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RICHLAND COUNTY TRANSIT DEVELOPMENT PLAN

Final Report
March 2024



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Chapter 1: Executive Summary

Richland County Transit (RCT) is the public transit operator serving Richland County in north central Ohio, including the U.S. Census-defined Mansfield urban area. It currently provides bus service in Mansfield and portions of Ontario and Madison Township, delivering more than 100,000 rides per year. RCT’s primarily employs a “hub and spoke” route design resembling a wheel, with the Stanton Transit Center in downtown Mansfield as the hub and most routes radiating to and from as spokes. Passengers transfer from one route to another at the Transit Center or at two locations on the newly piloted Ontario circulator. The routes operate on 60-minute intervals, meaning passengers can catch the bus at the Transit Center or any point along the routes every 60 minutes. RCT also offers Dial A Ride, a paratransit service required by Americans with Disabilities Act (ADA), to eligible individuals within one mile of any fixed route.

RCT ridership has declined significantly over the past two decades. In the 2000s, the system provided well over 300,000 one-way passenger trips annually. Ridership fell in response to the 2008-2009 economic recession, then continued to decline to an average of roughly 230,000 trips per year until the system made significant service cutbacks in 2019 as a cost-savings measure.

In 2020, ridership declined further, as the COVID-19 pandemic disrupted residents’ travel patterns. The pandemic had similar impacts on transit systems across the United States. RCT has regained some pre-pandemic ridership, but needs to make changes to its service model to maximize its ability to meet community transportation needs.

This ten-year Transit Development Plan (TDP) was overseen by RCT and the Richland County Regional Planning Commission (RCRPC). The plan will serve as the foundation for public transit operations and capital investments in Richland County from 2024 through 2033. The TDP defines a direction for public transit in the county, including an implementation plan to ensure that RCT provides the best service it can with available resources. This plan has been developed while considering existing conditions in Richland County, including resident needs, current RCT customer input, business and human service agency interests, and stakeholder feedback.

Figure 1. Stanton Transit Center



As with many transit systems across the United States today, sustaining sufficient funding from Federal, State, and local sources is paramount to meeting local transportation needs. While significant portions of RCT's operating and capital budgets are supported by the Federal Transit Administration (FTA), revenues from State and local sources are necessary to match FTA grants. Therefore, the foremost goals of the TDP planning process were to understand community needs and place those in the context of fiscal realities, and to deliver in an implementable plan for RCT to improve service and efficiency through operational and technology changes.

This final plan report consists of key findings and conclusions that were documented in greater detail in four technical memoranda issued during the planning process:

- *Technical Memorandum #1 | Market Analysis and Review of Existing Conditions*
- *Technical Memorandum #2 | Public Input Summary*
- *Technical Memorandum #3 | Draft Recommendations*
- *Technical Memorandum #4 | Service and Technology Implementation Plan*

These technical memoranda are available at <https://www.rcrpc.org/transit-development-plan>.

This Executive Summary provides a high-level overview of the planning process and recommendations, and the annual operating costs of implementation. The four chapters that follow condense the information from the technical memoranda, which are available from RCRPC or RCT upon request.

Planning Process Overview

The TDP launched in October, 2022 with the formation of the Project Steering Committee, a group consisting of RCT Board members, agency staff, and RCRPC representatives. The Project Steering Committee met on a monthly basis through November, 2023 to provide guidance and feedback to the TDP consulting team.

Next, the consulting team conducted a comprehensive evaluation of RCT and the market conditions for public transit in Richland County. Employment densities, ridership patterns, and socio-economic and demographic conditions were analyzed and compared with existing services to identify latent demand. Currently, RCT does not serve areas outside of Mansfield and portions of Ontario and Madison Township. RCT's existing FTA funding is provided for the Mansfield urban area, which includes large portions of Mansfield, Ontario, and Lexington. Serving rural areas

would be feasible if RCT obtained FTA rural transit funding provided by the Ohio Department of Transportation (ODOT), which would require new sources of local funding as match.

Figure 2. “Vision Bus” Wrap

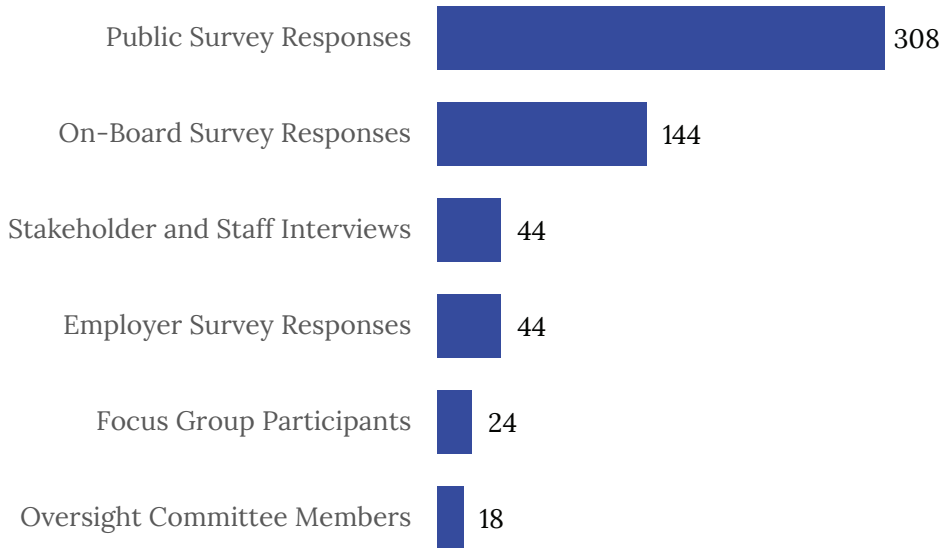


The consulting team conducted a community input campaign from October, 2022 through February, 2023. This effort consisted of an on-board survey of RCT customers, a public survey, interviews with RCT’s management and operating staff members, a survey of local employers, and interviews with community stakeholders. Following the input campaign, the consulting team used the collected input, an analysis of market conditions analysis, and an evaluation of RCT services to generate draft recommendations for changes to RCT’s services and technologies.

In February, 2023, the Project Oversight Committee was assembled, a group of stakeholders who met on three occasions to provide input and review recommendations proposed by the consulting team. In April, these draft recommendations were presented to the Project Oversight Committee for feedback. At this time, the consulting team also conducted three focus groups (with RCT customers, local human service agencies, and representatives of the business community) to solicit input on the draft recommendations.

All of these efforts resulted in the consulting team receiving input from a total of **582** community members. The number of responses gathered during the input process, and the numbers of participants in the focus groups and Oversight Committee, are represented in Figure 3.

Figure 3. Community Engagement Participation (N=582)



After revising the draft recommendations based on the focus group input received, and making further refinements following discussions with the Project Steering Committee, the consulting team delivered its final presentation to the Oversight Committee in July, 2023. During the following three months, the team developed a ten-year implementation plan for service adjustments and technology upgrades. The plan has been finalized through the submission of this report, and was presented to the Richland County Transit Board, Richland County Commissioners and City of Mansfield Council in December, 2023.

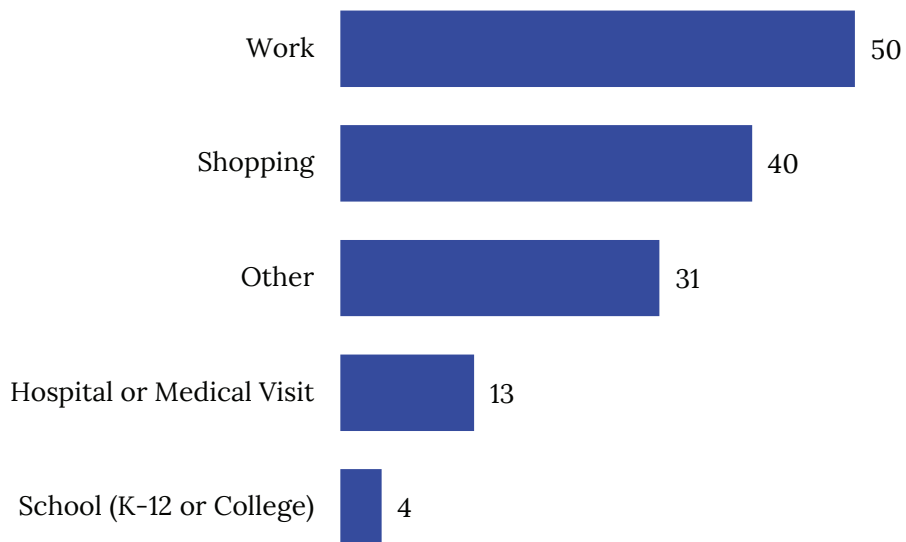
Who Rides RCT?

The RCT customer survey revealed information about who uses the service. Respondents reported that they use RCT for a variety of travel purposes, as shown in Figure 5. The leading trip purpose was work, followed by shopping.

Figure 4. Outreach Event at Stanton Transit Center

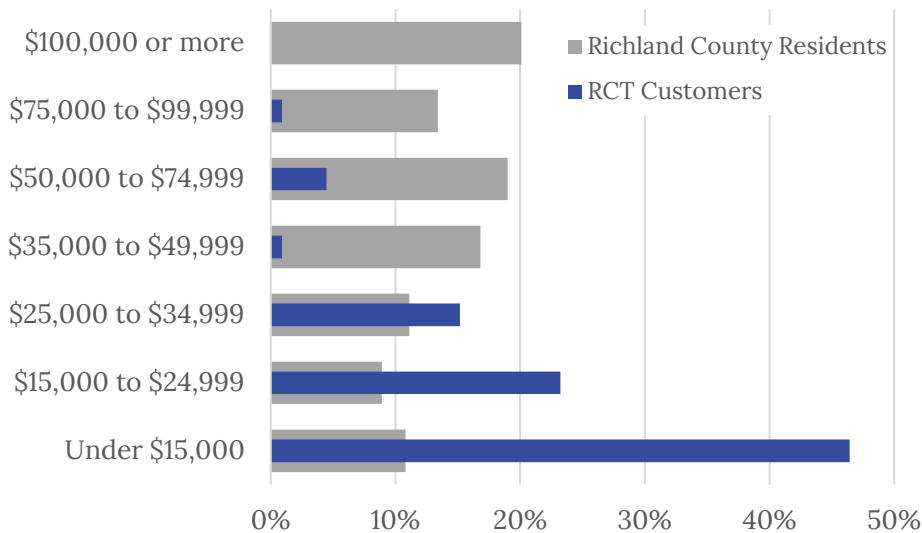


Figure 5. Trip Purposes (N = 138)






The survey included demographic questions, including household income. The vast majority of RCT customers' household incomes are below \$35,000 (84 percent), and trend significantly lower than Richland County households in general (measured in the 2022 American Community Survey), as illustrated in Figure 6.

Figure 6. Household Incomes of Customer Survey Respondents (N = 112), as compared to Household Incomes of Richland County Residents



Note: 9% of RCT customer survey respondents reported that they were unsure of their household income

Customer fare data collected by RCT revealed that, depending on the year, 53 to 60 percent of customers receive a fare discount because they are older adults (age 65+) or individuals with disabilities. Therefore, in summary, the typical RCT customer is an older adult or a person with a disability; uses the service to go to work more often than other trip purposes; and has a household income of less than \$35,000.

<p>Over half of RCT fixed route customers are older adults or individuals with disabilities</p> 	<p>More than one-third of RCT customers use the service to go to work</p> 	<p>84 percent of RCT customers have annual household incomes of less than \$35,000</p> 
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Recommendations and Implementation Timeline

The Plan is structured into three phases of strategies. Near-term strategies are recommended for implementation within one to three years (2024-2026). Mid-term strategies, planned for implementation during 2027-2029, include a five-year update of the TDP in 2029. The update would consist of an evaluation of all near- and mid-term changes, and would inform the selection of a long-term service model for implementation beginning in 2030.

This Plan provides a series of options, each requiring significant planning and financial resources. Given that RCT has a small staff and no dedicated source of local funding, it is recognized that not all of the recommended strategies can be realized in the proposed, ambitious timeframes. RCT should prioritize those projects that best meet essential needs, attract financial support from community partners, and lead to long-term efficiencies.

Near-Term Strategies, 2024-2026

During the near term, RCT will implement modifications to existing fixed routes for efficiency purposes and expand Dial A Ride service to allow same-day trip reservations. A six-month pilot of the recommended modifications began on September 5, 2023. The pilot will be evaluated before finalizing the route changes in or after March, 2024.

During the near-term period, RCT will also pilot a set of new services to improve access to employment and meet other community needs. These pilot services include adding a circulator route in the Lexington/Springmill corridor in Ontario, early morning and evening on-demand service for the general public, on-demand service in downtown Mansfield during Final Fridays, and new contracted transportation services for community organizations.

The most impactful changes to RCT's fixed routes during the near term are shown Table 1.

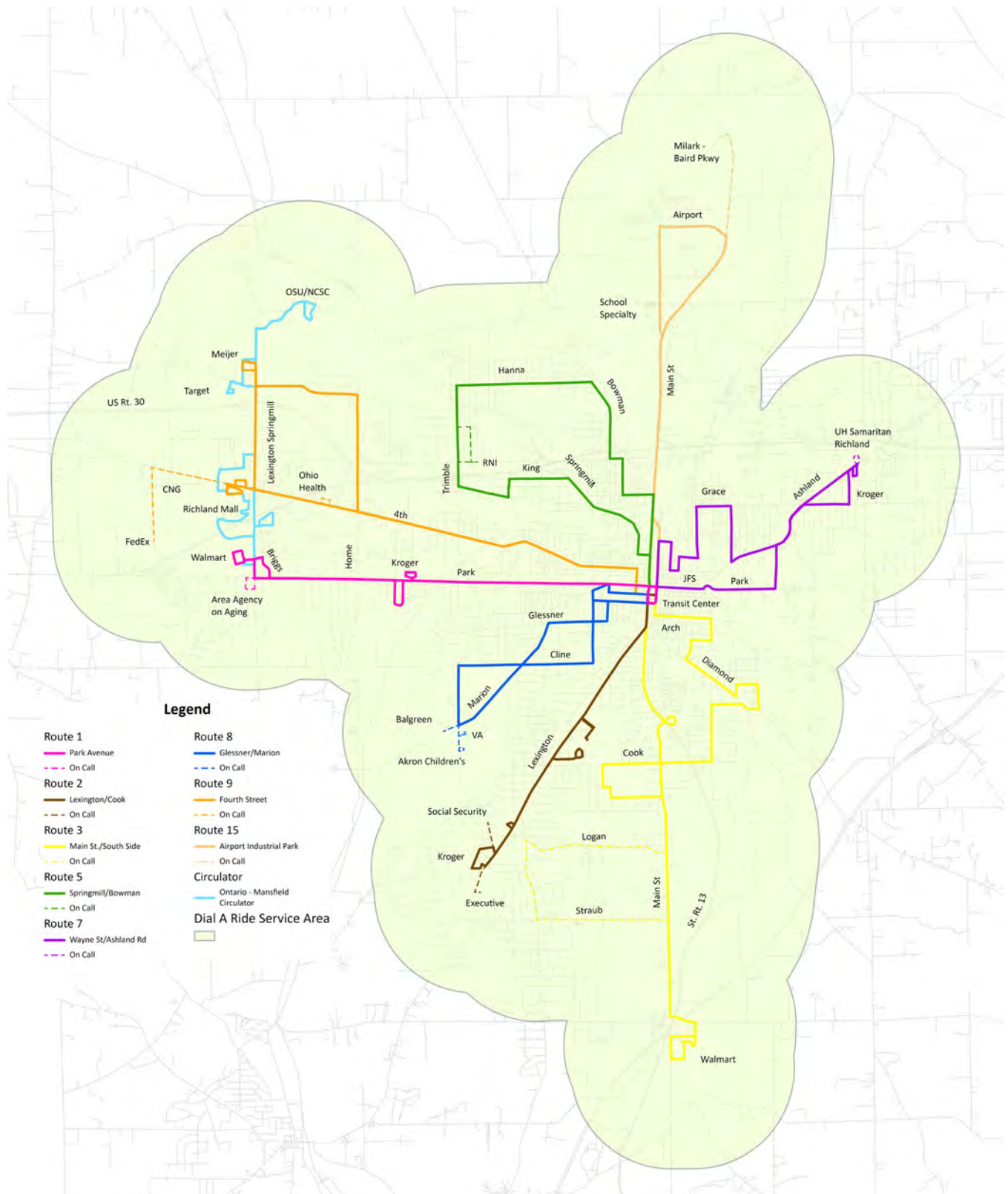
Table 1. Highest-Impact Fixed Route Strategies in Near Term

Strategies	Implementation Status
Discontinuing Route 13 (Shelby) due to low ridership and reduced funding support	☑ Completed July 2023
Adding the Ontario Circulator	☑ Completed September 2023
Changing Logan, Middle Bellville, and Straub Roads on Route 3 (South Main Street) to on-call destinations	☑ Completed September 2023
Extending Route 5 (Springmill/Bowman) to cover the Hanna Road neighborhood	☑ Completed September 2023
Adding on-call service to FedEx, CNG, and other Ontario employers on Route 9 (West Fourth Street) and School Specialty on Route 15 (Airport Industrial Parks)	☑ Completed September 2023
Adding service to Harwood Apartments on Route 1 (Park Ave West) and Madison Terrace Apartments on Route 7 (East Mansfield/Madison)	☑ Completed September 2023
Serving OSU/NCSC on the Ontario Circulator rather than Route 9 (West Fourth Street)	☑ Completed September 2023
Extending hours to cover more employment shifts on Route 15 (Airport Industrial Park)	Planned for 2024 pending available funding

The Ontario Circulator was launched in September as part of the six-month pilot. RCT also initiated new contracted service in cooperation with Pioneer Career and Technology Center in Shelby. Pioneer students were the primary users of the discontinued Route 13. RCT now operates one daily round trip between the Stanton Transit Center and the Ohio State University–Mansfield (OSU)/North Central State College (NCSC) campus, funded by a contract with Pioneer and open to the public. Pioneer’s own bus service is used to transport students from OSU/NCSC to Shelby.

The new RCT fixed route network and Dial-A-Ride service area are shown in Figure 7.

Figure 7. RCT System Map as of September, 2023



The near-term strategies also include technology upgrades, a RCT re-brand and expanded marketing efforts, and moving to a designated bus stop system (replacing the current flag stop system). RCT will also invest time and resources into developing potential new funding partnerships to support the expansion of its services to meet more needs and achieve long-term financial sustainability.

The impact of the near-term strategies on RCT’s annual operating budget is shown for each year in Table 2. The financial figures are planning-level estimates based on projected trends in costs; exact figures will be determined through RCT’s annual budgeting process. Starting in 2025, the total operating costs have been projected to increase due to the addition of more services as well as inflation.

Table 2. Operating Expenses, Near-Term

Near-Term Strategies	2024	2025	2026
Adjust routes and schedules for improved access to destinations and efficiency	X	X	X
Add the Ontario Circulator	X	X	X
Add Same-Day Service to Dial A Ride	X	X	X
Add Afternoon Route 15-Industrial Park Schedules	X	X	X
Provide Final Friday On-Demand Service	X	X	X
Add Evening Route 15-Industrial Park Schedules		X	X
Provide Early Morning and Evening On-Demand Service		X	X
Total Operating* Costs	\$3,277,878	\$3,995,940	\$4,483,545

The operating expenses in Table 2 do not include capital and planning costs, which are provided separately in Chapter 3 of this report. These costs include:

- Adding technology for online and smartphone-based Dial A Ride trip scheduling;
- Adding a smartphone app for passenger fare payment;
- A refreshed brand for RCT, including new vehicle and bus stop sign branding;
- An expanded fleet of smaller, fuel-efficient vehicles for on-demand service; and,
- Additional staffing capacity for pursuing new revenue sources and managing change.

Contracted transportation services provided by RCT to local agencies are not included Table 2 because these services will be funded predominantly by the contracting organizations.

Mid-Term Strategies, 2027–2029

The mid-term strategies consist of additional enhanced services that will meet more of the transportation needs identified during the planning process. These services are intended to serve

as pilot projects to test the demand for service expansion to unserved, or underserved, areas of the county.

The mid-term strategies include:

- On-demand service on Saturdays;
- Restoring service to Shelby using FTA rural transit funding;
- Suburban on-demand services in East Mansfield/Madison Township, Lexington, and Bellville; and,
- General public demand response service for rural areas of Richland County.

Operating early morning and evening on-demand service during the near-term phase of the TDP would allow RCT to gain experience with providing this new type of service, and apply lessons learned in the mid-term phase’s strategies to add on-demand service on Saturdays and within suburban zones. Within the suburban zones, residents could travel from point to point, or be transported to a transfer point to board a RCT fixed route serving destinations in Mansfield or Ontario. The demand response service for rural areas of Richland County would operate similarly, but would require reservations at least one day in advance.

Table 3 provides estimated costs to implement the mid-term strategies beginning in 2027. To provide complete projections of RCT’s total annual operating costs, the near-term strategies are included in the table. The mid-term strategies are provided in bold font. All of the mid-term strategies would require additional Federal funding and new sources of local match.

Table 3. Operating Expenses, Mid-Term

Mid-Term Strategies	2027	2028	2029
Restore Shelby Route	X	X	X
Add E. Mansfield/Madison Township On-Demand Zone	X	X	X
Add Saturday On-Demand Service	X	X	X
Add Lexington On-Demand Zone		X	X
Add Bellville On-Demand Zone		X	X
Add Rural Richland County Demand Response Service		X	X
Add the Ontario Circulator	X	X	X
Add Route 15-Industrial Park Schedules	X	X	X
Provide Early Morning and Evening On-Demand Service	X	X	X
Provide Final Friday On-Demand Service	X	X	X
Total Projected Operating Costs	\$5,655,601	\$7,284,464	\$8,095,160

The operating expenses in Table 3 do not include capital and planning costs, which are provided separately in Chapter 3 of this report. These costs include:

- Expanded marketing and travel training, particularly in newly served areas of the county;
- Additional small vehicles for on-demand service;
- A five-year TDP update including a comprehensive evaluation of all implemented strategies; and,
- Investments in technology and infrastructure to support the expansion of on-demand or fixed route services beginning in 2030.

Long-Term Alternatives, 2030-2033

Four long-term service alternatives are provided that would institutionalize the near-term and mid-term strategies, and take one of three approaches to RCT's core fixed route service:

- Increase fixed route frequency; or,
- Permanently transition some fixed routes to on-demand service zones; or,
- Move to a primarily demand response model, eliminating most fixed routes.

Implementing the full extent of any of these alternatives can only occur if RCT secures an ongoing, dedicated source of local match funding and additional Federal funding. RCT will select one of the alternatives listed in Table 4 following the five-year TDP update, which will include an analysis of the performance of all near- and mid-term strategies and input from customers and community stakeholders.

While the cost impacts of the full alternatives would be significant, RCT has the option of implementing individual services depending on available funding. The purpose of providing full alternative costs is to present an accurate picture of the cost to implement transit service at levels that would meet the needs identified in the existing conditions analysis and public input process. To support planning for more incremental implementation based on funding realities, annual operating cost estimates have been provided for individual services in Chapter 3.

The features of each long-term alternative are provided in Table 4. The projected 2033 (the final year of the Plan's horizon) annual operating costs and ridership are provided as a means for comparison of the alternatives. The status quo scenario is provided to demonstrate the projected costs and ridership if RCT continued with its existing, pre-TDP service model. All alternatives, including the status quo scenario, assume conservative increases in productivity (passenger boardings per vehicle hour of service) over time due to improvements in the customer experience and marketing.

Table 4. Projected 2033 Costs and Service Details, Long-Term Alternatives

Long-Term Alternative	Fixed Route Services	Demand Response Services	Projected 2033 Operating Cost	Projected 2033 Ridership
Status Quo: Existing Network	<ul style="list-style-type: none"> • Pre-TDP Fixed Route Network, including Shelby Fixed Route 	<ul style="list-style-type: none"> • No New On-Demand or Demand Response Services 	\$4,139,651	140,447
Alternative 1: TDP Network with New On-Demand Services	<ul style="list-style-type: none"> • TDP Fixed Route Network • Ontario Circulator • Restored Shelby Service 	<ul style="list-style-type: none"> • Morning/Evening On-Demand • Saturday On-Demand • Suburban On-Demand • Rural Demand Response 	\$9,111,174	220,635
Alternative 2: Increased Frequency with New On-Demand Services	<ul style="list-style-type: none"> • TDP Fixed Route Network, but Replaces Route 7 with On-Demand Service • Increases Frequency from 60 minutes to 30 minutes on Most Routes • Ontario Circulator • Restored Shelby Service 	<ul style="list-style-type: none"> • Morning/Evening On-Demand • Saturday On-Demand • Suburban On-Demand • Expands East Mansfield/Madison Township On-Demand to Include Area Served by Route 7 • Rural Demand Response 	\$12,064,561	320,417
Alternative 3: “Spine” Network with New On-Demand Services	<ul style="list-style-type: none"> • Eliminates all Fixed Routes Except Routes 1 and 15, Ontario Circulator 	<ul style="list-style-type: none"> • Adds Daytime On-Demand to Areas Formerly Served by Fixed Routes • Morning/Evening On-Demand • Saturday On-Demand • Suburban On-Demand • Rural Demand Response 	\$8,883,005	177,663
Alternative 4: 100% On-Demand and Demand Response	<ul style="list-style-type: none"> • No Fixed Route Service 	<ul style="list-style-type: none"> • Adds Daytime On-Demand to Areas Formerly Served by Eliminated Fixed Routes • Morning/Evening On-Demand • Saturday On-Demand • Suburban On-Demand • Rural Demand Response 	\$7,774,897	129,528

Chapter 2: Review of Existing Conditions

Organizational Structure

The Richland County Transit Board (RCTB), comprised of seven appointed members, is the governing body for Richland County Transit. The mission of the RCTB is to provide safe, clean, reliable, efficient, and courteous transportation service for the transit users of Richland County. The agency revised its vision, mission and values in late 2023.

RCTB Vision

A leader for connecting people to opportunities through freedom of transportation.

RCTB Mission

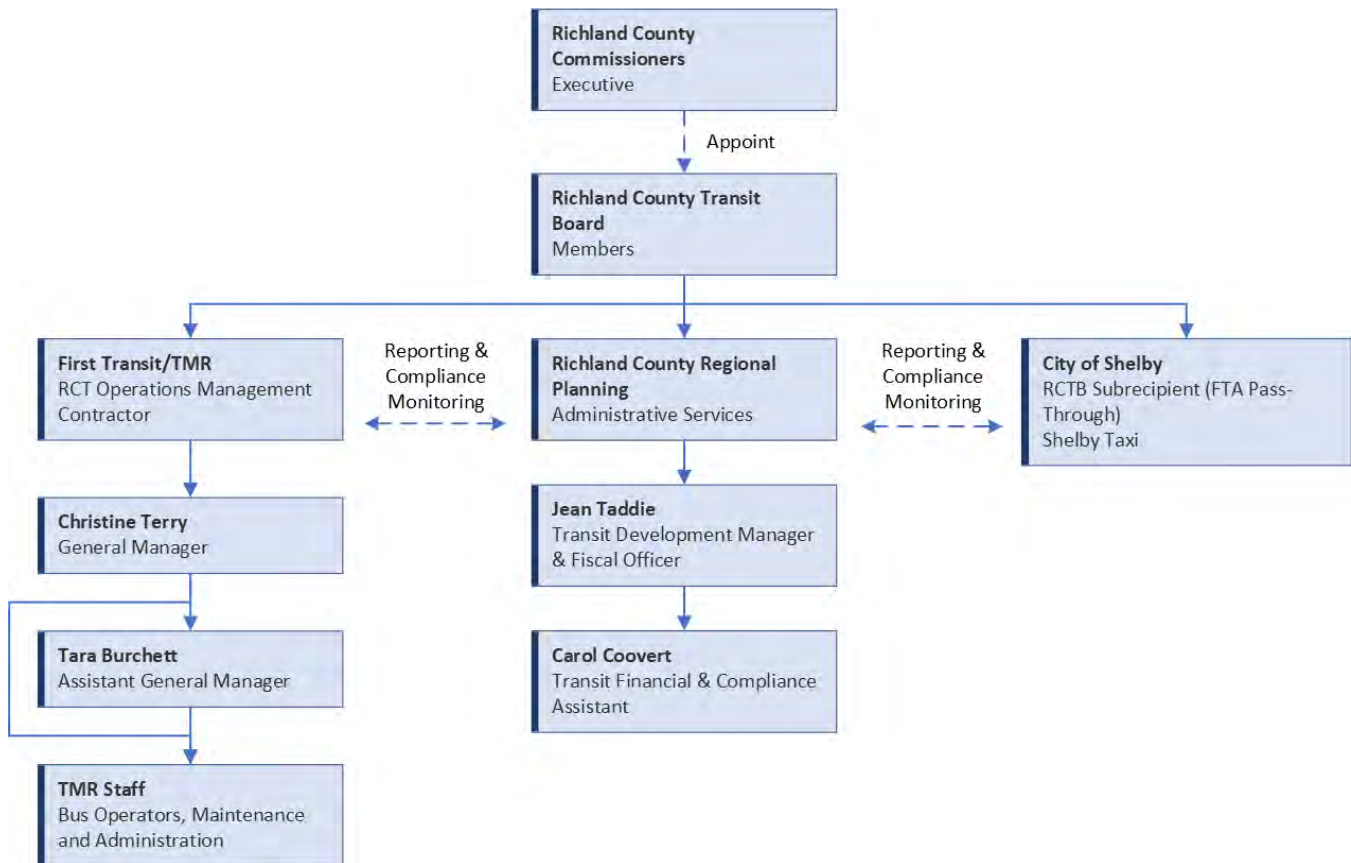
Our mission is to provide excellent transportation services to the community.

RCTB Values

- Safety
- Customer Service
- Teamwork
- Fiscal Accountability
- Reliability
- Sustainability
- Integrity
- Community
- Accessibility
- Innovation
- Excellence

Although governed by an independent Board, Richland County Regional Planning Commission (RCRPC) has provided oversight for RCTB since 1978. RCT operations are managed by a third-party contractor. The private company under contract has the authority to manage and directly negotiate a local collective bargaining agreement with a labor force of operators and mechanics. The organizational chart for RCTB at present is depicted in Figure 8.

Figure 8. Organizational Structure



Source: Richland County Transit

The RCRPC, established in 1959, addresses issues ranging from infrastructure to zoning across jurisdictions and political boundaries within Richland County. The Commission is comprised of 28 individuals who represent governmental agencies, businesses, and civic organizations within the County. The objective of the Commission is to identify the needs, problems and hopes of the people and to plan the environment in accordance with them. The Commission employs a staff of professionals and technicians to undertake a variety of programs and projects, including community development, land use planning, transit planning, and transportation planning. The Commission provides administrative services for the RCTB. Grants management and compliance oversight is provided by the Commission’s Transit Development Manager.

As the governing body for RCT, the RCTB is responsible for establishing policy and procedures, defining service levels, and developing the fare structure for the transit agency. The RCTB members and Chair are appointed by the Richland County Commissioners as per Chapter 306 of the Ohio Revised Code. The RCTB assumes financial responsibility for RCT and owns the capital assets. Income received, including fare box revenue, is the property of the RCTB.

Financial Analysis

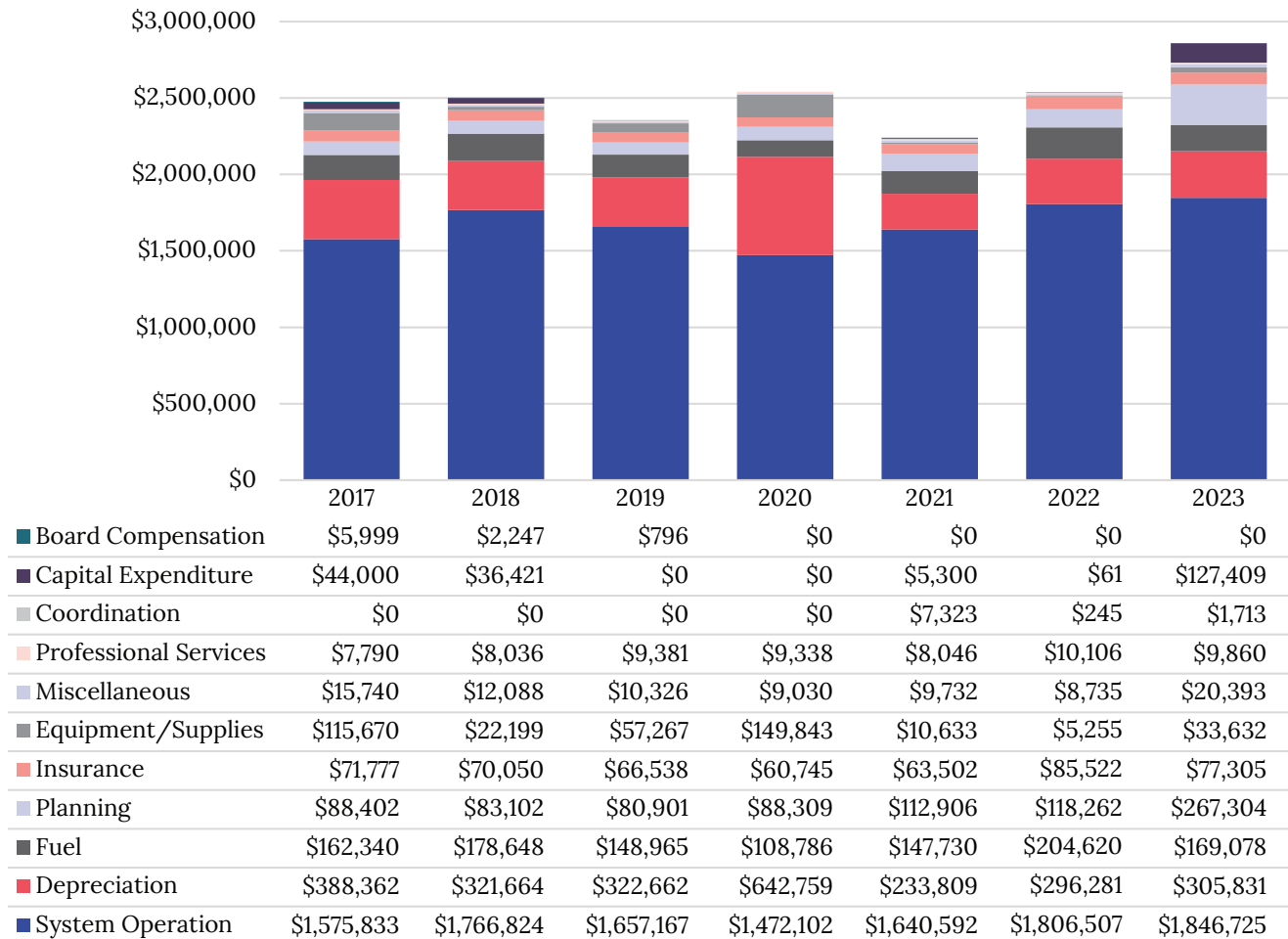
RCT is funded through a combination of Federal, State, and local dollars, as well as passenger fares and contracted transportation revenue. The consultant team reviewed financial records for fiscal year 2017 through fiscal year 2023.

Expenses

RCT's annual expenses, beginning in 2017, are provided in Figure 9. The largest expense category is System Operation, which primarily represents the agency's operations contract with First Transit/Transit Management of Richland County (TMR) to operate the service. After a decline in 2019 due to service cuts (in response to reduced funding), expenses rose in 2020 with the onset of the COVID-19 pandemic and the availability of Federal CARES Act funding. Rising expenses in 2021 and 2022 are attributed primarily to increased labor and other operational expenses due to inflation. The expenses for 2023, which total \$2,859,250, reflect capital expenses associated with facility and parking lot improvements, and Transit Development Plan consulting expenses in the planning category.

The expenses shown in Figure 9 do not include major capital expenses such as replacement bus purchases. These expenses are irregular, and correspond to fleet replacement needs, new vehicle availability, and the availability of major capital funds, which fluctuate from year to year.

Figure 9. Expenses by Category, 2017 – 2023

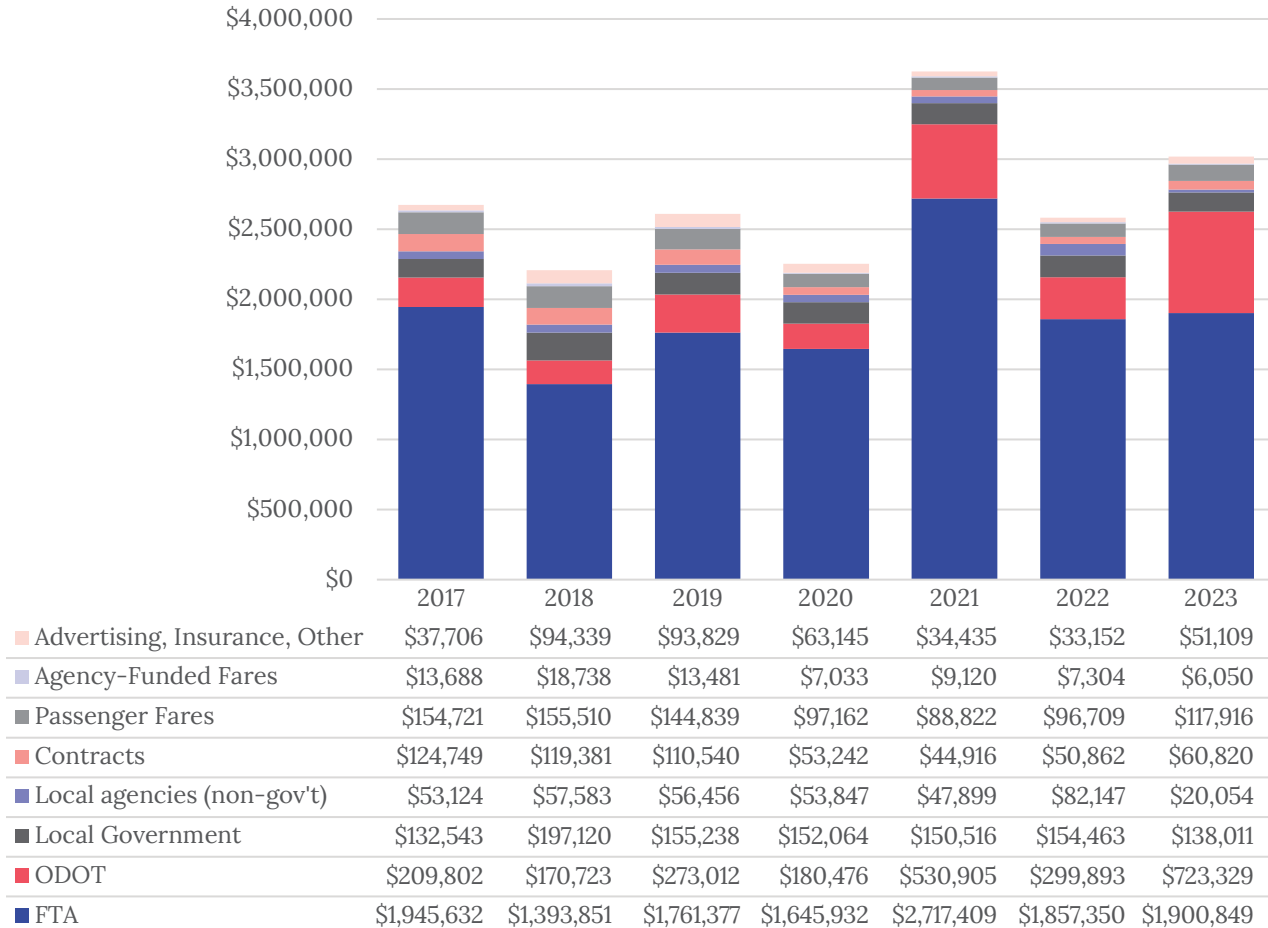


Source: Richland County Regional Planning Commission

Revenue

RCT operating and capital revenues, beginning in 2017, are shown in Figure 10.

Figure 10. RCT Revenues, 2017 – 2023



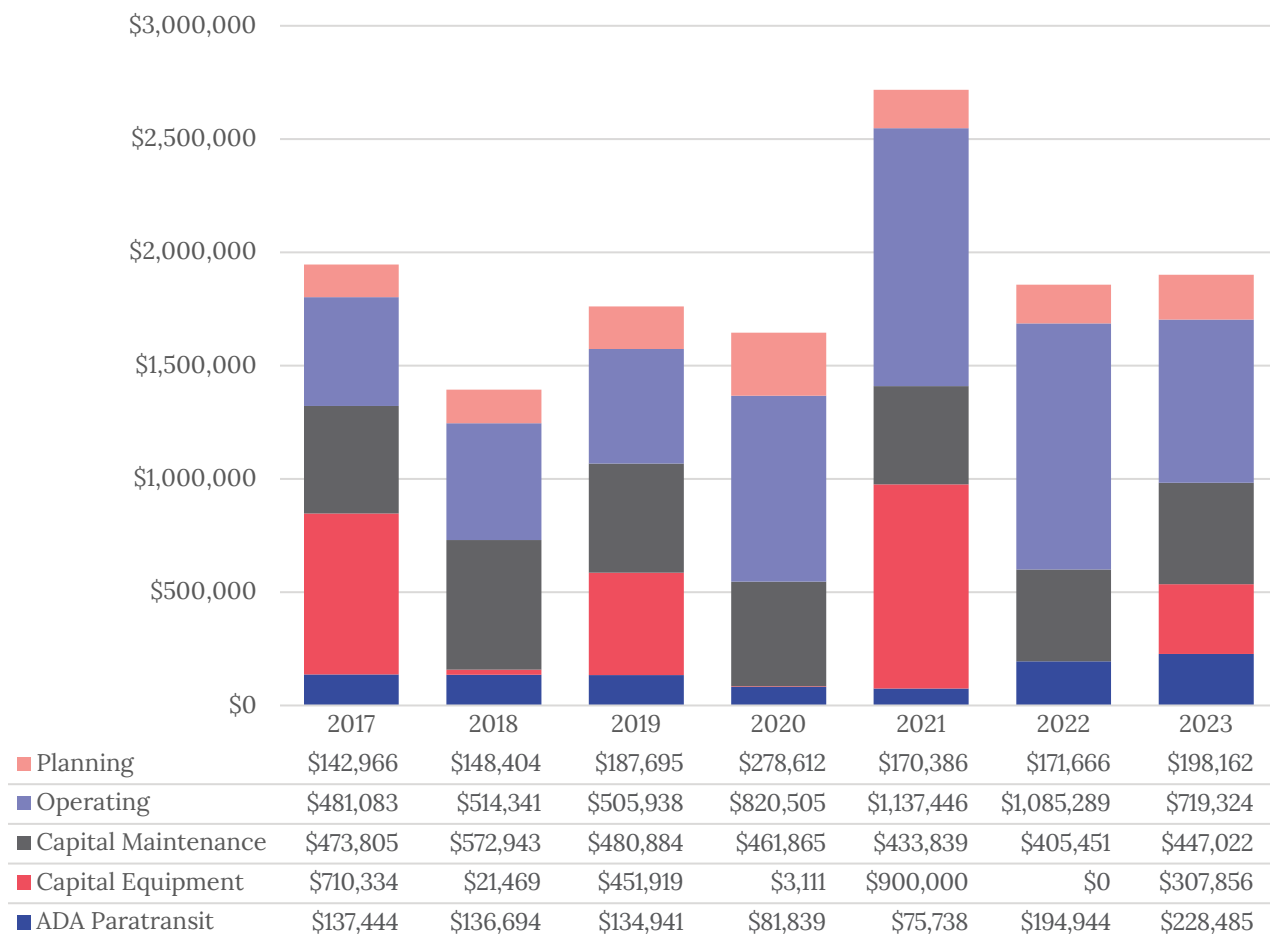
Source: Richland County Regional Planning Commission

Federal Transit Administration Revenue

FTA funding authorized under 49 USC Section 5307 is the primary funding source for RCT. The FTA provides several categories of Section 5307 grant funding to RCT. The categories include planning, operations, capitalized maintenance, capital equipment, and ADA paratransit. RCT must match operating funding at a rate of 50 percent Federal/50 percent local; the other categories require only a 20 percent local match.

Figure 11 provides FTA revenue levels by category, beginning in 2017. It is typical for a transit agency to have inconsistent levels of FTA capital funding from year to year. The 2021 Bipartisan Infrastructure Bill increased the amount of FTA funds available to communities. Capital funding applications depend largely on vehicle replacement needs due to fleet age and state of good repair status. Capital revenue is applied during years in which actual capital expenses occur, which typically follow lengthy procurement processes.

Figure 11. FTA Revenue by Category, 2017 – 2023



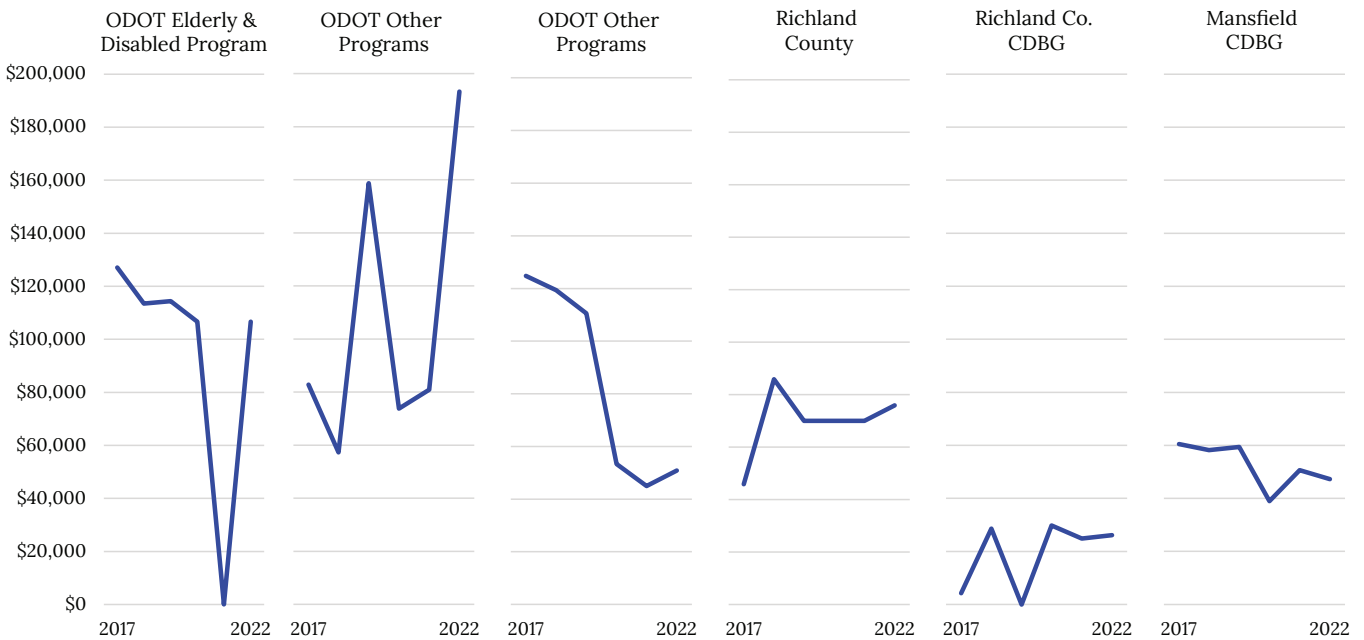
Source: Richland County Regional Planning Commission

Non-FTA Revenue

In addition to FTA revenue, RCT receives funding from the ODOT Office of Transit and a variety of local organizations. These contributions are shown in Figure 12 which displays the amounts provided from key sources of local revenue from 2017 to 2022. Local and State funds, as well as Federal funds derived from non-USDOT sources, are eligible sources of local match for FTA grants. Fares are not eligible as local match. Outside of ODOT funds, the largest single sources of local match for RCT's FTA funding are revenues generated by service contracts, Richland County, and Federal Community Development Block Grant (CDBG) funding allocated by the City of Mansfield and Richland County, and advertising contracts. See Figure 12.

A more comprehensive analysis of non-FTA revenue was provided in *Technical Memorandum #1*. RCT received non-FTA revenue from 32 different sources over 2017 through 2022.

Figure 12. Top Sources of Non-FTA Revenue, 2017 – 2022



Source: Richland County Regional Planning Commission (Note: Dip in ODOT Elderly & Disabled Program was due to a timing error)

Passenger Fare Structure

RCT's passenger fare structure is provided in Table 5. Fares may be paid in cash on the bus, or via bus passes that can be purchased on the bus or at the RCT offices.

Table 5. Fare Structure

Pass Type	Single Pass	Day Pass	Monthly Pass
Adult	\$2.00	\$5.00	\$50.00
Children/Students 6-18	\$1.00	\$2.50	\$25.00
Age 65+/Medicare card holder	\$1.00	\$2.50	\$25.00
Disabled	\$1.00	\$2.50	\$25.00
Children under 5	Free	Free	Free
Transfers	Free (at Transit Center or Ontario circulator transfer points)	Free (at Transit Center or Ontario circulator transfer points)	Free (at Transit Center or Ontario circulator transfer points)
Dial A Ride/Grocery Shuttle	\$4.00	Not offered	\$100.00

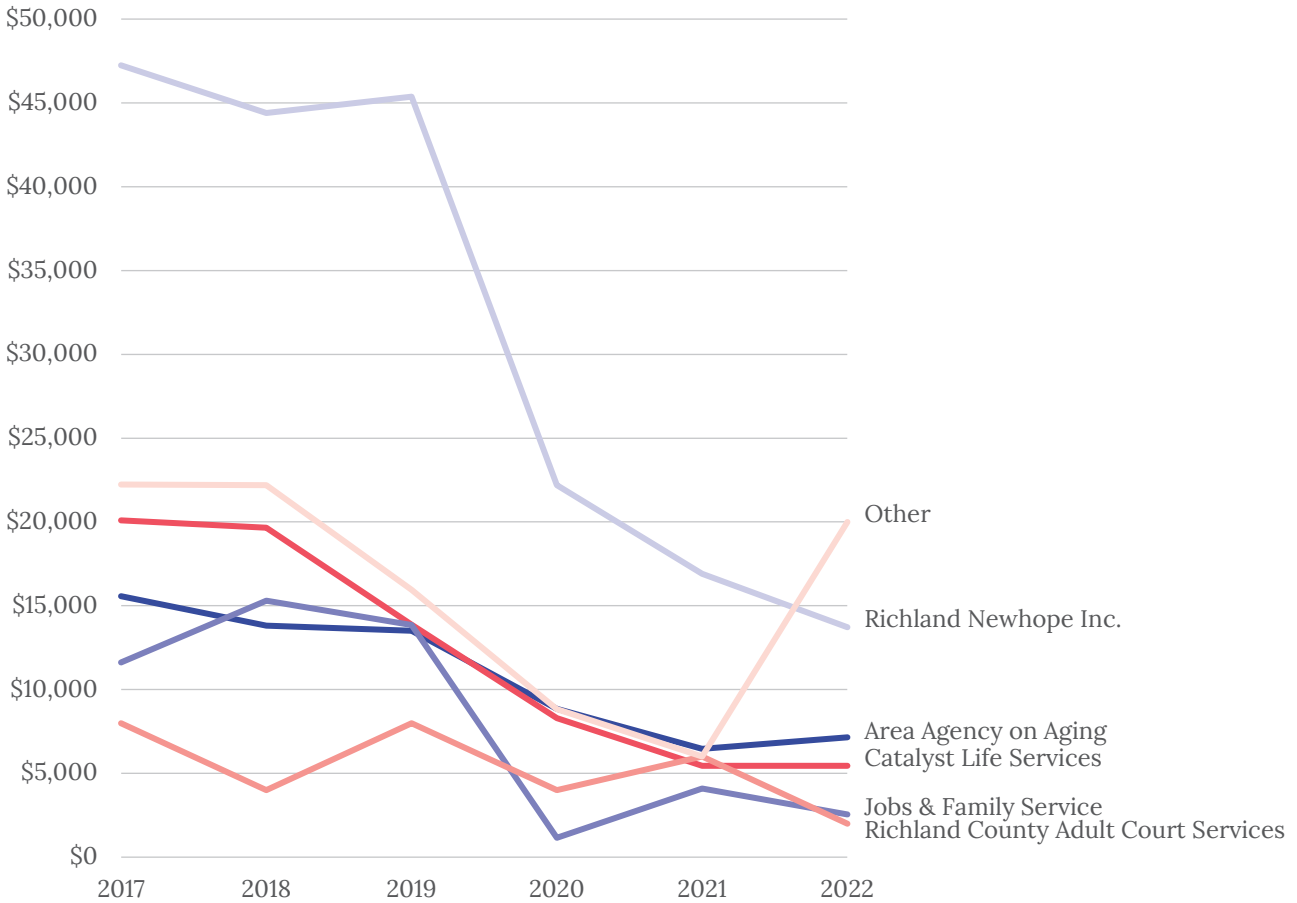
Source: Richland County Transit

Contract Revenue

RCT generates program income through contracting for client transportation services with local human service agencies. Prior to the pandemic, agency contracts brought in approximately \$118,000 per year, which was used as local match. Contract revenue has fallen since the pandemic, but is likely to increase as more human service agency clients resume their pre-pandemic travel patterns. The agencies that have purchased the most service include Area Agency on Aging, Catalyst Life Services, Job and Family Services, Richland County Adult Court Services and Richland Newhope Industries. (Starting in the fall of 2023, Richland Newhope clients can no longer use RCT's Dial A Ride service, because it is a specialized service for people with disabilities, and not open to the general public. Since Richland Newhope was recently instructed to mainstream its clients, the agency no longer contracts for Dial A Ride services. Some clients are able to be accommodated using RCT's fixed route services).

Contract revenue trends over time are shown in Figure 13. The “Other” category represents combined smaller amounts of revenue from 31 different organizations.

Figure 13. Agency Transportation Revenue by Organization, 2017 – 2022



Source: Richland County Regional Planning Commission

The agencies listed in Figure 13 purchase either bus passes for the RCT fixed routes, or rides on the Dial A Ride service. The price of fixed route bus passes for agencies follows the RCT general public fare structure. Agencies purchasing Dial A Ride trips on behalf of clients are charged \$8.00 per ride. The passenger fare covers a portion of the fully allocated cost of providing the ride. The remaining cost is covered by Federal and State subsidies. RCT does not currently charge agencies the fully allocated cost for a Dial A Ride trip. Many transit agencies in Ohio opt to charge human service agencies for the fully allocated cost of demand response trips, or they charge rates set by state agencies (e.g., Ohio Department of Developmental Disabilities). Table 6 provides the amounts of fixed route and Dial A Ride contract service purchased by human service agencies by year.

Table 6. Contract Service Revenue, 2017 – 2022

Year	Bus Passes	Dial-A-Ride	Total
2017	\$68,128	\$56,621	\$124,749
2018	\$60,779	\$58,602	\$119,381
2019	\$51,722	\$58,818	\$110,540
2020	\$29,260	\$24,063	\$53,323
2021	\$28,036	\$16,904	\$44,940
2022	\$35,606	\$15,256	\$50,862

Source: Richland County Regional Planning Commission and RLS Computations

Contract Service Policy Update in 2023

During the TDP process, RCT updated its approach to the pricing of dedicated contract service. In July, 2023, RCT and Pioneer Career and Technology Center entered into a contract for a round-trip demand response run between the Stanton Transit Center and the OSU/NCSC campus. This service was initiated following the elimination of Route 13 (Shelby) so that Mansfield-area Pioneer students could ride to OSU/NCSC, where Pioneer picks them up on their own buses for the rest of the ride to Shelby. The service operates at times based on Pioneer’s class schedule, and is open to the public per FTA regulations that prohibit exclusive charter service. Pioneer funds the service based on RCT’s fully allocated costs of operation, rather than a per-passenger fee. This model represents RCT’s planned approach for future contracts, and will ensure that agencies provide adequate funding for services that are designed for the benefit of their clientele.



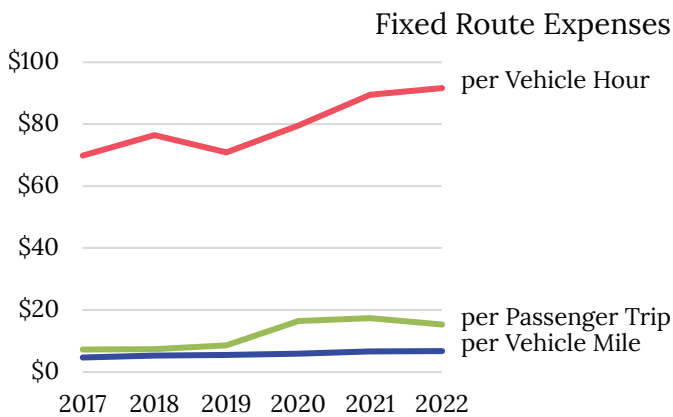
Financial Performance

RLS retrieved RCT’s National Transit Database (NTD) Agency Profiles for 2017 through 2022. (NTD data for 2023 was not available at the time of writing.) The profiles include measures of cost efficiency and cost effectiveness. **Cost efficiency** refers to the amount of public transportation services produced for the community in relation to the resources expended. This measure attempts to answer the question, “How many resources were expended per unit of public transportation service?” Units of service produced are measured in terms of service outputs such as vehicle hours or vehicle miles. Resources expended include labor, capital, materials, and services. The smaller the number of resources expended to produce a unit of service, the greater the resource efficiency of the public transportation service.

The consumption of public transportation services in relation to the resources expended is referred to as **cost effectiveness**. This concept attempts to answer the question, “How many resources were expended per unit of consumption?” Consumption is measured by passenger boardings, passenger trips, or passenger miles. The smaller the number of resources expended in relation to the service consumed, the more cost-effective the service.¹

Figure 14 displays trends in fixed route cost efficiency and cost effectiveness over the six-year period beginning in 2017. Cost efficiency and cost effectiveness have responded to increased costs and decreased utilization due to the pandemic. While funding remained stable during the pandemic due to the Federal CARES Act, a one-time emergency grant with no local match requirement (100 percent Federal), service outputs (revenue hours and miles) were reduced and ridership declined in 2020 and 2021, resulting in increased unit costs. The pandemic resulted in unusual expenses including furlough pay, frontline employee bonuses, and additional cleaning. In 2022, as ridership rebounded, cost efficiency improved.

Figure 14. Fixed Route Financial Performance, 2017 – 2022

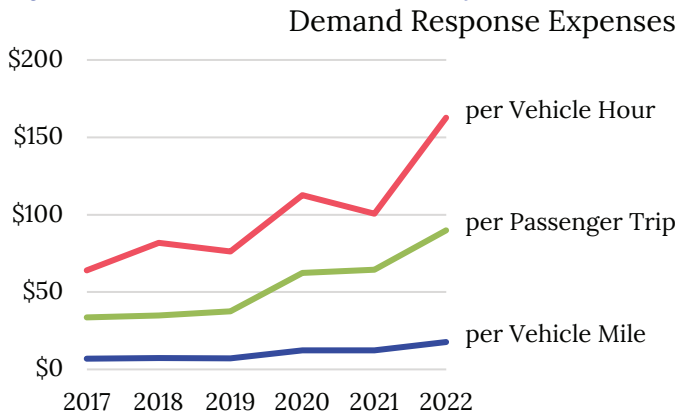


Source: National Transit Database

¹ This evaluation framework and definitions are derived from Burkhardt et al., Financial Management Guidelines for Rural and Small Urban Transportation Providers, American Association of State Highway and Transportation Officials (AASHTO), Washington, D.C., 1992.

Figure 15 provides financial performance data for Dial A Ride. Although cost efficiency and effectiveness have declined since the pandemic, it is important to note that Dial A Ride service comprises less than 20 percent of overall service (measured in revenue hours).

Figure 15. Demand Response Financial Performance, 2017 – 2022

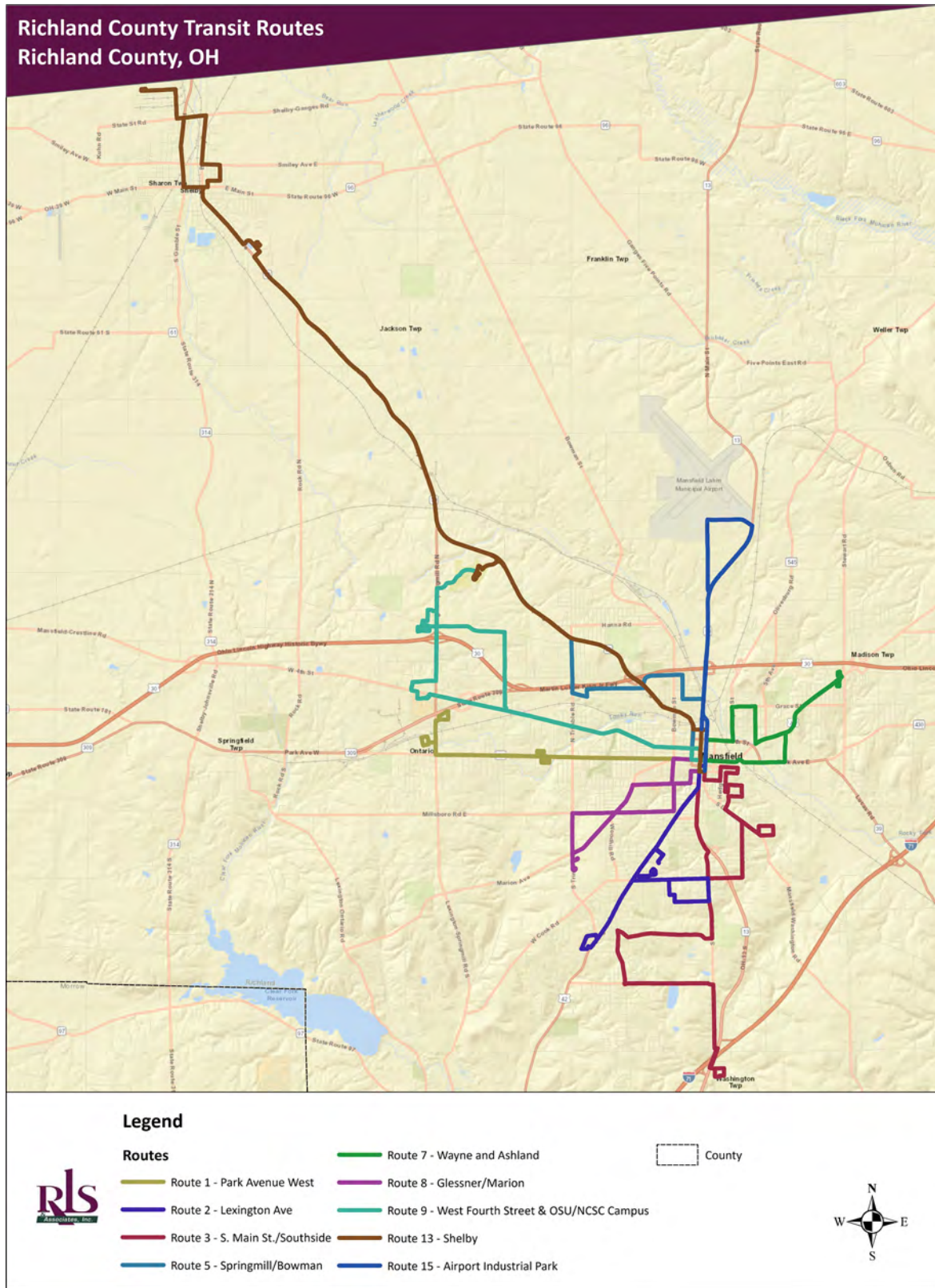


Source: National Transit Database

Operational Analysis

RCT receives FTA funding to operate public transportation in the Mansfield, Ohio urban area. As of October, 2022, when the TDP planning process began, RCT served the cities of Mansfield, Shelby, and portions of Ontario and Madison Township. RCT provides fixed route service through nine established bus routes and ADA-required complementary paratransit service within a one-mile radius of fixed routes through the Dial A Ride program. The route network as of October, 2022 is depicted in Figure 16. The agency also provides a Travel Training program employing tailored classroom and/or field training to ensure individuals can successfully navigate the transit system and associated services.

Figure 16. RCT Routes (October, 2022)



RCT operates service with a fleet of 19 revenue vehicles including eight heavy-duty buses and eleven light transit vehicle (LTV) shuttles. All vehicles are ADA accessible. The LTV shuttles are used in the delivery of both fixed route and ADA complementary paratransit services. RCT facility assets include the Stanton Transit Center located at 74 S. Diamond St. and the Maintenance and Operations Facility located at 232 N. Main St. The RCRPC Office is located in close proximity to both RCT facilities at 19 N. Main St. All facilities are situated in downtown Mansfield.

RCT is a flag-stop system meaning customers can “flag” the operator to board the bus at any location along an established route; however, designated stops marked with RCT-branded signage are located along each bus route and included in the published schedule. Passengers waiting at a bus stop where a sign is posted, must wave to the bus to indicate that they want to ride. Services are generally provided from 7:00 a.m. to 6:30 p.m. Monday through Friday, with operating hours and frequency varying by route. Evening and weekend service is not provided.

RCT maintains an asset inventory in the agency’s FTA-required Transit Asset Management (TAM) plan. The agency’s TAM goal is to maintain the agency’s revenue vehicles in serviceable condition through their useful life benchmark (ULB) ages (14 years for transit buses and ten years for cutaway buses), and to provide transit service in a safe manner with zero preventable accidents. In the November, 2022 update of the TAM plan, RCT listed the vehicles, equipment, and facilities shown in Table 7 in its asset inventory.

Table 7. Asset Inventory with % At/Exceeds ULB (November, 2022)

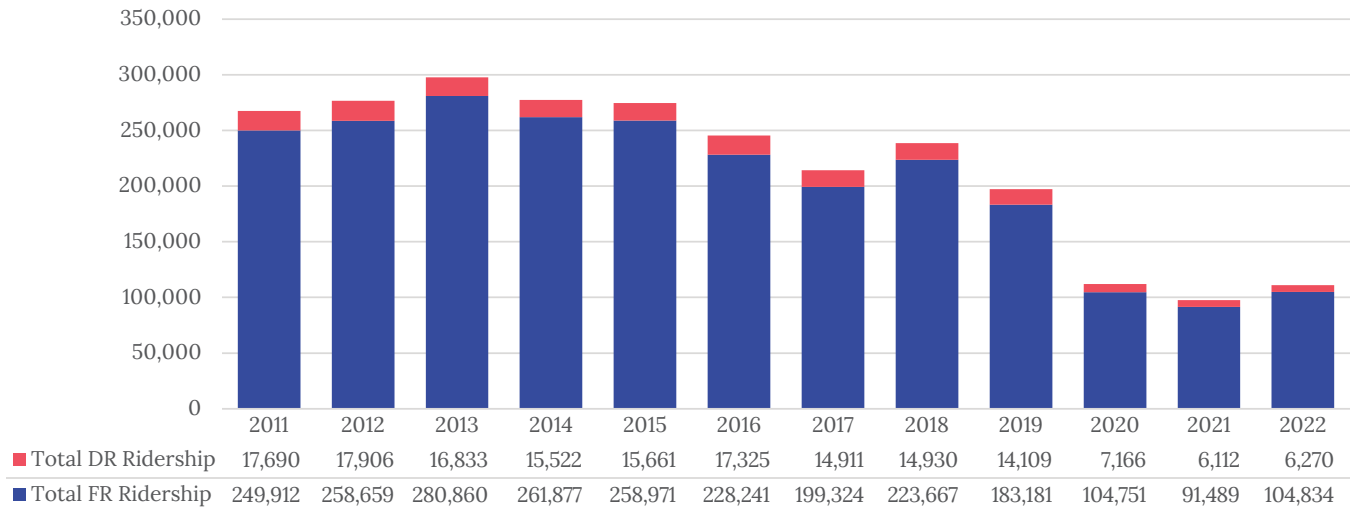
Type	Count	Average Age	Average Mileage	Average Replacement Cost/Value	Total Replacement Cost/Value	% At or Exceeds ULB
Bus	8	7.1	98,015	\$448,231.75	\$3,585,854.00	13%
Cutaway	11	6.7	57,143	\$108,916.18	\$1,198,078.00	18%
Revenue Vehicles Total	19	6.9	74,352	\$251,785.89	\$4,783,932.00	16%
Other Rubber Tire Vehicles	3	12.3	N/A	\$15,575.00	\$47,250	33%
Building Hardware	1	32.0	N/A	\$8,125.00	\$8,125.00	100%
Equipment	26	12.4	N/A	\$1,421.92	\$36,970.00	100%
Equipment Total	30	12.0	N/A	\$3,078.17	\$92,345.00	93%
Maintenance	1	32.0	N/A	\$1,828,550.00	\$1,828,546.00	N/A
Passenger Facility	1	24.0	N/A	\$652,000.00	\$652,000.00	N/A
Facilities Total	2	28.0	N/A	\$1,240,275.00	\$2,480,546.00	N/A

Source: Richland County Transit

Service Performance Trends

The TDP consulting team conducted an operational analysis and review of performance data for RCT according to standard transit industry measures including productivity, efficiency, and effectiveness for a five-year period. NTD reports spanning years 2017 through 2022 and internal reports generated by RCT demonstrate agency performance and productivity prior to and during the COVID-19 pandemic. The total annual one-way passenger trips for fixed route bus (FR) and ADA paratransit, reported as demand response (DR), are illustrated in Figure 17.

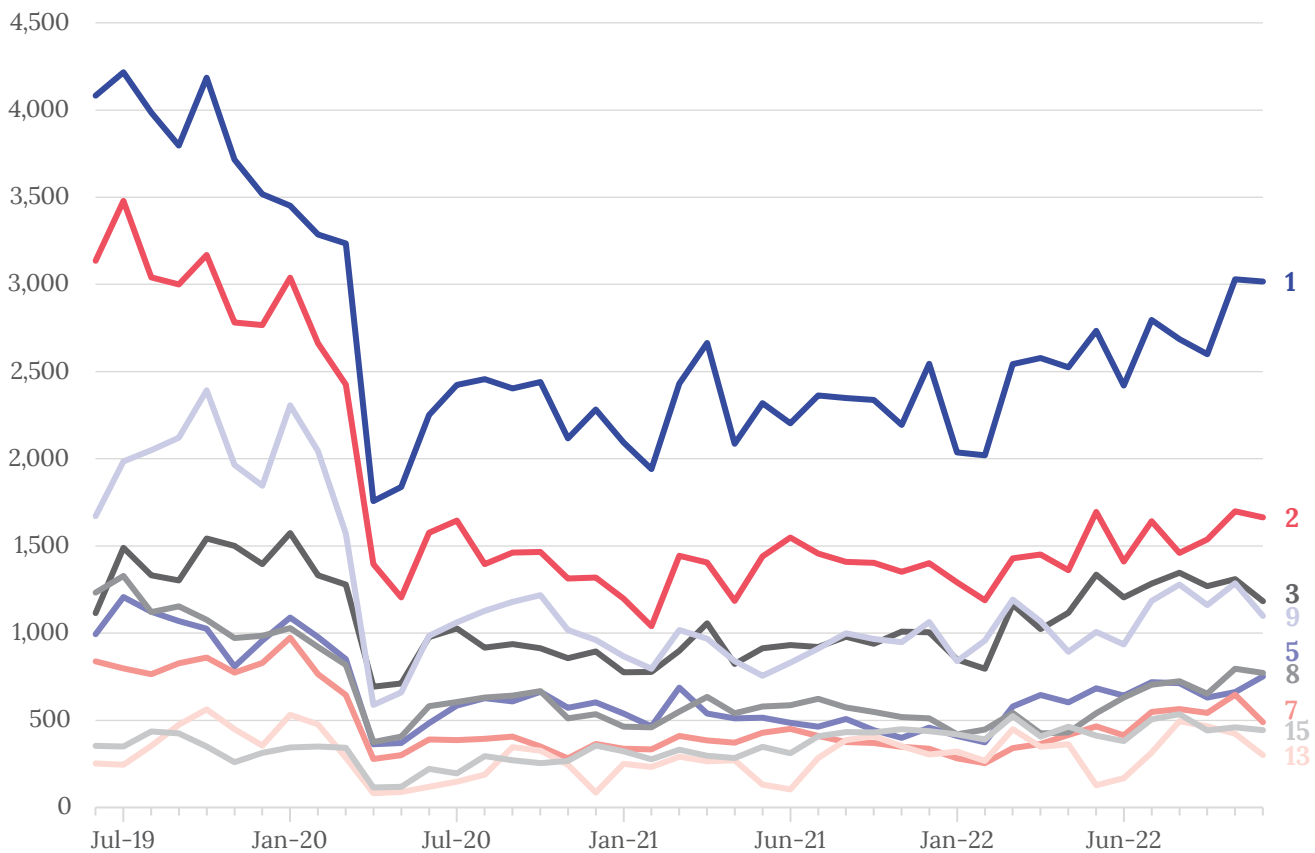
Figure 17. Annual Ridership, 2011 – 2022



Source: National Transit Database and Richland County Transit

The total annual one-way passenger trips for each of the nine bus routes within RCT's fixed-route service network from June, 2019 to December, 2022 is depicted in Figure 18. June, 2019 was the first full month of operations following RCT's service cutbacks, which included the consolidation of several routes. Therefore, route-level data prior to the cutbacks are not included in the analysis.

Figure 18. Annual Ridership by Route, June 2019 – December 2022



Source: Richland County Transit

RCT experienced a 48 percent decrease in fixed route ridership over a six-year horizon; decreasing from 202,779 annual one-way trips in 2017 to 104,833 in 2022. The 2019 service cuts involved a reduction in the number of revenue service hours delivered and revenue miles traveled for fixed route and Dial A Ride. The ridership decline in 2020 was consistent with industry trends during the COVID-19 pandemic. A 56 percent decrease in Dial A Ride, or demand response, ridership was realized for the same time span.

The agency’s three bus routes with the highest reported annual passenger trips for the referenced horizon were Route 1 Park Avenue West; Route 2 Lexington/West Cook; and Route 9 West Fourth Street.

The performance analysis conducted confirms productivity and demonstrates the effectiveness of fixed-route and demand response services delivered by RCT while providing a baseline for future measures. Performance data for both service modes for years 2017 through 2022 are presented in Table 8 (fixed route) and Table 9 (demand response).

Table 8. Fixed Route Performance, 2017 – 2022

Statistic	2017	2018	2019	2020	2021	2022
Annual Passenger Trips	202,779	224,286	183,182	104,762	90,550	104,833
Vehicles Operating in Max Service (VOMS)	10	10	10	7	7	7
Total Vehicle Revenue Miles	317,364	310,927	286,507	241,128	239,195	239,036
Total Vehicle Revenue Hours	21,053	21,593	22,114	17,730	17,579	17,457
Trips per Revenue Mile	0.6	0.7	0.6	0.4	0.4	0.4
Trips per Revenue Hour	9.6	10.4	8.3	5.9	5.2	6.0

Source: National Transit Database

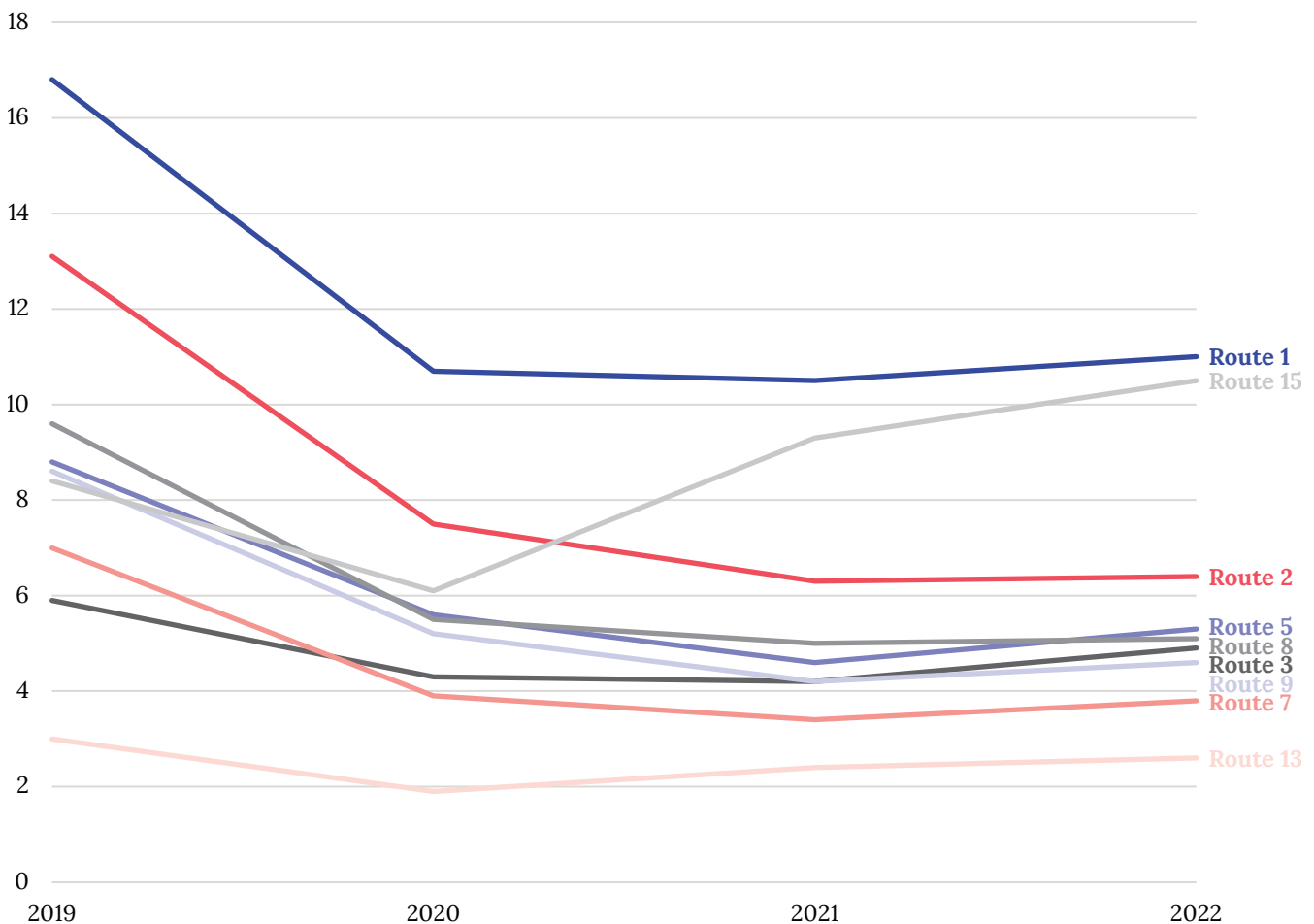
Table 9. Demand Response Performance, 2017 – 2022

Statistic	2017	2018	2019	2020	2021	2022
Annual Passenger Trips	13,962	13,982	12,313	6,800	6,114	6,284
Vehicles Operating in Max Service (VOMS)	6	6	6	5	5	5
Total Vehicle Revenue Miles	66,420	67,051	64,784	34,612	31,960	31,956
Total Vehicle Revenue Hours	7,314	5,977	6,076	3,765	3,915	3,469
Trips per Revenue Mile	0.2	0.2	0.2	0.2	0.2	0.2
Trips per Revenue Hour	1.9	2.3	2.0	1.8	1.6	1.8

Source: National Transit Database

Productivity is measured by the number of passenger boardings per revenue hour of vehicle service. For example, a route with an average of eight passenger boardings per hour of service receives a productivity value of eight. Productivity data for all routes within RCT’s fixed-route service network are shown in Figure 19. The productivity decline in 2020 is consistent with ridership drops induced by the pandemic. Productivity is highest on Route 1, followed by Route 15, the latter of which is the only route to have grown in productivity since 2019.

Figure 19. Productivity (Boardings per Hour) by Route, 2019 – 2022



Route Descriptions

Prior to this study, RCT’s routes operated on a partial pulse schedule with each route beginning and concluding at the Stanton Transit Center. With the exception of Routes 13 and 15, each route ran every 60 minutes, generally from 7:00 a.m. to 6:30 p.m.

- Routes 1, 2, and 3 departed from the Transit Center at 30 minutes past the hour. It took 55 minutes for each route to complete a loop and return to the Transit Center.
- Routes 5 and 7 departed at 30 minutes past the hour, and took 25 minutes to complete a loop.
- Route 8 departed on the hour, and took 25 minutes to complete a loop.
- Route 9 departed on the hour, and took 55 minutes to complete a loop.

Because the routes do not all converge at the Transit Center at the same time, some customers must wait for 30 minutes between routes before they can transfer. Routes 5 and 8 are operated by the same driver, who alternates between the two routes every 30 minutes. The Route 7 driver has 30 minutes of down time following each 25-minute circulation, and sometimes performs Dial A Ride trips in the interim periods.

Until it was discontinued in July, 2023, Route 13 operated four 90-minute round trips per day between Mansfield and Shelby, departing the Transit Center at 7:30 a.m., 11:30 a.m., 1:30 p.m., and 4:30 p.m. Route 15 provides four 30-minute round trips to the Airport Industrial Park from the Transit Center, departing at 6:00 a.m., 6:30 a.m., 3:00 p.m., and 3:30 p.m.

The consultant team analyzed ridership patterns on all RCT routes by examining boarding data for the month of November, 2022. Detailed information from this analysis, which included a review of utilization by route segment and time of day, is provided in *Technical Memorandum #2*. A map of the routes, including the discontinued Route 13, is provided in Figure 16.

Route 1 Park Avenue West

Route 1 is the most productive and highest-ridership route in the fixed route network. Providing service between the Transit Center and Springfield Square Center, the route serves Park Ave. from Lexington Ave. to Main St. providing access to major activity centers and primary destination points along the corridor including Walmart, Kroger, Park Ave. West Apartments, and retail stores located in Springfield Square Center. The route deviates to the Area Agency on Aging Hawkins Medical Center if/as requested.

Route 2 Lexington Avenue

Route 2 serves Lexington Ave. from Downtown Mansfield to the Kroger Shopping Center and E. Cook Rd. from Lexington Ave. to Main St. providing access to major activity centers and primary destination points including residential areas, public services, grocery and retail stores, and jobs. The route deviates to serve the Social Security office and Executive Court upon request. Route 2 experienced the second highest ridership in RCT's fixed route network in 2022.

Route 3 South Main Street/Southside

Route 3 serves Downtown Mansfield, Main St. and portions of Logan Rd., Middle Bellville Rd., and Straub Rd. Route 3 provides access to activity centers and primary destination points including, residential areas, and grocery and retail stores, including Walmart on Possum Run Road.

Route 5 Springmill/Bowman

Route 5 services Downtown Mansfield, north of the Transit Center, Springmill Street, and segments of Longview, Bryden, and Trimble. (The route formerly served Bowman Street, but was changed in 2019 so that it no longer serves Bowman.) Route 5 provides access to activity centers and primary destination points, including residential areas, grocery and retail establishments, and medical services.

Route 7 Wayne/East Mansfield

Route 7 provides service between the Transit Center and the UH Samaritan Medical Center, connecting riders to major activity centers and primary destination points along the Ashland Road corridor including Kroger, UH Samaritan Medical Center, the Peoples Community Center, and Job and Family Services. Route 7 experiences low ridership and productivity as compared to the other core routes in the system. The only route with lower productivity is Route 13 (Shelby).

Route 8 Glessner/Marion

Route 8 travels between the Transit Center and the Veterans Administration via Cline, Marion, and Glessner, providing access to major activity centers and primary destination points along the corridor including the Akron Children's Hospital, health and social services, grocery and retail establishments, and residential areas.

Route 9 West Fourth Street

Route 9 travels between the Transit Center and OSU/NCSC via Fourth Street, providing access to major educational centers and primary destination points along the route including, Ohio State University (OSU) Mansfield, North Central State College, major employers, residential areas, and retail stores located in Ontario Town Center and Richland Mall. The TDP survey of RCT customers found that Route 9 had the system's second-highest rate of youth (under 18) ridership. Route 9 serves Cypress High School, and Mansfield City Schools' junior and senior high schools; the latter have school bus service.

Route 13 NCSC/Kehoe/Shelby (Discontinued July 28, 2023)

Route 13 connected Downtown Mansfield to Shelby via Springmill/OH-39. Route 13 provided access to key educational centers including the OSU/NCSC campus, the Kehoe Center, and Pioneer Career and Technology Center. Route 13 operated for limited hours, providing four inbound and four outbound trips per day. The route carried the lowest ridership of RCT's routes,

in part, due to its limited operating schedule. It was also the least productive of the routes. Survey data demonstrated that the majority of Route 13 ridership was youth under 18, due the route serving Pioneer.

Route 15 Airport Industrial Park

Route 15 runs from Downtown Mansfield to the Airport via Main St. and Harrington Memorial Rd. providing access to many employers, the airport and the Mansfield Correctional Institution, with service to Baird Parkway available upon request. Route 13 operates for limited hours, providing four inbound and four outbound trips per day. It is the second most productive route in the RCT network. Its ridership consists primarily of adults under the age of 65, many of whom commute to work using the route.

Dial A Ride Service

RCT provides complementary paratransit service to riders within a one-mile radius of all fixed routes. This service area exceeds the ADA requirement to provide paratransit within ¾ of a mile of any fixed route. Paratransit riders must be certified by RCT to access this service. Operating hours for both modes of service, paratransit and fixed route, are the same.

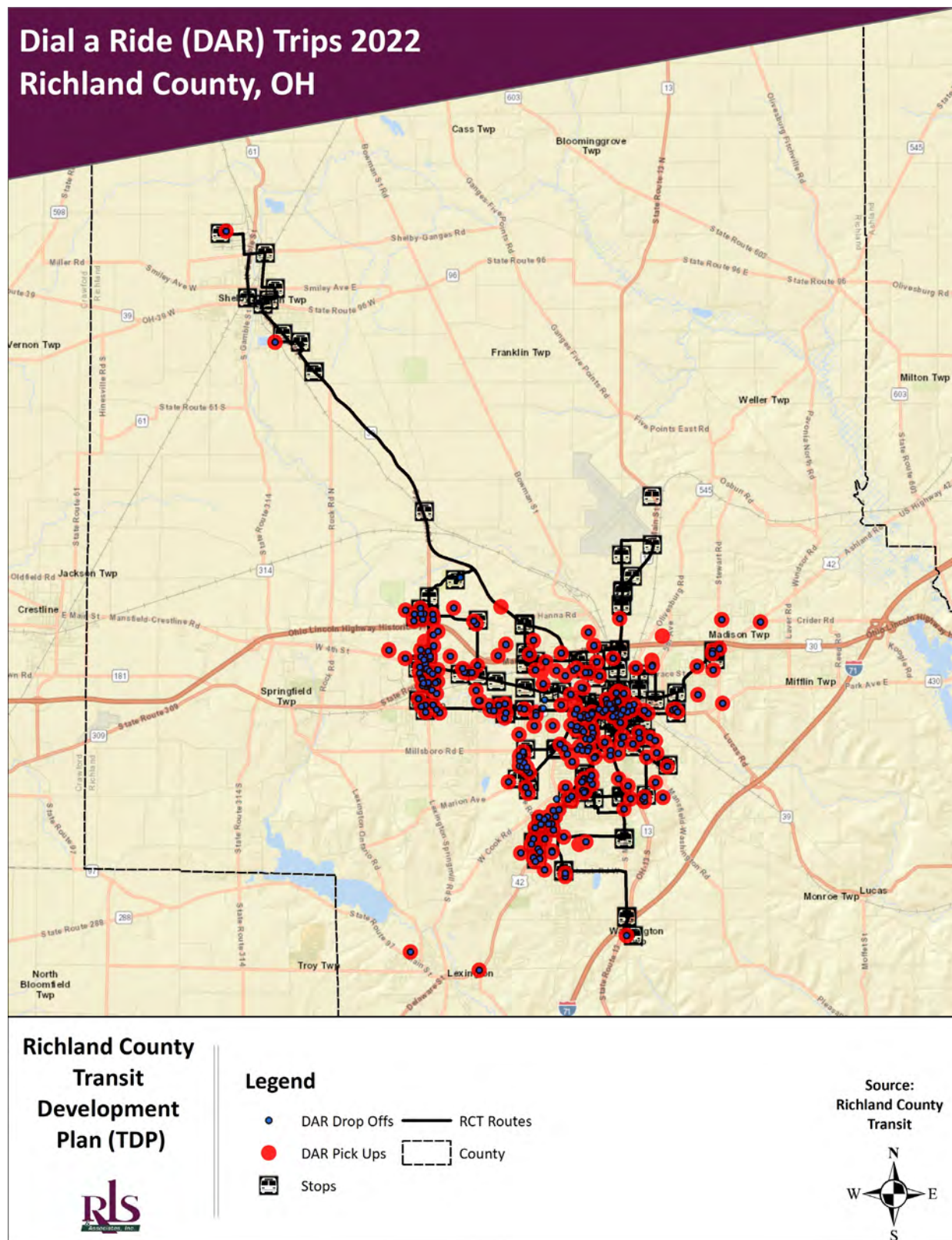
The origins and destinations for 2022 unduplicated Dial A Ride trips are shown in Figure 214. While nearly all Dial A Ride trips occurred within one mile of the fixed routes, per RCT policy, a few trips took place outside of this radius (for example, in Lexington) as part of contracted human service transportation, such as the Ohio Rides to Community Immunity vaccine shuttle program, which was a program that funded countywide rides for individuals getting COVID vaccines, representing the only countywide service that RCT has provided. The funding, provided by ODOT, covered RCT's fully allocated costs to provide the trips.

Table 10 provides the annual revenue hours of Dial A Ride service provided and ridership from 2017 to 2022. Productivity ranged from 1.6 to 2.3 over the six-year period. This level of productivity is typical of this mode of service. Slightly lower productivity during the COVID pandemic years was observed on paratransit systems nationwide.

Table 10. Dial A Ride Service Data, 2017 – 2022

	2017	2018	2019	2020	2021	2022
Revenue Hours	7,314	5,977	6,076	3,765	3,915	3,957
Boardings	13,962	13,982	12,313	6,800	6,114	6,593
Productivity	1.9	2.3	2.0	1.8	1.6	1.7

Figure 20. Dial A Ride Origins and Destinations, 2022



Demographic Analysis

The demographics of an area describe population characteristics that relate to residents' potential to become transit riders. A variety of socio-economic data were compiled and computed on a block group basis and analyzed by the consultant team. The data consulted as part of this effort is from the U.S. Census Bureau's 2020 American Community Survey (ACS) Five-Year Estimates, which have been used to supplement data that is not available through the 2020 Decennial Census. As five-year estimates, the data represent a percentage based on a national sample rather than direct population counts. Key community demographics are included in this section; a more comprehensive analysis is provided in *Technical Memorandum #1*.

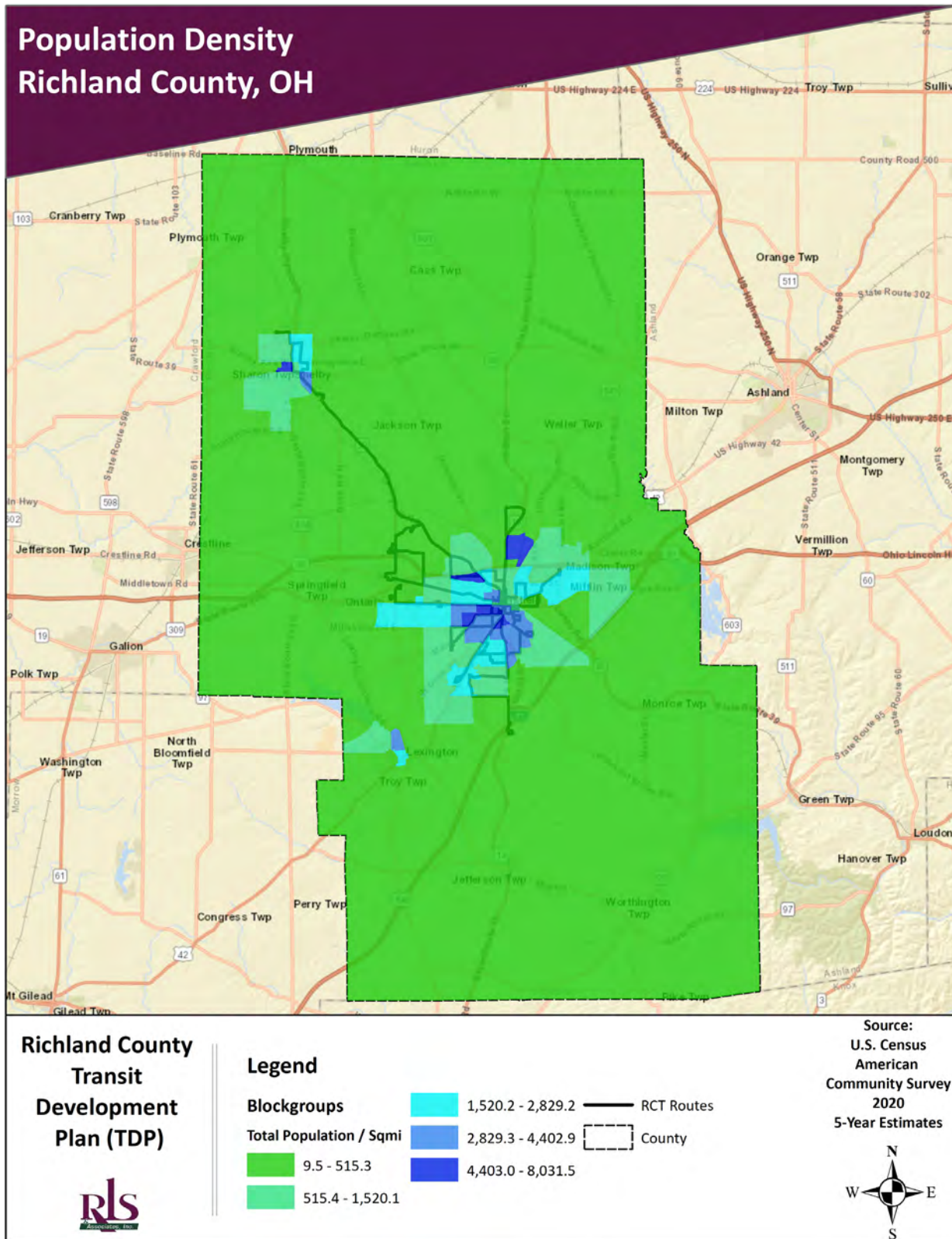
Population

Richland County covers a total of 495 square miles. With a population of 124,936, the county's average population density is 252 persons per square mile. Mansfield is the county seat and has a population of 47,534. The population of the U.S. Census-defined Mansfield urban area is 71,996. RCT's Federal funding is provided for service in the urban area, which consists of densely developed areas, and encompasses residential, commercial, and other non-residential urban land uses. The Mansfield urban area includes Mansfield and portions of Madison Township, Ontario, and Lexington.

Richland County consists of eight municipalities including the Village of Bellville, Village of Butler, Village of Lexington, Village of Lucas, City of Mansfield, City of Ontario, and City of Shelby. If Madison Township was a city, it would be the second largest in the county. The current transit service network includes the cities of Mansfield, Ontario, and Shelby; a key line of inquiry in the TDP was whether demand exists outside of these areas.

Several block groups in the County have densities of over 2,000 people per square mile, which represents the typical minimal level of population density that will support productive fixed route public transit service. Population densities are lower on the periphery and in townships adjacent to the City of Mansfield. These densities are appropriate for demand response, or origin-to-destination, transit service. Population density in Richland County, overlaid with the RCT fixed route service network, is illustrated in Figure 21. The most densely populated areas are represented in dark blue, with at least 4,403 people per square mile. These areas are located in north, northwest, and southwest Mansfield, north central Lexington, and northwest Shelby. The dense area north of Mansfield is due to the numbers of people incarcerated at two prisons in that block group.

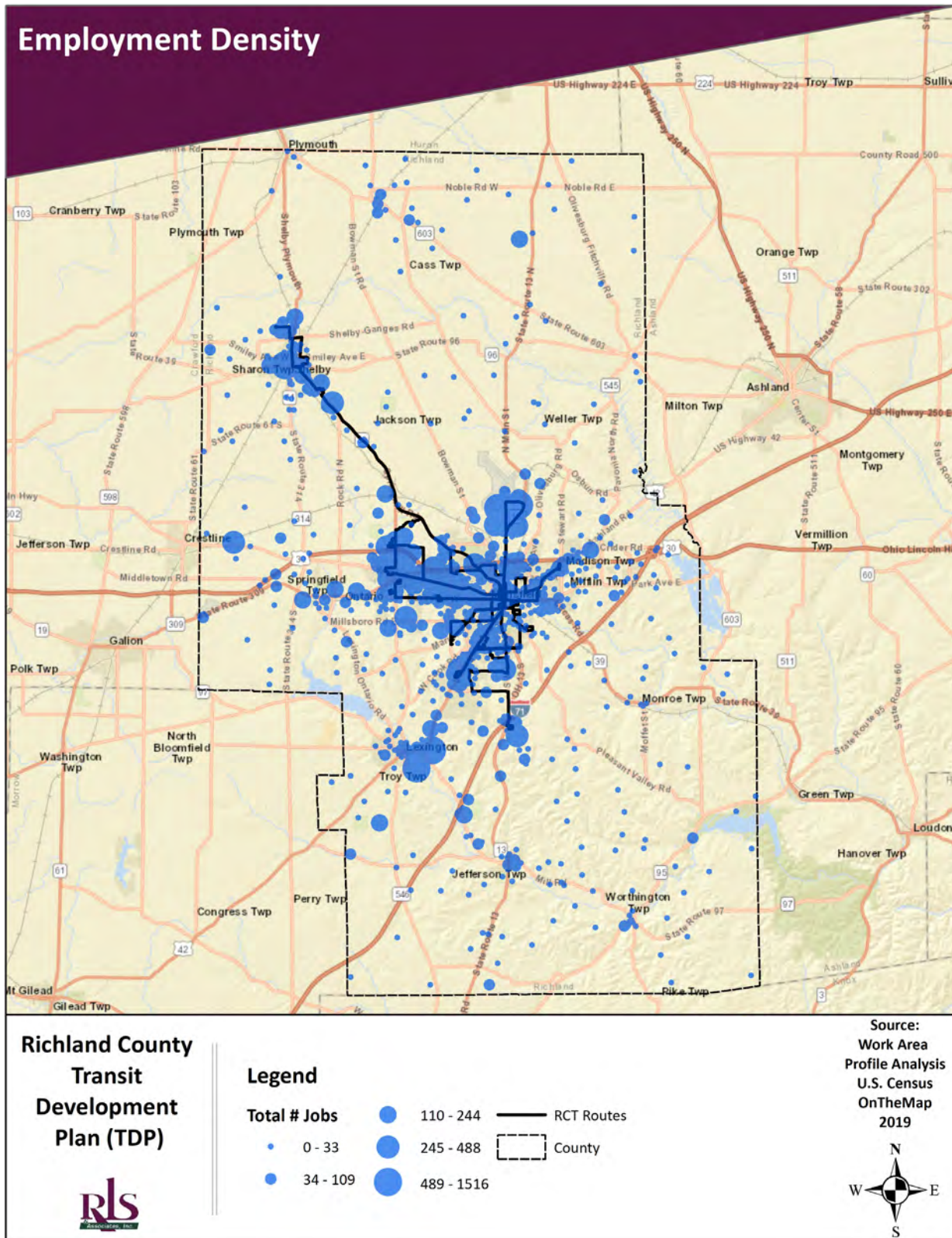
Figure 21. Population Density



Employment

Equally important to where people live are the destinations they frequent. In 2020, there were 2,606 employer establishments within the eight municipalities in Richland County. The most common job groups for county residents include production occupations at 13.7 percent, office and administrative support occupations at 11.7 percent, and sales and related occupations at nine percent. The most common employment sectors are manufacturing, which employs 21.1 percent of the County's workforce, healthcare and social assistance at 16.1 percent of the workforce, and retail trade at 12.1 percent. Figure 22 illustrates the density of work destinations for Richland County residents overlaid with the RCT fixed route network.

Figure 22. Employment Density

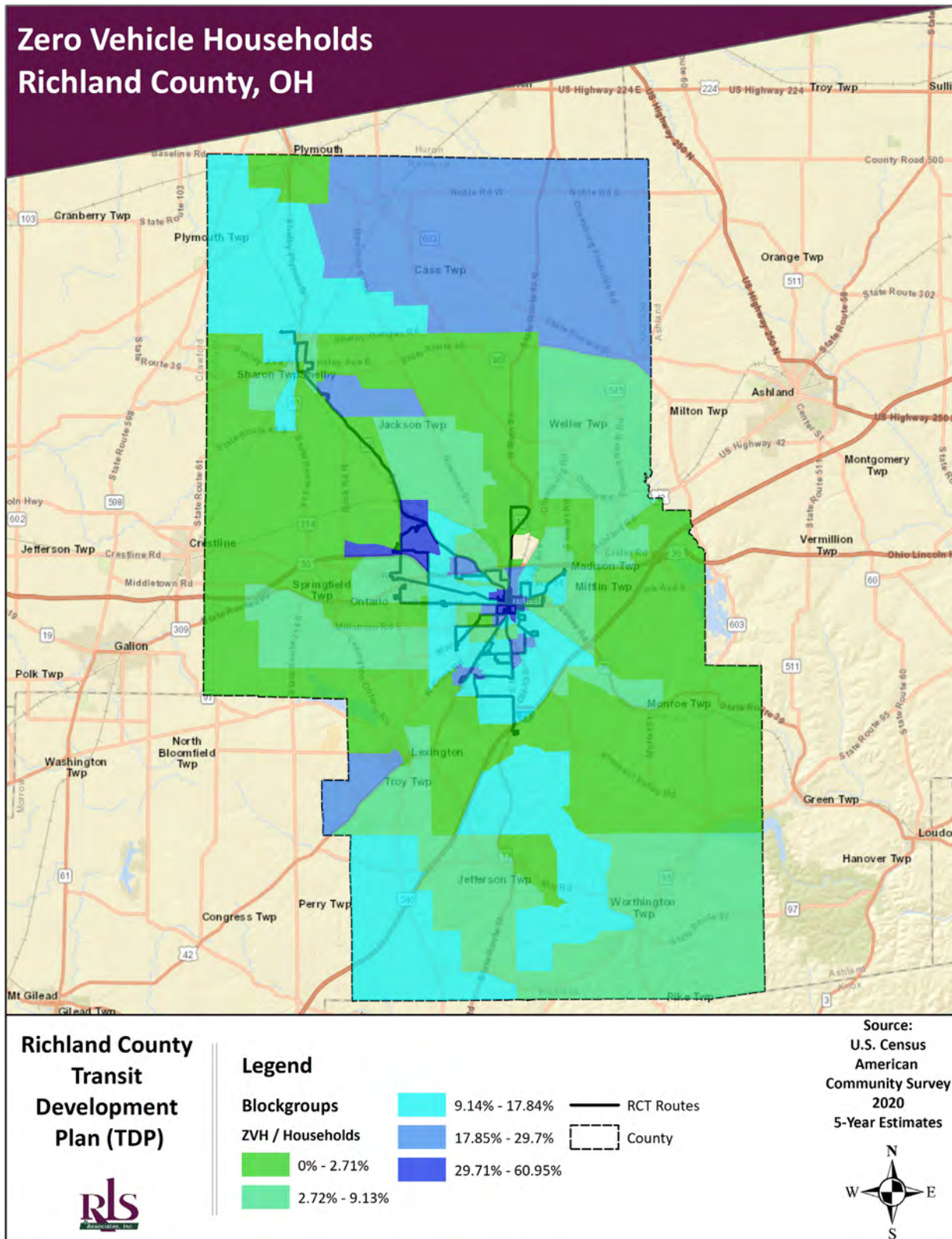


Zero Vehicle Households

The number of zero vehicle households reported for the county total 1,959. The percentage of housing units that have no available vehicle, according to the 2020 ACS Five-Year Estimates, is illustrated by block group in Figure 23. The block groups with the darkest shading have the highest percentage of housing units with no available vehicles. These block groups are predominately concentrated in and around Mansfield and north of Ontario around OSU/NCSC. There are also block groups with moderate levels of zero vehicle households located southeast of Shelby as well as portions of Mansfield and Lexington. Zero vehicle household counts for northern and southwestern Richland County can be attributed, in part, to Amish communities located in these areas. In the block groups with the highest densities of zero vehicle households, between 29.7 and 61.0 percent of households have no access to a vehicle.



Figure 23. Zero Vehicle Households



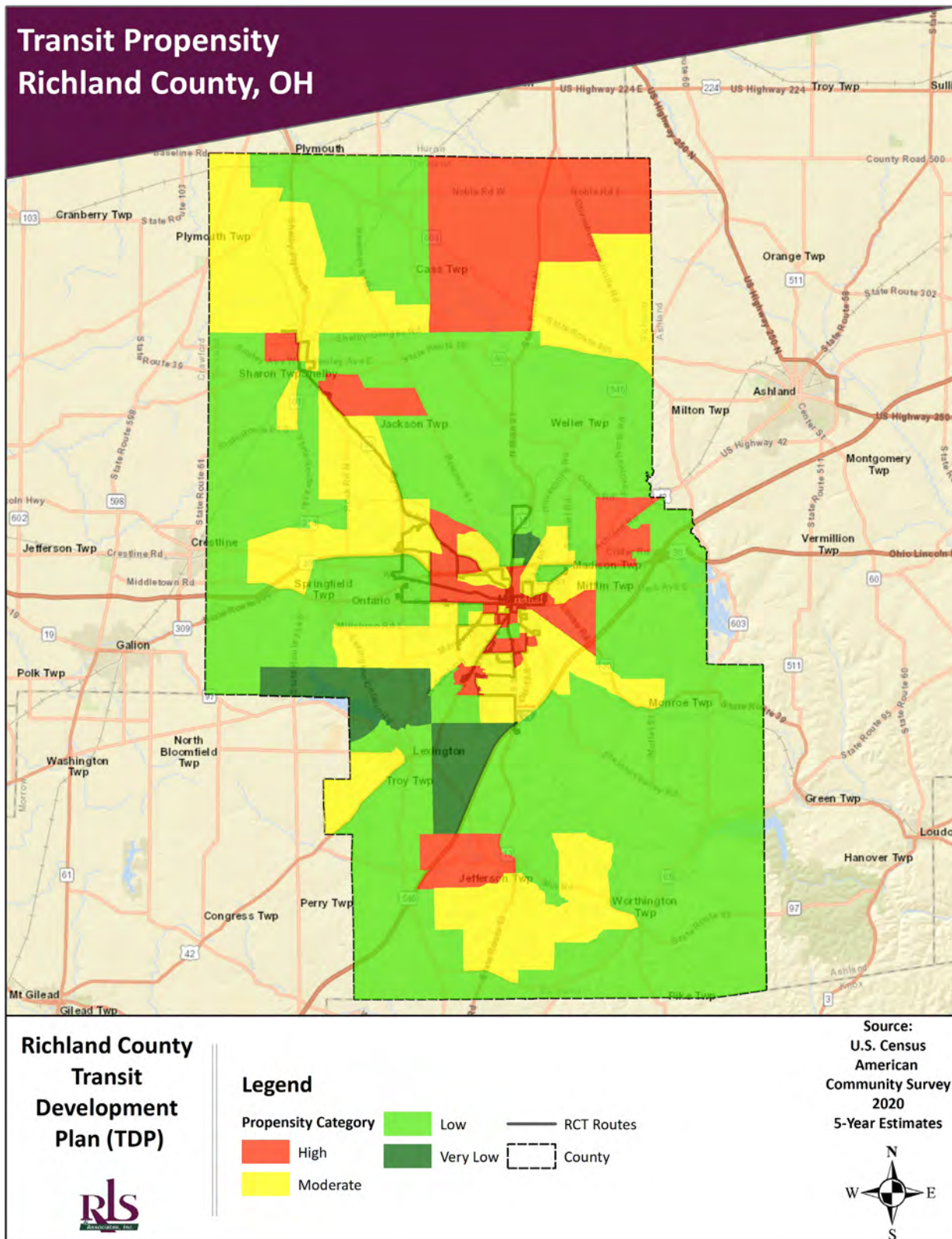
Transit Propensity

One method of projecting which locations have residents with the most transportation need is to calculate transit propensity. Transit propensity is a measure of the likelihood that a local population will utilize public transit, considering their demographic characteristics. The model was derived through research completed on transit trip generation. The result is an estimate of the relative propensity for transit use per Census block group. To calculate transit propensity, ACS 5-Year Estimates were gathered at the block group level for Richland County. The data included total population, total households, population below poverty level, number of persons age 65 and older, and the number of households with zero vehicles available. The analysis is depicted in Figure 24.

It must be noted that "Very low" and "Low" values do not indicate a lack of need, but a level of need that is below the mean (average) value for the study area. It must also be noted that transit propensity values reflect zero vehicle households, which are higher in areas with significant Amish populations. The analysis results indicate that need is spread throughout areas of the county.



Figure 24. Transit Propensity



Chapter 3: Public and RCT Customer Input

Figure 25. "Vision Bus" Wrap



The TDP consultant team carried out a public and rider input process from October, 2022 through February, 2023, which provided a wealth of insights to inform the development of recommendations. The input process consisted of the following activities:

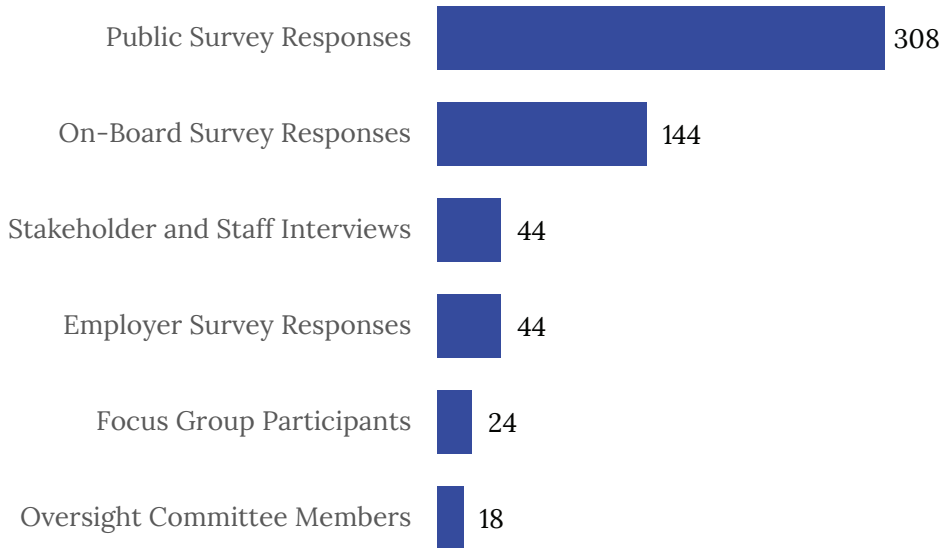
- An onboard survey of RCT customers, conducted in December, 2022. Responses were received from 144 customers. The purpose of this survey was to collect feedback from customers to determine potential areas for improvement and future changes. The customers also answered questions regarding demographics, frequency of bus usage, trip purposes, and travel needs outside of Richland County.
- A general survey of the community, conducted in December, 2022 and January, 2023. Responses were received from 308 community members. The survey was administered at public events as well as online through surveymonkey.com.
- Interviews with RCT staff. The consultant team received input from RCT managers, office staff, operators and mechanics. Each staff member completed an interview, and participated

in one-on-one or small group discussions. The consultants also conducted informal interviews with some operators during ride-alongs and observations at the Transit Center.

- A survey of local employers. With the assistance of Richland Area Chamber & Economic Development and the Regional Manufacturing Coalition, a survey on employment transportation needs was distributed to local employers in January, 2023, resulting in 44 responses. Additionally, RCT's Transportation Development Manager facilitated meetings with three employers and one staffing agency to discuss how RCT can support their recruitment and retention efforts.
- The TDP consultant interviewed 22 community stakeholders from October, 2022 to January, 2023, representing a variety of interests in Richland County, including local governments, human service agencies, and other organizations. The questions were aimed at gathering information about unmet transit needs in Richland County, areas of potential growth, and the strengths and weaknesses of RCT. The comments provided by the interviewees were analyzed and sorted into themes that included categories of transit needs, input on specific spatial and temporal needs, vision for RCT, measures of success, and feedback on RCT's current operation.
- Following the consultant team's development of draft recommendations for service changes, three focus groups were held April, 2023 to solicit feedback. The focus groups consisted of current RCT customers, human service agency staff, and representatives of employment-focused organizations including staffing agencies and adult education centers.
- Three presentations were made at key points in the planning process to the Project Oversight Committee, a stakeholder group of eighteen individuals from various public and non-profit agencies, and three RCT customers.

In sum, these activities represented engagement with **582** individuals to collect community input, as shown in Figure 26.

Figure 26. Community Engagement Participation (N=582)



Technical Memorandum #2 includes detailed descriptions of the input received through each method of engagement. Key findings from the public input process are presented in the following sections.



Customer Input

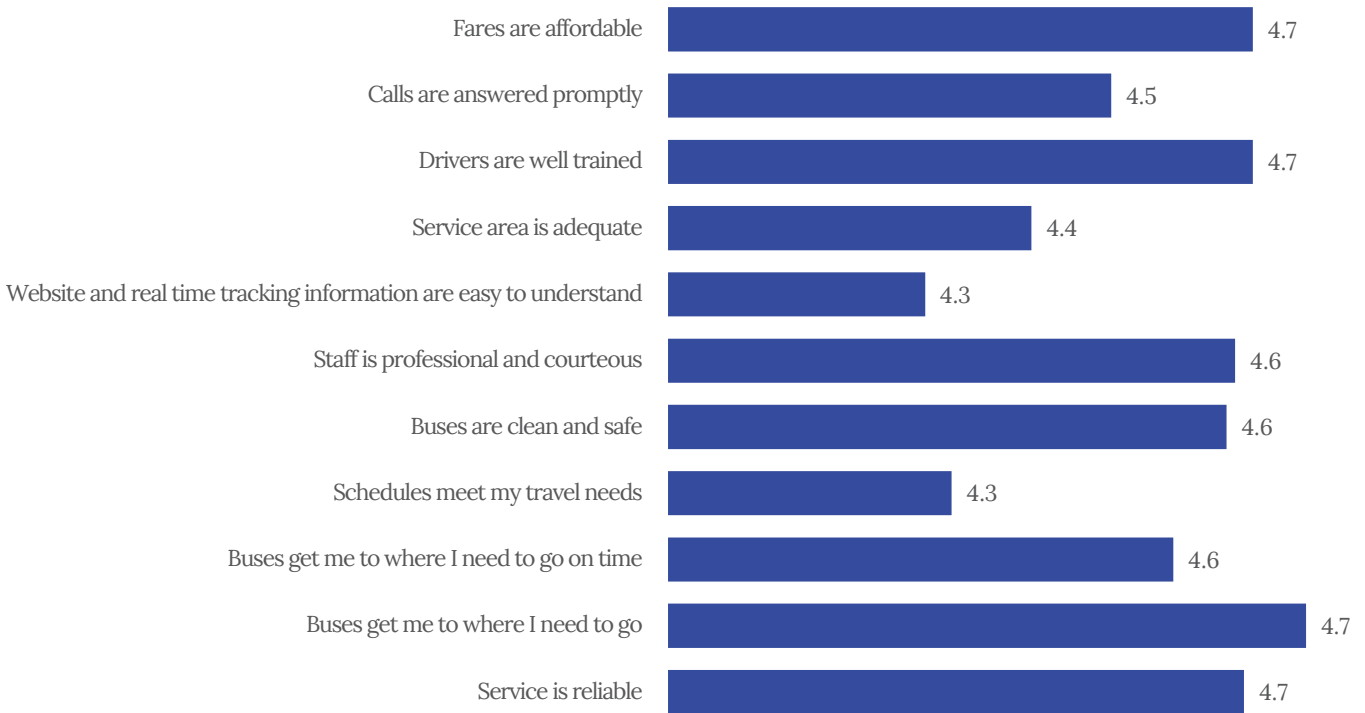
Customer input was gathered primarily through the onboard survey and focus group. The onboard survey was completed by 144 customers. Overall, the respondents expressed moderate to high satisfaction with the current service. On a satisfaction ratings scale question (Figure 27), the highest score was for “Buses get me to where I need to go,” followed by affordability and the training of drivers. Customers gave the lowest marks on the service’s website and real-time tracking, geographical service area, and how well the schedules meet one’s travel needs. The average satisfaction ratings are shown in Figure 28. In a follow-up question, 93 percent respondents reported service overall as “excellent” or “very good” and provided an average score of 4.5 out of 5 for overall satisfaction (N = 100).

Figure 27. Ratings Question

<i>Based upon your experience riding RCT, how strongly do you agree with the following statements?</i>					
	Strongly agree				Strongly disagree
11. Service is reliable	5	4	3	2	1
12. Buses get me to where I need to go	5	4	3	2	1
13. Buses get me to where I need to go on time	5	4	3	2	1
14. Schedules meet my travel needs	5	4	3	2	1
15. Buses are clean and safe	5	4	3	2	1
16. Staff is professional and courteous	5	4	3	2	1
17. Website and real time tracking information are easy to understand	5	4	3	2	1
18. Service area is adequate	5	4	3	2	1
19. Drivers are well trained	5	4	3	2	1
20. Calls are answered promptly	5	4	3	2	1
21. Fares are affordable	5	4	3	2	1

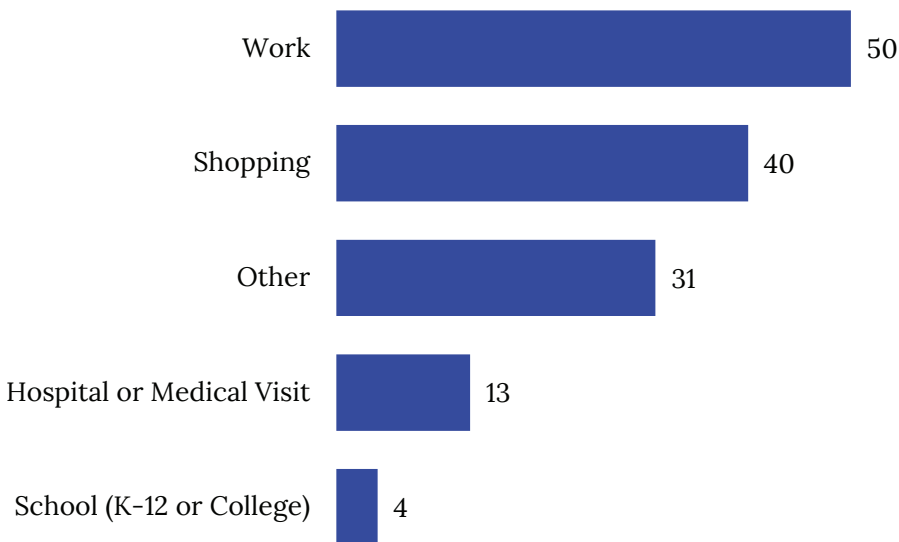
22. Please rate RCT service where 5 = Excellent and 1 = Poor: _____

Figure 28. Rider Satisfaction (N = 132)



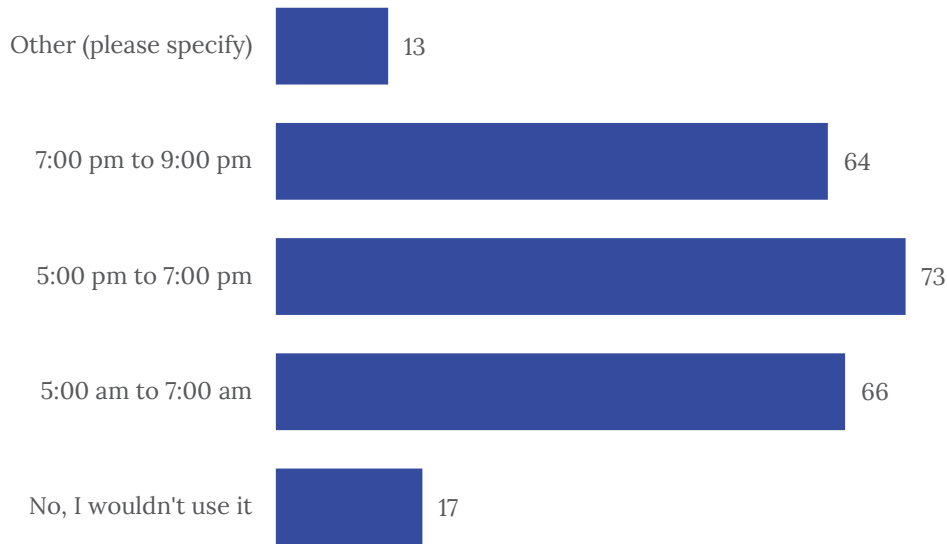
Respondents reported that they use RCT for a variety of travel purposes, as shown in Figure 29. The leading trip purpose was work, followed by shopping.

Figure 29. Trip Purposes (N = 138)



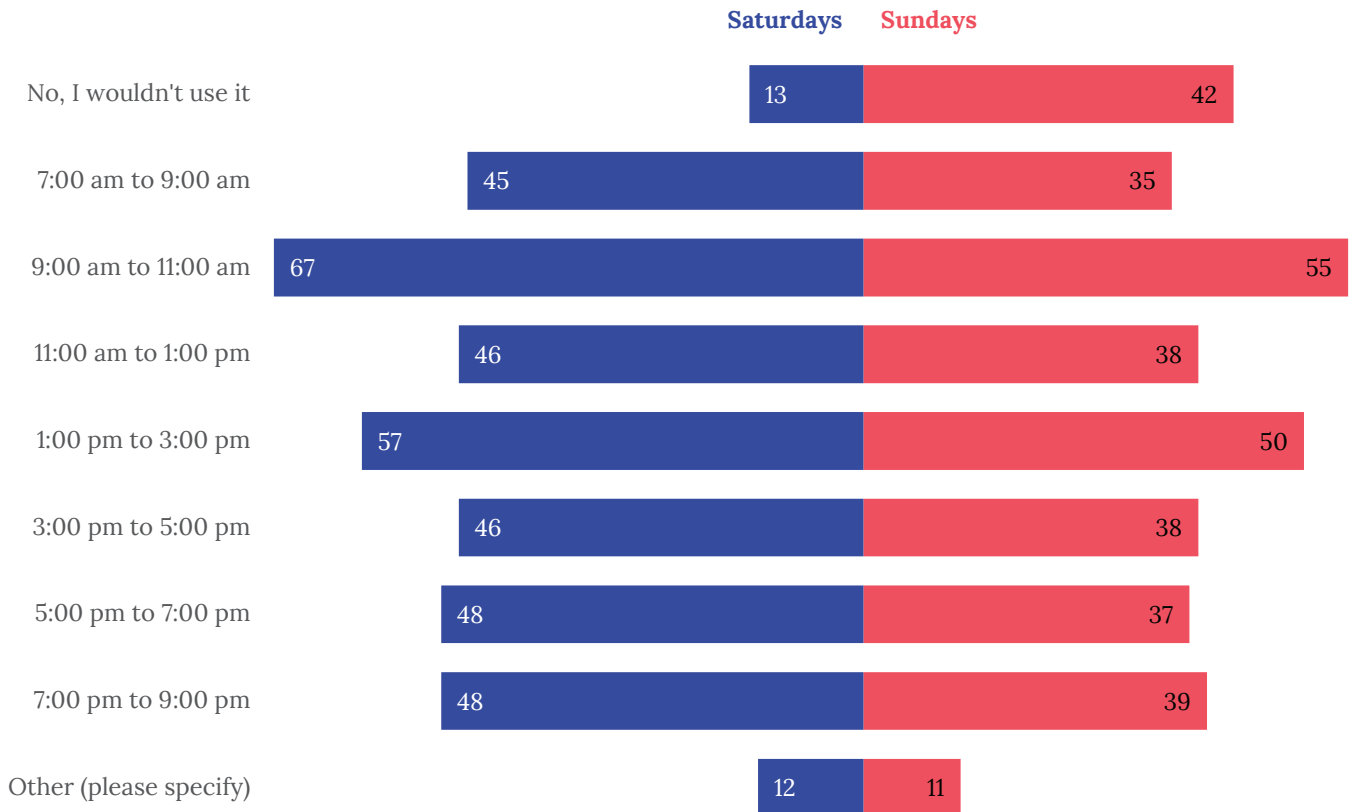
Respondents indicated that they would use RCT during more hours, if offered, especially during the hours of 5:00 p.m. to 7:00 p.m. on weekdays, as shown in Figure 30.

Figure 30. Respondent Interest in Extended Weekday Hours (N = 140)



RCT does not currently operate on weekends. On weekends, more customers would use RCT on Saturdays than Sundays, with the most interest in Saturday hours in the 9:00 a.m. to 3:00 p.m. range. Interest in weekend hours is depicted in Figure 31.

Figure 31. Respondent Interest in Extended Weekend Hours (N = 140)



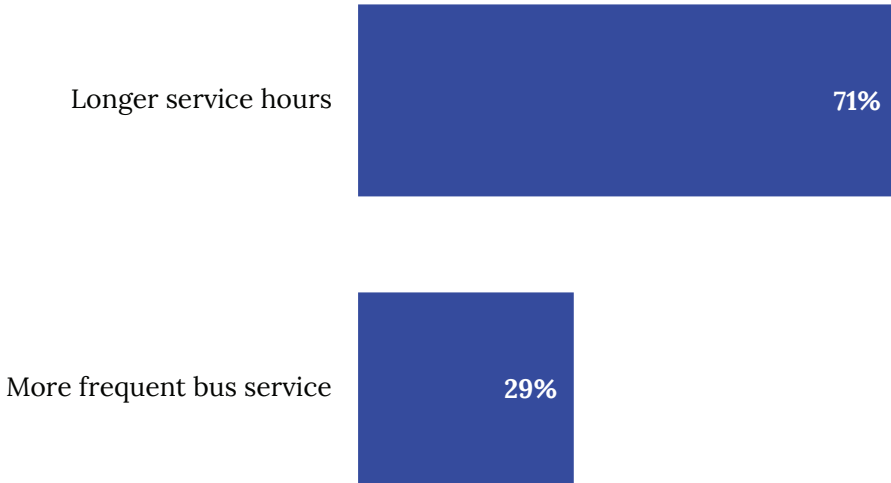
Respondents were asked to select their preferences from pairs of potential service enhancements including: more frequent service versus longer hours, longer weekday service hours versus weekend service, improvements to existing services versus service to new areas, and designated bus stop locations versus flag stops. Feedback during the RCT customer focus group also demonstrated preferences in these areas. The eleven customers who participated in the focus group expressed needs for longer evening hours of service, Saturday service, and improved route frequency.

Figure 32. Outreach Event at Stanton Transit Center



Figure 33 shows that survey respondents prioritized longer service hours versus more frequent service.

Figure 33. Rider Preference – Longer Service Hours or More Frequent Bus Service? (N = 119)



In terms of longer service hours, Figure 34 shows that a majority of survey respondents said that they would like to see RCT expand its service on the weekends versus offer later evening service on weekdays.

Figure 34. Rider Preference – Longer Weekday Service Hours or Weekend Service? (N = 120)

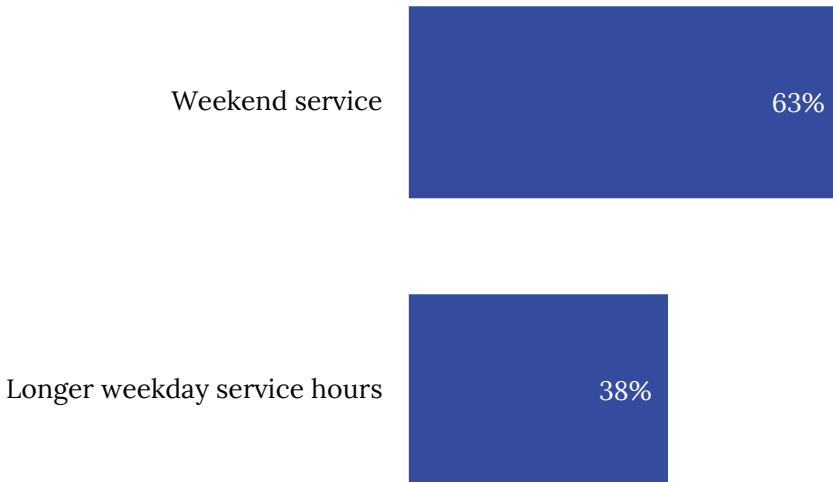
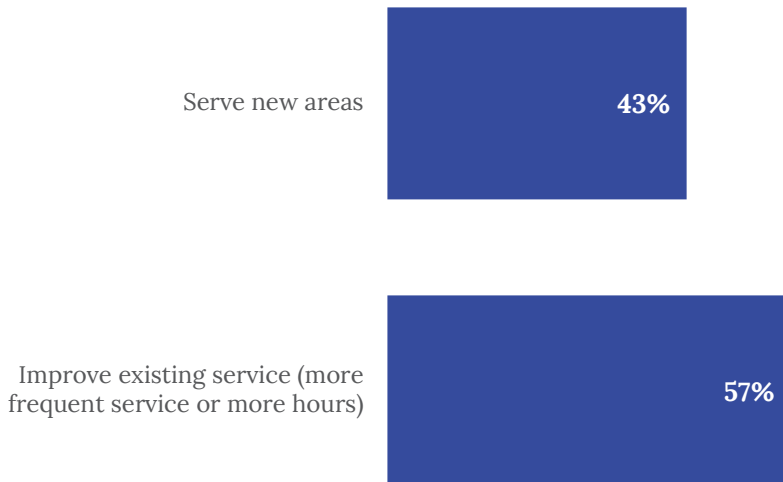


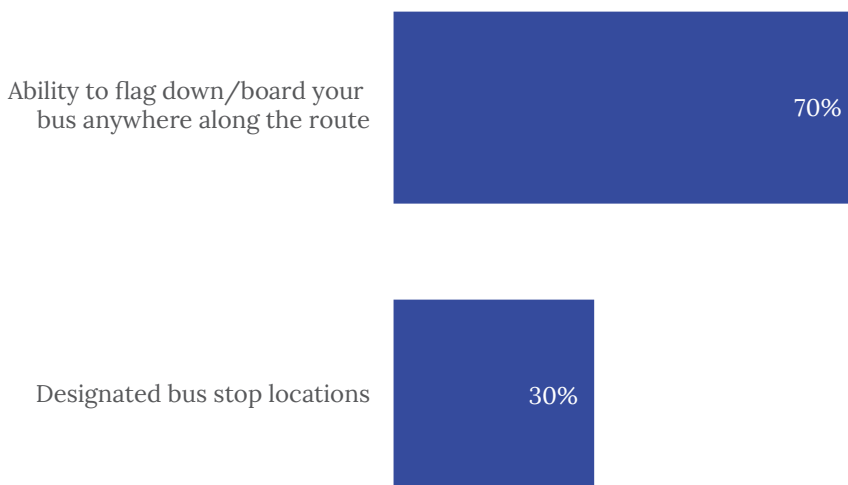
Figure 35 shows that current RCT riders prioritize improvements to existing RCT services as opposed to serving new areas.

Figure 35. Rider Preference – Improvements to Existing Service or Service to New Areas? (N = 108)



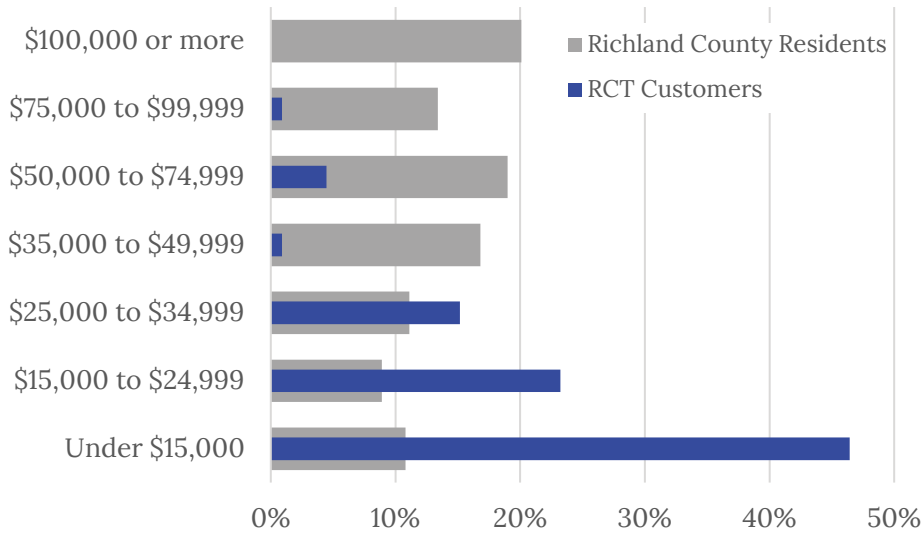
Lastly, Figure 36 demonstrates that the majority of the survey respondents preferred to retain the flag-stop system rather than move to a requirement that bus stops must be used. However, the focus group attendees felt that changing to a bus stop system would improve the service, as long as enough bus stops were put in. It was noted during the RCT staff interviews that many drivers had safety concerns with the flag stop system. They stated that customers frequently run in front of buses or across busy roadways to flag down the buses.

Figure 36. Rider Preference – Use Designated Bus Stops or Keep Flag-Down System? (N = 116)

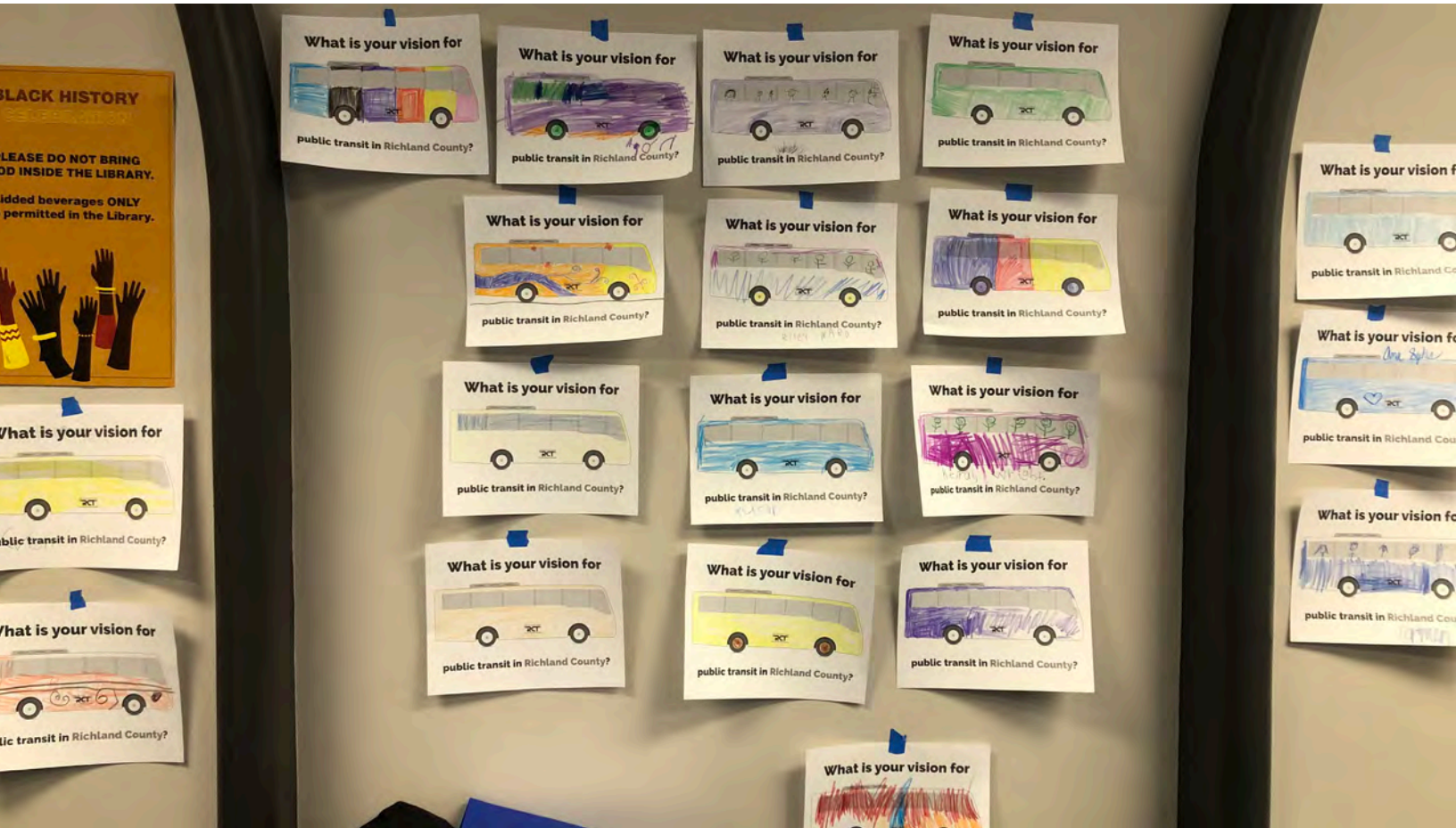


The survey included demographic questions, including household income. As shown in Figure 37, the vast majority of RCT customers' household incomes are below \$35,000 (84 percent), and trend significantly lower than Richland County households in general.

Figure 37. Household Incomes of Customer Survey Respondents (N = 112), as compared to Household Incomes of Richland County Residents (2022 American Community Survey)



Note: 9% of RCT customers reported that they were unsure of their household income

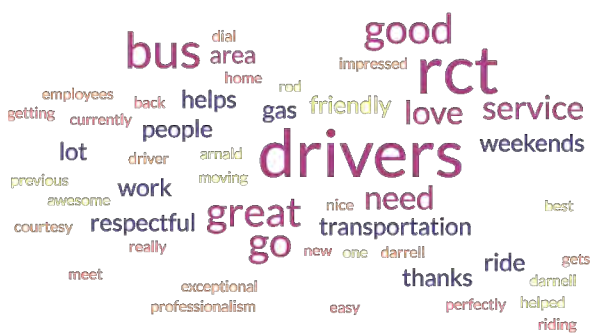


In summary, the typical RCT customer is an older adult or a person with a disability; uses the service to go to work more often than other trip purposes; and has a household income of less than \$35,000.

Customer Feedback Key Points

Customers have many positive things to say about RCT, as evidenced in the open-ended survey feedback available in the appendix to *Technical Memorandum #2*. Figure 38 demonstrates themes in the open-ended customer feedback.

Figure 38. Word Cloud – RCT Customer Open-Ended Feedback



Some customers would like there to be more amenities at bus stops, including shelters and benches. A few individuals indicated that they struggle with long or uphill walks to bus routes. Depending on which routes they use, customers often must wait for 30 minutes at the downtown RCT station in order to transfer, making for lengthy trips when transfers are involved. Customers in the focus group also said that wait times at the Transit Center made for very long, inconvenient total trip times. They also said that routes need to run more often than once per hour to be convenient, and service should be extended to weekends and evenings, especially for employment transportation purposes. The loop pattern of the routes also lengthens trip times; this was noted as especially true for Route 9, which requires customers to travel all the way to the OSU/NCSC campus before reaching destinations in Ontario.

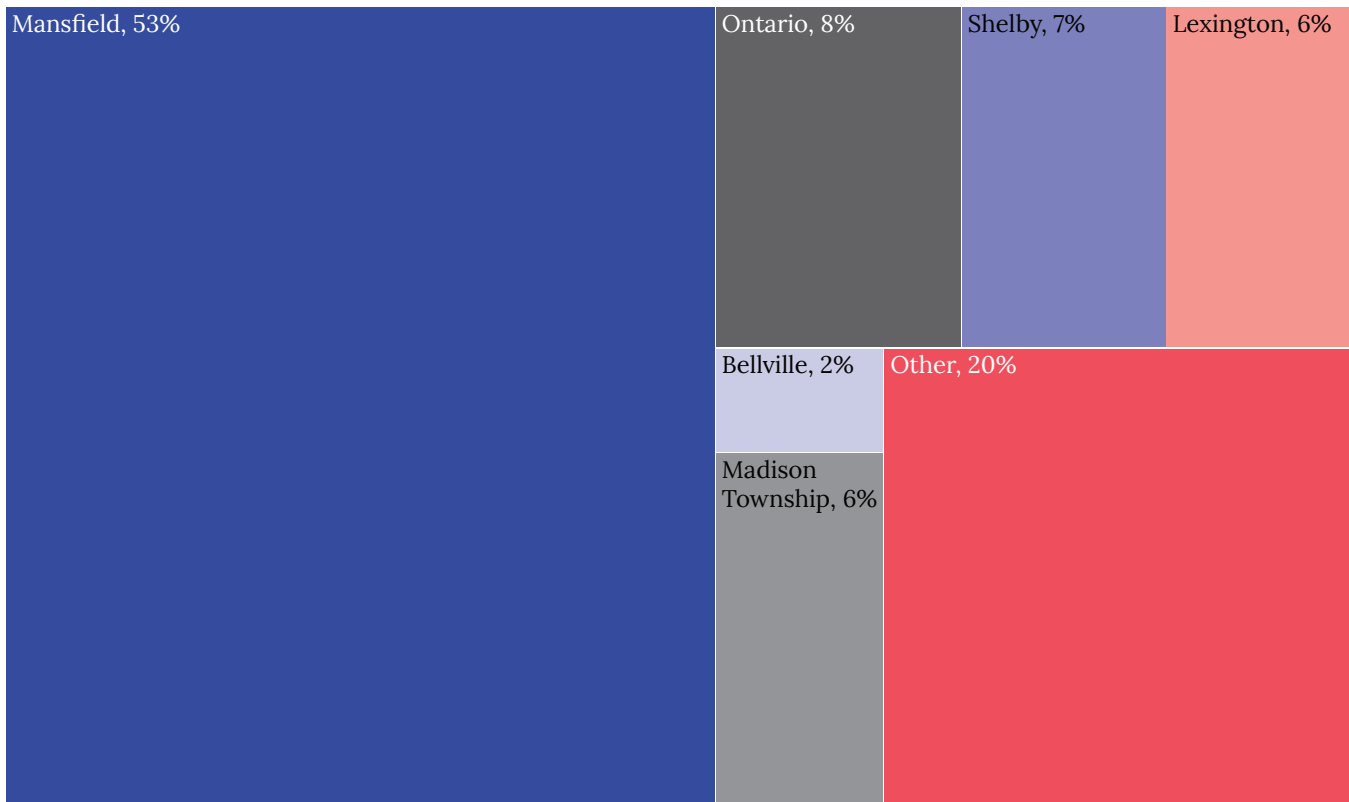
Community Input

Figure 39. Public Outreach at NCSC



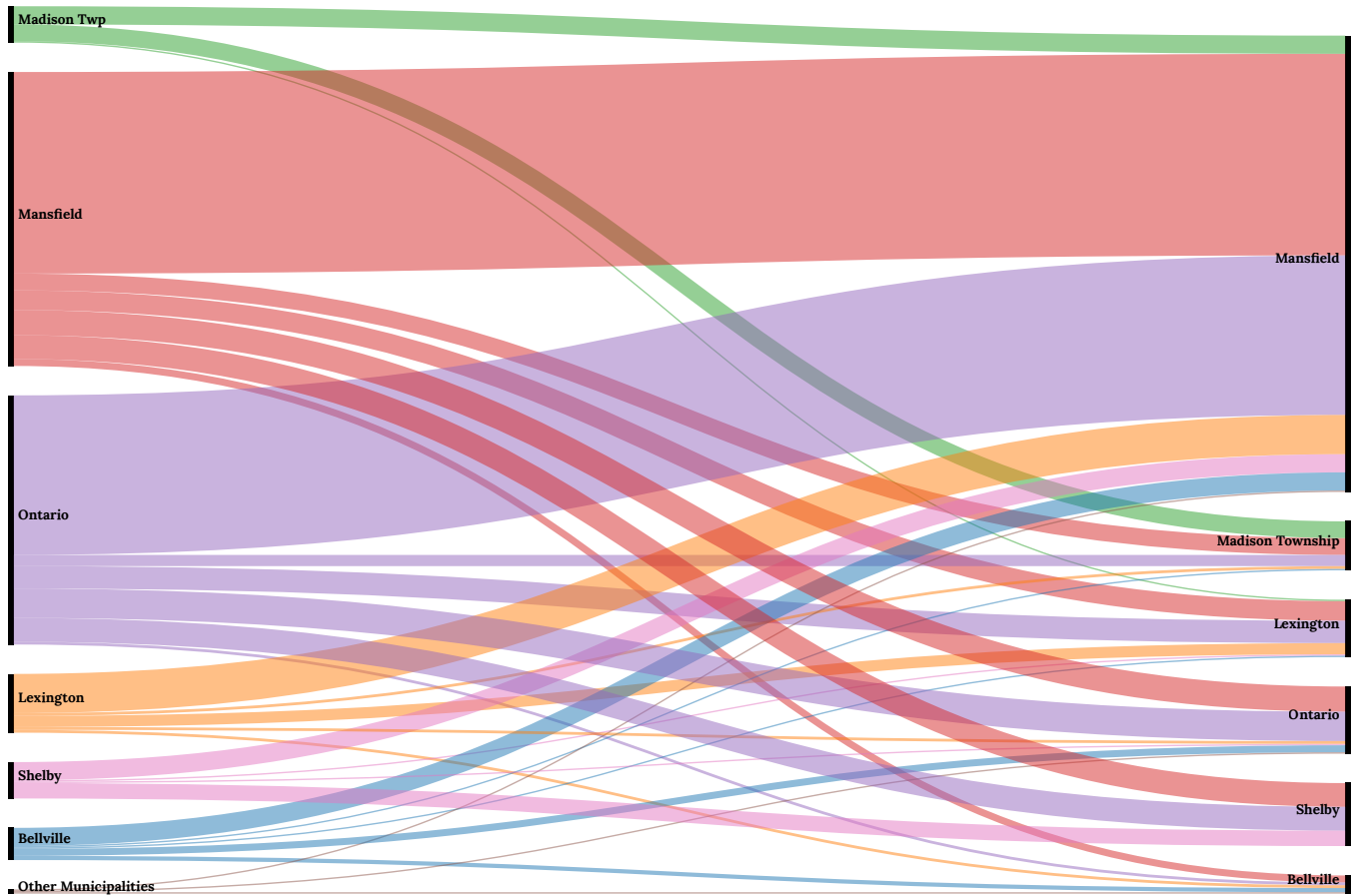
Input was collected from the Richland County community through the community survey, an employer survey, stakeholder interviews, RCT staff interviews, and focus groups. This section highlights key results from this process; the full results are available in *Technical Memorandum #2*. The 308 respondents to the community survey represented many areas in and around Richland County, as shown in Figure 40. The survey instrument included questions tailored to local college students attending OSU-Mansfield and NCSC. Thirty-one percent of the respondents were students (two-thirds OSU and one-third NCSC).

Figure 40. Community Survey Responses by Place of Residence (N = 307)



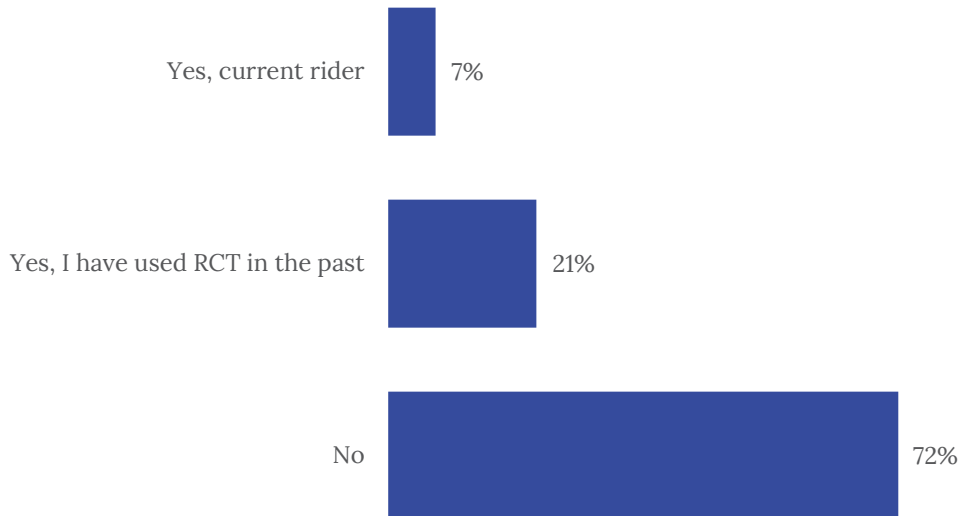
Respondents indicated where they most often traveled (up to two municipalities). The majority of the respondents' travel destinations were located in Mansfield, as shown in Figure 41. Results are broken down by the respondent's municipality of residence.

Figure 41. Municipalities that Respondents Most Often Travel To, by Respondents' Places of Residence (N = 247)



The majority of the respondents were not RCT riders, although 21 percent said that had used RCT in the past and seven percent identified as a current rider, as shown in Figure 42.

Figure 42. Status as RCT Rider (N = 238)



Respondents who identified as non-riders were asked to share the reasons why they do not use RCT. Most indicated that they have vehicle, as shown in Figure 43. Figure 44 demonstrates that 41 percent of the respondents were unfamiliar with RCT’s services.

Figure 43. Reasons for Not Using RCT (N = 258)

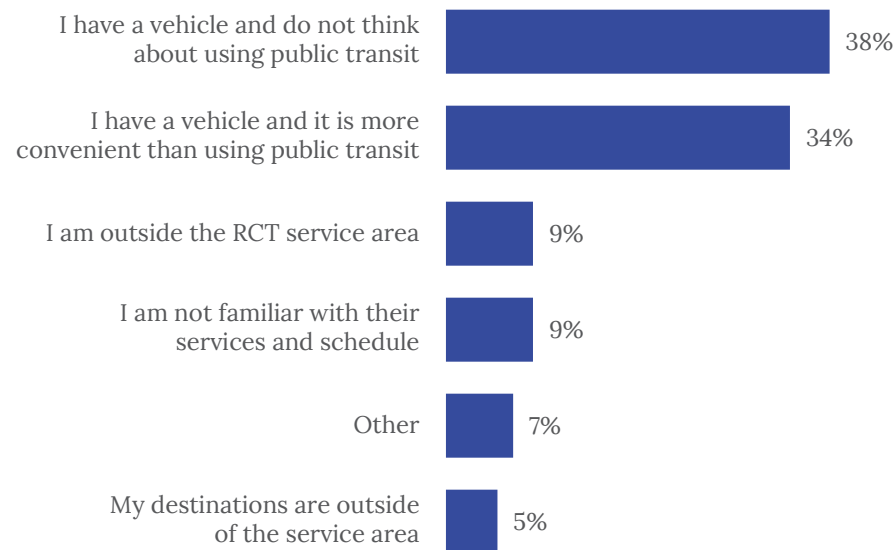
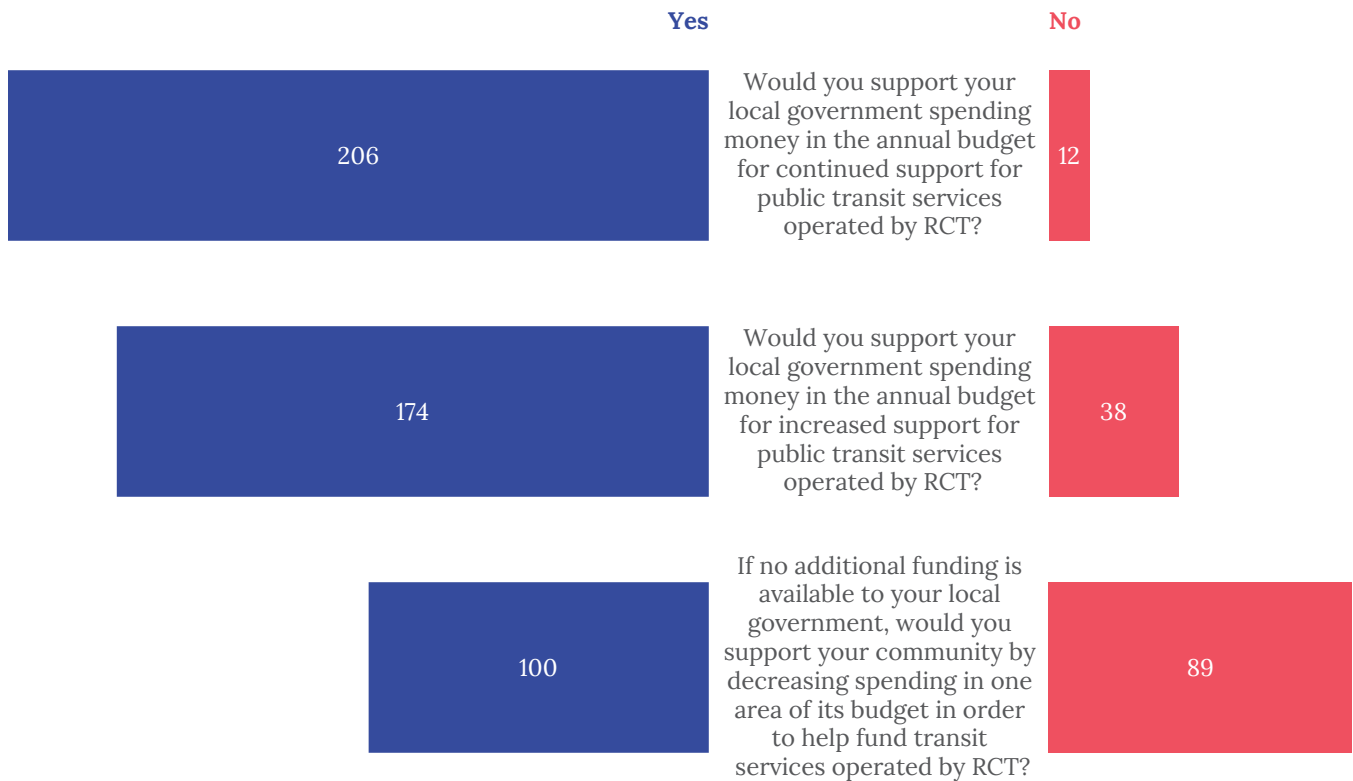


Figure 44. Community Awareness of Public Transportation Services and Programs (N = 282)



The community survey included a group of three questions (for Richland County residents only) about support for expanded funding for RCT. The responses are provided in Figure 45. Majorities of respondents supported increasing local government funding for RCT, even if it would require decreasing other spending.

Figure 45. Responses to Funding Questions

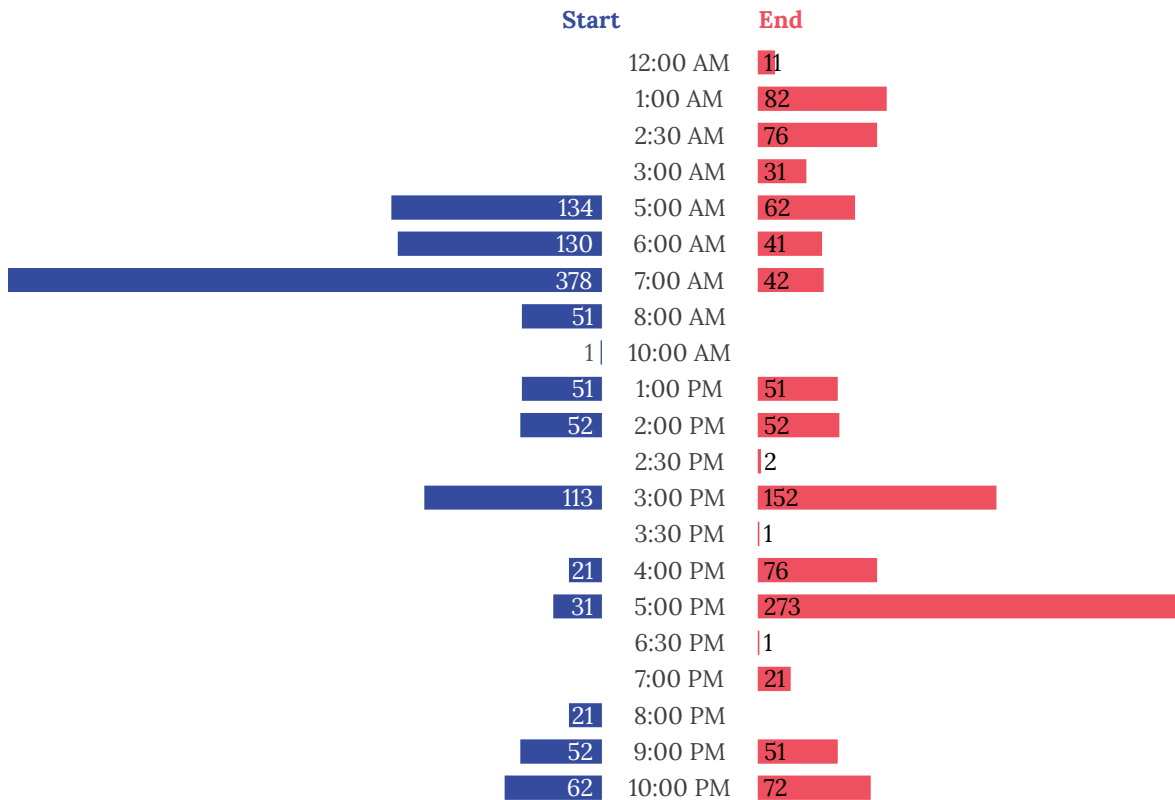


Employer Survey Results

An online survey about workforce transportation needs was completed by 44 local employers. A major focus of this survey was the identification of shift times. The survey responses indicate a wide diversity in shift start and end times. For example, Figure 46 provides the approximate

employee counts and shift start times and end times at Mansfield respondents with over 150 employees.

Figure 46. Employee Counts by Start and End Times, Mansfield Employers of 150+ Staff (N = 7)



Wide-ranging shift times present a challenge with planning workforce-oriented transit services. For example, Route 15 (Airport Industrial Park) operates from 6:00 a.m. to 7:00 a.m., and 3:00 p.m. to 4:00 p.m. The route is used most heavily by employees of Milark because the times are convenient to their shift. To accommodate other employers, who likely run different shifts, RCT would need to add schedules to Route 15. However, adding just two more hours of service would double the cost of operating the route.

Employers provided open-ended comments at the end of the survey. One noted that that public transit is critical for their temporary workforce – that permanent employees typically drive to work. Another commented that “Our rule for hiring is that they must have a valid driver’s license and their own way of getting to and from work. We have had too many issues otherwise.” A third respondent said that many of their newer employees lack reliable transportation. These comments point to a clear need for transit services for entry-level and temporary employees, who commonly struggle with finding reliable transportation.

Stakeholder and Employer Feedback about Types of Needs

Workforce

Input gathered through interviews and focus groups indicated that workforce transportation, especially to second and third shifts, is a significant unmet need. Unserved, job-dense areas were noted in Lexington, followed by Ontario, Bellville and west Shelby. Employment areas near the Airport and in Shelby were thinly served by RCT, with the Airport route receiving significantly higher ridership than the Shelby route. Improved connectivity between Mansfield and these two areas would likely help more people get to work.



For workforce development needs, access to NCSC is important, as is access to vocational programs at Pioneer Career and Technology Center and Madison Adult Education Center. The latter is not currently served by RCT, and fixed route service to Pioneer ended with the Shelby route's discontinuation.

People with disabilities and individuals with low incomes need employment transportation that is more flexible and tailored to their needs than RCT is able to offer today. On the employer side, more workplaces need transportation service that runs during their shift start/end times and stops within a short walking distance of their locations.

Medical

Most of the county's medical destinations are served by RCT routes. County residents sometimes need to go out-of-county to specialists, as far away as Cleveland and Columbus. Transportation for hospital discharges is an ongoing challenge for Avita and OhioHealth. Individuals with physical disabilities need demand response transportation services that are similar to Dial a Ride. The local AAA- and JFS-provided ride services are limited. Individuals who do not drive need more options for rides to medical appointments, including urgent and same-day trips. RCT now offers same-day Dial a Ride appointments as recommended in this plan, while most private providers require reservations to be made at least one day in advance.



Shopping

Most shopping areas in the county are served by RCT, but it is important to connect more residents to the shopping areas, including residents of north Mansfield and Lexington. Community stakeholders felt that it would benefit college students to provide a more direct link to retail and dining areas in Ontario and Mansfield, or at least provide additional education to students about the RCT options that exist now. While RCT provided access to Ontario shopping on Routes 1 and 9 prior to the newly piloted routes, the days and hours of service were limited, and traveling within Ontario on RCT was difficult due to the existing route network configuration, which was fragmented in that area.



Community Events

Transportation is needed for community events and tourism. Stakeholders would like to leverage RCT resources to support residents' recreation and the economic impact potential of local tourism. Several mentioned Downtown Mansfield's Final Fridays and Inkcarceration.

Mansfield

The most need for public transit is in Mansfield, which is lower-income and has more population density than other areas of the county. North Mansfield, East Mansfield and Madison Township were mentioned as having lower-income populations with unmet needs for transportation. Mansfield residents need more job access on RCT.

Shelby

Shelby also has residents with lower incomes and higher population density, but the community may be slower to embrace fixed route bus service. RCT's Route 13 served Shelby four times per day, but the majority of its ridership consisted of students traveling between Mansfield and Pioneer Career and Technology Center. Shelby has employment and education facilities that attract people from Mansfield and elsewhere.

It is noted that RCT supports Shelby Taxi with FTA funding. Residents who need service within Shelby city limits can ride this door-to-door service Tuesday through Friday.

Figure 47. Shelby Taxi



Lexington and Bellville

Lexington was mentioned by many stakeholders and RCT staff. The population is growing, and is higher-income than Mansfield and Shelby. The population density in some areas of Lexington is as high as areas of Mansfield and Shelby. Older adults in Lexington may have the most need for transportation. Lexington has many jobs, and Mansfield residents could access these jobs if RCT expanded to Lexington. The county's largest private employer, Charter Next Gen, is located in Lexington, as well as Stone Ridge.

Bellville was also mentioned by some stakeholders. This small community, located outside the U.S. Census-defined Mansfield urban area (unlike Lexington), has a growing residential population, several employers, and will soon be home to a YMCA of North Central Ohio indoor sports complex.

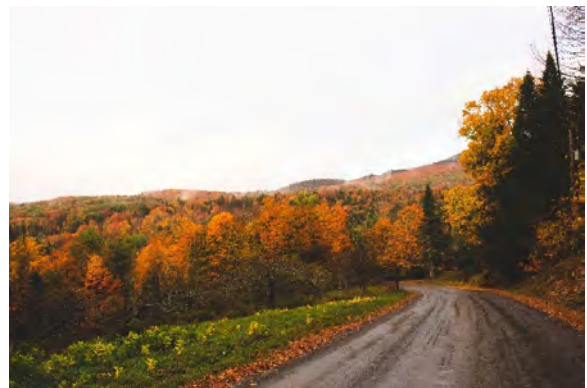
Ontario

People need access to shopping and jobs in Ontario. There are many jobs in Ontario west of the area served by RCT, including at FedEx and Charter Next Gen's new location. The stores and restaurants in the Lexington/Springmill corridor represent a major job center in the county. Ontario, like Lexington, has fewer residents with low incomes that depend on public transit. The larger need is for Mansfield area residents and college students to get to shopping and employment in Ontario. However, over 2023, Dial a Ride ridership originating in Ontario grew by nearly 300%, indicating increasing transit demand among residents with mobility limitations in the community.

Throughout the RCT service area, people need the transit system to provide more feasible options for getting from place to place. For example, prior to this study, Ontario was served by multiple routes, but it was difficult to travel from point to point within Ontario due to the routes' configuration. In some locations, routes “break up” in corridors where a continuous route would help people travel more efficiently. An example is Cook Road, which was served by Routes 2 and 3, and Lexington/Springmill, which was served by Routes 1, 9 and 13. Conversely, there was a large stretch of duplication between Routes 5 and 13 on Springmill. RCT staff provided many comments to inform a redesign of the route system.

Regional and Rural Needs

All of the counties surrounding Richland County are rural. Mansfield and Ontario are regional draws for shopping, healthcare, and employment. Some of the rural transit providers in the adjacent counties bring people into Richland County. However, Richland County residents have no transit option to leave the county, aside from limited inter-city bus service, provided by GoBus and Greyhound, that is not designed to meet day-to-day needs. Rural areas of Richland County would benefit from transit service. Rural residents need access to the urban areas of the county for all types of trip purposes. While fixed routes would not be viable in rural areas due to low population density, a service similar to RCT Dial a Ride would benefit these areas. Many RCT staff believe that there is demand for transit in outlying areas of the county. More survey and stakeholder input details can be found in *Technical Memorandum #2*.



Technology, Outreach and Partnerships

RCT's reputation for being safe, reliable, clean, and friendly is a positive that should be built upon through better marketing and outreach. Marketing should involve both traditional and innovative, technology-based methods. There are likely many opportunities for RCT to enter into partnerships that would expand mobility for the community and generate revenue to support expansions. New partnerships would require new investments of time by the system's leadership, who have limited capacity due to existing administrative and compliance responsibilities.

Several stakeholders stated that they would like to see RCT adopt new technologies that would make it easier for the community to learn how to use the service, and improve its convenience. RCT staff were very supportive of adopting new technologies, especially for fare payment. Details about RCT's plans for technology upgrades are provided in *Technical Memorandum #4*.



Chapter 4: Near- and Mid-Term System Development Strategies

This chapter describes service and technology strategies for implementation in the near term (Years 1 through 3, or 2024 through 2026) and mid-term (Years 4 through 6, or 2027 through 2029). RCT will phase in the near- and mid-term strategies as funding levels and staff capacity permit, with regular performance monitoring to guide decisions about implementation.

Following a five-year update of the TDP in 2029, including a comprehensive evaluation of all near-term and mid-term strategies, RCT will select its approach to long-term changes; this process, and the alternatives for long-term strategies, are described in Chapter 5.

Throughout this chapter, a numbering system is used to identify strategies. Each strategy has a numerical code, beginning with a letter that indicates the strategy’s type. See Table 11.

Table 11. Strategy Descriptions

Type	Description	Code Prefix
Fixed Route Strategies	Changes to fixed route bus service. For example, changing the hours or schedule of a route, or adding a new route.	F
Demand Response Strategies	Changes to demand response services. For example, adding evening on-demand service or expanding contracted transportation for local organizations.	D
Technology Strategies	Enhancements to technology. For example, upgrading real-time bus tracking or adding electronic fare payment options.	T
Marketing and Outreach Strategies	Tactics to increase community awareness of RCT services. For example, creating a new RCT logo and changing the design of bus stop signs.	M
Revenue Strategies	Efforts to maintain and increase funding for RCT, such as forming partnerships with community organizations or applying for grants.	R
Organizational Strategies	Activities that increase the administrative capacity of RCT to implement the TDP, such as funding a temporary part-time planning position or hiring a change management consultant.	O
Long-Term Alternatives	Four alternatives are provided for RCT’s long-term operating model, each representing an approach to fixed route and demand response services for RCT to implement beginning in 2030 following an evaluation of the near- and mid-term strategies.	A

Color Coding

For easier navigation within this report, the three phases are coded with the following color schemes.

Near-Term Strategies (2024-2026)	Mid-Term Strategies (2027-2029)	Long-Term Alternatives (2030-2033)
Near-term strategies are shown in red	Mid-term strategies are shown in green	Long-term alternatives are shown in teal blue

A Note on Funding

While full implementation of all near- and mid-term strategies would be costly, RCT has the option of implementing individual strategies depending on available funding. The TDP existing conditions analysis and public input process revealed significant transportation needs and opportunities in Richland County. It is strongly encouraged that additional revenues are pursued in order to build RCT up so that it can more effectively contribute to a thriving community.

The TDP recognizes the limited nature of currently available funding. Within the constraints of existing funding levels, RCT can afford only a limited number of cost-neutral strategies. To support planning for more incremental implementation based on funding realities, annual operating cost estimates have been provided for individual services in the following sections.

Near-Term Strategies

The near-term phase of the TDP is 2024 through 2026, although some near-term strategies are being piloted as of late 2023. The near-term strategies are listed in Table 12 with their planned years of implementation. Descriptions of the strategies follow the table.

Table 12. Near-Term Implementation Timeline

Code	Near-Term Strategies	2023	2024	2025	2026
Fixed Route					
F1	Adjust routes and schedules for improved access to destinations and efficiency	X	X	X	X
F2	Add the Ontario Circulator	X	X	X	X
F3	Discontinue Route 13-Shelby	X			
F4	Add Route 15-Industrial Park schedules		X	X	X
F5	Transition from Flag Stop to Bus Stop System		X		
Code	Near-Term Strategies	2023	2024	2025	2026
Demand Response					
D1	Add Same-Day Service to Dial A Ride	X	X	X	X
D2	Expand Contracted Transportation Service for Local Organizations	X	X	X	X
D3	Provide Early Morning and Evening On-Demand Service			X	X

Code	Near-Term Strategies	2023	2024	2025	2026
D4	Provide Final Friday On-Demand Service		X	X	X

Code	Near-Term Strategies	2023	2024	2025	2026
Technology					
T1	Replace Computer-Aided Dispatch/Automatic Vehicle Locator (CAD/AVL) System	X			
T2	Publish Google Transit Feed Specification (GTFS) Data and Integrate in Google Maps		X	X	X
T3	Add the Balance Payment Feature in Dispatch and Scheduling Software (Ecolane)		X	X	X
T4	Add Center View Portal for Online Trip Scheduling in Ecolane		X	X	X
T5	Add Self Service Portal for Online Trip Scheduling in Ecolane		X	X	X
T6	Adopt On-Demand Trip Scheduling in Ecolane			X	X
T7	Adopt Electronic Fare Payment for Fixed Routes			X	X
T8	Add Electronic Daily Vehicle Inspection Report for Demand Response Vehicles in Ecolane			X	X

Code	Near-Term Strategies	2023	2024	2025	2026
Marketing and Outreach					
M1	Re-brand RCT Vehicles, Website, Bus Schedules and Promotional Materials		X		
M2	Re-brand and Replace Bus Stop Signs		X		

Code	Near-Term Strategies	2023	2024	2025	2026
Revenue					
R1	Develop Funding Partnerships and Secure New Local Government Support		X	X	X
R2	Apply for Section 5311 Rural Transit Funding			X	X
R3	Pursue a Local Special Purpose Economic Development District				X

Code	Near-Term Strategies	2023	2024	2025	2026
Organizational					
O1	Engage Additional Support for Planning and Change Management		X	X	X

Near-Term Fixed Route Strategies

The first group of near-term strategies includes changes to RCT fixed routes to improve route efficiency, ridership, and access to employment. The changes include the addition of a new route, the Ontario Circulator, and the discontinuation of Route 13 to Shelby. The efficiency route changes (Strategy F1) and Ontario Circulator (Strategy F2) are being piloted beginning September 5, 2023. These changes are being piloted to understand their impacts on ridership, and will be evaluated in

early 2024 before being made permanent, potentially with adjustments based on the evaluation's findings. Route 13 was discontinued on July 28, 2023 (Strategy F3).

In 2024, depending on available funding, RCT will extend the hours of Route 15 to the Airport Industrial Park, adding two hours in the afternoon to enhance access to first and second shift employment; in 2025, two late evening hours will be added for second and third shifts (Strategy F4). In 2024, RCT will transition from a flag stop system to a designated bus stop system (Strategy F5).

Routing and schedule adjustments are described in the following subsections, followed by a summary table of the changes. Maps are provided to illustrate the route changes. Each map also indicates key destinations, including group homes and weekly motels, as well as existing RCT bus stops.

New and Revised Routes Effective September 5, 2023 (6-month pilot)

ROUTE 1 – PARK AVENUE

- Start schedule from Transit Center at 6:30 a.m.
- Eliminate West Park Shopping Center
- Eliminate Kohls Shopping Center – added to new Ontario Circulator route
- Add Harwood Apartment Complex

ROUTE 2 – LEXINGTON AVENUE

- Eliminate coverage on Cook/Main
- Route becomes 30 minutes total, round-trip

ROUTE 3 – SOUTH MAIN/SOUTHSIDE

- Some areas are eliminated from the routing within southeast Mansfield
- Entering Walmart off Hanley Rd, providing access to restaurants on Stander Ave
- Logan, Middle Bellville, and Straub Roads become on-call deviations

ROUTE 5 – SPRINGMILL/BOWMAN

- Route extended to Hanna/Bowman
- Some coverage of Springmill eliminated
- Routing changes at McPherson/Trimble

ROUTE 7 – WAYNE/EAST MANSFIELD

- Departs Transit Center at top of the hour
- Routing change at 6th/Adams
- Add coverage on Parry Avenue (includes Madison Terrace Apartments)
- University Hospital becomes on-call deviation

ROUTE 8 – GLESSNER/MARION

- Several route changes that move coverage 1-2 blocks away from existing routing
- Balgreen Medical, Akron Children’s Hospital, and Veteran’s Administration become on-call deviations

ROUTE 9 – WEST FOURTH

- Downtown routing moves from Main Street to Mulberry Street
- OSU/NCSC and other stops north of Meijer, and Target, are eliminated and added to new Ontario Circulator route
- New on-call deviations available at FedEx, CNG, and OhioHealth

ROUTE 15 – AIRPORT INDUSTRIAL PARK

- Add School Specialty as an on-call deviation

ONTARIO CIRCULATOR

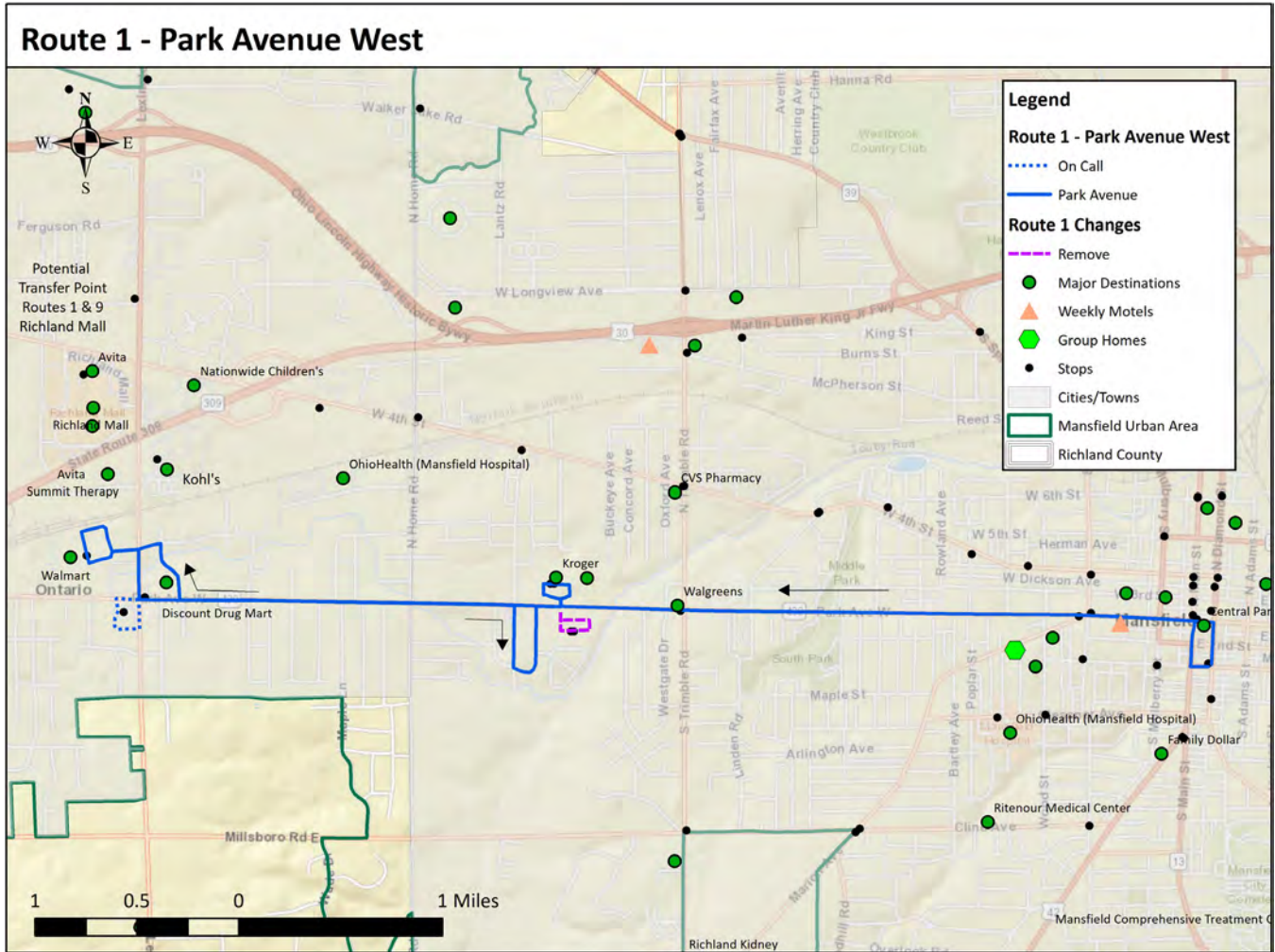
- New Route for easier access to destinations in Ontario

Route 1 – Park Avenue West

Based on the Plan’s recommendations, Route 1 has already been modified to eliminate service to the West Park shopping center. The City of Mansfield has ordered the partial demolition of the shopping center. Instead, the route turns off Park Avenue to serve the apartment complex on Harwood Drive. This is represented in the map of the revised route in Figure 48. On-call deviations are available for passengers traveling to the Area Agency on Aging and Hawkins Medical Center.

Prior to this plan, Route 1 began service at 7:00 a.m. at Walmart to perform an inbound trip. Because the driver “deadheads” the bus (drives, but allows no passengers) from the Transit Center to Walmart each morning, it was recommended that the route officially start at 6:30 a.m. at the Transit Center, which was implemented on September 5, 2023.

Figure 48. Route 1 Changes



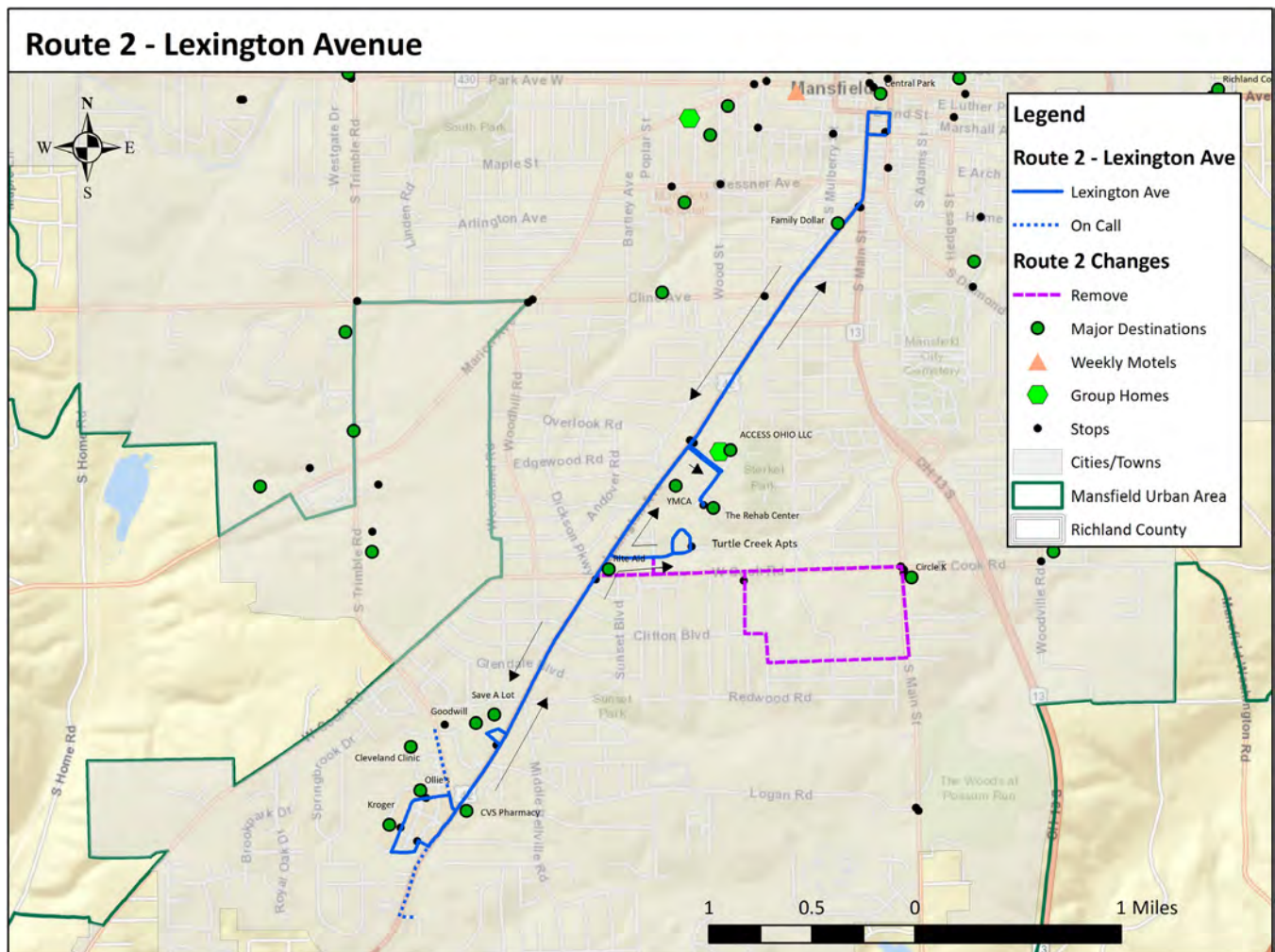
Route 2 – Lexington Avenue

Route 2 transitioned to a 30-minute run time instead of the 60-minute run time in place before this planning process. Outbound, Route 2 remains the same. The route travels south on Lexington Avenue to Kroger. Instead of laying over at Kroger, the route immediately heads north on Lexington Avenue. The route does not turn right on Cook Road, but continues to Turtle Creek Apartments. The portion of Route 2 that is no longer served is covered by an updated Route 3. After the route turns around at Turtle Creek Apartments, the rest of the route continues as operated previously.

The change from a 60-minute to 30-minute run time allows the same driver to operate Routes 2 and 7 in an alternating fashion, similar to how RCT operates Routes 5 and 8. Route 2 departs from the Transit Center at the bottom of the hour, with Route 7 changing its schedule to depart at the top of the hour.

Route 2 retained the Social Security Office and Executive Court as on-call deviations. This will create a significant cost savings for RCT, because one less vehicle and driver will be needed each day, and can be re-allocated to other routes or Dial A Ride. The revised route is shown in Figure 49.

Figure 49. Route 2 Changes



Route 3 – S. Main St./Southside

Route 3 continues to operate on a 60-minute headway with service to and from Walmart on Possum Run Road. Several plan recommendations were implemented to improve travel times for customers and increase the cost-efficiency of the route.

In Figure 50, the revised route is shown in blue, with the old version of the route in red. As shown on the map of the revised route, on the outbound portion, instead of going south on Main Street to Walmart, Route 3 now uses a simplified version of its current inbound routing to serve the inner southwest quadrant of the Mansfield urban core. Route 3 also now provides coverage on Cook, Burkwood, Clifton, Charwood and Elmridge, replacing service currently provided by Route 2. The route discontinued regular service on Logan, Middle Bellville, and Straub, instead continuing southbound on Main, turning left on Hanley Road, turning right on Washington Parkway, turning right on Stander Avenue, and turning left on Possum Run Road, passing the Greyhound bus stop at Marathon/7-11 on the way to Walmart.

Inbound from Walmart, the route follows the current outbound routing until reaching the Main Street/OH-13 access loop, where the route continues northbound on Main Street/OH-13 until turning right on 1st Street and left on Diamond to reach the Transit Center.

ELIMINATION OF SERVICE ON LOGAN, MIDDLE BELLVILLE, AND STRAUB ROADS

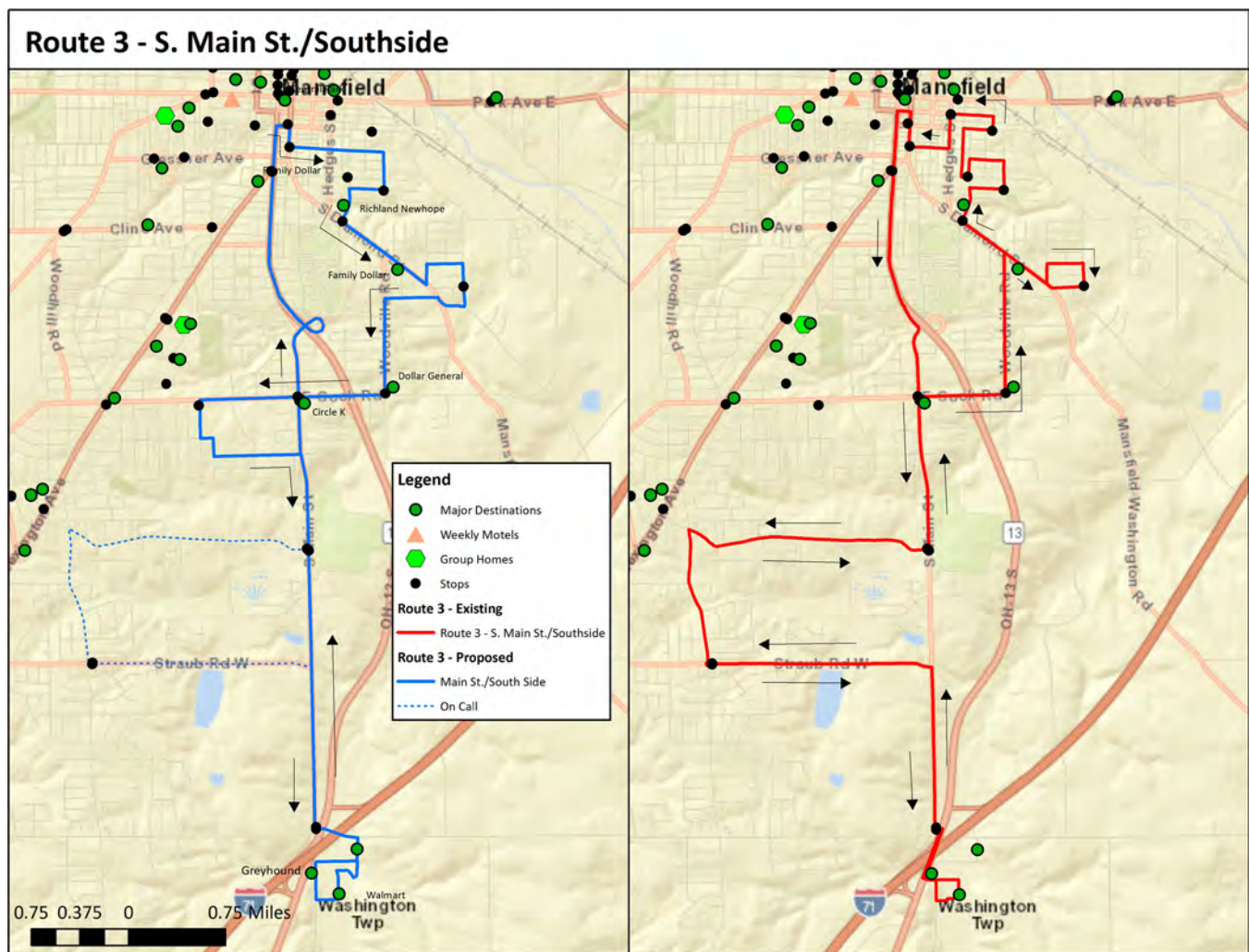
The Route 3 changes eliminate regular service on Logan, Middle Bellville, and Straub Roads. These areas are now available as on-call deviations. This change was made to improve the timeliness and cost-efficiency of Route 3. Drivers had reported that the route was difficult to operate on-time prior to these changes. Customers who ride Route 3 had lengthy travel times due to the route's deviation from Main Street to operate this segment. There was low ridership on this portion of the route. During the sample month (November 2022) of ridership data that was evaluated for the Plan, approximately two customers boarded Route 3 per day on this segment (one on Straub and one on Middle Bellville).

RCT offers on-call deviations on inbound Route 3 schedules in order to maintain service for residents of this area. This area remains part of the RCT Dial A Ride service area, providing the opportunity for service for people with disabilities who meet ADA criteria for complementary paratransit.

SIMPLIFICATION OF ROUTE IN MANSFIELD'S SOUTHWEST QUADRANT

The recommended changes included revising the path of the route through southwest Mansfield. Several of the turns were very tight, and caused the route to be difficult to operate in snowy or icy road conditions. The complexity of the routing made the route difficult for the public to interpret and remember. The high number of turns added time and mileage to the routes, increasing travel times for customers and adding operating expenses (e.g., fuel and vehicle wear and tear). The recommended, simplified routing increases the distance that some customers must walk to the bus by a few blocks.

Figure 50. Route 3 Changes



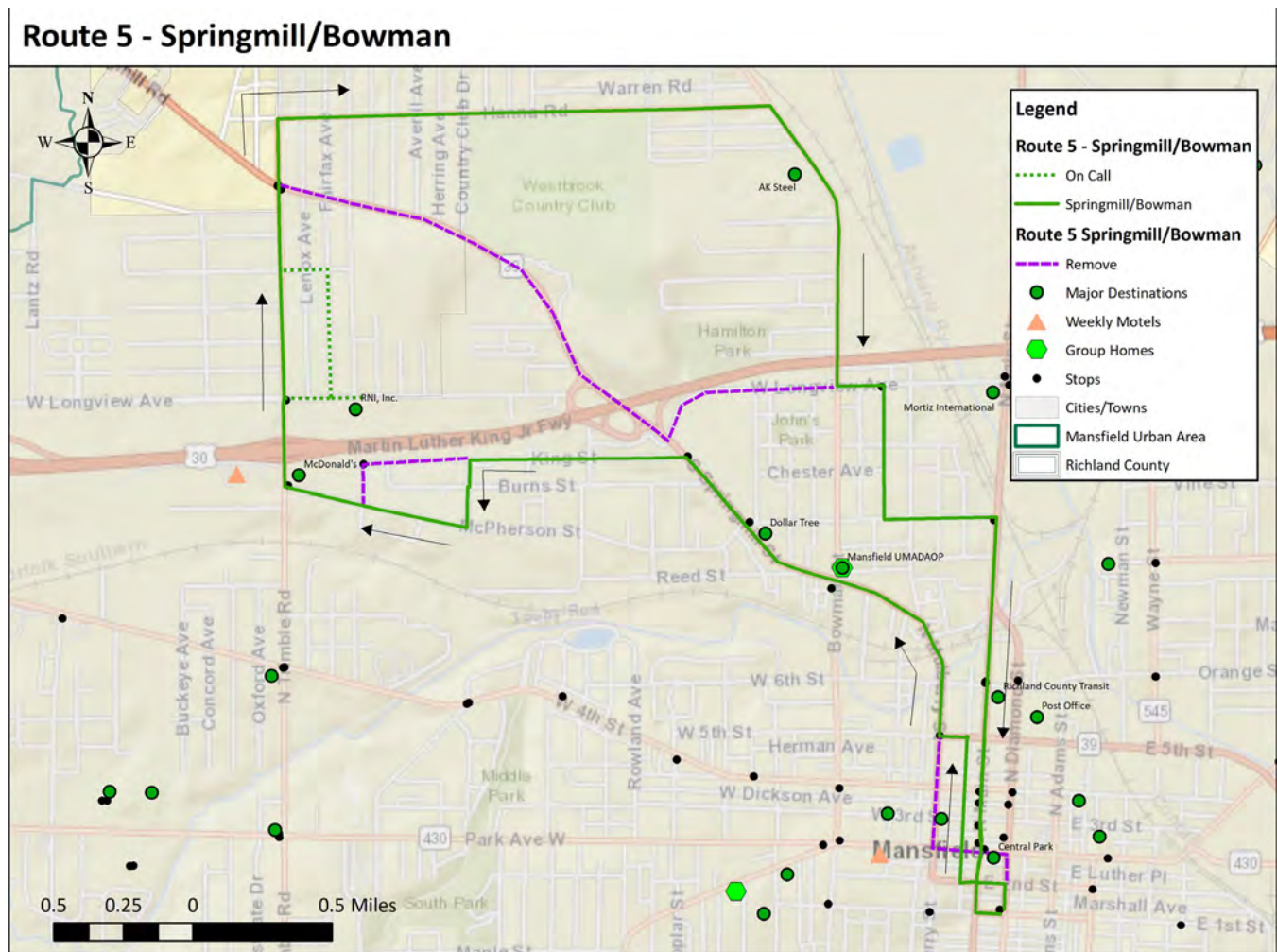
Route 5 – Springmill/Bowman

Route 5 continues to have a 30-minute run time but its routing was changed in order to add coverage to an unserved area of Mansfield, and improve efficiency. As shown in Figure 51, when heading westbound on King Street, instead of going all the way down to Bryden Road, the route now turns left on Allison Avenue and then right on McPherson Street, in order to provide more access to residents of apartments and duplexes on Allison and McPherson.

The next adjustment was for the route to continue northbound on Trimble Road rather than turning right on Longview Avenue from Trimble, left on Fairfax Avenue, and left on Caldwell Street, eliminating regular service directly to RNI-Longview. Ridership at this RNI location had been very low since the COVID-19 pandemic. RNI-Longview is still available as an on-call deviation. The route then turns right on Hanna Road continuing east, then turn right on Bowman Street, and then left on Longview Avenue. The route turns right on Main Street and continues to the Transit Center. Service on Hanna Road would replace the route's existing mileage on Springmill Road.

The Hanna Road stretch of the route will serve Little Kentucky, which is likely to generate more ridership than the current inbound routing on Springmill and Longview. The Springmill/Longview segment of the inbound route had low ridership, with fewer than one boarding per day in November, 2022.

Figure 51. Route 5 Changes

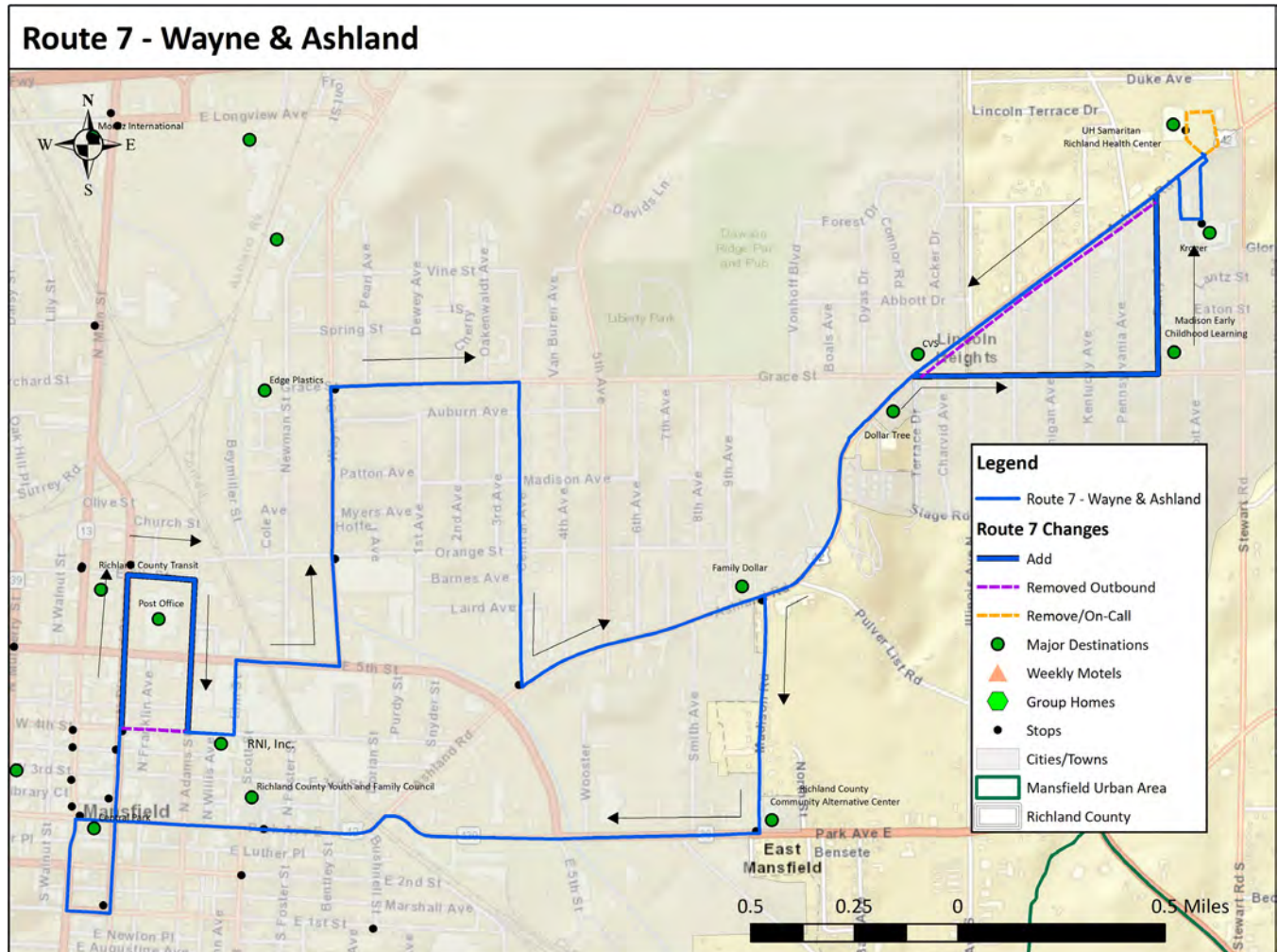


Route 7 – Wayne & Ashland

On the outbound Route 7, after leaving the Transit Center, instead of turning right on 4th Street, the route instead continues north on Diamond Street until it reaches 6th Street, in order to provide outbound access from the Transit Center to the RCT administrative facility, where monthly passes can be purchased. The route turns right on 6th, then turns right on Adams Street. Once the route gets to 4th Street, the vehicle turns left on 4th Street and continues as the route was previously run. When the route turns onto Ashland Road and reaches Grace Street, it turns right, then left on Parry Avenue, then right back onto Ashland Road to Kroger.

The routing on Parry Avenue includes a new stop at Madison Terrace Apartments. The University Hospital Samaritan Richland Health Center became an on-call deviation due to infrequent ridership at this location. The remaining inbound portion of Route 7 continues as it was previously run. A map is provided in Figure 52.

Figure 52. Route 7 Changes



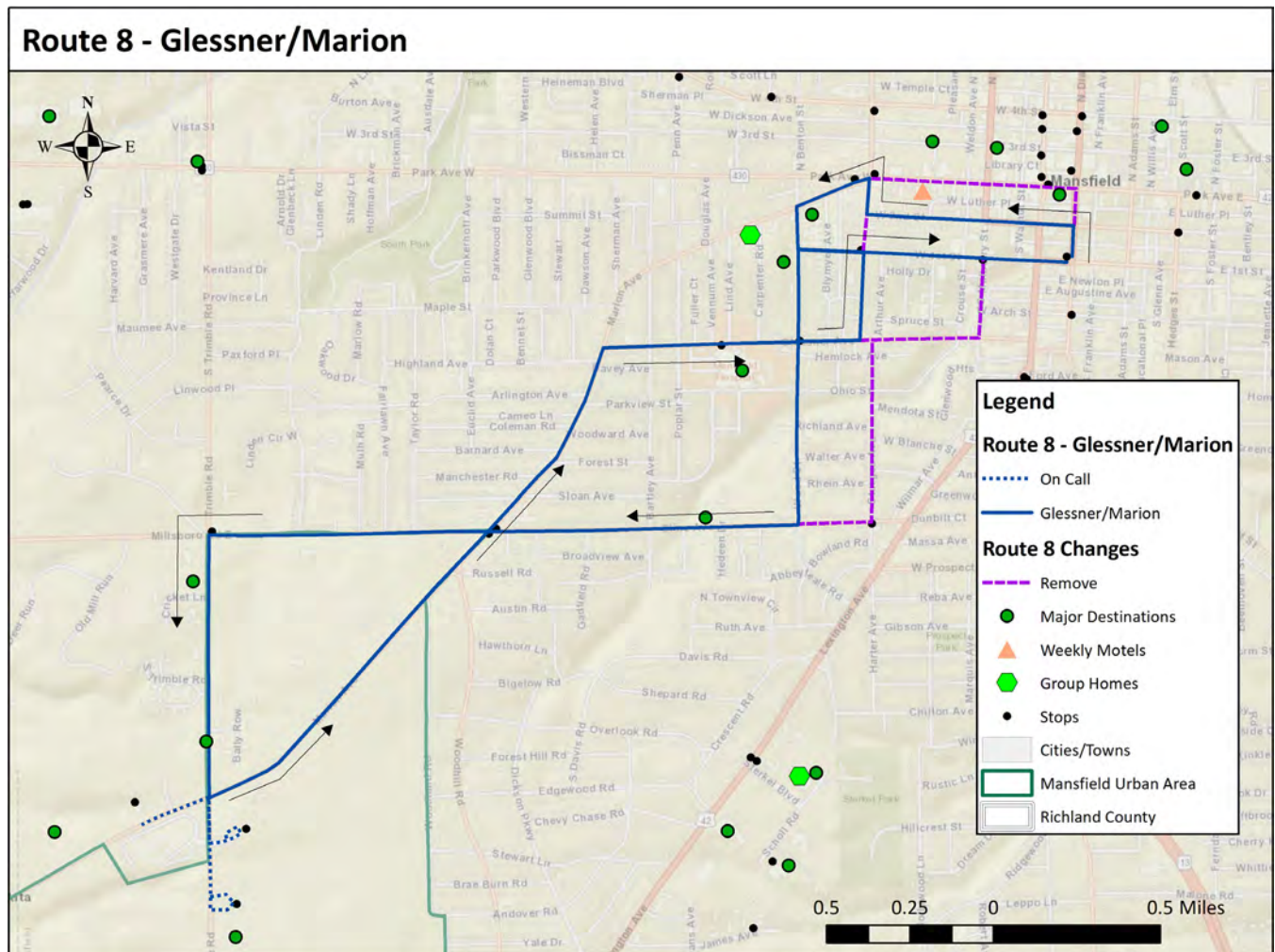
Route 8 – Glessner/Marion

Modifications to Route 8 are shown in Figure 53. The modifications were to continue to serve locations with higher ridership, while transitioning low-ridership stops to on-call deviations. The modified route runs west on 2nd Street and takes a right on Sturges Avenue. When it reaches Park

Avenue, the route turns left on Marion Avenue. The route then continues with a left on Wood Street, then right on Cline Avenue. This segment provides access to two UMADAOP locations on Wood Street and Chelsea Square Apartments. Cline Avenue turns into Millsboro Road. Continuing on Millsboro Road, once the route reaches Trimble Road, it turns left. Instead of traveling to Akron Children's and the VA, the route turns left onto Marion Avenue. The vehicle continues on Marion Avenue until it turns right onto Glessner Avenue and passes Mansfield Hospital. To return to the Transit Center, the route turns left on Bowman Street and right on 1st Street.

Akron Children's, Balgreen Medical and the VA are available as on-call deviations rather than regular stops. RCT is educating staff at these organizations about how clients can request pick-ups and drop-offs.

Figure 53. Route 8 Changes

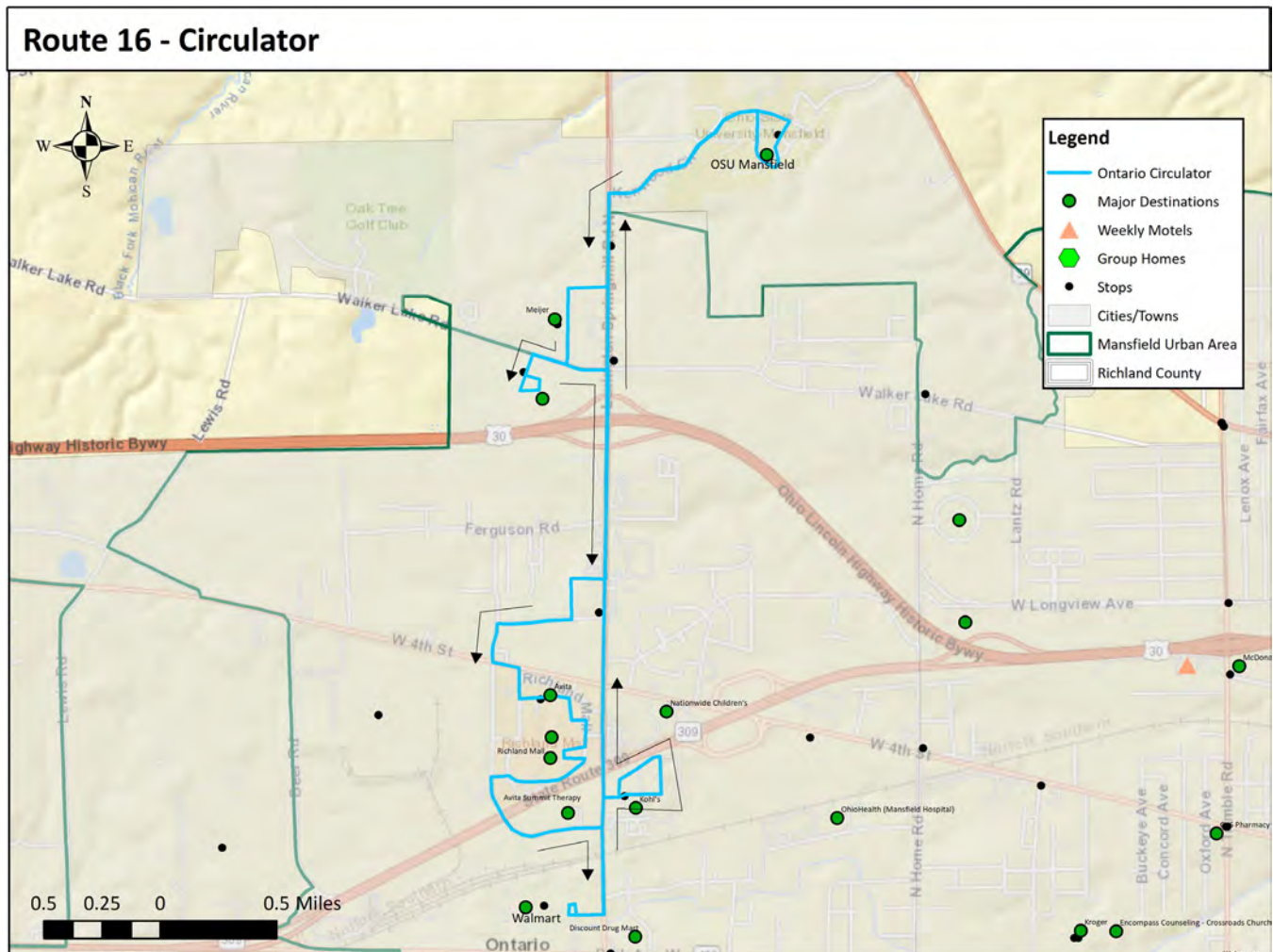


Ontario Circulator and Revised Route 9

The route changes include improvements in access to destinations along Lexington-Springmill Road in Ontario. The Ontario Circulator was introduced to improve the ability of RCT customers to get to employers, stores, medical care providers and other destinations in this area. The new route allows individuals to travel between Walmart and areas as far north as OSU/NCSC. Customers can transfer to the circulator from Routes 1 or 9. Before, customers had limited options on Routes 1 and 9 to travel to Lexington-Springmill. Although these routes could be used to ride to and from area destinations, the schedules did not allow for convenient travel within the corridor.

The Ontario Circulator travels along Lexington-Springmill Road from Walmart to OSU/NCSC. The route initially goes north from Walmart and turns into the Kohl's parking lot. The route continues north past GNC and Buckeye Village Apartments, then to OSU/NCSC. After departing from OSU/NCSC, the route travels south to stop at Meijer. The route then goes to Target, and travels south on Lexington-Springmill Road, making multiple turns to access various destinations including the MRCPL Ontario Branch library, then continuing to Avita and Richland Mall. The route stops in front of Avita Hospital and also goes south to the Avita Pharmacy and Walk-In Clinic. The route then travels around Stumbo Road to Summit Therapy. Finally, the route continues south on Lexington-Springmill Road back to Walmart. The routing is shown in Figure 54.

Figure 54. New Route 16 – Ontario Circulator

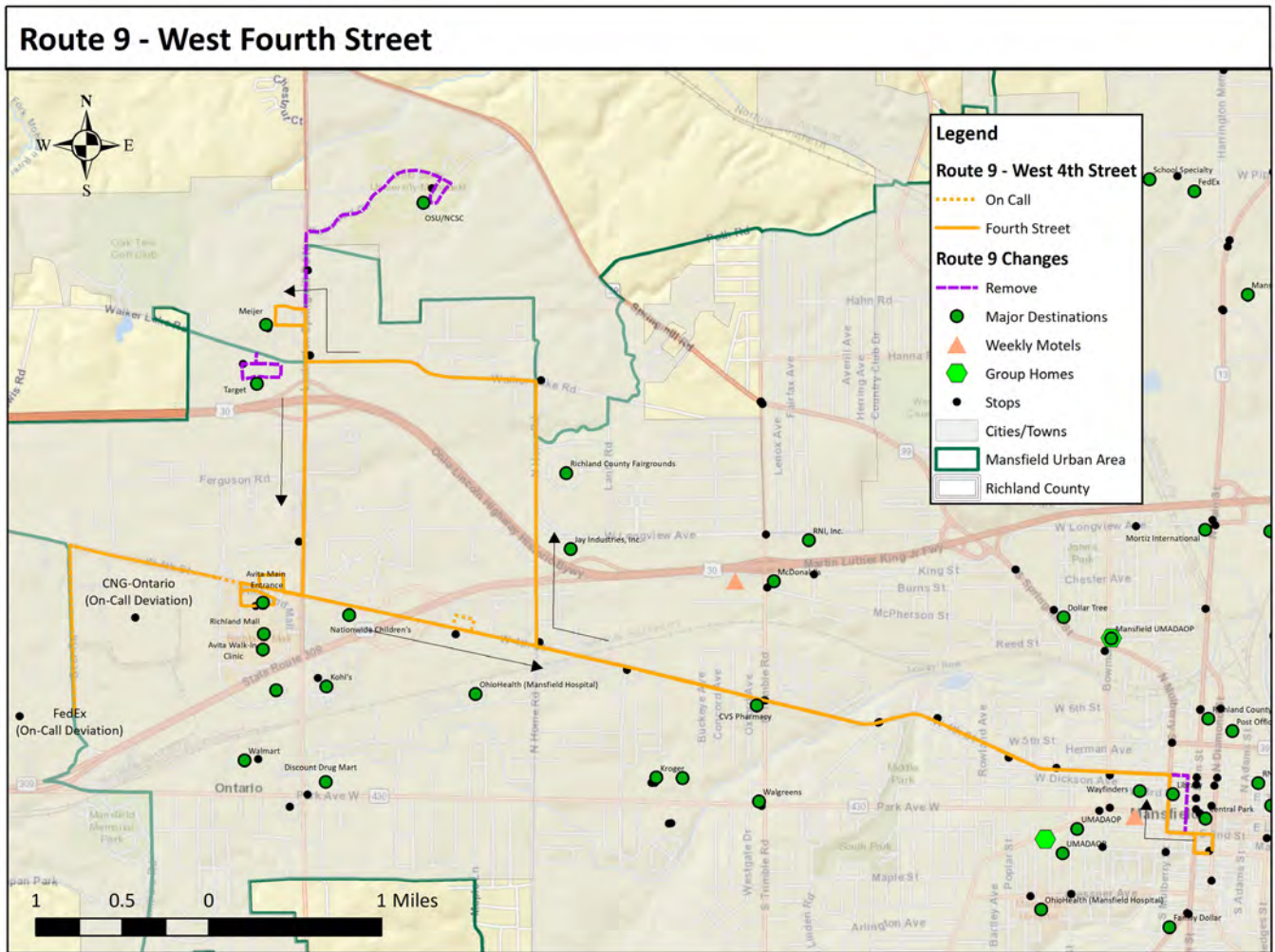


RCT adjusted the Route 9 route and schedule to complement the Ontario Circulator. Because the Circulator provides access to some of the destinations formerly served by Route 9, Route 9 was shortened by removing service north of Meijer. OSU/NCSC, Buckeye Village, and Target are now served by the Circulator instead of Route 9. Because Route 9 has been shortened, the schedule allows RCT to offer on-call deviations to Fed Ex (515 Urwin Parkway, in the Ontario industrial park off Beer Road) and CNG-Ontario (2525 West 4th Street), two of Ontario's larger employers. A map is provided in Figure 55.

Other modifications to Route 9 include a change in the routing through downtown Mansfield and the addition of a stop at a new Walk-In Clinic at Richland Mall. Leaving downtown Mansfield, Route 9 uses Mulberry Street to 4th Street instead of Walnut Street. This provides closer access to the downtown public library and Wayfinders/Harmony House. Inbound, Route 9 added a stop at

Richland Mall. After it stops at Avita's main entrance, the vehicle continues around Richland Mall to the southside Walk-In Clinic. The vehicle then returns to 4th Street and continues the route back to the Transit Center.

Figure 55. Route 9 Changes



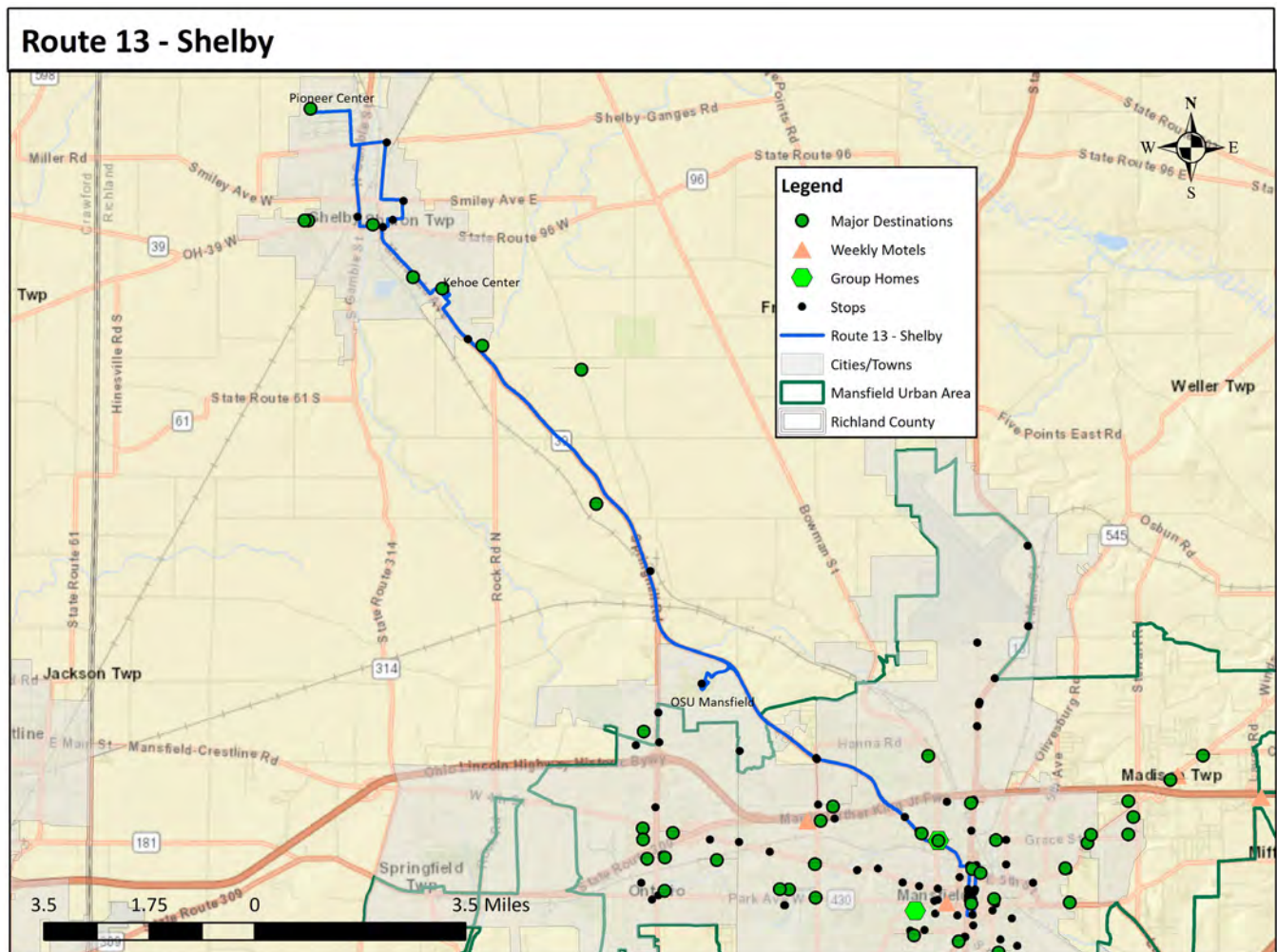
Route 13 – Shelby

RCT eliminated Route 13 to Shelby effective July 28, 2023. This route was subsidized by NCSC, Pioneer Career and Technology Center, and the City of Shelby. A map is provided in Figure 56. In 2022, approximately eight individuals used Route 13 per day. In the summer months, this number dropped to approximately two. The majority of Route 13 customers were Pioneer students. These students are now served through a contract for RCT demand response service.

Route 13 passed through a rural area of Richland County between Shelby and Mansfield. Very few boardings occurred between the two cities. Occasionally, a customer used the route to access the NCSC Kehoe Center, located on Shelby's south side. In November, 2022, a boarding occurred at the Kehoe Center on three occasions. The route's drivers reported that there was one regular customer who used the route to travel between Shelby and Mansfield.

The near-term strategy was to eliminate the route due to its low cost-efficiency and high cost per trip. The mid-term strategies, described later in this chapter, include restoring service to Shelby using rural transit funding, a Federal transit funding program for service outside of urban areas.

Figure 56. Route 13 - Shelby (Discontinued in Near Term)

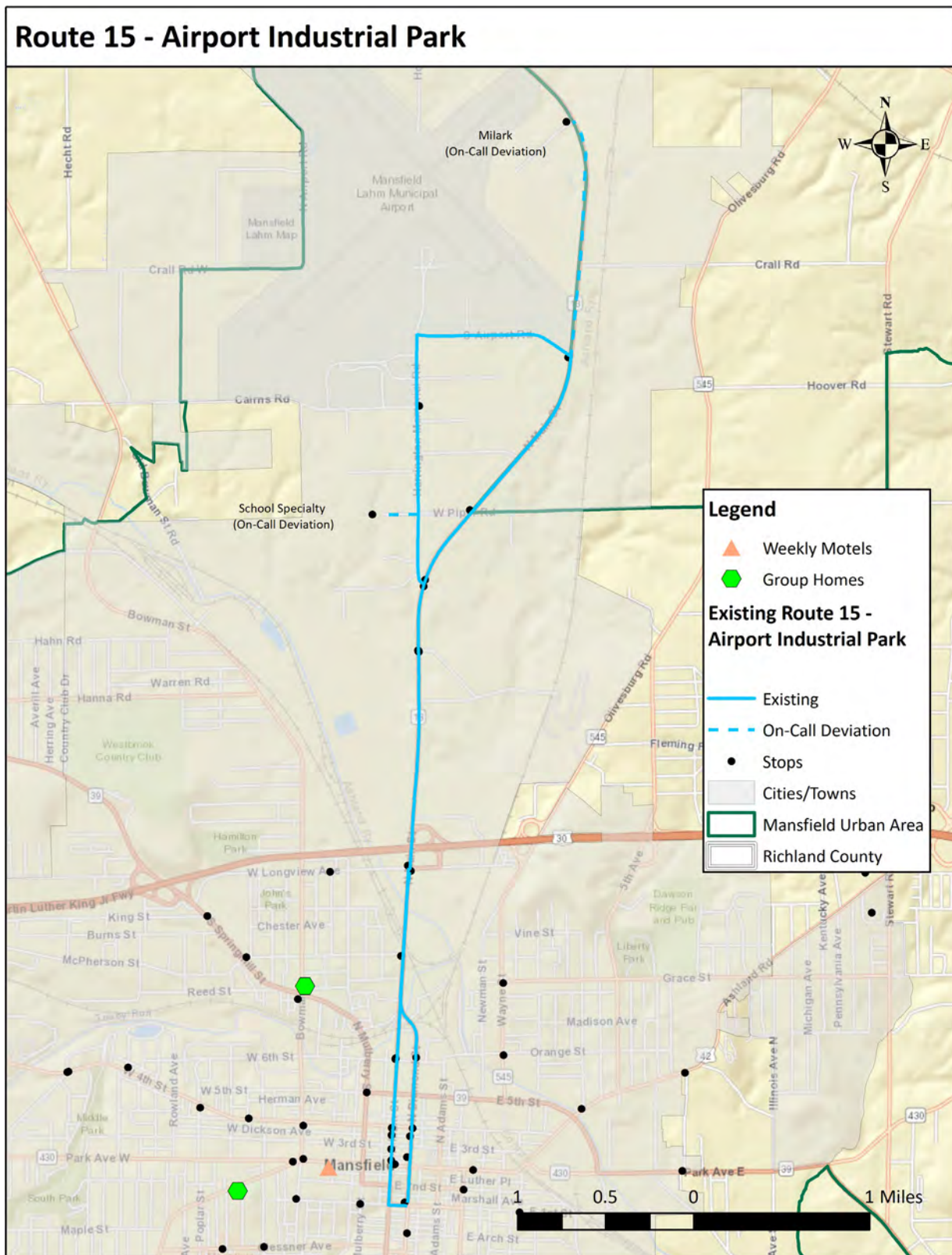


Route 15 – Airport Industrial Park

Route 15 was added to RCT's network in 2012 to provide transportation to the job-dense industrial area surrounding the Mansfield Lahm Municipal Airport. Route 15, shown in Figure 57, currently provides limited service between the Transit Center and this industrial park area, operating for a total of two revenue hours per day. This service is highly productive, achieving more than ten boardings per revenue hour of service. Only Route 1 (Park Avenue) has higher productivity than Route 15.

The near-term strategy is to add more schedules to Route 15 in order to serve more employment shifts at the industrial park's employers. The current schedules depart from the Transit Center at 6:00 a.m., 6:30 a.m., 3:00 p.m., and 3:30 p.m. Tentatively, schedules would be added at 5:30 a.m., 1:30 p.m., 2:00 p.m., and 2:30 p.m. This would allow customers to ride to first shifts that begin at 6:00 a.m. or second shifts that begin at 2:00 p.m., and provide rides home from first shifts that end as early as 2:00 p.m. School Specialty, 100 Paragon Parkway, was added as an on-call deviation effective September 5, 2023. This employer has a busy seasonal shift in late spring and summer that currently begins at 6:00 a.m. Their second shift begins at 3:00 p.m. Shift end times vary, depending on workload.

Figure 57. Route 15



This Plan provides a series of options, all requiring significant planning and financial resources. Given that RCT has a small staff and no dedicated source of local funding, it is recognized that not all of the recommended strategies can be realized in the proposed, ambitious timeframes. RCT should prioritize those projects that best meet essential needs, attract financial support from community partners, and lead to long-term efficiencies.

Transition from Flag Stops to Bus Stops

Strategy F5 is to require customers to use bus stops. Feedback from RCT drivers and community stakeholders indicated that RCT's longstanding flag stop system is problematic for safety and efficiency, and is difficult for new and potential riders to understand.

It should be noted that 70 percent of surveyed RCT customers stated that they preferred to keep the flag stop system, and several RCT drivers with long tenures at the agency felt that the flag system is better for riders than bus stops.

On the other hand, there was consensus within the April, 2023 RCT customer focus group that moving to a designated bus stop system would increase the reliability and legibility of the service, provided that enough stops were installed. This transition should be implemented carefully, with an extensive customer education and adaptation process, and the installation of bus stops on all routes at intervals of distance that are appropriate for customers, including the addition of amenities (i.e., benches and shelters) as funding levels permit. Additional guidance was provided to RCT in *Technical Memorandum #4*. In 2024, RCT will be working with Richland Public Health to engage passengers and community stakeholders in creating the new designated bus stop system, including developing policies, selecting locations, designing signs, and other tasks. Richland Public Health received a HEAL (Healthy Eating Active Living) grant from the Ohio Department of Health for this project.

Figure 58. RCT Bus Stop



Near-Term Demand Response Strategies

Same-Day Dial A Ride Service

Starting September 5, 2023, RCT expanded Dial A Ride service to allow same-day trip reservations, based on available capacity (Strategy D1). RCT's standard offering is to provide next-day trip

reservations to Dial A Ride customers. However, the service has demonstrated adequate capacity to fulfill same-day trip requests on a first-come, first-served basis, upon availability.

Same-day service is above and beyond the paratransit requirements of the ADA, which mandates rides for pre-qualified customers with disabilities on a next-day reservation basis. RCT's Dial A Ride service area continues to be within one-mile of all fixed routes, including on-call deviations. This also goes above and beyond the minimum requirement to offer ADA paratransit with ¼-mile of all routes.

Figure 59. New 12-Passenger Dial A Ride Bus Delivered in 2023



Expansion of Contracted Demand Response Transportation

Contract service allows RCT to provide demand response trips to human service agency clients under contract to agencies for a negotiated price. These funds provide a valuable source of local match for a transit system. RCT has long offered contract service to the Area Agency on Aging, Opportunities for Ohioans with Disabilities, Richland Newhope Industries, and other agencies.

RCT has limited capacity to offer contracted service, but could grow this side of its operation through the expansion of its staff and fleet. Many small transit systems in Ohio provide contracted medical transportation using small, accessible vehicles (shuttles and vans with 12 or fewer

passenger seats). RCT will expand contracted human service transportation to local community agencies (Strategy D2). The revenue recommendations for the TDP include submitting funding applications to acquire additional small vehicles.

Early Morning and Evening On-Demand Service

To satisfy the demand for RCT service in the evenings and early mornings, particularly for getting to and from employment, off-peak hours service is recommended in the form of demand response for the general public (Strategy D3). This service should be rolled out in phases, starting with a limited area as a pilot. For example, RCT may offer a first phase of evening service in a target area identified through a partnership with one or more stakeholder organizations. The service area should include areas of strong ridership generators, such as multifamily, low-income housing, and employment destinations (e.g., the Lexington–Springmill service industry corridor or the Airport Industrial Park area). Serving the Madison Adult Career Center would be helpful to individuals enrolled in night classes, which run from 4:30 p.m. to 9:30 p.m., Monday through Thursday (as of May, 2023).

Figure 60. Bus Stop in Evening



This service would initially require reservations at least one day in advance. However, once RCT has successfully tested the feasibility of providing same-day and immediate trip requests, the services will be available for on-demand scheduling. Under an on-demand model, customers will be able to request a ride through an app or the telephone, and a vehicle will be dispatched within a defined timeframe (for example, 20 minutes) to pick them up and take them to their destination.

If, after a successful pilot, the service is provided over a larger area, such as the Mansfield city limits, RCT has the option to implement a zone system wherein vehicles stay within zones set up so that customers transfer between zones at the Transit Center or other key transfer points. This would help the service to operate efficiently, avoiding long cross-city trips that tie up vehicles for long stretches of time, creating capacity constraints that lead to trip turn-downs.

Evening service should be offered on weekdays from 6:00 p.m. to 10:00 p.m. or later, depending on available funding. Early morning service would operate from approximately 4:30 a.m. and 7:00 a.m. Customers would request trips through the same process used by Dial A Ride customers today. Increased call volume and dispatcher workload will require expanded RCT office staffing. RCT may charge a fare that is higher than the standard fixed route fare for this service.

Early morning and evening service should be evaluated at regular intervals for ridership, productivity, and cost-efficiency. Performance measures are provided later in this chapter.

Final Friday On-Demand Service

To meet local needs for service to recreational opportunities, RCT will offer contracted demand response service within a defined service area during Final Fridays in downtown Mansfield. Final Fridays are outdoor concerts held on the last Friday of each month, May through September (Strategy D4). The events occur in the Brickyard area of Mansfield from 5:30 p.m. to 10:30 p.m. This would be RCT’s first experience with on-demand type service, and the experience will be used to help plan future on-demand services.

RCT will pilot a demand response service on Final Fridays in 2024, working with community partners to determine the best service hours. Potentially, RCT could start transporting customers from the Transit Center to the Brickyard beginning at approximately 4:30 p.m. Final Friday attendees would ride an RCT route to the Transit Center, then board the Final Friday vehicle for the half-mile ride to the Brickyard. Rides would be available from 4:30 p.m. until 6:30 p.m., following the arrivals of the last RCT fixed routes at 6:25 p.m.

Then, RCT would offer rides home from the Brickyard from approximately 7:00 p.m. to 10:00 p.m. Rides would be provided first-come, first-served, to residences within a defined geographical area, such as the City of Mansfield, select townships, or the Mansfield Urban Area. Customers would provide their home address to the driver upon boarding. Rides would be shared, with vehicles leaving the Brickyard when they were full.

The exact service model for Final Friday service is tentative; RCT will make adjustments as necessary when they pilot the service. For regulatory compliance purposes, this service must be an advertised, routine offering of service to the general public.² RCT would station one vehicle at the Transit Center for the early evening rides to the Brickyard, and three to four vehicles at the Brickyard for the rides home. Following the May 2024 event, RCT would adjust the number of vehicles provided based on anticipated demand.

Figure 61. Downtown Photo Courtesy of Downtown Mansfield, Inc.



² According to 49 CFR Section 604.3(u), “Special transportation” means demand response or paratransit service that is regular and continuous and is a type of “public transportation.” Per FTA guidance, special transportation must be shared ride service that is open to the general public.

Each Final Friday would require RCT to offer approximately 15 to 20 hours of revenue service. A dispatcher would need to be on duty during the evening service. RCT would fund the service through partnerships with sponsors. To maximize ridership during the pilot, RCT would offer fare-free rides on the demand response vehicles as well as fare-free fixed route rides beginning at 4:30 p.m.

Near-Term Fixed Route and Demand Response Strategies Summary

The near-term fixed route strategies were designed to be relatively budget-neutral and lower cost changes that RCT could implement to improve cost-efficiency and increase ridership through providing access to new trip generators, especially to workplaces. The impacts of these changes, as well as the demand response strategies, on total daily revenue hours of service are described in Table 13.

Table 13. Impacts of Near-Term Fixed Route and Demand Response Strategies

Route/Service	Description	Change in Revenue Hours/Day
Route 1 – Park Ave.	<ul style="list-style-type: none"> Start schedule from Transit Center at 6:30 a.m. Eliminate West Park Shopping Center Extend route to Richland Mall/Avita 	Adds 0.5 hour
Route 2 – Lexington Ave.	<ul style="list-style-type: none"> Eliminate coverage on Cook/Main Retain Social Security Office and Executive Court as on-call deviations Route becomes 30 minutes long; driver alternates between Routes 2 and 7, with Route 2 leaving the Transit Center 30 minutes after the hour 	Neutral
Route 3 – South Main/Southside	<ul style="list-style-type: none"> Remove service on Logan, Middle Bellville, and Straub Roads Simplify route in Mansfield’s southwest quadrant 	Neutral
Route 5 – Springmill/Bowman	<ul style="list-style-type: none"> Routing changes at McPherson/Trimble Extend coverage to Hanna/Bowman 	Neutral
Route 7 – Wayne/East Mansfield	<ul style="list-style-type: none"> Routing change at 6th/Adams Add coverage on Parry Avenue (includes Madison Terrace Apartments) Make University Hospital an on-call deviation Depart at top of the hour so driver can alternate between Routes 2 and 7 	Eliminates 5.5 hours
Route 8 – Glessner/Marion	<ul style="list-style-type: none"> Adjust routing and schedule order Make Balgreen Medical, Akron Children’s Hospital, and Veteran’s Administration on-call deviations 	Neutral
Route 9 – West Fourth	<ul style="list-style-type: none"> Move downtown routing from Main Street to Mulberry Street Move OSU/NCSC, other stops north of Meijer, and Target to Ontario Circulator route Add on-call deviations to FedEx, CNG, and OhioHealth 	Neutral
Ontario Circulator	<ul style="list-style-type: none"> Add Ontario Circulator Route 	Adds 11 hours
Route 13 – Shelby	<ul style="list-style-type: none"> Eliminate service 	Eliminates 6 hours
Route 15 – Airport Industrial Park	<ul style="list-style-type: none"> Offer additional schedules in 2024 (5:30 a.m., 1:30 p.m., 2 p.m., 2:30 p.m.) Offer additional schedules in 2025 (9:30 p.m., 10 p.m., 10:30 p.m., 11:00 p.m.) 	Adds 2 hours in 2024 Adds 2 more hours in 2025
Transition from Flag Stops to Designated Bus Stops	<ul style="list-style-type: none"> Move to a system of designated bus stops 	Neutral
Add Same-Day Service to Dial A Ride	<ul style="list-style-type: none"> Allow eligible customers to request same-day trips 	Neutral

Route/Service	Description	Change in Revenue Hours/Day
Expand Contracted Demand Response Transportation	<ul style="list-style-type: none"> Apply to ODOT for grants to fund new, smaller vehicles appropriate for medical trips and other human service transportation Hire non-CDL drivers and add contracts with human service agencies as resources allow 	N/A (dependent on available drivers/vehicles and contracts)
Add Final Friday On-Demand Service	<ul style="list-style-type: none"> Provide demand response service for Final Friday (using 3 to 4 existing cutaway vehicles) 	Adds up to 20 hours on 5 days per year
Early Morning and Evening On-Demand Service	<ul style="list-style-type: none"> Add morning service between 4:30 a.m. and 7:00 a.m. (would not cover Routes 1 and 15 service areas during their early morning hours of operation) (requires 2 to 3 new, small-capacity vehicles) Add evening demand response service between 6:00 p.m. and 10:00 p.m. (requires 3 to 5 new, small-capacity vehicles) 	Adds 14 to 30 hours

Near-Term Technology Strategies

RCT will implement technology upgrades for improved efficiency and customer service. In early 2024, RCT purchased a replacement Computer-Aided Dispatch/Automatic Vehicle Location (CAD/



AVL) system for its fixed route vehicles (Strategy T1). This technology will allow RCT to offer an improved real-time bus tracking app, bus location data for dispatching purposes, and operational data for performance tracking and reporting. The CAD/AVL system will support RCT in publishing its General Transit Feed Specification (GTFS) data and integrating it into Google Maps, which will allow the public to plan their RCT fixed route trips in Google Maps, Apple Maps, and other common applications (Strategy T2).

In 2024, RCT will offer new payment and ride scheduling technologies to Dial A Ride customers through functionality that is available in Ecolane, RCT's existing Dial A Ride scheduling and dispatching platform. The Balance Payment feature will allow customers or their sponsors to pay for rides electronically (Strategy T3). The Center View Portal will permit human service agencies, such as group homes, to schedule rides for clients online rather than calling RCT on the phone (Strategy T4). Following the implementation of the Center View Portal, RCT will launch the Self Service Portal for individuals to schedule Dial A Ride trips for themselves (Strategy T5).

Planned improvements for 2025 will be implemented based on funding and capacity constraints. Using functionality available in Ecolane, RCT will begin to offer on-demand trip scheduling capabilities to customers using demand response services (Strategy T6). RCT will procure technology for electronic fare payment for fixed route service (Strategy T7), and will pilot the use of Ecolane's electronic daily vehicle inspection report system (Strategy T8).

More information about the benefits of the identified technology strategies for all three phases of the Plan was provided in *Technical Memorandum #4*.

Near-Term Marketing and Outreach, Revenue, and Organizational Strategies

RCT will contract for branding and marketing services to support a refresh of the RCT brand and the re-branding of vehicles, the website, bus schedules and promotional materials (Strategy M1). RCT will also redesign its bus stop signs to reflect the new branding (Strategy M2). These strategies were discussed in more detail in *Technical Memorandum #3*.

New sources of revenue will be critical for the implementation of all Plan strategies. Therefore, RCT will also invest time in developing potential new funding partnerships with local employers, governments and non-profit organizations to support the new routes and services for long-term sustainability (Strategy R1). For rural services planned for mid-term implementation (2027 through 2029), RCT will apply for FTA Section 5311 rural transit funding through ODOT, a process that would be initiated as early as 2025 (Strategy R2). RCT will also explore the feasibility of working with local government authorities to establish a special purpose economic development district to

fund local services (Strategy R3). More information about these revenue strategies was provided in *Technical Memorandum #3*.

The final strategy provided for near-term implementation is to engage additional support for planning and change management as RCT enters a period of intensive activity and change. Beginning in 2024, RCT will seek additional staffing or contractual support to assist with the implementation of the Plan's near-term strategies (Strategy O1), due to the workload required.

Estimated Costs of Near-Term Strategies

The following tables provide estimated costs to implement the near-term strategies beginning in 2024. The costs of some strategies listed in Table 12 are not included for these reasons:

- Costs are not listed for expenses occurring during 2023-4 (CAD/AVL procurement and pilot route changes).
- Costs are not listed for strategies that do not reflect the addition of a new service, or the preservation of an existing service (e.g., discontinuation of Route 13).



- Costs are not included for contract human service transportation, because this service will depend on interest from the community and will typically be provided to agencies able to pay the fully allocated cost of service, making it cost-neutral for RCT.
- Cost estimates are not provided for the revenue strategies because these strategies would be implemented with current staffing, potentially with assistance from additional staff or consultants that are engaged to expand organizational capacity.

Separate tables are provided for costs to operate service (Table 14); costs to implement new technologies, marketing efforts and organizational support (Table 15); and capital costs. Capital costs include those that were already programmed into the Transportation Improvement Program (TIP) (Table 16), such as vehicle replacements and facility repairs, and expansion vehicles for on-demand service (Table 17).

Operating Costs

Table 14 provides estimates of operating costs for the fixed route network, incorporating the route changes described in *Technical Memorandum #3*, and the demand response strategies. The cost estimates are based on the projected fully allocated per-hour costs of \$146.00 for fixed route and \$143.08 for demand response in 2024, with a three percent inflation rate applied for the following years. The 2024 per-hour cost projections reflect cost increases experienced by RCT in 2023. These changes included rising labor costs, increase materials and energy costs, and expanded administrative staffing to build capacity for adopting this Plan’s strategies, including the development of new partnership and revenue streams. To provide total estimated operating costs by year, the table also includes cost estimates for Dial A Ride and RCT’s existing contract service for the Area Agency on Aging.

Table 14. Estimated Operating Costs by Year, Near-Term Strategies

Code	Near-Term Strategies	2024	2025	2026
Operating Costs				
F1	Adjust routes and schedules for improved access to destinations and efficiency	\$2,159,357	\$2,224,138	\$2,290,862
F2	Add the Ontario Circulator	\$409,533	\$421,819	\$434,474
F4	Add Route 15-Industrial Park Schedules	\$74,461	\$153,389	\$157,990
D1	Add Same-Day Service to Dial A Ride	\$0	\$0	\$0
D3	Provide Early Morning and Evening On-Demand Service	N/A	\$526,128	\$909,638
D4	Provide Final Friday On-Demand Service	\$14,308	\$14,737	\$15,180
N/A	ADA Paratransit and Existing Contract Service	\$620,219	\$655,729	\$675,400
Total Operating* Costs		\$3,277,878	\$3,995,940	\$4,483,545

**Operating Costs represent the fully allocated costs to operate RCT, including planning and preventive maintenance costs, which are built into the estimated cost per hour.*

Technology and Planning Costs

Table 15 provides estimates of costs associated with new technologies, marketing efforts, and organizational support. These costs are labeled as capital/planning costs and are generally eligible for 80 percent funding from FTA. The cost estimates for the technology strategies involving Ecolane are current as of mid-2023. For GTFS feed development and Google Maps integration, the cost is based on a peer transit system's use of a consultant for this task.

The fixed route electronic fare payment cost estimate is based on the pricing structure offered by Token Transit, a lower-cost smartphone-based fare payment system, which charges transit agencies a set percentage of collected fares (e.g., 10%) to use the system. While this technology is utilized by many small transit agencies in the U.S., more complex systems offering features such as on-board credit card payments and fare capping are available at higher costs, including EZFare, an offering of NEORide.

Figure 72. RCT Bus in Garage



The cost estimates provided for the marketing and organizational support strategies are planning-level estimates that would be refined following the development of specifications for these strategies, and the solicitation of pricing.

Table 15. Estimated Technology/Planning Costs by Year, Near-Term Strategies

Code	Near-Term Strategies	2024	2025	2026
TDP Technology/Planning Costs				
T2	Publish Google Transit Feed Specification (GTFS) Data; Integrate in Google Maps	\$2,750	\$2,750	\$2,750
T3	Add the Balance Payment Feature in Ecolane	\$0	\$0	\$0
T4	Add Center View Portal for Online Trip Scheduling in Ecolane	\$55,200	\$9,200	\$9,200
T5	Add Self Service Portal for Online Trip Scheduling in Ecolane	Incl w/Ctr View	Incl w/Ctr View	Incl w/Ctr View
T6	Adopt On-Demand Trip Scheduling in Ecolane	N/A	\$0	\$0
T7	Adopt Electronic Fare Payment for Fixed Routes	N/A	\$3,000	\$3,000
T8	Add Electronic Vehicle Inspection Report in Ecolane	N/A	\$6,300	\$6,300
M1	Re-brand RCT Vehicles, Website, Bus Schedules and Promotional Materials	\$30,000	N/A	N/A
M2	Re-brand and Replace Bus Stop Signs	\$25,000	N/A	N/A
O1	Engage Additional Support for Planning and Change Management	\$30,000	\$20,000	\$20,000
Total TDP Technology/Planning Costs		\$142,950	\$46,650	\$46,650

Capital Costs

Table 16 provides the planned capital vehicle and facility costs that are currently programmed in the TIP during the near-term phase. These represent capital costs for Richland County Transit; for the purposes of this report, all other costs are classified as operating costs, even though the TIP classifies some of these operating costs as other types of costs (planning, ADA paratransit, or maintenance.) Programmed TIP projects are subject to change based on available funding, the agency's Transit Asset Management Plan, and unforeseen needs.

Table 16. Planned Capital Vehicle and Facility Expenditures Included in TIP during Near Term

Near-Term Strategies	2024	2025	2026
TIP Projects			
Bus Replacement	\$1,500,000	N/A	N/A
Cutaway Replacement	\$600,000	\$600,000	N/A
Facility and Equipment Repairs	\$65,000	\$180,000	\$65,000
Service Vehicle Replacement	N/A	N/A	\$52,000
Total TIP Capital Vehicle and Equipment Expenditures	\$2,165,000	\$780,000	\$117,000

Lastly, Table 17 provides the estimated numbers and costs of additional vehicles that would be necessary to operate expanded demand response services (early morning/evening and new contracted service). The numbers of vehicles correspond to the levels of service projected in this plan. RCT also has the option to use its existing cutaway buses for these services. However, acquiring new vehicles in the near term will extend the life of the existing vehicles and prepare RCT for the mid-term strategies that involve new demand response services.

Table 17. Estimated Expansion Vehicle Costs during Near Term

Near-Term Strategies	2024	2025	2026
Expansion Vehicle Costs			
Small (non-CDL) cutaway vehicles*	\$320,000 (2 @ \$160,000)	\$329,600 (2 @ \$164,800)	\$339,488 (2 @ \$169,744)

*Results in total expanded fleet of 6 small cutaways by 2026; estimated fleet need for night/early morning service in 2027 is 5 active vehicles and 1 spare

Performance

While implementing all TDP service strategies, RCT will monitor performance at regular intervals. Performance can be monitored on a monthly or quarterly basis using data that is tracked in Ecolane for demand response services and the new CAD/AVL software for fixed routes. Suggested performance measures are provided in Table 18. This table is provided as an overview of potential performance metrics for the ten-year TDP horizon. Peer agency performance data are included in the table for comparison. The consultant team obtained National Transit Database data for five peer transit systems in Ohio and West Virginia:

- Allen County Regional Transit Authority (ACRTA) – Lima, OH
- Licking County Transit – Newark, OH
- Springfield City Area Transit (SCAT) – Springfield, OH
- Sandusky Transit System – Sandusky, OH
- Mid-Ohio Valley Transit Authority (MOVTA) – Parkersburg, OH

The communities served by these systems are similar in population size and density to the Mansfield urban area. All systems but Licking County Transit operate fixed route service. Data for two separate years (pre- and post-COVID) are provided in the table. Data for 2017 through 2021 for each agency were provided in *Technical Memorandum #4*.

The financial projections used in the performance measures are based on the cost-per-hour estimates for each year of the TDP (2024 to 2033), provided in Table 19.

Table 18. Suggested Performance Measures for Regular Monitoring of TDP Strategies³

Performance Measure	Description	Calculation	Potential Targets/ Discussion	Peer Agency Performance for Comparison
Passenger Trips per Revenue Vehicle Hour (Productivity)	For fixed route, demonstrates the rate of utilization by the public. For demand response, captures the ability of the shared-ride demand response system to schedule and serve passenger trips with similar origins, destinations, and time parameters, using the least number of in-service vehicles and hours.	Total passenger trips : total revenue vehicle hours	<p>Demand response: 3 trips/ revenue hour (2033 goal)</p> <p>Ridership and productivity will build as awareness and trust in the service develops over time.</p> <p>2022 Dial A Ride productivity: 1.7 trips/hour</p> <p>Fixed route: 7.8 trips per revenue hour (2033 goal)</p> <p>Fixed route productivity in small urban areas often ranges from five to 15 trips per hour; 7.8 represents conservative growth over time.</p> <p>2022 fixed route productivity: 6.0 trips/hour; ranging from 2.6 (Route 13-Shelby) to 11.0 (Route 1-Park Avenue)</p>	<p>Demand response – range for 5 peer agencies</p> <p>2019: 1.9 to 4.0</p> <p>2021: 1.5 to 3.7</p> <p>Fixed route – range for 5 peer agencies</p> <p>2019: 5.2 to 12.6</p> <p>2021: 4.6 to 6.2</p>
Operating Cost per Revenue Vehicle Hour	The financial resources needed to produce a unit of service, defined for this measure as an hour of service.	Total operating cost : total revenue vehicle hours	<p>Demand response – RCT</p> <p>2019: \$76.32</p> <p>2021: \$100.75</p> <p>2024 (estimated): \$143.08</p> <p>Fixed route – RCT</p> <p>2019: \$70.84</p> <p>2021: \$89.47</p> <p>2024 (estimated): \$146.00</p>	<p>Demand response – range for 5 peer agencies</p> <p>2019: \$54.59 to \$107.49</p> <p>2021: \$54.62 to \$98.84</p> <p>Fixed route – range for 5 peer agencies</p> <p>2019: \$78.58 to \$104.10</p> <p>2021: \$53.71 to \$108.35</p>

³ Definitions are provided in Transit Cooperative Research Program (TCRP) Report 136 (2009), “Guidebook for Rural Demand-Response Transportation: Measuring, Assessing, and Improving Performance,” National Academy of Sciences.

Performance Measure	Description	Calculation	Potential Targets/ Discussion	Peer Agency Performance for Comparison
Operating Cost per Revenue Vehicle Mile	The financial resources needed to produce a unit of service, defined for this measure as a mile of service.	Total operating cost : total revenue vehicle miles; <i>Demand response costs per mile are higher than fixed route due to wait time during revenue service, resulting in lower miles travelled.</i>	Demand Response – RCT 2019: \$7.16 2021: \$12.34 2024: \$16.56 Fixed Route – RCT 2019: \$5.47 2021: \$6.58 2024: \$10.15	Demand response – range for 5 peer agencies 2019: \$2.47 to \$6.80 2021: \$3.50 to \$7.81 Fixed route – range for 5 peer agencies 2019: \$4.74 to \$7.33 2021: \$4.17 to \$8.29
Operating Cost per Passenger Trip	Combines elements of operating cost per revenue vehicle hour and passenger trips per revenue vehicle hour, relating productivity to hourly operating cost.	Total operating cost : total passenger trips	Demand Response – RCT 2019: \$37.66 2021: \$64.51 2024: \$71.54 Fixed Route – RCT 2019: \$8.55 2021: \$17.37 2024: \$21.47	Demand response – range for 5 peer agencies 2019: \$17.82 to \$29.03 2021: \$26.98 to \$47.44 Fixed route – range for 5 peer agencies 2019: \$4.81 to \$10.76 2021: \$10.33 to \$17.53
On-Time Performance (OTP)	Measures the reliability of the system: does the vehicle arrive for the demand response pick-up when promised, or at the fixed route stop when advertised?	Demand response: Total on-time trips (provided within the advertised pick-up window), including no-shows : total completed trips + no-shows + missed trips Fixed route: Total departures departing scheduled timepoints between 0 and 5 minutes after the scheduled departing time : Total departures from scheduled timepoints	Standards for OTP vary, but 90% or better is recommended as a starting point. RCT has not had reliable technology in the past to evaluate fixed route OTP. OTP can be tracked for demand response in Ecolane, and will be trackable through the new CAD/AVL system for fixed route.	OTP data is not included in publicly available National Transit Database data, so peer ranges are not provided. The Federal Transit Cooperative Research Program Transit Capacity and Quality of Service Manual (TCQSM) provides that 80%-89% OTP is “achievable” by bus services in small- to mid-sized cities.

Table 19. Projected Cost per Revenue Hour by Year

Year	Demand Response	Fixed Route
2024	\$143.08	\$146.00
2025	\$147.37	\$150.38
2026	\$151.80	\$154.89
2027	\$156.35	\$159.54
2028	\$161.04	\$164.33
2029	\$165.87	\$169.26
2030	\$170.85	\$174.33
2031	\$175.97	\$179.56
2032	\$181.25	\$184.95
2033	\$186.69	\$190.50

Annual performance goals for the near-term fixed route and demand response strategies are provided in Table 20. These goals represent incremental, gradual growth in performance over time, as improvements are introduced to the system.

Table 20. Performance Goals for Near-Term Fixed Route and Demand Response Strategies

Near-Term Strategies	Performance Measure	2024	2025	2026
Fixed Route Strategies (F1 – Efficiency Route Changes, F2 – Ontario Circulator, F3 – Additional Route 15 schedules)	Productivity (average for all routes)	6.8	6.9	7.0
	Operating Cost per Revenue Vehicle Hour	\$146.00	\$150.38	\$154.89
	Operating Cost per Revenue Vehicle Mile	\$10.15	\$10.45	\$10.76
	Operating Cost per Passenger Trip	\$21.47	\$21.76	\$22.06
	On-Time Performance (OTP)	90%	92%	94%
Demand Response Strategies (D1 – Same-Day Service, D3 – Morning/ Evening On-Demand, D4 – Final Friday)	Productivity (average for all demand response services)	2.0	2.1	2.2
	Operating Cost per Revenue Vehicle Hour	\$143.08	\$147.37	\$151.80
	Operating Cost per Revenue Vehicle Mile	\$16.56	\$17.06	\$17.57
	Operating Cost per Passenger Trip (decreases year-over-year due to projected improvements in productivity)	\$71.54	\$69.85	\$68.38
	On-Time Performance (OTP)	87%	89%	91%

Mid-Term Strategies

Depending on financial and staff capacity, RCT would make the mid-term service changes described in this section within the next four to six years, in 2027 through 2029. These strategies, listed in Table 21, include the addition of on-demand services in three suburban areas, offering Saturday on-demand service, and providing general public demand response service to rural areas of Richland County. Also, RCT would restore service between Shelby and Mansfield during this phase.

The implementation of early morning and evening on-demand service during the first phase of the TDP would allow RCT to gain experience with providing a new type of service, and apply lessons learned in the suburban on-demand zones. For these zones, service hours would be scalable, based on available funding, as well as the availability of vehicles and drivers to operate the service. These services could be offered as short-term pilots (for a minimum of six months), then continued or expanded depending on whether performance targets were achieved.

All of the service strategies (fixed route and demand response) are contingent on the availability of the sources of revenue that will be pursued during the near-term: local funding partnership and government support (Strategy R1), Section 5311 rural transit funding (Strategy R2), and/or a local special purpose economic development district (Strategy R3).

Descriptions of the strategies follow Table 21.

Table 21. Mid-Term Implementation Timeline

Code	Mid-Term Strategies	2027	2028	2029
Fixed Route				
F6	Restore Shelby Service	X	X	X
Demand Response				
D5	Add E. Mansfield/Madison Township On-Demand Zone	X	X	X
D6	Add Saturday On-Demand Service	X	X	X
D7	Add Lexington On-Demand Zone		X	X
D8	Add Bellville On-Demand Zone		X	X
D9	Add Rural Richland County Demand Response Service		X	X
Technology				
T9	Adopt Microtransit or Mobility-as-a-Service Technology			X*
T10	Adopt Fixed Route Scheduling Software			X*
T11	ADA Enhancements and Technology Improvements to Facilities and Shelters			X*
Marketing and Outreach				
M3	Expand Marketing and Travel Training for Demand Response Services in New Areas	X	X	X
Revenue				
R4	Investigate the Feasibility of a Tax Levy	X	X	X
R5	Continue Efforts to Maintain and Expand Funding Partnerships, Local Government Support, Grants, and/or Special Purpose Economic Development District	X	X	X
Organizational Support				
O2	Conduct an Evaluation and 5-Year TDP Update			X

*Contingent on outcome of 2029 Evaluation and 5-Year TDP Update

Mid-Term Fixed Route Strategy

The mid-term period includes one fixed route strategy, the restoration of a Shelby route using FTA Section 5311 funding (Strategy F6).

Restore Shelby Service

A successful application for FTA Section 5311 rural transit funding (Strategy R2), and the identification of local match, would allow RCT to restore Route 13 between Mansfield and Shelby. During the period of preparation for the grant application, RCT would work with local stakeholders to identify the most effective routing and schedules for this service. Options include, but are not limited to:

- Reduce time and mileage (as compared to the current Route 13) by eliminating unproductive stops.
- Add one round trip to the schedule, increasing the options that customers have for travel.
- Include a stop on the Ontario Circulator route to provide opportunities to transfer, providing access to the Lexington/Springmill shopping area.
- Identify a location for a bus shelter in Shelby.

RCT would operate the Shelby route as a commuter bus service. “Commuter bus” is a mode of bus service defined under 49 CFR 37.3 as “fixed route bus service, characterized by service predominantly in one direction during peak periods, limited stops, use of multi-ride tickets, and routes of extended length, usually between the central business district and outlying suburbs. Commuter bus service may also include other service, characterized by a limited route structure, limited stops, and a coordinated relationship to another mode of transportation.” 49 CFR 37.121(c) states that requirements for complementary paratransit do not apply to commuter bus. The National Transit Database glossary includes the characteristics of multiple stops in outlying areas, limited stops in the central city, and at least five miles of closed-door service in its description of commuter bus. The reinstated version of Route 13 should conform to these descriptions if RCT does not provide complementary paratransit service for the route.

RCT should develop a brochure and other marketing materials that advertise Route 13 and the Shelby taxi, including separate timetables for atypical schedules, such as those serving Pioneer Career and Technology Center. RCT would work with the City of Shelby to distribute the Route 13 brochure by mail to Shelby residents following the launch of the service.

Mid-Term Demand Response Strategies

In 2024, RCT will add new demand response services as funding and capacity allow. These additions are dependent on the outcomes of the near-term revenue strategies: local funding partnership and government support (Strategy R1), Section 5311 rural transit funding (Strategy R2), and/or a local special purpose economic development district (Strategy R3).

The services are intended to serve as pilot projects to test the demand for service expansion to unserved, or underserved, areas of the county. They include:

- Suburban On-Demand services East Mansfield/Madison Township, Lexington, and Bellville;
- On-Demand service on Saturdays; and,
- General Public Demand Response service for rural areas of Richland County.

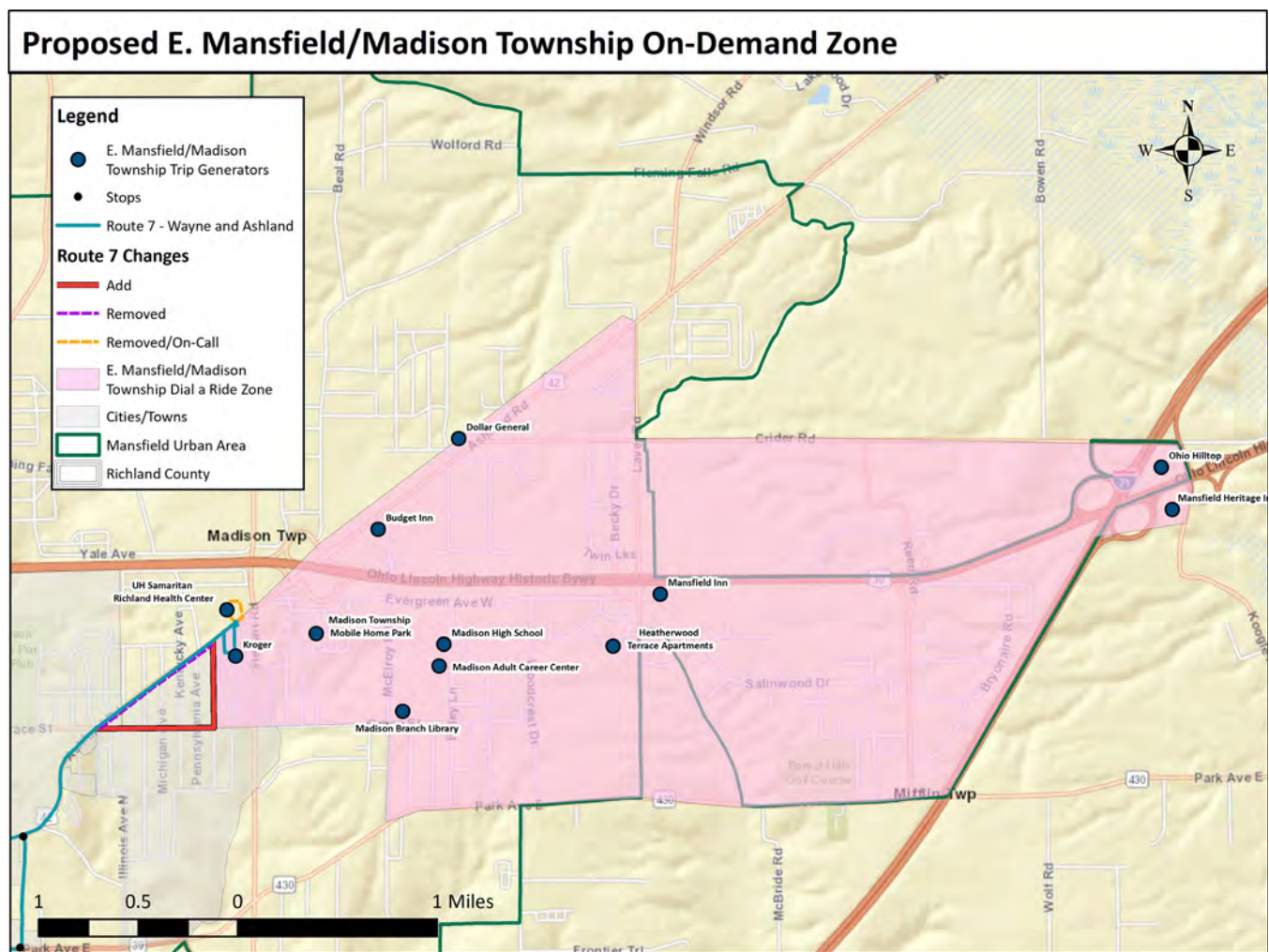
With the exception of rural Richland County service, these services are intended to be offered as on-demand services, which involve the implementation of the Center View and Self-Service portals in Ecolane (near-term Strategies T4/T5).

Suburban On-Demand Zones

E. MANSFIELD/MADISON TOWNSHIP ON-DEMAND ZONE

The E. Mansfield/Madison Township On-Demand Zone would be a new service for Richland County Transit. The service would allow individuals to be picked up and dropped off in locations east of the Ashland Road Kroger, as shown in Figure 62. Some of the locations served would include Madison High School, Mansfield Heritage Inn, Heatherwood Terrace Apartments, Kroger, Madison Township Mobile Home Park and Madison Adult Career Center. The inclusion of Kroger in the zone would allow individuals to transfer to or from Route 7. Service hours would be scalable, based on available funding, as well as the availability of vehicles and drivers to operate the service. Trips would be provided based on availability.

Figure 62. E. Mansfield/Madison Township On-Demand Zone

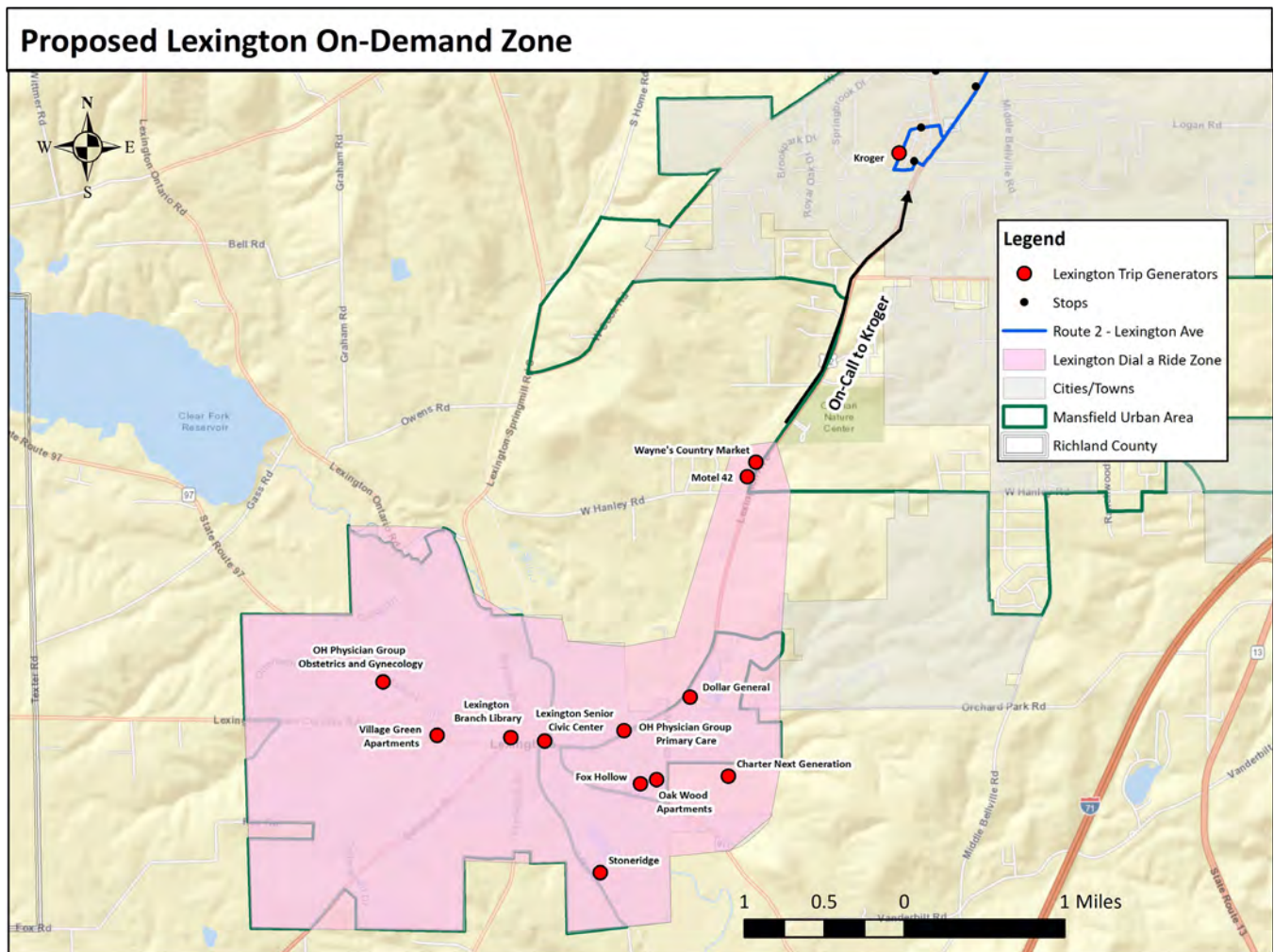


LEXINGTON ON-DEMAND ZONE

An On-Demand Zone for Lexington is also recommended. The service would allow individuals to be picked up and dropped off in locations around the City of Lexington, as shown in Figure 63. Some of the locations served would include Lexington Senior Civic Center, OhioHealth Physician Group, Stoneridge, Charter Next Generation, and Motel 42.

On-call trips to Kroger on Lexington Avenue to connect with Route 2 will be available if requested at least one day in advance. RCT customers could also ride Route 2 from Mansfield, and request a ride from Kroger to destinations within the Lexington zone. Service hours would be scalable, based on available funding, as well as the availability of vehicles and drivers to operate the service. Trips would be provided based on availability.

Figure 63. Lexington On-Demand Zone

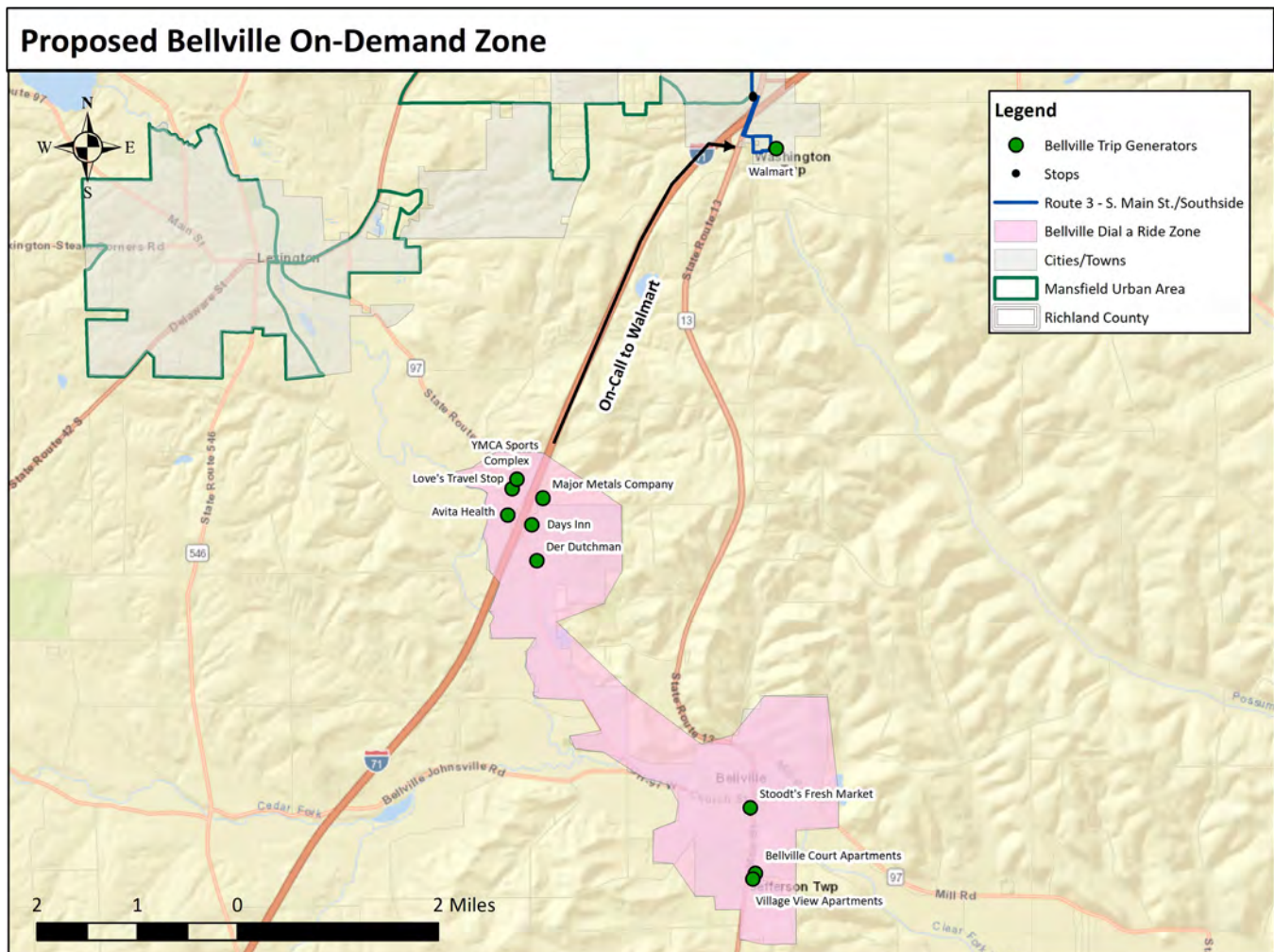


BELLVILLE ON-DEMAND ZONE

The Bellville On-Demand Zone, shown in Figure 64, would allow individuals to be picked up and dropped off in locations around Bellville. Some of the locations served include Avita Health, Major Metals Company, Der Dutchman, Village View Apartments, and the new YMCA sports complex. On-call trips to Walmart to connect with Route 3 will be available if called ahead.

Bellville is outside of the 2020 Mansfield Urban Area boundaries, meaning that Section 5307 funding could not be used to fund this service. Therefore, it is recommended that RCTB work with ODOT to determine whether RCTB should apply for FTA Section 5311 funding, which supports public transit in rural areas.

Figure 64. Bellville On-Demand Zone



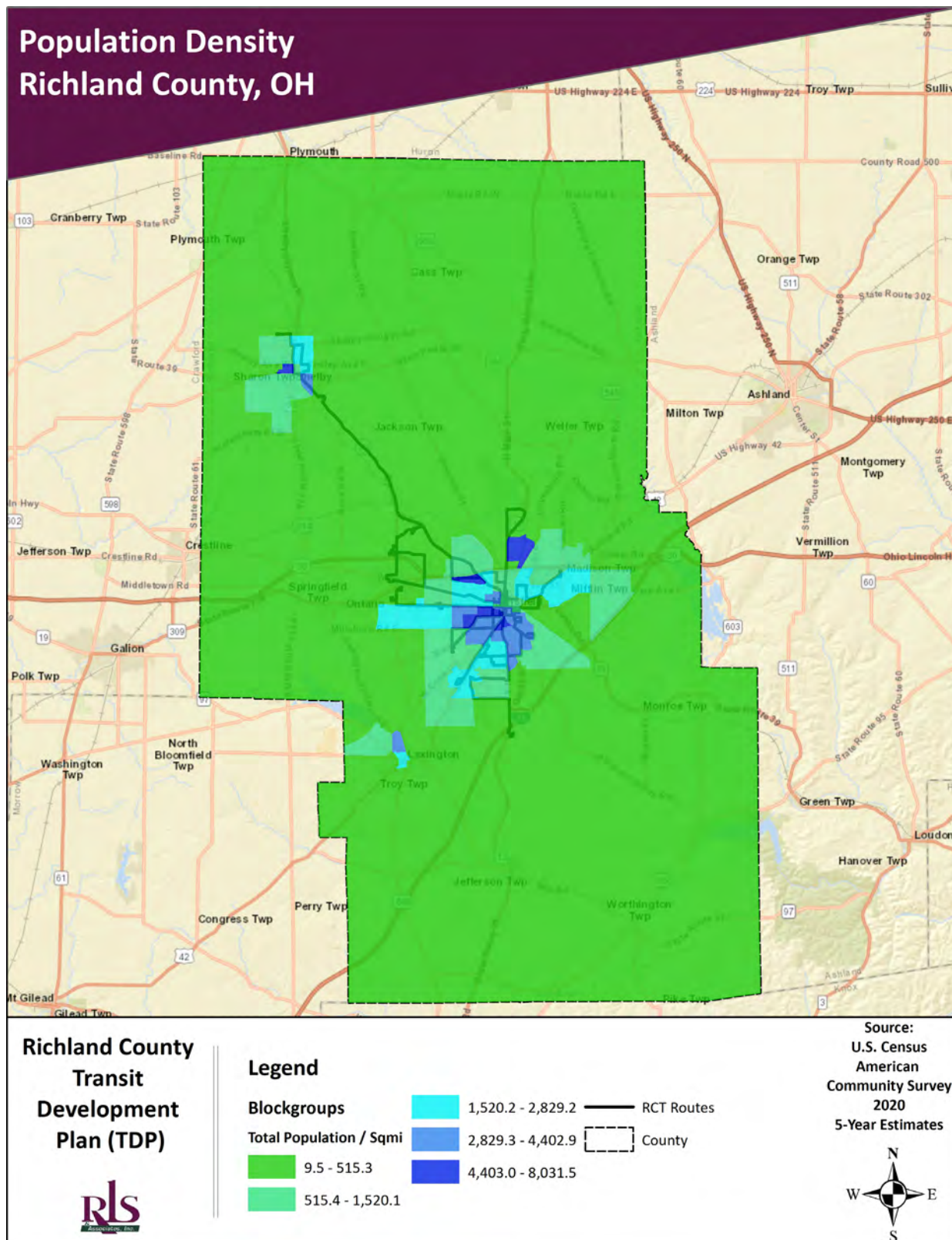
Saturday On-Demand Service

To provide service on Saturdays, RCT would offer on-demand service between the hours 7:00 a.m. and 3:00 p.m. As with other on-demand services, this could be phased in gradually to specific areas of the RCT service area over time. As shown in Table 22, the recommendation is to operate between two and three vehicles per Saturday on eight-hour shifts.

Rural Richland County Demand Response

This recommendation concerns rural general public transit service for Richland County, outside of the Mansfield urban area. Population density levels outside of the urban area are not high enough to substantiate providing fixed route bus service. The population density in the county is shown in Figure 65. Because of this, public transit in Richland County should be provided as demand response service. This service should be operated using advance reservations, rather than as an on-demand service. Rural trips are generally longer than urban trips, and would be difficult to manage without planning drivers' schedules at least one day in advance.

Figure 65. Richland County Population Density



For planning purposes, it is recommended that RCT anticipate running two to three rural demand response vehicles per service day. RCT could run rural demand response as feeder service for its fixed route network, or offer rides from the customer's origin to their final destination. Trip demand is likely to be dispersed throughout the rural areas of the county, with most trip destinations in Mansfield and Ontario. It is recommended that RCT begin to operate this service in the central and southern sections of the county at first. An expansion to the northern townships of the county would occur at a later date, depending on capacity and available funding.

Mid-Term Fixed Route and Demand Response Strategies Summary

The system map in Figure 66 on the following page portrays the fixed route system and on-demand zones as proposed. (The map does not depict the rural demand response services, which would be offered countywide.) The impacts of the mid-term fixed route and demand response on daily revenue hours of service are provided in Table 22. It must be noted that these recommendations are scalable, and could be implemented in phases and/or service-by-service as funding allows.

Figure 66. System Map, Mid-Term Strategies

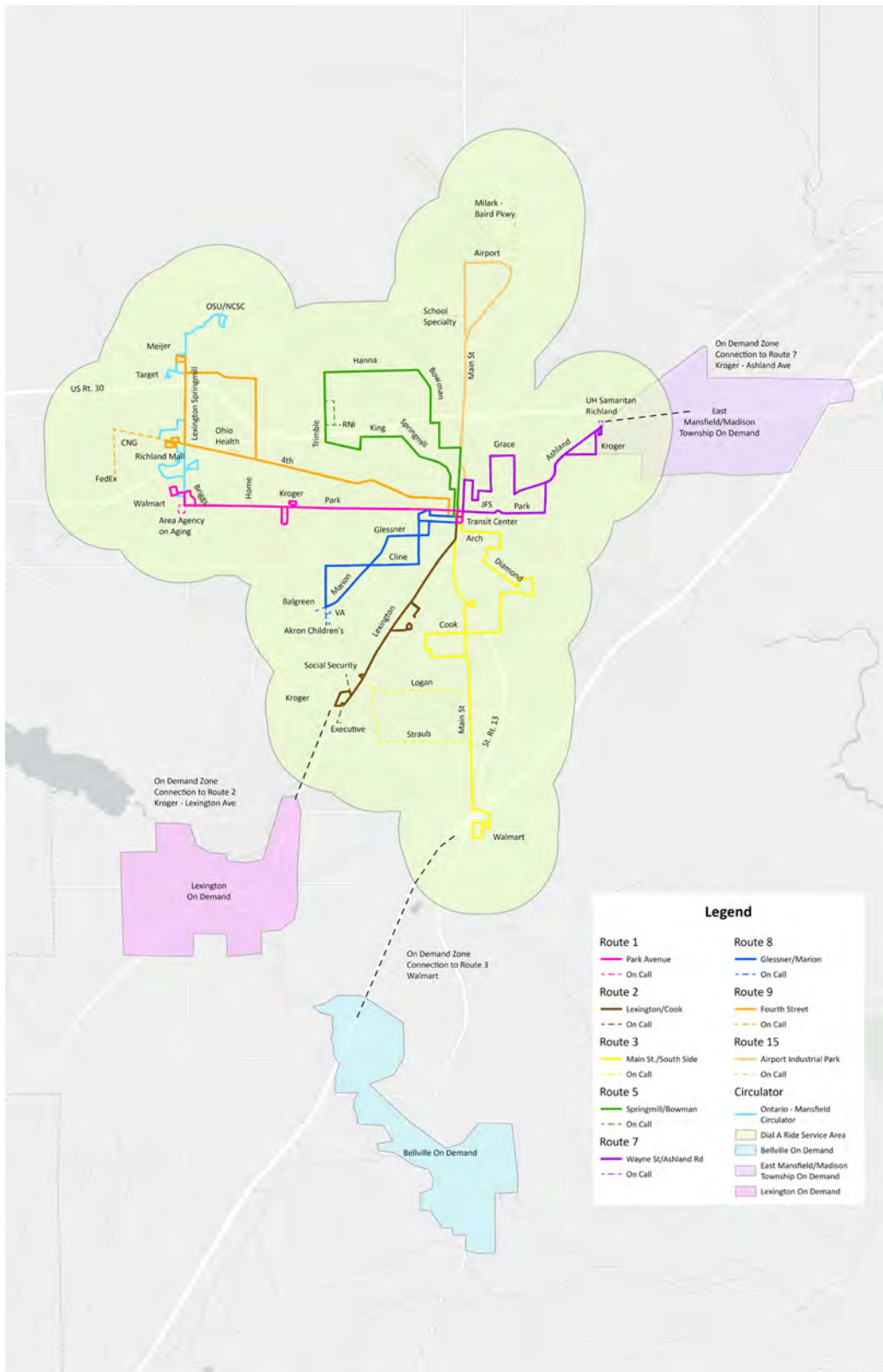


Table 22. Impact of Mid-Term Fixed Route and Demand Response Strategies

Route/Service	Description	Change in Revenue Hours/Day
Urban Area Services	Fund with additional Section 5307 funding and new sources of local match	
E. Mansfield/ Madison Township Dial A Ride/On- Demand Zone	<ul style="list-style-type: none"> Add demand response service between 8:00 a.m. and 4:00 p.m. (1 to 2 small-capacity vehicles) Expand hours if warranted following evaluation of initial six months of service 	Adds 8 to 10 hours
Saturday On- Demand Service	<ul style="list-style-type: none"> Add demand response service between 7:00 a.m. and 3:00 p.m. (2 to 3 small-capacity vehicles) Expand hours if warranted following evaluation of initial six months of service 	Adds 16 to 24 hours
Lexington Dial A Ride/On-Demand Zone	<ul style="list-style-type: none"> Add demand response service between 8:00 a.m. and 4:00 p.m. (1 to 2 small-capacity vehicles) Expand hours if warranted following evaluation of initial six months of service 	Adds 8 to 12 hours
Rural Services	Contingent on Receipt of Section 5311 funding and local match	
Restore Shelby Service with Added Schedules	Restore a modified version of the Shelby bus route, adding additional schedules as resources allow (use existing cutaway vehicles)	Adds 8 hours
Bellville Dial A Ride/ On-Demand Zone	<ul style="list-style-type: none"> Add demand response service between 8:00 a.m. and 4:00 p.m. (1 small-capacity vehicle) Expand hours if warranted following evaluation of initial six months of service 	Adds 8 hours
Richland County Demand Response Rural Service	Add demand response service between 8:00 a.m. and 4:00 p.m. (2 to 3 small-capacity vehicles)	Adds 16 to 24 hours

Mid-Term Technology Strategies

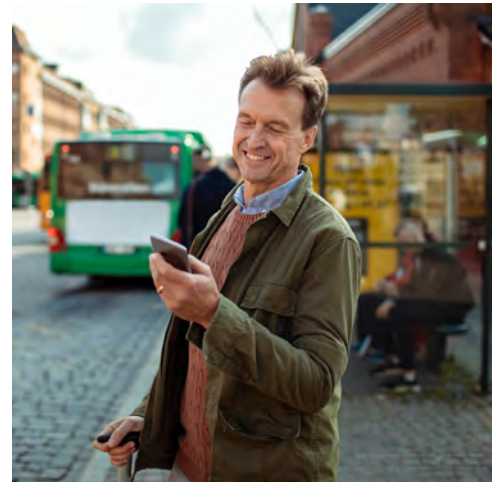
One of two mid-term technology strategies would be implemented following the five-year TDP update, which would include a comprehensive evaluation of all of the near- and mid-term TDP strategies implemented through 2028. This evaluation will support RCT’s decision about whether to maintain a primarily fixed route service model or transition to a model that is primarily on-demand. The evaluation should include an examination of peer transit system experiences with shifting significant resources from fixed routes to on-demand service.

If RCT opts to transition to a primarily on-demand model, the agency should consider whether Ecolane software is sufficient for an operation that is larger in scale than the services described previously in the near- and mid-term strategies. Potentially, it would be advantageous for the agency to adopt a new technology model (Strategy T9), Software as a Service (SaaS) or Transportation as a Service (TaaS). Under the SaaS model, the agency would secure new on-demand software but continue to operate the service with the existing model (contracting to a

separate third-party organization that employs the drivers). Under a Transportation as a Service (TaaS) model, the agency would contract with a third-party vendor to both provide the software and operate the services.

If RCT chooses to continue to operate as a primarily fixed route service, the agency would benefit from adopting fixed route driver management software (Strategy T10) and adding modern wayfinding technology to the Stanton Transit Center and key bus stops (Strategy T11). Adoption of a software system for preparing driver rosters will result in administration and operational efficiencies and a potential reduction in overtime costs as a result. At the transfer hub and key shelters, digital signage with technology for those with visual and hearing impairments would enhance the customer experience through increased access to travel information, vehicle and route locations, and service alerts.

More information about the benefits of these technology strategies was provided in *Technical Memorandum #4*.



Mid-Term Marketing and Outreach, Revenue, and Organizational Strategies

The introduction of on-demand services in places historically unserved by RCT such as Lexington or Bellville will require RCT to invest resources in educating the community about how to use these services. Strategy M3 is to expand marketing and travel training for these services. This can be achieved through adding staff who dedicate the majority of their time to outreach and education.

During the mid-term period, RCT would investigate the feasibility of a tax levy to fund the transit system (Strategy R4). For RCT to maintain all of the services added in the near- and mid-terms, an ongoing, dedicated source of local funding will be necessary. Efforts to investigate the feasibility of a levy would be in addition to continuing the near-term strategies for new revenue, which will require continuing effort for them to be sustainable beyond the near term (Strategy R5).

The final strategy for mid-term implementation is the five-year TDP update (Strategy O2), which would include an evaluation of all strategies implemented between 2023 and 2028.



Estimated Costs of Mid-Term Strategies

The following tables provide estimated costs to implement the mid-term strategies beginning in 2027. In Table 23, to provide complete projections of annual operating costs, the near-term strategies are included. The mid-term strategies are provided in bold font.

Table 23. Estimated Operating Costs by Year, Mid-Term Strategies

Code	Mid-Term Strategies	2027	2028	2029
Operating Costs				
F1	Adjust routes and schedules for improved access to destinations and efficiency	\$2,359,588	\$2,430,375	\$2,503,287
F2	Add the Ontario Circulator	\$447,508	\$460,933	\$474,761
F4	Add Route 15-Industrial Park Schedules	\$162,730	\$167,612	\$172,640
F6	Restore Shelby Route	\$325,460	\$335,224	\$345,281
D3	Provide Early Morning and Evening On-Demand Service	\$1,196,078	\$1,231,960	\$1,268,919
D4	Provide Final Friday On-Demand Service	\$15,635	\$16,104	\$16,587
D5	Add E. Mansfield/Madison Township On-Demand Zone	\$318,954	\$492,784	\$507,568
D6	Add Saturday On-Demand Service	\$133,986	\$200,979	\$207,008
D7	Add Lexington On-Demand Zone	N/A	\$328,523	\$507,568
D8	Add Bellville On-Demand Zone	N/A	\$246,392	\$338,378
D9	Add Rural Richland County Demand Response Service	N/A	\$657,045	\$1,015,135
N/A	ADA Paratransit and Existing Contract Service	\$695,662	\$716,532	\$738,028
Total Operating* Costs		\$5,655,601	\$7,284,464	\$8,095,160

*Operating Costs represent the fully allocated costs to operate RCT, including planning and preventive maintenance costs, which are built into the estimated cost per hour.

Table 24 provides estimates of some technology and planning costs associated with mid-term technology strategies, marketing efforts, and organizational strategies. These are planning-level estimates that would be refined following the development of specifications for these strategies, and the solicitation of pricing. As with the near-term strategies, cost estimates are not provided for the revenue strategies because these strategies would be implemented with existing staffing.

Ongoing near-term strategy costs represented in Table 15 are not included in Table 24, but some of the costs could occur in the mid term, including GTFS data management, Ecolane modules (Center View/Self Service Portals and Vehicle Inspection Report) and Electronic Fare Payment. Also, RCT may wish to continue to fund additional planning and change management support into the mid-term.

Table 24. Estimated Technology/Planning Costs by Year, Mid-Term Strategies

Code	Mid-Term Strategies	2027	2028	2029
TDP Technology/Planning Costs				
T9	Adopt Microtransit and/or Mobility-as-a-Service Technology*	N/A	N/A	Costs to be determined through competitive procurement
T10	Adopt Fixed Route Scheduling Software*	N/A	N/A	Costs to be determined through competitive procurement
T11	ADA Enhancements and Technology Improvements to Facilities and Shelters*	N/A	N/A	Costs to be determined through competitive procurement
M3	Expand Marketing and Travel Training for Demand Response Services in New Areas	\$70,000 to \$90,000	\$70,000 to \$90,000	\$70,000 to \$90,000
O2	Conduct an Evaluation and 5-Year TDP Update	N/A	N/A	\$50,000 to \$100,000

*Selection of Strategy T9 or T10/T11 is contingent on the 5-Year TDP Update

Table 25 provides the planned capital vehicle and facility expenses that are currently programmed in 2027, the final year of the existing TIP.

Table 25. Planned Capital Vehicle and Facility Expenditures Included in TIP, 2027

Mid-Term Strategies	2027
TIP Projects	
Bus Replacement	\$0
Cutaway Replacement	\$0
Facility and Equipment Repairs	\$95,000
Service Vehicle Replacement	\$0
Total TIP Capital Vehicle and Facility Expenditures	\$95,000

Table 26 provides the estimated numbers and costs of additional vehicles that would be necessary to operate expanded demand response services.

Table 26. Estimated Expansion Vehicle Costs during Mid Term

Mid-Term Strategies	2027	2028	2029
Expansion Vehicle Costs			
Small (non-CDL) cutaway vehicles*	\$349,673	\$360,163	\$370,968
	(2 @ \$174,836)	(2 @ \$180,081)	(2 @ \$185,484)

*With near-term acquisitions (Table 17), results in total expanded fleet of 10 small cutaways as of 2028 for all near-term and mid-term demand response strategies. The two vehicles planned for purchase in 2029 would replace the vehicles purchased in 2024. However, RCT may wish to invest in additional small vehicles if the 2029 five-year TDP update results in a recommendation to transition some or all fixed route service to demand response.

Performance

Suggested performance measures for the mid-term strategies are provided in Table 27.

Table 27. Performance Goals for Mid-Term Fixed Route and Demand Response Strategies

Mid-Term Strategies	Performance Measure	2027	2028	2029
Continue Near-Term Fixed Route Strategies (F1 – Route changes, F2 – Ontario Circulator, F3 – Route 15 schedules) Add F4 – Shelby Service	Productivity (average for all routes)	7.1	7.2	7.4
	Operating Cost per Revenue Vehicle Hour	\$159.54	\$164.33	\$169.26
	Operating Cost per Revenue Vehicle Mile	\$11.09	\$11.42	\$11.76
	Operating Cost per Passenger Trip	\$22.38	\$22.70	\$23.03
	On-Time Performance (OTP)	96%	96%	96%
Continue Demand Response Strategies (D1 – Same-Day Service, D3 – Morning/Evening On-Demand, D4 – Final Friday)	Productivity (average for all services)	2.3	2.4	2.6
	Operating Cost per Revenue Vehicle Hour	\$156.35	\$161.04	\$165.87
Add Mid-Term Demand Response Strategies (D5 – E. Mansfield/Madison Township, D6 – Saturday, D7 – Lexington, D8 – Bellville, D9 – Rural Richland County)	Operating Cost per Revenue Vehicle Mile	\$18.10	\$18.64	\$19.20
	Operating Cost per Passenger Trip	\$67.10	\$66.00	\$65.05
	On-Time Performance (OTP)	93%	93%	93%

Chapter 5: Long-Term Alternatives

Four long-term RCT service alternatives are provided that (1) institutionalize the applicable near-term and mid-term strategies and (2) take one of three approaches to the core Mansfield urban area service: increase fixed route frequency, permanently transition some fixed routes to on-demand service, or move to a 100% on-demand model. Implementing the full extent of any of these alternatives can only occur if RCT secures an ongoing, dedicated source of local transit revenue and expanded Federal grant funding.

RCT would choose the long-term direction for its services following a formal evaluation of the first five years of the TDP. The formal evaluation, conducted during Year 6 (2029), would provide RCT with criteria for retaining, adjusting, or eliminating specific routes or demand response services. This evaluation would include an examination of the performance of the on-demand services, including ridership, productivity, and cost-efficiency. Recently, RCT was informed that ODOT will now require small urban transit systems to conduct a TDP once every ten years, and conduct an interim update five years into the TDP period. The formal evaluation could easily be included in the process of conducting a five-year update in 2029.

Each of the alternatives is illustrated by a graphic that represents the amount of service provided through fixed routes as compared to on-demand/demand response service. The alternatives include significantly more on-demand/demand response service than RCT's status quo (pre-TDP) operating model, which consisted of 81 percent fixed route service and 19 percent on-demand/demand response service.

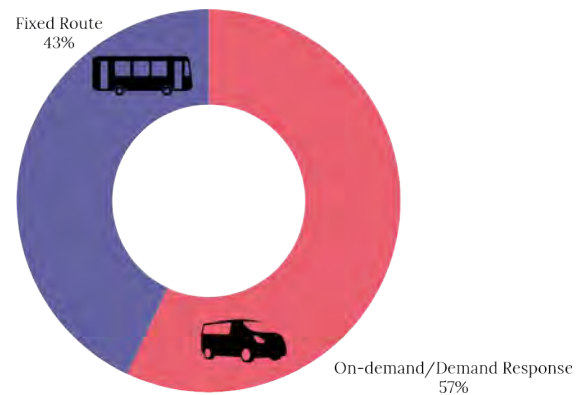
Alternatives

The first two alternatives retain the existing fixed route network, the Ontario Circulator, and the demand response services implemented in the near- and mid-term periods.

Alternative 1: Existing Network with New On-Demand Services

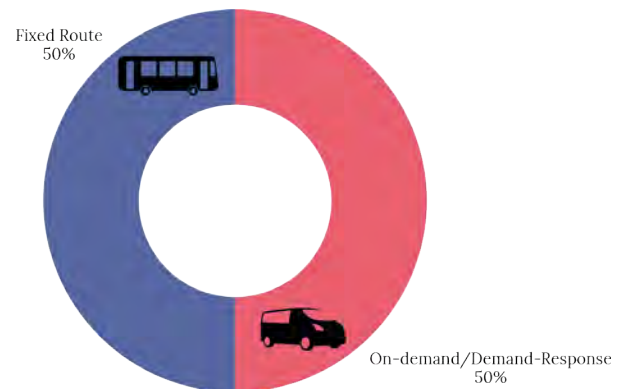
Alternative 1 offers services that are closest to RCT’s existing services and the planned near-term and mid-term additions. Fixed routes are maintained close to how they operate with the TDP’s near-term efficiency changes, Ontario Circulator, and the Shelby service as reinstated in 2027 with rural transit funding.

Alternative 1 assumes that all proposed near-term and mid-term on-demand/demand response services would be funded and implemented. All fixed routes would operate on 60-minute headways, as they do today (except Route 15, which has irregular frequencies).



Alternative 2: Increased Frequency with New On-Demand Services

Alternative 2 doubles fixed route frequency on Routes 1, 2, 5, 8, 9, and Ontario Circulator to 30-minute headways. Moving from 60- to 30-minute frequencies would dramatically improve the reliability and convenience of the fixed route service. Like Alternative 1, this alternative integrates all proposed near-term and mid-term on-demand/demand response services. Alternative 2 eliminates Route 7, replacing it with an expansion of the E. Mansfield/Madison Township On-Demand zone to cover the area served by Route 7 (inner northeast Mansfield and Ashland Road). Due to adding an additional driver and vehicles to most routes, Alternative 2 is the costliest of the four alternatives.

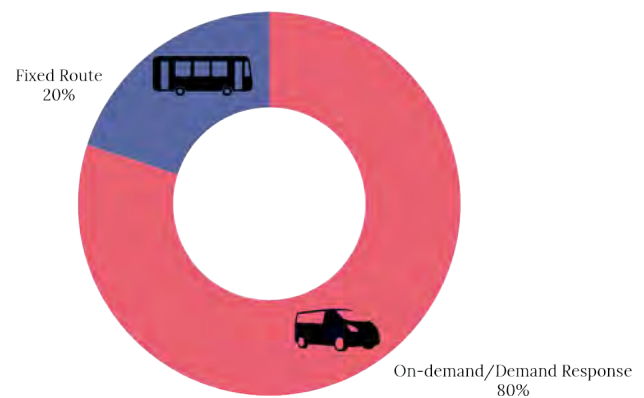


Alternatives 3 and 4 involve transitioning RCT away from a fixed route model to a system that primarily operates in the demand response mode.

Alternative 3: “Spine” Network with New On-Demand Services

Alternative 3 retains only Routes 1, 15, and Ontario Circulator, and restores the Shelby route. The other routes would be eliminated in 2030. Under this alternative, fixed routes would operate only in areas of high demand – places where ridership has been strong in the past, and where there are high concentrations of employment destinations. The retained routes would become the backbone or “spine” routes that would be fed by on-demand services. This alternative adds daytime on-demand to areas formerly served by fixed routes, while retaining all of the near- and mid-term proposed new on-demand and demand response services.

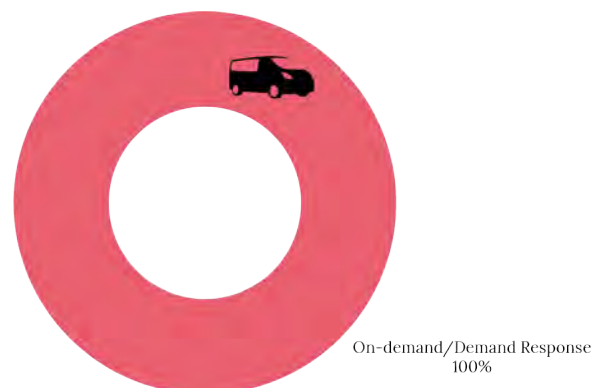
RCT would implement this option if the agency found, after evaluating the first five years of the TDP in 2029, that on-demand service provided enough value to warrant a transition to this significantly changed service model. This evaluation would include an examination of the performance of the on-demand services, including ridership, productivity, and cost-efficiency. Under this alternative, and Alternative 4, RCT could integrate all of the adjacent on-demand services so that they provide a seamless customer experience (i.e., the Mansfield, Ontario and Lexington on-demand services would be promoted as a single larger-scale service).



Alternative 4: 100% On-Demand and Demand Response

Alternative 4 eliminates all fixed routes in 2030 in favor of on-demand service. As with Alternative 3, RCT would implement this option if the agency found, after the formal evaluation of the first five years of the TDP, that on-demand service provided enough value to warrant a transition to this significantly changed service model. Due to high per-trip costs, this alternative would serve the fewest riders for a given budget.

Some peer small urban transit agencies, including the agencies serving Springfield, Ohio, Valdosta, Georgia, and Wilson, North Carolina, have recently adopted a 100-percent on-demand model in place of fixed routes, even though demand response service is significantly more costly on a per trip basis. It is



recommended that RCT watch these systems to determine whether this model is successful in the long-term according to performance measures such as ridership and cost-efficiency. It is likely that RCT's ridership numbers would drop if this alternative was implemented.

Following the TDP five-year evaluation, RCT would select one of the alternatives or adopt a hybrid that blends aspects of multiple alternatives. Table 28 lists the fixed route and demand response services that would be included in each alternative. A status quo scenario is provided in the table for comparison.

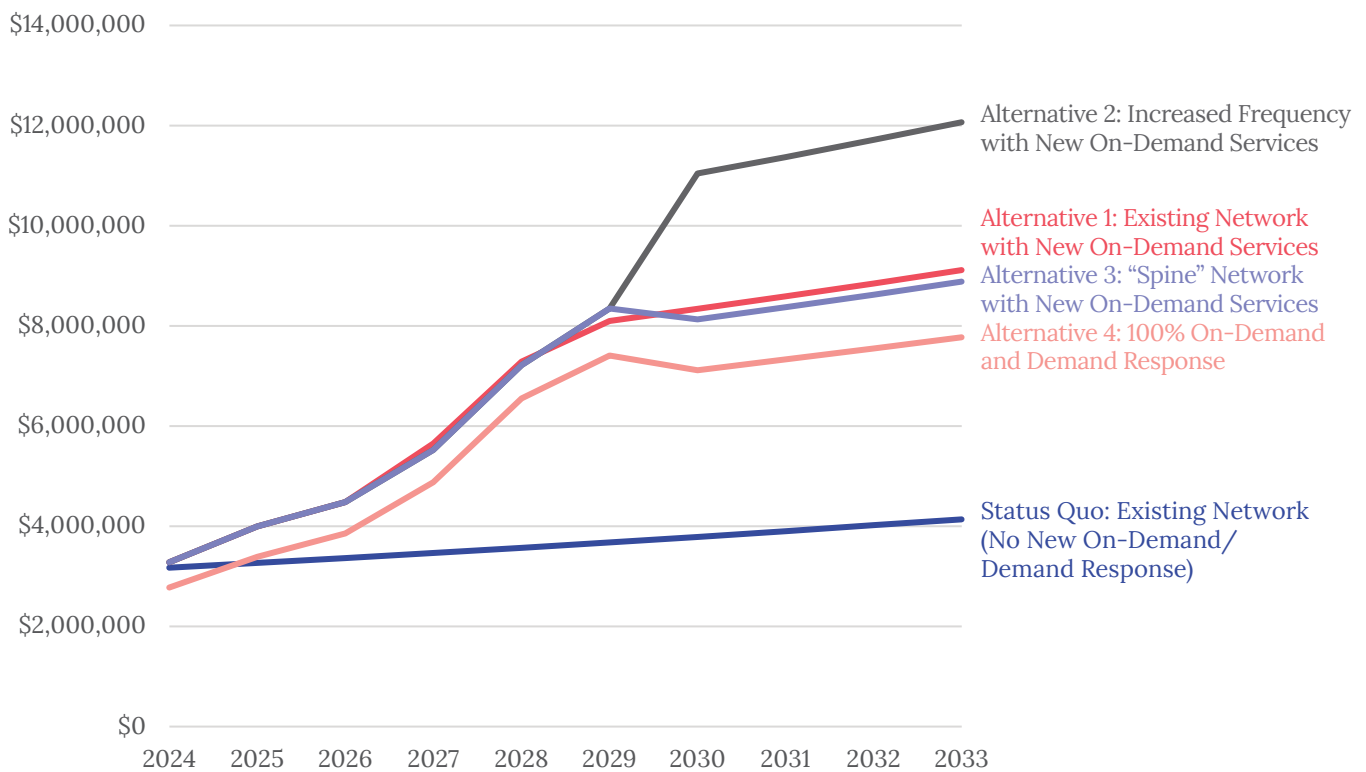
Table 28. Services Included in Long-Term Alternatives

Alternative	Fixed Route	Demand Response
Status Quo: Existing Network (No New On-Demand/Demand Response)	<ul style="list-style-type: none"> • Pre-TDP Fixed Route Network • Shelby Fixed Route 	<ul style="list-style-type: none"> • No New On-Demand or Demand Response Services
Alternative 1: Existing Network with New On-Demand Services	<ul style="list-style-type: none"> • Preserves Existing Fixed Route Network • Ontario Circulator • Shelby Fixed Route 	<ul style="list-style-type: none"> • Final Fridays • Morning/Evening On-Demand • Saturday On-Demand • East Mansfield/Madison Township On-Demand • Lexington On-Demand • Bellville On-Demand • Rural Demand Response
Alternative 2: Increased Frequency with New On-Demand Services	<ul style="list-style-type: none"> • Preserves Existing Fixed Route Network, with Exception of Route 7 • Increases Frequency from 60 minutes to 30 minutes on Most Routes • Ontario Circulator • Shelby Fixed Route 	<ul style="list-style-type: none"> • Final Fridays • Morning/Evening On-Demand • Saturday On-Demand • Expands East Mansfield/Madison Township On-Demand to Include Area Served by Route 7 • Lexington On-Demand • Bellville On-Demand • Rural Demand Response
Alternative 3: "Spine" Network with New On-Demand Services	<ul style="list-style-type: none"> • Retains Routes 1 and 15 • Ontario Circulator • Shelby Fixed Route 	<ul style="list-style-type: none"> • Adds Daytime On-Demand to Areas Formerly Served by Fixed Routes • Final Fridays • Morning/Evening On-Demand • Saturday On-Demand • East Mansfield/Madison Township On-Demand • Lexington On-Demand • Bellville On-Demand • Rural Demand Response
Alternative 4: 100% On-Demand and Demand Response	<ul style="list-style-type: none"> • No Fixed Route Service 	<ul style="list-style-type: none"> • Adds Daytime On-Demand to Areas Formerly Served by Fixed Routes • Final Fridays • Morning/Evening On-Demand • Saturday On-Demand • East Mansfield/Madison Township On-Demand • Lexington On-Demand • Bellville On-Demand • Rural Demand Response

Alternative Costs and Ridership Projections

Technical Memorandum #3 includes detailed annual operating cost information for each of the four alternatives based on the projected per-hour costs discussed previously (see Table 19). It is noted that since the publication of *Technical Memorandum #3*, RCT’s projected costs have increased due to added staffing and market forces. The total projected annual operating costs for each alternative through the long-term phase are compared in Figure 67.

Figure 67. Cost Projections for Alternatives, 2024–2033



While the cost impacts of the full alternatives would be significant, RCT has the option of implementing individual services depending on available funding. The purpose of providing full alternative costs is to present an estimated picture of the cost to implement transit service

at levels that would meet the needs identified in the existing conditions analysis and public input process. To support planning for more incremental implementation based on funding realities, annual operating cost estimates have been provided for individual services (i.e., in Table 14 and Table 23).

Table 29 provides a comparison of the four alternatives and the status quo option, based on data projected for 2033, Year 10 of the TDP. Following the table, charts are provided for each projection. Cost per fixed route trip is higher under Alternatives 3 and 4 due to a greater share of hours allocated to the lower-productivity Shelby service. Cost per demand response trip is lower under Alternatives 3 and 4 because the larger amount of service would permit more ride-sharing between customers and reduced deadhead time, increasing service productivity (measured in trips per hour).

Table 29. Comparison of Alternatives, 2033 Projected Estimates

2033 Estimated Annual Hours, Costs and Ridership	Status Quo: Existing Network (No New On-Demand/Demand Response)	Alternative 1: Existing Network with New On-Demand Services	Alternative 2: Increased Frequency with New On-Demand Services	Alternative 3: “Spine” Network with New On-Demand Services	Alternative 4: 100% On-Demand and Demand Response
Fixed Route Hours	17,595	20,655	32,130	9,435	0
Fixed Route Cost	\$3,351,819	\$3,934,744	\$6,120,713	\$1,797,352	N/A
Fixed Route Ridership	129,897	151,317	240,822	63,801	0
Fixed Route Cost per Trip	\$25.80	\$26.00	\$25.42	\$28.17	N/A
On-Demand and Demand Response Hours	4,220	27,727	31,838	37,954	43,176
On-Demand and Demand Response Cost	\$787,832	\$5,176,430	\$5,943,848	\$7,085,653	\$7,774,897
On-Demand and Demand Response Ridership	10,550	69,318	79,595	113,862	129,528
On-Demand and Demand Response Cost per Trip	\$74.68	\$74.68	\$74.68	\$62.23	\$60.02
Total Hours	21,815	48,382	63,968	47,389	43,176
Total Cost	\$4,139,651	\$9,111,174	\$12,064,561	\$8,883,005	\$7,774,897
Total Ridership	140,447	220,635	320,417	177,663	129,528
Average Cost per Trip	\$29.47	\$41.30	\$37.65	\$50.00	\$60.02

Figure 68. 2033 Projected Annual Hours for All Alternatives

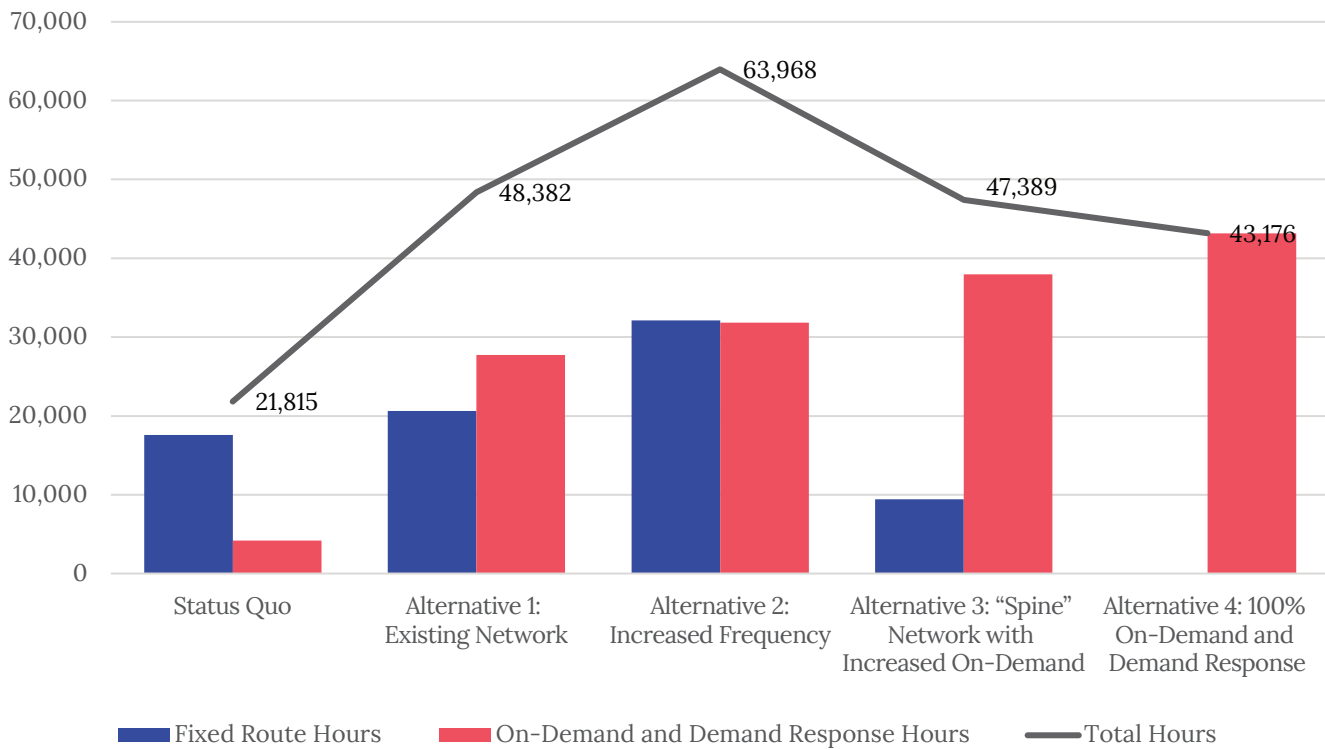


Figure 69. 2033 Projected Annual Ridership for All Alternatives

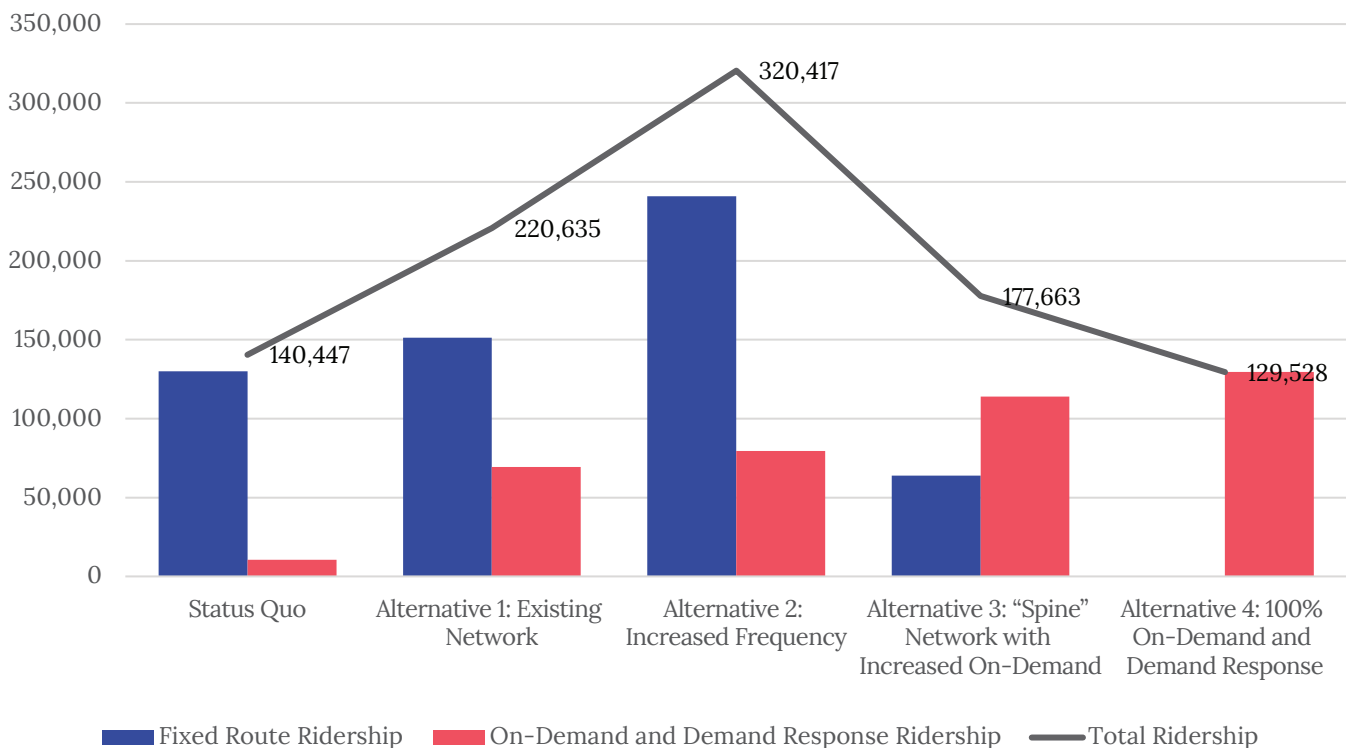


Figure 70. 2033 Projected Cost per Trip for All Alternatives

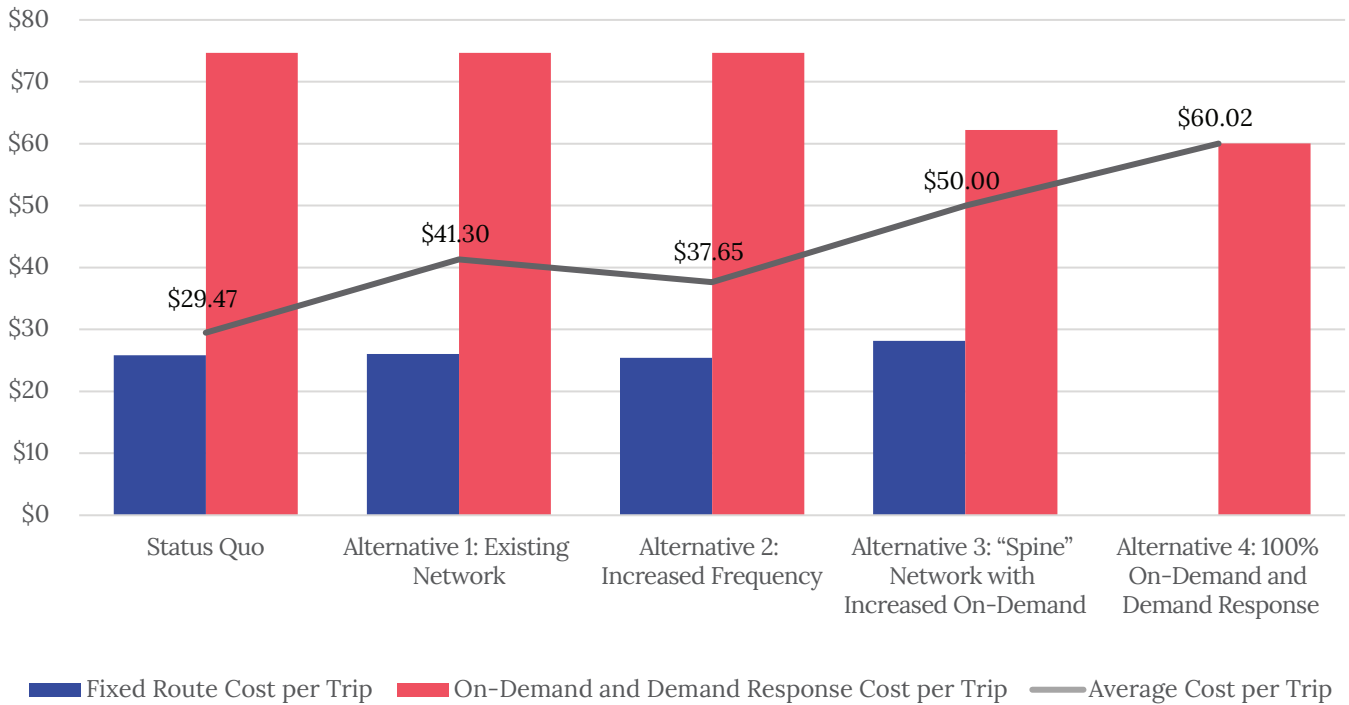
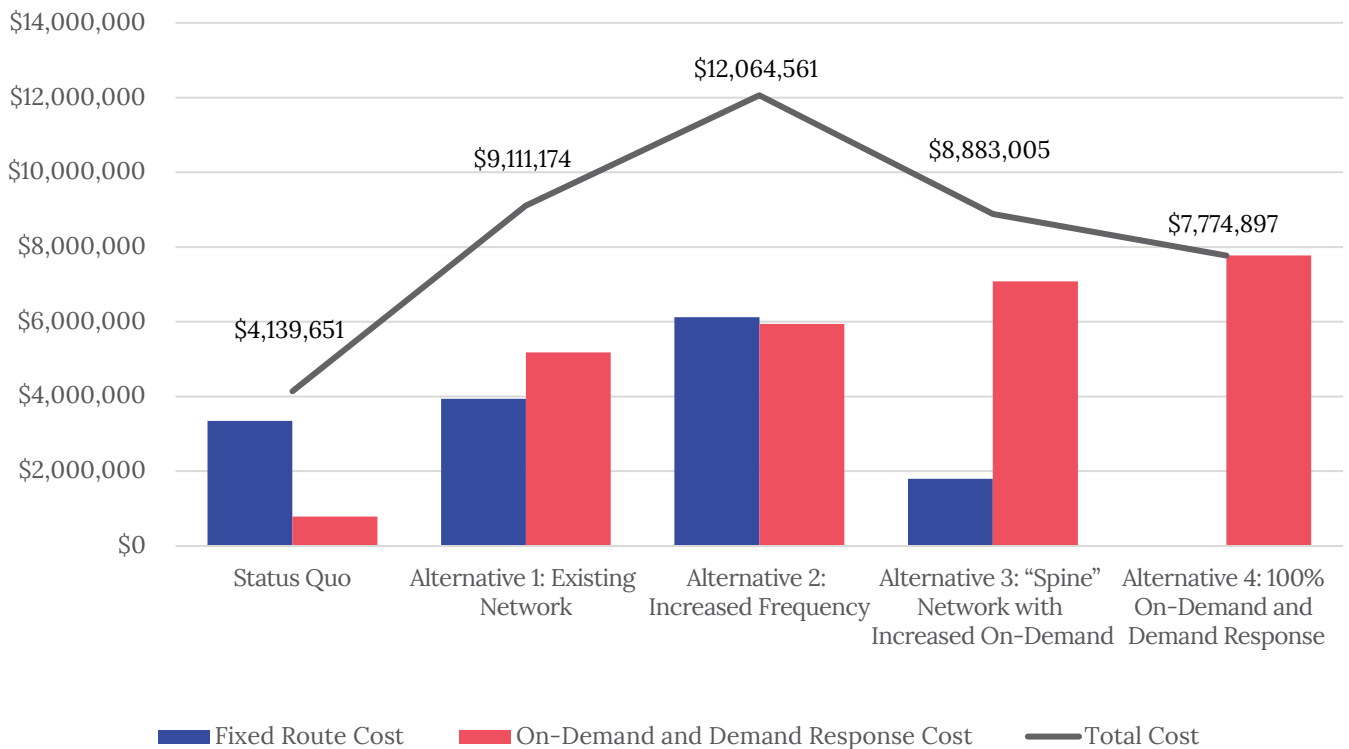


Figure 71. 2033 Projected Annual Costs for All Alternatives



Conclusion

The Ten-Year TDP represents an ambitious investment in transportation services that would greatly increase RCT's ability to meet community members' needs. Although the total costs to implement all of the recommended strategies are daunting, they are based on planning-level estimates based on the best information available at the time. RCT will focus on containing costs over the ten-year planning horizon in order to enable as many of these strategies to come to fruition as possible. RCT can use this Plan as a menu of options to implement gradually over time in partnership with various local organizations, according to local interests and prioritized needs. This Plan was developed during a time of rising costs nationwide, as well as a period in which RCT wisely invested in modest increases to administration and management staffing to build capacity to implement new service and revenue strategies.

Implementing any of the recommended strategies will require new and expanded sources of funding for RCT. The amount of Federal Transit Administration funding available to RCT depends on three factors: the ability to generate local match, decisions by the State of Ohio about allocating Federal and State transportation funding to localities, and periodic Federal transportation authorization legislation passed by the U.S. Congress. Currently, Richland County has no dedicated source of local funding for public transit. The ability of RCT to meet more of the community's transportation needs rests on these and other external factors, but especially upon the will of Richland County residents and stakeholders (such as employers, health care systems, and other institutions) to invest in the transit system.