensive Cities (STIC)

FTA apportions funds for STIC to small urban transit systems (in urbanized areas less than 200,000 population) that operate at a level of service equal to or above the industry average level of service for all urbanized areas with a population of at least 200,000 but not more than 999,999. FTA allocated STIC funds based on level of service and performance in one or more of six categories: passenger miles traveled per vehicle revenue mile, passenger miles traveled per vehicle revenue hour, vehicle

revenue miles per capita, vehicle revenue hours per capita, passenger miles traveled per capita, and passengers per capita. Under population requirements for STIC funding, Round Rock would be an eligible recipient.

FTA Mobility on Demand (MOD) Sandbox

The MOD Sandbox Program allows communities to creatively leverage a range of mobility options from bike- and car-sharing systems to demand-response bus services. Historically, the program connects people to their communities, mitigates socio-economic disparities, advances racial equity, and promotes affordable access to opportunity. The primary objectives of the MOD Sandbox Program are to enhance transit industry preparedness for MOD, assist the transit industry with integrating MOD practices into existing transit service, measure the impacts of MOD on travelers and transportation systems, and examine relevant public sector and federal requirements, regulations, and policies that may support or impede transit sector adoption of MOD. Eligible activities include all activities leading to the demonstration of the innovative MOD and transit integration concept, such as planning and developing business models, obtaining equipment and service, acquiring/developing software and hardware interfaces to implement the project, and operating the demonstration. Eligible recipients are providers of public transportation, including public transit agencies and State and local government DOTs. Each recipient must identify one or more strategic project partner(s) with a substantial interest and involvement in the project. MOD Sandbox projects are funded under FTA's Public Transportation Innovation program.

FTA Accelerating Innovative Mobility (AIM) Initiative

The AIM Initiative works to drive innovation by promoting forward-thinking approaches to improve transit financing, planning, system design, and service. It also supports innovative approaches to advance strategies that promote accessibility, including equitable and equivalent accessibility for all travelers. Eligible activities for AIM funding include all activities leading to the development and testing of innovation mobility, such as planning and developing business models, obtaining equipment and service, acquiring or developing software and hardware interfaces to implement the project, operating or implementing the new service model, and evaluating project results. Eligible recipients include providers of public transportation, including public transportation agencies, State/local government DOTs, and federally-recognized Indian tribes. Eligible applicants may identify one or more strategic project partner(s) with a substantial interest and involvement in the project.

FTA Integrated Mobility Innovation (IMI)

The IMI Program supports the transit industry's ability to leverage and integrate mobility innovations with existing services while examining the impact of innovations on agency operations and traveler experience. Eligible activities include all activities leading to demonstrations, such as planning and developing business models, obtaining equipment and service, acquiring or developing software and hardware interfaces to implement the project, operating the demonstration, and providing data to support performance measurement and evaluation. Eligible applicants are providers of public transportation, including public transportation agencies and State/local government DOTs.

FTA Enhancing Mobility Innovation

The Enhancing Mobility Innovation Program advances a vision of mobility for all through safe, reliable, equitable, and accessible services that support complete trips for all travelers. The program promotes technology projects that center the passenger experience and encourage people to get on board, such as integrated fare payment systems and user-friendly software for demand-response public transportation. The program builds on the three initiatives described previously (MOD, AIM, and IMI). Eligible activities include projects that develop novel operational concepts and/or demonstrate innovations that improve mobility and enhance the rider experience, focused on innovative service delivery models, creative financing, novel partnerships, and integrated payment solutions, or other innovative solutions, or projects that develop software to facilitate demand-response public transportation that dispatches transit vehicles through rider mobile devices or other means. Eligible applicants include providers of public transportation, including public transportation agencies and State or local government DOTs; private for-profit and not-for-profit organizations, including shared-use mobility providers, private operators of transportation services, technology system suppliers and integrators, bus or vehicle manufacturers or suppliers, software and technology developers, financial institutions, consultants, research consortia, and industry organizations; State, City, or local government entities, including multi-jurisdictional partnerships and organizations such as MPOs; and higher education institutions. Applicants are encouraged to identify one or more project partners with a substantial interest and involvement in the project to participate in implementation of the project.

LOCAL, REGIONAL, AND OTHER FUNDING SOURCES

Several local and regional funding sources are opportunities for future transit funding in Round Rock.

General Revenue

General revenue funds are an existing source of funding for transit in Round Rock. As transit operations continue to expand to accommodate a rising population, it is important that general funds continue to serve as a consistent funding resource.

Local Sales Tax

Local sales taxes can provide a source of revenue for transit services. The State of Texas places a combined sales tax limit of 8.25% for all taxing authorities; the State sales tax rate is 6.25%, leaving 2% for local entities. Some local jurisdictions assess the entire 2%, some a lesser amount. Round Rock currently has sales tax rates that meet the maximum of 8.25%. Numerous ways exist for use of the flexible 2% of sales tax that is provided for local entities; however, the following are the only two taxes that can be used to fund transit projects:

- Regular Sales Tax (maximum of 1%) – funds deposited into a City's general fund; can be used for any lawful purpose.
- Economic Development Tax (maximum of 0.5%) – funds must be turned over to a development corporation to act on behalf of the City; may be used for public transportation projects.

To contribute funds to future transportation services, Round Rock would need to reallocate existing sales tax revenue to fund transit services or identify a different source of public funds (e.g., a Special District) from which funds could be used in lieu of a sales tax.

Transportation Development Credits (TDC)

TDCs, formerly called toll credits, are a financing tool that allows entities to use federal obligation authority without the requirement of non-federal matching dollars, thus increasing the opportunity to leverage federal funds. TDCs are not cash awards; they are a credit earned through an accounting system that assigns value to transportation projects built with tolls. TDCs can provide agencies with federal funds that they would not have access to if there were no available sources to serve as the required local match. For FTA-funded transit projects, capital expenses are preferred uses for TDCs. A grantee may request TDCs to be used as the match on an eligible capital expenditure for federal money received through either a TxDOT-administered grant, received directly from FTA, or applied for through an MPO. Examples of transit projects that have been funded are vehicle purchases, such as large buses and small transitvehicles.

Contract of Purchase-of-Service Revenues

Some transit systems may provide transportation services in addition to their regularly schedules services for which revenues are received based on agreed-upon levels of service and rates. Municipal governments, individual businesses and industries, health and social service agencies, and educational institutions may purchase transit services. The rates charged may be calculated and applied on a per-hour, per-vehicle, or per-trip basis.

Lease Revenues

Transit systems can generate income through leasing portions of physical facilities, typically terminal, station, transfer, or parking facilities. Transit agencies with rail or other fixed rights-of-way also can lease these to private interests such as telecommunications, typically for fiberoptic networks. Leases can be annual with rate adjustments or multi-year.

Advertising

Most transit agencies solicit and accept advertising on their vehicles, facilities (stations, shelters), and materials (tickets, schedules, maps). Advertising serves as a source of earned income and provides a means to establish broader community partnerships and to capture and maintain interest and support for transit and other public services. Revenues from advertising flow directly or indirectly to the operating agencies from single- or multi-year advertising contracts and agreements, and from time-limited and event-basedarrangements.

PRIVATE SECTOR INITIATIVES

The establishment of public/private partnerships is another way to increase revenues for transit and transportation programs and services. The private sector can be broadly interpreted to include employers, merchants, retail establishments, and private nonprofit organizations. Contributions from the private sector can take the form of ongoing operating support or one-time capital purchases.

Employer Contributions

Employer contributions can provide one-time capital costs and also ongoing operating support. Paying for a passenger shelter or bench would be a valuable financial contribution from such a private or commercial interest. Employers or merchants that benefit from a service may be interested in supporting it, particularly if a bus stop was located at their front door to maximize convenience for their employees or customers. Employers could also help subsidize the cost of transit tickets or passes. In Round Rock, employers such as Dell or Kalahari could benefit from a partnership to provide an equitable transit option for employees.

Education/Training Institutions

Opportunities exist for funding partnerships and interlocal agreements between Round Rock and different education and training institutions that would use transit service. Capital Metro currently has an interlocal agreement with Austin Community College to allow students, faculty, and staff to use its services at no charge. Austin Community College and Texas State University currently have Round Rock campuses that could benefit from such a partnership.

Special Event-based Arrangements

Special events taking place in Round Rock also create opportunities for transit partnerships. Transit service in Round Rock could provide trips to attendees at venues such as the Dell Diamond for people attending Round Rock Express baseball games.

Service and Business Organizations

Organizations such as the Rotary Club, Kiwanis, and Lions often contribute to community special projects. For transportation, this could include paying for or contributing toward the cost of a new vehicle or a bus bench or shelter near older adult housing. These types of organizations may also pay for trip reimbursement for after-school or childcare programs.

CONCLUSION

Several eligible opportunities exist for providing the financial resources necessary to fund the recommended strategies and goals of this Plan. Both traditional funding mechanisms and innovative funding programs are identified, and the information presented illustrates that there is no single funding program or suggested revenue stream that would fund the entirety of transit in Round Rock. Several funding sources could be pursued to jump-start a new service or program or provide funding during the demonstration phase, such as the MOD Sandbox funding. Other funding sources are limited to capital investments.

The silos of transportation funding create challenges to develop a viable funding plan that consists of several different sources. Seeking funding is further complicated by eligibility, reporting, and matching requirements. Partnerships with regional transit and planning agencies will be beneficial in navigating the process of procuring grants and positioning Round Rock when pursuing discretionary funds. There also is great opportunity for private-sector partnerships, such as employer contributions, as Round Rock becomes involved in MOD initiatives and other innovative services.