



THE COMMON COUNCIL

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I, Kerri A. Mellott, Deputy Clerk of the Common Council, hereby certify on this 17 day of July 2024 that the following Resolution is a true and exact copy of one and the same adopted by the Common Council of the City of Winchester, assembled in regular session on the 09 day of July 2024.

RESOLUTION APPROVING AN UPDATED TRANSIT DEVELOPMENT PLAN FOR WINCHESTER TRANSIT

WHEREAS, the City of Winchester receives significant funding from the federal and state government for the operation of Winchester Transit; and,

WHEREAS, the Virginia Department of Rail and Public Transportation (VDRPT) requires that all transit operators that receive state funding to prepare, adopt and submit a Transit Development Plan (Plan) every five years; and,

WHEREAS, the City has prepared a Plan that meets the requirements of VDRPT.

NOW, THEREFORE, BE IT RESOLVED THAT: The City of Winchester Common Council hereby adopts the 2024 City of Winchester Transit Development Plan.

Resolution No. R-2024-19

ADOPTED by the Common Council of the City of Winchester on this 09 day of July 2024.

Witness my hand and the seal of the City of Winchester, Virginia.



A handwritten signature in black ink, reading "Kerri A. Mellott".

Kerri A. Mellott
Deputy Clerk of the Common Council

*Final Draft
June 2024*



WINCHESTER TRANSIT

Transit Development Plan

Fiscal Year 2025-2034

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Chapter 1:

**System Overview, Goals,
Objectives, and Service
Design Standards**

Contents

1	Chapter 1: System Overview, Goals, Objectives, and Service Design Standards	1-1
1.1	System Overview.....	1-1
1.1.1	Background	1-1
1.1.2	Services Provided and Areas Served	1-1
1.1.3	Current and Recent Initiatives	1-2
1.2	Goals, Objectives, and Service Design Standards.....	1-4
1.2.1	Goals & Objectives	1-4
1.2.2	Public Outreach, Engagement, and Involvement.....	1-4
1.2.3	Service Design and Performance Standards	1-6

1 CHAPTER 1: SYSTEM OVERVIEW, GOALS, OBJECTIVES, AND SERVICE DESIGN STANDARDS

1.1 System Overview

1.1.1 Background

The City of Winchester is an independent jurisdiction surrounded by Frederick County. The city is 9.3 square miles and is located at the northern entrance of the Shenandoah Valley. According to the 2020 Census, the estimated total residential population is 28,100.

Founded in 1744, the city is home to many Civil War sites and visitor attractions. This includes several historic battlefields, museums, and memorials dedicated to Civil War history. Winchester is also a destination for outdoor recreation with a proximity to the Shenandoah Valley, Blue Ridge Mountains, and Shenandoah River.

Much of the development and density in Winchester is in the downtown area known as Old Town Winchester. The area includes several historical landmarks, such as the Handley Regional Library, as well as local shops, restaurants, arts and entertainment centers, and municipal offices. Since Winchester is the county seat of Frederick County, the downtown area also includes municipal buildings for Frederick County. This downtown core is walkable with short blocks and a dense pedestrian network.

The areas surrounding the downtown core are more suburban in nature, with the major routes of Interstate 81, U.S. Route 11, U.S. Route 50, and Route 37 serving as main arterials. Key activity centers located outside the downtown area include Winchester Medical Center, located approximately two miles west of Old Town district, the Apple Blossom Mall and Shenandoah University, which are southeast of the downtown area.

Public transportation in Winchester is provided through Winchester Transit, which is operated by the City of Winchester. Winchester Transit's system includes one fixed loop route and a microtransit system which includes origin-to-destination demand response service.

1.1.2 Services Provided and Areas Served

Winchester Transit runs fixed service along one route, serving the major destinations in the city, and a separate microtransit system to efficiently serve the areas of the city that are not directly accessible through the fixed service. This service is newly implemented, following a Microtransit Feasibility Study conducted in 2022. Prior to March 2024, Winchester Transit operated seven fixed-routes and one trolley route with typical headways at 70 minutes.

This fixed-route and the microtransit service area are shown below in **Figure 1-1**.

Fixed Service: Green Line and Blue Line

Winchester Transit's fixed-route runs bidirectionally around downtown Winchester and extends west to connect to the Winchester Medical Center. This route makes a loop, with the Green Line running counterclockwise and the Blue Line running clockwise. The service runs from 7:00 a.m. – 7:00 p.m. Monday through Saturday. Each stop is serviced four times per hour, with headways between 15 minutes and 25 minutes depending on the stop. It connects major activity centers around town including City Hall, the Library, the Post Office, and the Medical Center.

WinReady Microtransit

Winchester's microtransit service is provided throughout the City of Winchester. Riders can book rides via an app or by calling to have a microtransit vehicle dispatched to pick them up. The service operates from 6:00 a.m. to 8:00 p.m., Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. This system connects riders to locations within the City of Winchester as well as Westminster-Canterbury, the Northwestern Regional Adult Detention Center, and the VA Clinic outside city limits.

Other Services

The Shenandoah Area Agency on Aging operates two transportation services for seniors. WellTran provides transportation to non-emergency medical appointments at a baseline fare of \$4 for a 20-mile round trip. They also provide rides to and from the senior Center to ensure that everyone can participate in community activities.

Shenandoah University runs a shuttle service around the campus for students. The shuttle runs from 7:00 a.m. to 11:00 p.m.

The closest intercity bus stop to Winchester is in Front Royal, Virginia, which is served by Virginia Breeze's Valley Flyer commuter bus line. The closest Amtrak station to Winchester is in Martinsburg, West Virginia.

1.1.3 Current and Recent Initiatives

Microtransit Feasibility Study and Implementation

In 2022, Winchester Transit conducted a Microtransit Feasibility Study to explore the feasibility of a microtransit system in Winchester. This study analyzed the existing transit system which consisted of eight fixed-routes. After simulating alternatives and a cost benefit analysis, the study recommended a combined fixed-route and microtransit system. With this recommendation, the Green Line and Blue Line were established around their current circular route to provide regular service to central activity centers and support the new microtransit system. As this service is newly implemented, and performance metrics will be monitored closely to guide future service planning decisions. Winchester Transit anticipates that microtransit implementation will significantly improve access by decreasing travel time and increasing ridership.

Free Fare Service

In 2021, Winchester Transit started providing free fares funded by a grant received from the CARES Act. Fare-free operations were extended through 2024 by the City of Winchester. In the 2022 Microtransit Feasibility Study survey, riders were asked what impact they thought certain service changes would have on transit service in Winchester. For "not having to pay a fare", over 90 percent of respondents thought it would have a positive impact with 80 percent of respondents specifically indicating that they thought it would have a "strong positive impact".

Figure 1-1: WinReady Service Area Map



1.2 Goals, Objectives, and Service Design Standards

1.2.1 Goals & Objectives

Winchester Transit reviewed the goals outlined in the Winchester 2021 Strategic plan, the 2022 Winchester Comprehensive Plan, and the WinFred 2040 Metropolitan Transportation Plan (2017), and the 2022 Microtransit Feasibility Study. Themes that emerged from these plans were reliable access to major activity centers, increasing the sustainability of the transportation system, and engaging with underrepresented populations in local government.

With these themes in mind, Winchester Transit revisited the goals outlined in the 2011 and 2017 TDPs and the new microtransit project to create an updated set of goals that reflects the needs of the transit system in alignment with regional priorities.

Table 1-1: Goals

Goals	Objectives
Increased Accessibility	Offer direct and convenient access to community facilities including medical facilities, shopping centers, schools, and community agencies
	Ensure physically accessible vehicles and pickup/drop-off locations
	Provide access to employment opportunities for City residents
Enhanced Service	Balance service levels and capacity to move people with demand
	Expand transit service hours and coverage
	Provide innovative ways to maximize efficiency of underperforming fixed-routes
Community Focus	Incorporate public and stakeholder feedback into service development
	Optimize rider experience for using transit
	Adjust operations based on rider feedback
	Strengthen partnerships between the City of Winchester and Frederick County, major employers, educational facilities, and other private entities to ensure effective service delivery in the community

1.2.2 Public Outreach, Engagement, and Involvement

Winchester Transit's public participation process is outlined in the 2022-2025 Title VI Program. This outlines the purpose of public outreach, changes that warrant public input, and how community feedback will be solicited and received.

The policy requires public outreach in the following situations:

- A fare increase is defined as an increase in the basic fare structure. Fare decreases are specifically excluded.
- A service reduction, either in miles or hours, that exceeds 25 percent of the total service miles or hours currently provided.
- A route modification that exceeds 15 percent of the total inbound and outbound trip mileage of a route.

Winchester Transit uses multiple methods of public outreach to ensure robust community engagement, including public meetings, public comments, surveys, and stakeholder meetings. Systemwide changes such as microtransit implementation use a combination of these methods to clearly communicate with riders and ensure sufficient opportunity for input and feedback.

Public Meetings

Winchester Transit's public meetings are required to be located near public transportation and scheduled at times when public transportation is running. Informational meetings should be held at various locations, with at least one meeting occurring during the evening and/or weekend and another during the day to accommodate stakeholders with different work schedules.

Winchester hosts City Council meetings twice a month which Winchester Transit uses to share updates and create space for public comment.

Public hearings and meetings must be advertised (via general publications, radio broadcasts, the Winchester Transit website, and on-board flyers) at least 30 days in advance.

Winchester Transit's outreach policy also includes specific instructions regarding how to document public comment and responses received.

Surveys

Winchester Transit's outreach policy prioritizes regular public participation, not just during times of service or fare change. It is the agency's policy to conduct regular route surveys on its fixed-route system to obtain passenger feedback.

Surveys are also used to gather public input on system satisfaction and desired changes.

Stakeholder Advisory Groups

For larger systemwide projects like the Microtransit project and this TDP, Winchester Transit established a Stakeholder Advisory Group composed of key regional stakeholders. This group reviewed materials and provided feedback on the current system and proposed changes.

Microtransit and TDP Outreach

The Microtransit Feasibility Study used a stakeholder meeting and rider survey to acquire feedback on the goals and objectives for the project. The stakeholder meeting represented regional organizations including City Council, Winchester NAACP, Valley Health, the Virginia Latino Advisory Board, DRPT, and Godfrey Miller Center. 88% of respondents of the survey were existing Winchester Transit riders and around three quarters of them have no vehicles at home. Stakeholders highlighted that the potential improvement to the reliability of the transit system and over 75% of survey respondents indicated that they thought the suggested change would lead to better service. Both groups also indicated a desire for increased frequency, and expansion of the service area, and extended service times. The request for increased frequency was prioritized in the design of the new loop route. Each stop of the loop route is served four times an hour, a significant improvement to previous hour-long headways on local bus routes.

For this TDP, Winchester Transit used a combination of public surveys, public meetings, and stakeholder steering committee meetings. A public survey for the Microtransit Feasibility Study highlighted needs for expanding service area outside of the city boundaries, extending operating hours, and providing weekend service. These needs have been used to inform considerations in this TDP. Winchester Transit shared the draft TDP for public review and comment before revising and submitting the TDP for Council Approval. This review included a round of public surveys and the engagement of a stakeholder steering committee.

1.2.3 Service Design and Performance Standards

Service standards provide benchmarks to evaluate service. Winchester Transit has service standards outlined in the 2022 Title VI Program that reflects metrics used for the previous system that only consisted of fixed-route service. These existing standards cover service availability, vehicle load, vehicle headway, and on-time performance. The specific standards are outlined in **Table 1-2**.

Table 1-2: 2022 Title IV Service Standards

Service Area	Standard
Service Availability	
Residential areas	Areas with population densities of 2,000+ people
Major activity centers	Employers or employment concentrations of 200+, health centers, middle and high schools, colleges/universities, shopping centers of over 25 stores or 100,000 square feet, social service/government centers
Bus stop spacing	Five to seven stops per mile in core; in "fringe" areas, four to five per mile as needed based on land uses
Vehicle Load Standards	
30 ft body on chassis	25% standees for short periods acceptable for all vehicles on fixed-route. Seating capacity of 24, standing capacity of 10
31 ft body on chassis	25% standees for short periods acceptable for all vehicles on fixed-route. Seating capacity of 22, standing capacity of 10
36 ft trolley bus	25% standees for short periods acceptable for all vehicles on fixed-route. Seating capacity of 30, standing capacity of 10.
Vehicle Headway	
Fixed-route service	Three vehicles are used to operate seven fixed-routes on a timed hub transfer system. Each line runs every hour and 10 minutes from early morning to late in the evening, six days a week. On weekdays, service should begin no later than 6:00 a.m. and continue until 7:58 p.m. On weekends, service should begin no later than 8:50 a.m. and continue until 4:58 p.m.
Trolley service	One vehicle is used to operate a loop service on a timed hub transfer system. This route operates every hour and five minutes from morning to evening, four days a week. On Mondays, Wednesdays and Fridays, service should begin no later than 8:00 a.m. and continue until 6:44 p.m. On Saturdays, service should begin no later than 10:10 a.m. and continue until 4:34 p.m.
On-time Performance	
On-time performance	A vehicle is considered on time if it departs from the transfer hub no more than 5 minutes late with no trips leaving early in comparison to the published schedule. Winchester Transit's on-time performance objective is 95% or greater.

These service and performance standards have been updated to capture the current hybrid system so that Winchester Transit can effectively evaluate the microtransit and fixed-route modes. Performance standards generally allow agencies to compare routes to each other to reflect on overall performance and guide priorities in

system changes. For Winchester’s two types of service, it can be helpful to adopt performance standards that allow for a common basis to compare fixed-route and microtransit, particularly in productivity and cost efficiency.

As microtransit is an emerging mode, there are few industry examples of service and performance standards. The team informed this process by reviewing research on microtransit evaluation, DRPT’s 2023 Rural Microtransit Case Study and Report, and benchmarks used in the Microtransit Study.

Additionally, the 2017 TDP recommended adopting a series of performance standards to provide more consistent service. Establishing these standards may also allow Winchester Transit to gain a more comprehensive understanding of the service it provides.

Informed by the previous service standards, recommended performance standards, and the microtransit research, a set of service standards were drafted to evaluate the whole system. **Table 1-3** presents these service design standards.

Table 1-3: Service Design Standards

Fixed-route		Microtransit	
Span of Service	7:00 a.m.–7:00 p.m. M-F 9:00 a.m.–5:00 p.m. Sa	Span of Service	6:00 a.m.–8:00 p.m. M-F 9:00 a.m.–5:00 p.m. Sa
Service Frequency	Four times per hour	Wait Time	80% of trips arrive within 15 minutes of request

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Chapter 2:

System Evaluation

2 Contents

- 2 Chapter 2: System Evaluation.....2-1**
- 2.2 Performance Standards2-1
- 2.3 Performance Evaluation2-3
 - 2.3.1 Performance Evaluation.....2-3
 - 2.3.2 Performance Based Opportunities for Improvement2-10
 - 2.3.3 Transit Demand and Underserved Area Evaluation2-12
 - 2.3.4 Transit Demand and Underserved Area Opportunities for Improvement2-19
- 2.4 Opportunities to Collaborate with other Agencies and Stakeholders2-20

2 CHAPTER 2: SYSTEM EVALUATION

2.2 Performance Standards

Winchester Transit's performance standards outlined in the 2017 TDP have been updated to capture the current system so that Winchester Transit can effectively evaluate the microtransit and fixed-route modes. Performance standards allow agencies to evaluate service against agency objectives and guide priorities in system changes. For Winchester's two types of service, it can be helpful to adopt performance standards that allow for a common basis to compare fixed-route and microtransit, particularly in productivity and cost efficiency.

As microtransit is an emerging mode, there are few industry examples of service and performance standards. Research on microtransit evaluation, DRPT's 2023 Rural Microtransit Case Study and Report, and benchmarks used in the Microtransit Study were used to guide the development of standards. Additionally, the 2017 TDP recommended adopting a series of performance standards to provide more consistent service. Establishing these standards may also allow Winchester Transit to gain a more comprehensive understanding of the service it provides. Informed by the previous service standards, recommended performance standards, and the microtransit research, a set of performance standards were drafted to evaluate the whole system.

Table 2-1: Performance Standards

Fixed-Route		Microtransit	
On Time Performance	Greater than 80% of trips at each timepoint leave less than one minute early and less than five minutes late	Average Walk Distance	Less than 0.25 miles from request to pick up point
Missed Trips	Less than 2% of total monthly trips	Cancellation Rate	Less than 5% of requested trips are cancelled
Vehicle Load Factor	Average is less than one per trip over the course of a month	Percent Shared Rides	Greater than or equal to 25%
Passenger per Revenue Hour	Greater than the passengers per revenue hour of microtransit	Passenger per Revenue Hour	Greater than four passengers per revenue hour
Passenger per Revenue Mile	Greater than the passenger per revenue mile of microtransit	Passenger per Revenue Mile	Less than two passengers per revenue mile
Cost per Mile	Less than the cost per mile of microtransit	Cost per Mile	Less than the Previous Fiscal Year
Cost per Revenue Hour	Less than cost per revenue hour of microtransit	Cost per Revenue Hour	Less than the Previous Fiscal Year
Cost per Passenger	Less than the cost per passenger of microtransit	Cost per Passenger	Less than the Previous Fiscal Year
System Accessibility	Population within 0.25 miles of stops	System Accessibility	Population that can access microtransit within 20 minutes of their home (walking + wait time for microtransit)
Job Accessibility	Jobs within 0.25 miles of stops	Job Accessibility	Jobs that can be accessed within the microtransit service area

Winchester Transit has a thorough vehicle preventative maintenance plan. The plan outlines the major objectives as:

- To maintain all transit vehicles in good working condition
- To document all maintenance work performed and maintain well organized records of work performed, and
- To provide a well-trained maintenance work force proficient in most aspects of vehicle maintenance.

This maintenance plan outlines guidance for each vehicle to receive a pre- and post-trip inspection, and to check ADA wheelchair lifts, PA systems, and video surveillance systems every 3,000 miles. Additionally, the plan outlines a maintenance schedule for each vehicle type based on milage, total hours of operation, or timespan. Maintenance activities include inspections, checks and corrections, and part replacements, outlining parts like oil levels, engine coolant, colling system, vibration dampers, fan belt tensioner, and spark plugs.

Current active revenue vehicles are listed below in **Table 2-2** along with their make and model, passenger capacity, and useful life benchmarks.

Table 2-2: Winchester Transit's Revenue Vehicles

Year	Make/Model	Length	Passenger Capacity	Assignment	Power Mode	Useful Life Benchmark
2005	Freightliner Classic American Trolley	30 ft	30	Trolley	Diesel	10
2008	Chevrolet Supreme BOC Paratransit Van	30 ft	24	Para-transit	Diesel	10
2015	International Low-Floor	30 ft	28	Fixed Route	Diesel	10
2015	International Low-Floor	30 ft	28	Fixed Route	Diesel	10
2016	Arboc Spirit of Mobility Low Floor	30 ft	19	Para-transit	Gasoline	10
2016	Arboc Spirit of Mobility Low Floor	30 ft	19	Para-transit	Gasoline	10
2016	Arboc Spirit of Mobility Low Floor	30 ft	19	Fixed Route	Gasoline	10
2016	Arboc Spirit of Mobility Low Floor	30 ft	19	Fixed Route	Gasoline	10
2019	Arboc Spirit of Mobility Low Floor	24 ft	19	Para-transit	Gasoline	10
2019	Arboc Spirit of Mobility Low Floor	24 ft	19	Fixed Route	Gasoline	10
2019	Arboc Spirit of Mobility Low Floor	26 ft	28	Fixed Route	Gasoline	10
2023	Ford Starcraft	23 ft	16	Fixed Route	Gasoline	5

Winchester Transit plans to purchase an additional bus for a new Laurel Ridge Community College route, and two new vans for the microtransit service. Winchester Transit will replace five buses in FY 2024 and four in FY 2025 as they meet the end of their useful life.

2.3 Performance Evaluation

2.3.1 Performance Evaluation

The operating and performance statistics are evaluated against the performance measures defined in **Table 2-1** using data pulled from the National Transit Database (NTD) and from data provided by Winchester Transit.

This section summarizes the analysis of system performance from 2018 to 2022. During this time, Winchester Transit operated eight fixed-routes. The WinReady system and supporting Yellow and Blue lines were implemented on March 25th, 2024. As such, there has not been sufficient time to collect robust data to conduct a performance evaluation of the microtransit system, so instead this evaluation will provide a comprehensive baseline of Winchester Transit's service to compare to the new microtransit and fixed-loop route.

As such, in the performance-based opportunities for improvement, this report will share and summarize some of the main points and analyses that went into constructing the new system and why that is anticipated to improve the system performance.

System-Wide Performance Evaluation

Winchester Transit's trends are evaluated across a five-year period, examining from FY 2018 to FY 2022. The system's performance is impacted by the COVID-19 pandemic which impacted system ridership and provided the CARES Grant which allowed the agency to provide fare-free service from 2021-2023.

The five-year trends for operational measures are summarized in for fixed-routes in **Table 2-3** and for ADA paratransit in **Table 2-4**. For both the fixed route service and ADA paratransit, the ridership declined during the COVID-19 pandemic. In FY 2021, unlinked trips were 70 percent of the five-year average. Due to the implementation of fare-free service, the fare revenues and farebox recovery ratios declined in FY 2021 and dropped to zero in FY 2022.

Table 2-3: Fixed Route Operational Measures Five Year Trends

Year	Operating Expenses	Fare Revenues	Annual Unlinked Trips	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Farebox Recovery Ratio
FY 2018	\$781,515	\$80,133	124,924	153,564	13,205	10.25%
FY 2019	\$871,779	\$76,503	120,249	150,115	12,870	8.78%
FY 2020	\$938,424	\$60,228	110,769	134,504	11,558	6.42%
FY 2021*	\$989,388	\$48,985	79,154	145,555	12,335	4.95%
FY 2022	\$1,052,463	\$0	124,011	139,030	11,809	0.00%
Average	\$926,714	\$53,170	111,821	144,554	12,355	6.08%

Source: National Transit Database (NTD), Transit Agency Profiles

*Winchester Transit started a Free Fare program funded by the CARES Act in 2021 that was extended through FY24.

- The operational expenses for the fixed route services increased by five to ten percent each year. The annual operating expenses in FY 2020-2022 exceed the five-year averages. This is partially due to inflation and increased maintenance costs from aging equipment.
- While the total number of passenger trips dropped in FY 2020 and FY 2021 and fall below the five-year average, the trips in FY 2022 rebounded to exceed pre-pandemic FY 2019 totals.
- The total number of revenue miles and revenue hours both fall below average in FY 2020 and FY 2022 by between three to seven percent. The highest number of revenue miles and revenue hours occurred in FY 2018.

Table 2-4: ADA Paratransit Operational Measures Five Year Trends

Year	Operating Expenses	Fare Revenues	Annual Unlinked Trips	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Farebox Recovery Ratio
FY 2018	\$185,193	\$7,542	15,074	40,371	4,874	4.07%
FY 2019	\$201,396	\$7,123	14,583	40,276	4,851	3.54%
FY 2020	\$202,313	\$4,443	10,075	31,469	4,123	2.20%
FY 2021*	\$216,890	\$3,128	6,180	29,767	4,173	1.44%
FY 2022	\$308,140	\$0	10,212	46,207	5,501	0.00%
Average	\$222,786	\$4,447	11,225	37,618	4,704	2.25%

Source: National Transit Database (NTD), Transit Agency Profiles

*Winchester Transit started a Free Fare program funded by the CARES Act in 2021 that was extended through FY24.

- For the ADA Paratransit service, the most significant jump in operating expenses occurred in FY 2022 with the total cost above average and increasing around 30 percent.
- While the number of passenger trips declined between FY 2020 and 2022, passenger trips increased nearly 65 percent between FY 2021 and FY 2022 relative to FY 2021.

Fixed-route and ADA paratransit services were evaluated based on the performance standards determined in **Table 2-1**. The metrics are summarized below in **Table 2-5** and **Table 2-6**.

Table 2-5: Fixed Route Performance Evaluation

Year	Passenger per Revenue Hour	Passenger per Revenue Mile	Cost per Revenue Mile	Cost per revenue Hour	Cost Per Passenger
FY 2018	9.5	0.8	\$5.09	\$59.18	\$6.26
FY 2019	9.3	0.8	\$5.81	\$67.74	\$7.25
FY 2020	9.6	0.8	\$6.98	\$81.19	\$8.47
FY 2021*	6.4	0.5	\$6.80	\$80.21	\$12.50
FY 2022	10.5	0.9	\$7.57	\$89.12	\$8.49
Average	9.1	0.8	\$6.45	\$75.49	\$8.59

Source: National Transit Database (NTD), Transit Agency Profiles

*Winchester Transit started a Free Fare program funded by the CARES Act in 2021 that was extended through FY24.

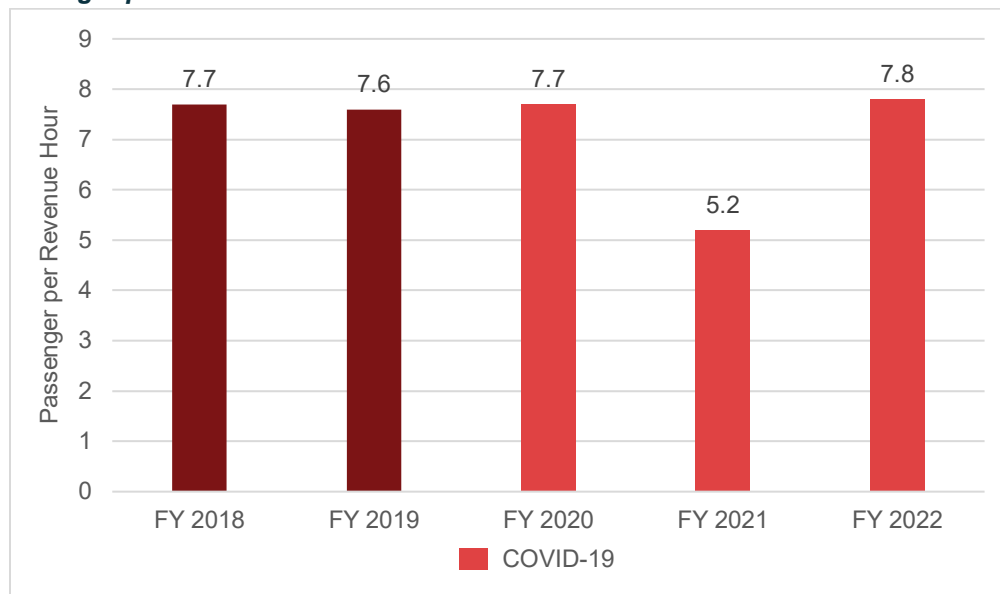
Table 2-6: ADA Paratransit Performance Evaluation

Year	Passenger per Revenue Hour	Passenger per Revenue Mile	Cost per Revenue Mile	Cost per revenue Hour	Cost Per Passenger
FY 2018	3.1	0.4	\$4.59	\$38.00	\$12.29
FY 2019	3.0	0.4	\$5.00	\$41.52	\$13.81
FY 2020	2.4	0.3	\$6.43	\$49.07	\$20.08
FY 2021*	1.5	0.2	\$7.29	\$51.97	\$35.10
FY 2022	1.9	0.2	\$6.67	\$56.02	\$30.17
Average	2.4	0.3	\$6.00	\$47.32	\$22.29

*Winchester Transit started a Free Fare program funded by the CARES Act in 2021 that was extended through FY24.

Passenger per Vehicle Revenue Hour

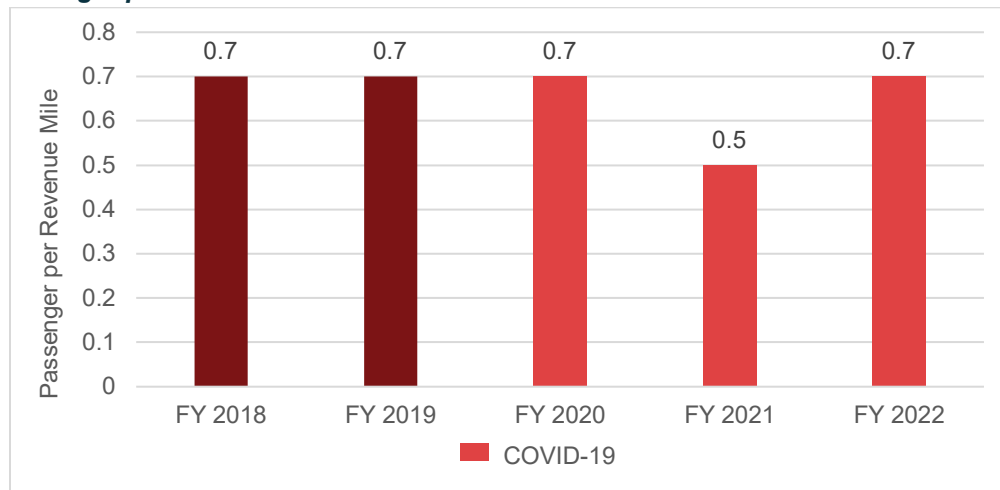
Passengers per revenue hour is another metric used to evaluate how productively Winchester Transit vehicles spend their time (rather than distance) in service. As seen in **Figure 2-1**, the number of passengers per revenue hour is largely consistent across the past five years with a dip in FY 2021 which corresponds to the overall dip in ridership in FY 2021 from COVID-19.

Figure 2-1: Passenger per Vehicle Revenue Hour


Passenger per Vehicle Revenue Mile

Passengers per revenue mile measures the productivity with which Winchester Transit in transporting its passengers. This measure is often, but not always, linked with trends in total ridership. Similar to the Passengers per revenue hour, **Figure 2-2** shows consistent values for FY 2018 – FY 2020 and back up again in FY 2022 with a dip in FY 2021 when the impacts from COVID-19 are most noticeable.

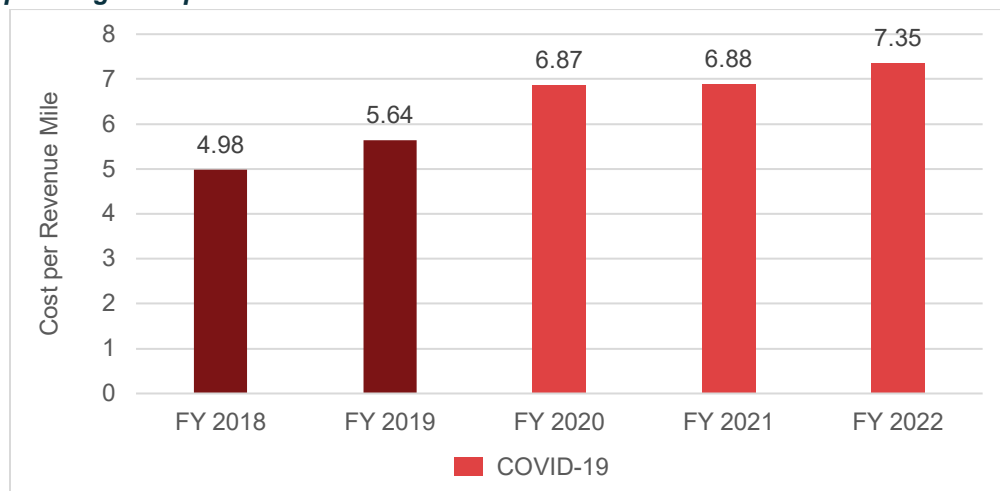
Figure 2-2: Passenger per Vehicle Revenue Mile



Operating Cost per Vehicle Revenue Mile

Analyzing operating expenses per vehicle revenue mile allows for an evaluation of the efficiency of revenue miles operated by the service. **Figure 2-3** shows that the system wide operating costs have been increasing each year. This could partially be due to general inflation costs combined with aging vehicle infrastructure which causes increasing maintenance costs. This will likely change with the implementation of the WinReady microtransit service and the purchasing of new vehicles that Winchester Transit has planned for FY 2024 and FY 2025.

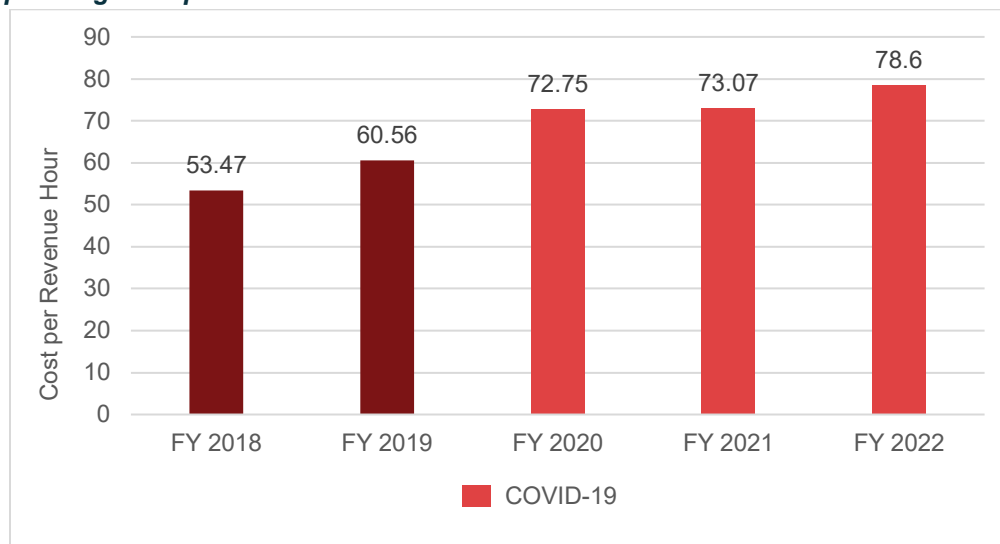
Figure 2-3: Operating Cost per Vehicle Revenue Mile



Operating Cost per Vehicle Revenue Hour

Operating expenses per vehicle revenue per hour measures cost-effectiveness similarly to operating expenses per vehicle revenue mile, but it considers the productivity of vehicle time rather than distances traveled. **Figure 2-4** shows that the cost per revenue hour have been increasing each year, with a larger jump from FY 2019 to FY 2020.

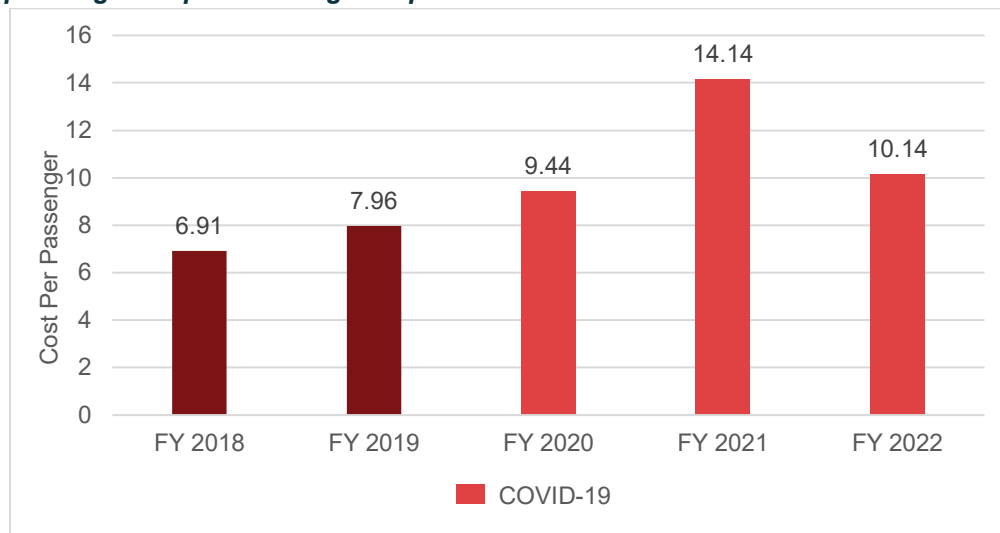
Figure 2-4: Operating Cost per Vehicle Revenue Hour



Operating Cost per Passenger Trip

Operating expenses per passenger trip provide insight into how efficiently an agency uses its operating resources. This analysis also reveals potential correlations between expenditure and ridership. As seen in **Figure 2-5**, this measure has a general upward trend over time with a spike in FY 2021. This is also reflective of the drop in ridership in FY 2021.

Figure 2-5: Operating Cost per Passenger Trip



Route-Level Performance Evaluation

Between 2018 and 2022, Winchester Transit ran a combination of fixed route and ADA Paratransit service. The fixed route service included seven to eight routes servicing major areas around Winchester City. In April of 2023, Winchester Transit also added a line running down to Laurel Ridge Community College, which has been included in the service summaries. The fixed-routes had 60–70-minute headways and all intersected at a transfer station downtown on Boscawen Street. The routes are mapped below in **Figure 2-6**, service metrics including service span, revenue service trips, headway, and roundtrip travel time and summarized in **Table 2-7**.

Table 2-7: Winchester Transit Fixed-Route Service

Route	Service Span (Hours)	Revenue Service Trips (One Way)	Revenue Service Hours	Revenue Service Miles	Headway (Minutes)	Round Trip Travel Time (Minutes)	Stops Served	Estimated Operating Cost
Amherst St	13.3	6890	1997	21572	70	28	28	\$137,274.40
Berryville Avenue	13.2	6890	1977	20226	70	25	22	\$134,487.80
Apple Blossom Mall	13.4	6780	1806	21649	70	33	30	\$176,772.90
Northside*	12.1	6890	1775	23990	61	25	32	\$156,405.40
South Loudoun	13.4	6890	1968	24143	70	34	39	\$226,476.30
Trolley	6.4	3720	848	10067	65	59	42	\$181,698.60
Valley Avenue	13.5	6890	1782	20342	70	38	47	\$198,615.60
Laurel Ridge**	14	6120	3360	89040	70	70	7	\$708,470.40

Source: Winchester Transit GTFS, Winchester Transit, and NTD Reporting

*Metrics combine Northside Westminster and Northside Salvation Army routes

**Numbers are estimated as this route just began running in April 2023

Table 2-8: Route- Level Performance Evaluation

Route	Average Ridership per Month	Passenger per Revenue Hour	Passenger per Revenue Mile	Cost Per Passenger Trip	System Accessibility	Job Accessibility
Amherst St	1,119	6.80	0.63	\$10.22	3,822	12,447
Berryville Avenue	1,927	11.74	1.13	\$5.82	7,875	4,611
Apple Blossom Mall	3,010	20.45	1.67	\$4.89	5,761	9,649
Northside	965	6.52	0.47	\$13.51	6792	7757
South Loudoun	1,461	8.78	0.71	\$12.92	7,637	9,981
Trolley*	1,498	1.35	0.11	\$10.11	9,092	11,781
Valley Avenue	1,554	10.54	0.92	\$10.65	8,774	9,243
Total	11,534	2.4	9.1	\$8.59	27,226	27,382

*Ridership Data for the Trolley route represents FY 2021

Winchester Transit's ridership productivity and efficiency per service provided is above average when compared against peer systems. Similar sized Virginia cities with transit systems have overall trips per revenue mile that are within the range of Winchester's overall efficiency (0.73 per service hour), such as Pulaski at 0.2, Radford at 0.8, and Fredericksburg at 0.4.¹ The highest efficiency WinTran routes by ridership and service are also have the highest total ridership indicating service is properly allocated to service demand except for two routes – South Loudoun and Trolley – which supply more service per rider than other routes.

2.3.2 Performance Based Opportunities for Improvement

Examining the performance measures, ridership and service efficiency of the overall system is driven by concentrated boardings on the top three most productive routes, Apple Blossom, Berryville, and Valley Avenue. Because there is little difference in service frequency or travel time for these routes as opposed to less productive routes in the WinTran system, more resources could be shifted to serve these core service areas to increase accessibility for the areas with the highest utilization. However, since less efficient routes such as South Loudoun, Northside and Trolley still see high demand, albeit at a higher operational cost, these routes could be restructured to provide better service in line with increasing accessibility throughout Winchester. An additional consideration for high-ridership low efficiency routes is the potential for microtransit to provide connections to core service and destination areas while reducing travel and wait times as well as the operational costs of running fixed-route service.

¹ NTD 2020 Transit Agencies Profiles

In summary, opportunities for improvement based on existing performance data include:

- Improve destination accessibility on select routes by increasing frequency and speed of service.
- Eliminate the need for transfers by combining routes with less coverage that might be limited to more local areas of Winchester to routes that connect to major destination areas to reduce long travel times for riders seeking to travel across the city.
- Supplement or replace less efficient transit routes with microtransit or other mobility services to support the connections to existing transit or riders' ultimate destinations.
- Connect neighborhoods with limited access to transit with microtransit.

Some of these areas of improvement have already been integrated through the implementation of WinReady and the Yellow and Blue Lines. Specifically, the Yellow and Blue Lines reduce the need for transfers with a service area that covers several previous routes and with frequency of four times the previous frequency for Winchester Routes. The Blue and Yellow Lines incorporates most of the service area for Amherst, Apple Blossom, and Berryville and around half of the Trolley and Valley Avenue Routes.

WinReady microtransit increases accessibility by providing transit service to all the areas in Winchester City not covered by fixed route service. This can serve to connect neighborhoods with limited direct walk access to the fixed transit route and cover areas where the fixed route transit service was performing inefficiently. WinReady will replace segments of the Northside route with destinations to Westminster Canterbury and the Northwestern Regional Adult Detention Center.

Table 2-9 summarizes opportunities for improvement identified through examining specific routes:

Table 2-9: Route Level Opportunities for Improvement

Route Performance	Changes to Service	Potential Improvements
The Apple Blossom Mall Route is the highest productivity and coverage route	• Apple Blossom Mall connects two of the top destinations: Winchester downtown and Apple Blossom Mall. • The Blue and Yellow Lines now also travel along Pleasant Valley Road with major retail centers and connect to Winchester Downtown. The fixed-route is no longer turning into the stopping complexes.	Considerations with the new route: • Riders are still able to access Apple Blossom Mall. • Ensure that pedestrian infrastructure to access key locations is safe and comfortable.
The Valley Avenue route average route has average ridership per revenue hour and mile, but the ridership per stop is one of the lowest, partially because it serves the most stops (46) in the system. Limited sidewalk availability reduces accessibility from stops to residences in adjacent neighborhoods.	Valley Avenue provides north-south transit access along U.S 11 and Valley Avenue and provides critical connection to industrial jobs and retail along the corridor. This route will be replaced by a combination of the Yellow and Blue Routes and WinReady microtransit.	• The new system addresses the level of service and helps connect neighborhoods otherwise separated from lack of sidewalk availability. • Microtransit pick up and drop off locations should be carefully considered to make sure that riders can safely connect to the system, whether as a pedestrian, or as a transfer onto or off the bus.

2.3.3 Transit Demand and Underserved Area Evaluation

Land Use

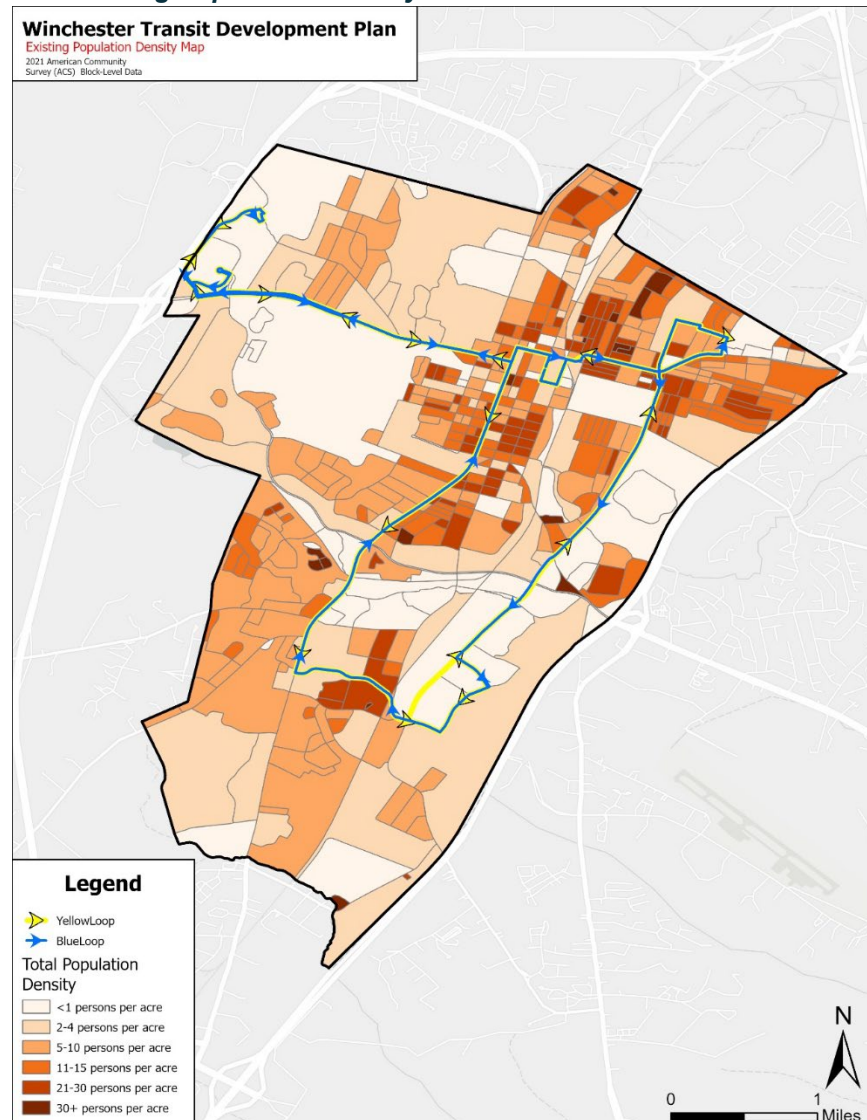
The city of Winchester developed a TDP in 2017 and WinFred Microtransit Feasibility Study in 2023 that described their pursuit towards implementing a microtransit loop to serve its constituents. Analytically understanding the implications for microtransit services requires perspective from comprehensive plans, current zoning standards, and socioeconomic factors such as Population/Employment Density & Growth, and Transit Propensity.

- The overall Winchester Frederick County Area is estimated to have a 63 percent growth in population and a 26 percent growth in employment between 2017 to 2040, especially in the Valley Medical health and Shenandoah University areas.
- Winchester has designed its route to serve most of their high-density blocks (**Figure 2-7**) including parts of the Northeastern and mid-southern parts of the city yet leaving absent the Shenandoah University area.
- Winchester also identified the present-day of Old Town, Valley Medical Health, and Apple Blossom Mall as high employment density areas seen served by the route (**Figure 2-3**).
- In order to capture older populations Winchester has considered using dynamic demand-response practices to target communities in the middle of the loop.

Population Density and Growth

Existing Population

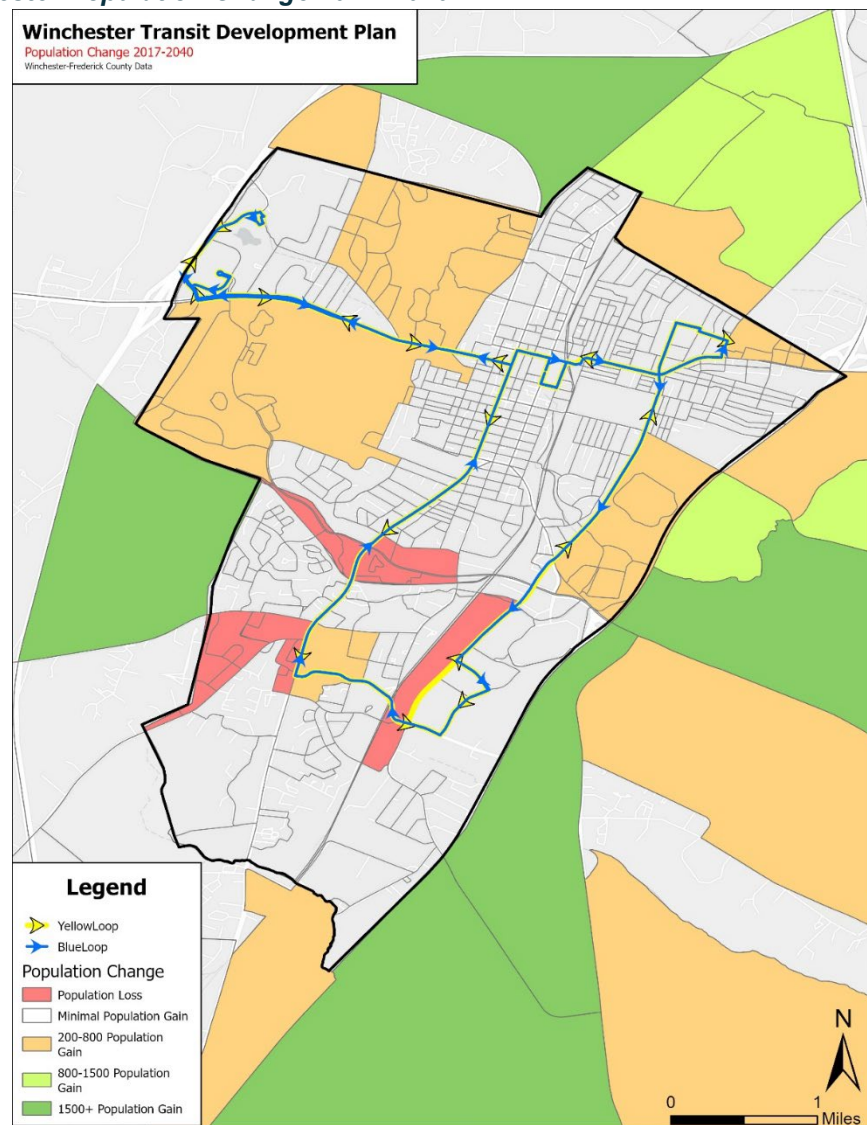
Figure 2-7: Winchester Existing Population Density



- Route covers high-density locations such as the Old Town area and some of the primarily suburban neighborhoods found in the northeastern region of the city.
- Potential riders living in the middle and northern regions of the city are not directly accounted for in this route and may have to travel some distance before reaching a microtransit pick up location.
- The route drives through Apple Blossom Mall area in the southeast region, explaining its traversal through an area with low population density given household ownership is a key parameter.

Future Population

Figure 2-8: Winchester Population Change 2017–2040



- Larger growth forecasted outside the city of Winchester in neighborhoods to the east around Winchester Regional Airport and north of the city with multiple hotel establishments.
- The proposed route is expected to intersect with projected areas of population loss (additionally areas of minimal employment gain as seen in **Figure 2-10** along Highway 628 and Jubal Early Drive.
- Within Winchester potential sources for increased population are suburban centers around Winchester Medical Center and near Daniel Morgan Middle school to the East.

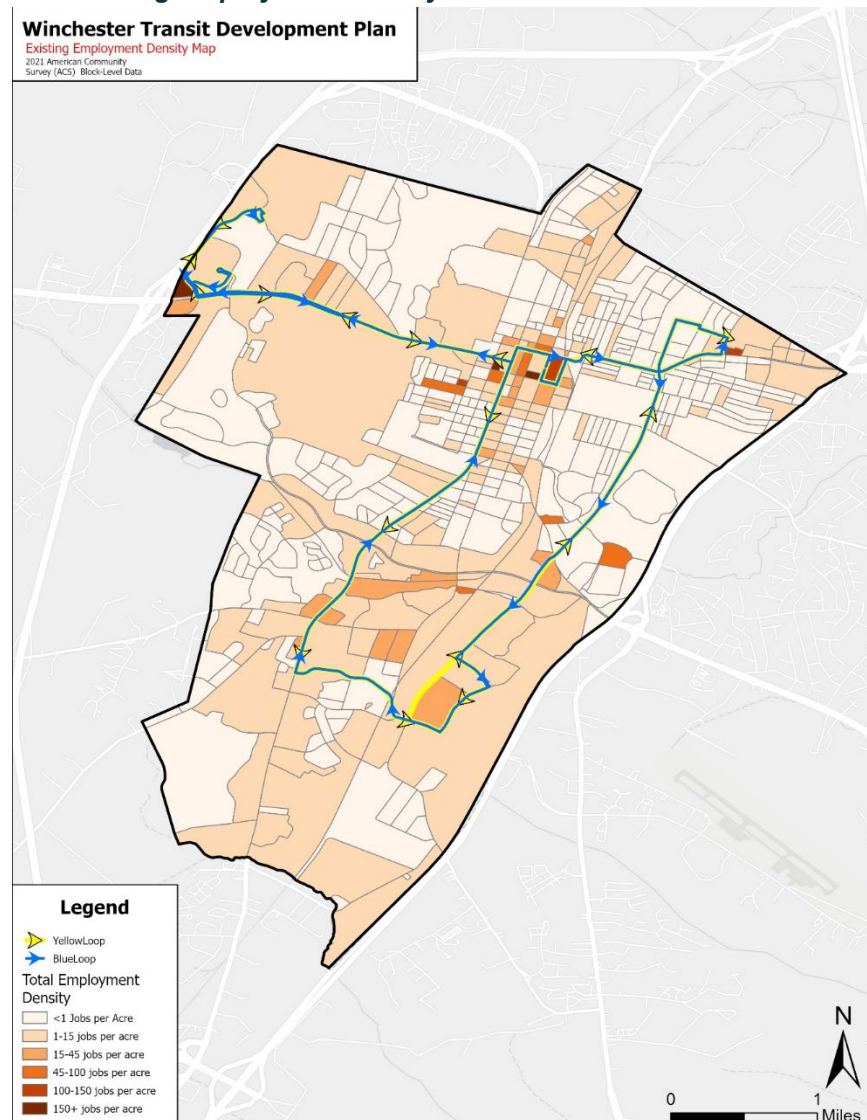
Employment

Existing Employment Data

Traditionally, transit fixed-route ridership heavily relies on employment patterns, given the consistent commuting demand to specific work destinations. In the wake of the COVID-19 pandemic many shifts in employment and labor trends have caused disruptions to these expectations. However, industries like retail, emphasizing in-person work, remain pivotal in driving transit demand.

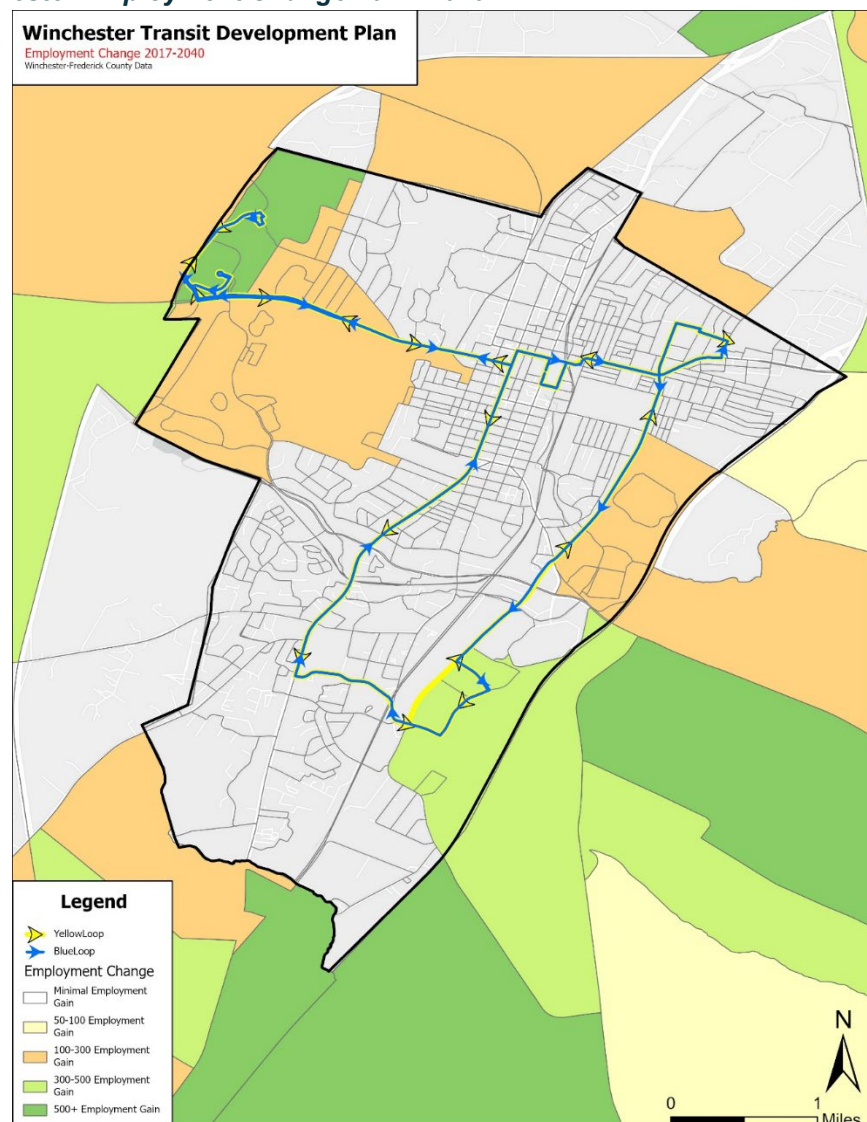
According to TCRP's Transit Capacity and Quality of Service Manual, an employment density of at least four jobs per acre generally sustains fundamental fixed-route services. The map illustrates how employment density is distributed within and around the present Winchester Transit service area.

Figure 2-9: Winchester Existing Employment Density



- Areas of high employment density include:
 - Apple Blossom Mall
 - Valley Health Winchester Medical Center
 - Old Town

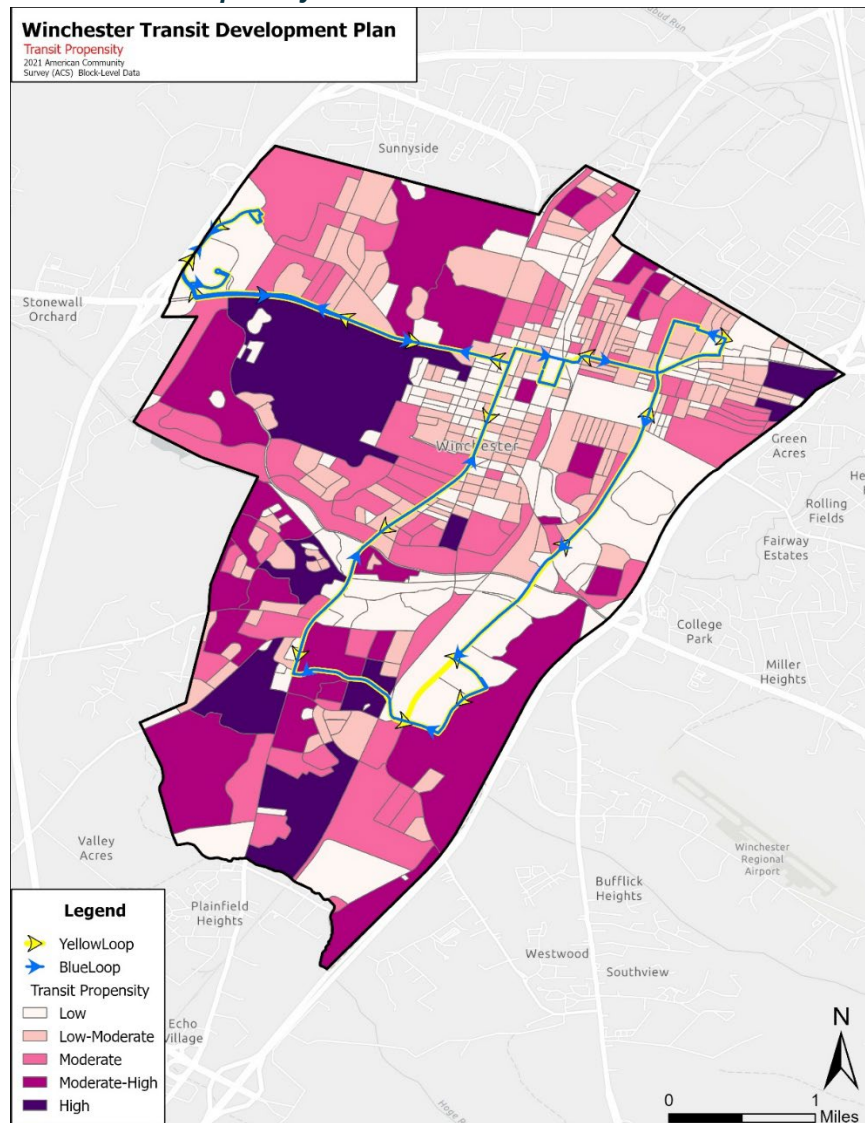
Figure 2-10: Winchester Employment Change 2017–2040



- Regions of large employment growth are congruent to areas forecasted to have population increases outside the bounds of Winchester
- Current loop routes serve all projected and existing high employment areas including the Medical Center and Apple Blossom Mall

Transit Potential and Propensity

Figure 2-11: Winchester Transit Propensity



- Missing service to the southern part of the city is a suburbanized area bisected by U.S 11
- Service area below the Medical Center is land reserve with trails
- Eastern section with high transit propensity is Pharmhouse Shopping Center

It is evident when looking at the transit propensity depicted in **Figure 2-11** there is a use case to extend the loop routes further south and east, but the future employment and population forecasts do not show growth in these areas. Middle northern part of Winchester constitutes a Moderate to Moderate-High Transit Propensity and projected population increase for an already existent population density that could make use of increased transit service.

Replica Data

Replica data is built from simulation techniques that replicate movement patterns of people and vehicles within a city oft used by transportation planners and modelers. This synthetic data is generated using real world scenarios that capture patterns on urban transportation without using personal or sensitive information. For this example, the replica data gathered is built upon a combination of origin-destination trips on Thursdays and Saturdays during Spring 2023 in Winchester, Virginia.

Figure 2-12: Number of Trips by Commute Mode

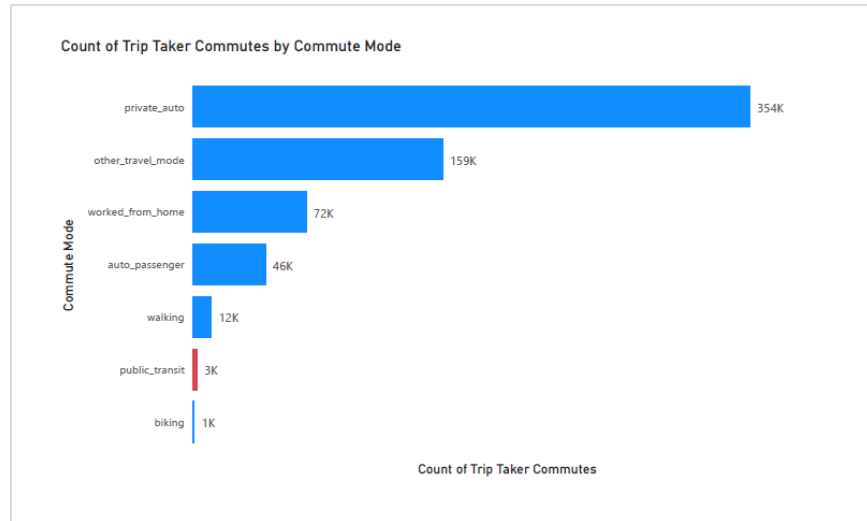
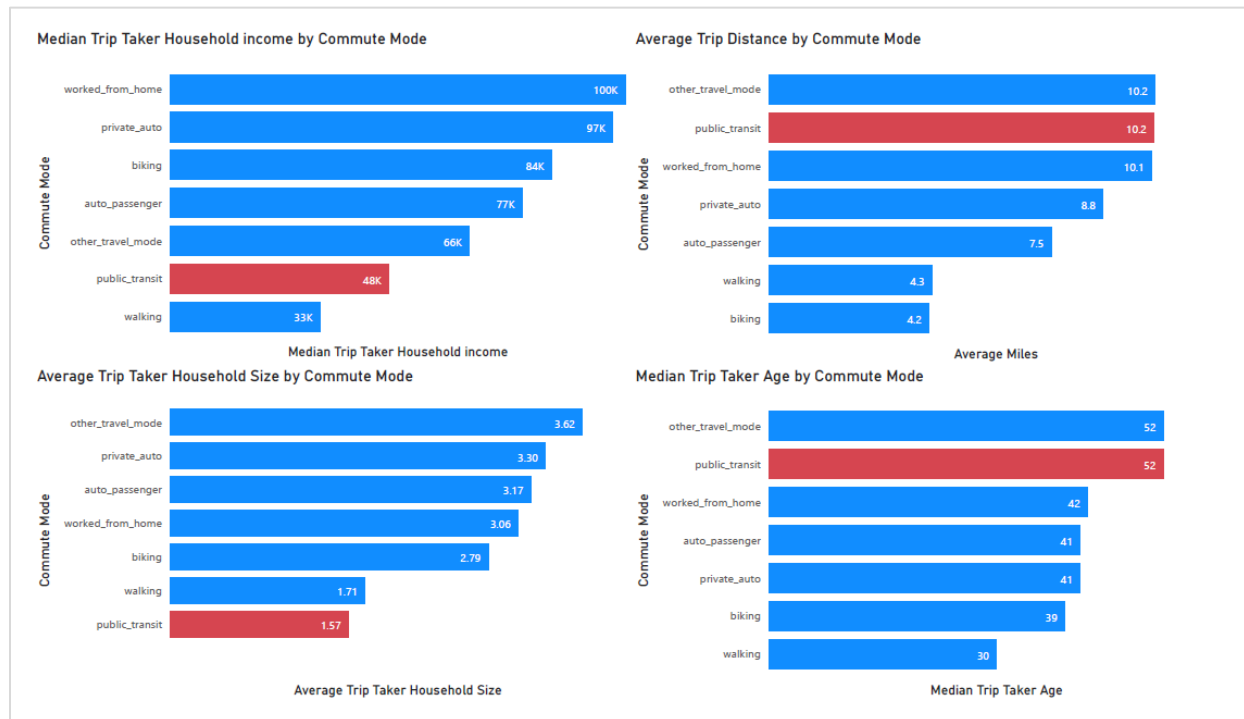
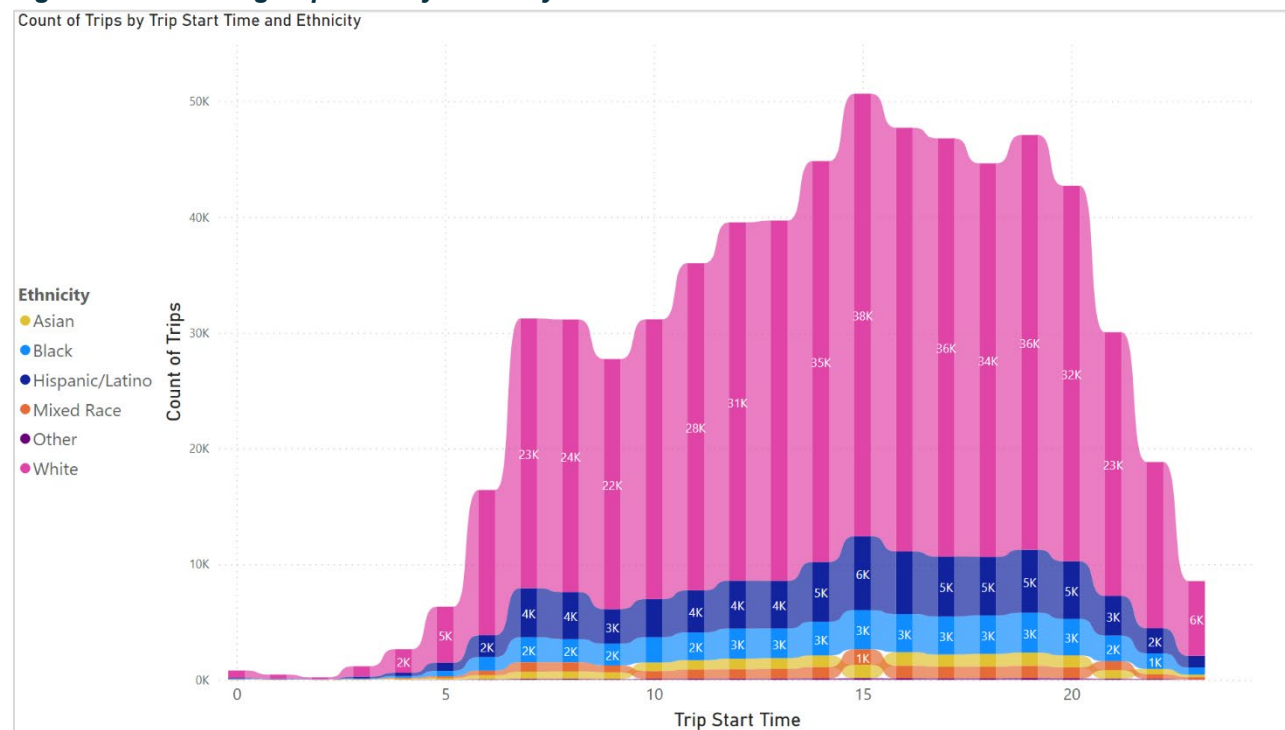


Figure 2-13: Winchester Income, Distance, Household Size, and Age by Commute Mode



Given this breakdown of total trips within during the Spring 2023 season in Winchester, it is clear that public transit trips were longer distances on average, and primarily ridden by older age, lower income, and smaller household size trip takers.

Figure 2-14: Starting Trip Time by Ethnicity



2.3.4 Transit Demand and Underserved Area Opportunities for Improvement

In the microtransit feasibility study conducted for Winchester, many data points surrounding ridership, performance, land use, and demographic data assisted in determining valuable recommendations on enhancing the efficiency and accessibility of transit services. Focus areas included capturing home-based, shopping, and recreational trips.

The primary suggestion to improve destination accessibility on specific routes focused on enhancing both frequency and speed of service. Additional ideas included establishing a frequent service on a second North-South Corridor, recognizing its potential impact on transit efficiency. Microtransit services were also considered for residential neighborhoods that did not have convenient access to bus stops.

Further recommendations included improving services to hold a 15-minute composite wait and travel time, especially targeting common destinations. The study also advised exploring limited services to essential destinations outside the city, with a recognition that vehicle mode-share could play a crucial role in influencing future traffic conditions and parking availability.

The potential service areas identified in the study ranged from educational institutions like Kerr Elementary School to cultural landmarks such as the Museum of Shenandoah Valley. Another point of emphasis was to connect densely populated residential areas, particularly in Northeast Winchester City, made up of low-income populations, zero-vehicle household, limited English proficiency, and minority demographics to employment hubs along S Pleasant Valley Road. Additional coverage considerations could be made for an extension of the westbound terminus to areas west of Route 37, including Walmart and an assisted living facility. The study also recommended direct connections between N Frederick Pike and Amherst Street via Fox Drive, eliminating the need for transfers downtown.

To cater to employment destinations in South Winchester and beyond, including areas along U.S 11, the study highlighted the importance of revisiting and expanding existing routes. Furthermore, attention was drawn to the significance of connecting S Loudoun Street north of E Jubal Early Drive and establishing seamless links between major employment and commercial centers and downtown.

In terms of service span, a strategic adjustment was suggested by shifting service hours to Saturdays during the apple blossom ball. This was aimed at accommodating late-afternoon trips from downtown and enhancing accessibility for both shoppers and service workers.

In essence, the Microtransit Feasibility Study provided a comprehensive roadmap to improve transit services whilst acknowledging the diverse needs of the community and proposing tailored solutions to enhance accessibility and efficiency.

2.4 Opportunities to Collaborate with other Agencies and Stakeholders

Considering the makeup of Winchester City, key stakeholders include Shenandoah University, Laurel Ridge Community College, and Frederick County. Frederick County is currently conducting a feasibility for transit service extending out of the county and potentially connecting into Winchester. This is also an opportunity for Winchester Transit to collaborate with a nearby jurisdiction to increase connectivity for Winchester residents. By improving the network of transportation between these three cornerstones and other popular districts, Winchester can expect to see greater measures of accessibility and use for their public transit services.

Further coordinating with transit operators such as Virginia Breeze would increase accessibility to the Northern Virginia and DC areas. With respect to a closer proximity, considering strategies or collaborations with Virginia Regional Transits Front Royal Trolley which serves Randolph Macon Academy, Laurel Ridge, and Corridor Connector lines Winchester could lead to greater economic activity and opportunity for its constituents.

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Chapter 3:

**Planned Improvements
and Modification**

3 CONTENTS

3	Chapter 3: Planned Improvements and Modification	3-1
3.1	Planned Service Improvements	3-2
3.1.1	Studies	3-2
3.1.2	Service Changes	3-4
3.2	Prioritization of Planned Service Improvements	3-9
3.3	Service Development.....	3-10
3.3.1	Service Levels	3-10
3.3.2	Title VI Service Considerations	3-11
3.3.3	Potential Issues Impacting the Existing or Planned System	3-11
3.3.4	Projects Schedule.....	3-11
3.3.5	Policy, Funding, and Infrastructure Needs for Implementation	3-12

3 CHAPTER 3: PLANNED IMPROVEMENTS AND MODIFICATION

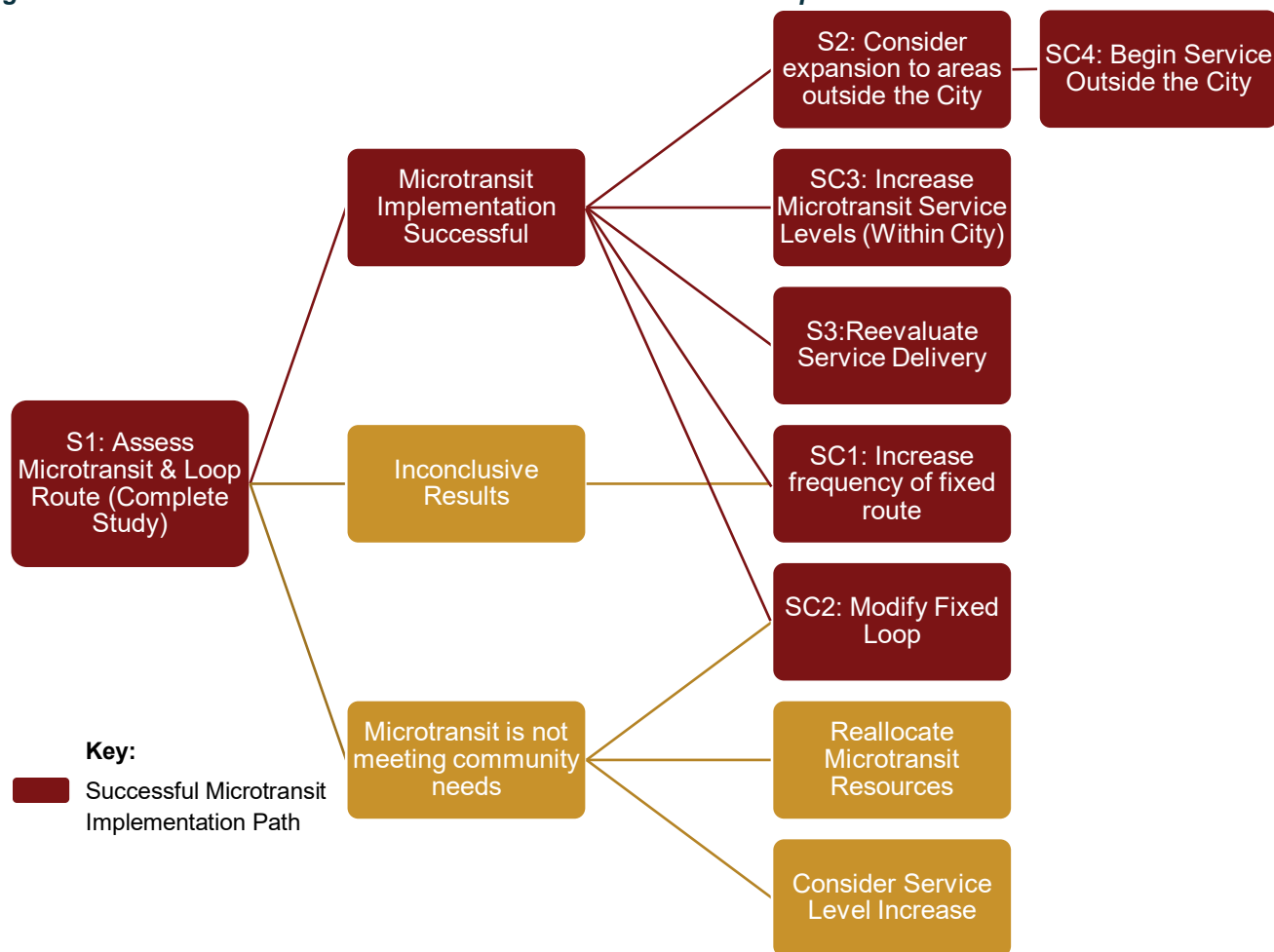
Chapter three highlights a list of potential improvements that could follow a successful implementation of the WinReady Microtransit system, including studies and service changes. This chapter describes the planned service improvements, the prioritization of the improvements, and the development of service levels and relevant considerations.

At the time of adoption of this TDP, WinReady and the Loop Route will be newly implemented. The needs of the system will depend on the performance of the WinReady system. This performance will be evaluated based on the system goals and service standards once there has been a sufficient adjustment and data collection period. To ensure that Winchester Transit is adaptable to the different possibilities, a decision tree was created to identify options that Winchester Transit can implement based on the performance of the microtransit system and Loop Routes. This decision tree is illustrated below in **Figure 3-1**.

After WinReady has been implemented for two years, it is anticipated that riders will have adjusted sufficiently to the new system to form their new routines and work through the hurdles that may occur through the process of adjustment. At this point, Winchester Transit can perform a study to examine the impact of the microtransit implementation, evaluate the system performance, and guide the service changes necessary in the following years. This project, “Project S1: Assess Microtransit and Loop Route Study (FY 2027)” is the first study detailed in Section 3.1.

This chapter assumes that microtransit implementation will be successful. This aligns with Winchester Transit’s anticipated outcome based on the increased system accessibility, improved user experience, and the positive public reception to the system launch. The related service improvements following this assumed path are highlighted in red in **Figure 3-1**. The projects identified are subject to change, particularly if the initial Microtransit and Loop Route Assessment reveals that the system is not meeting community needs as determined through a performance evaluation in Project S1. If microtransit is unsuccessful based on Project S1, Winchester Transit will follow that branch of the decision tree and the TDP recommendations would need revision.

Figure 3-1 : Winchester Transit Decision Tree After Microtransit Implementation



3.1 Planned Service Improvements

The planned improvements and modifications are grouped into two major categories and project numbers are prefaced with the abbreviation in parentheses: studies (S) and service changes (SC). Each of the projects identified in the “Successful Microtransit Implementation Path” in **Figure 3-1** are described below, including descriptions of each project and the needs fulfilled. The needs identified are from the following sources:

- Adopted goals, objectives, and service standards
- “Opportunities for Improvement” identified in Chapter 2
- State and Federal legal and regulatory requirements

3.1.1 Studies

The planned studies described below will guide future development of the system. These studies are highlighted in the “Successful Microtransit Implementation” path in **Figure 3-1** and identify areas of analysis needed to provide further recommendations. Recommendations emerging from these studies may involve service changes or infrastructure changes. Each description outlines the relevant context to conducting the study and the major components that each study will include.

Project S1: Assess Microtransit and Loop Route Study (FY 2026)

Project Description

As WinReady and the Loop Route were implemented in the spring of 2024 during the TDP development process, Winchester Transit will need to evaluate at a later date whether the new system is effectively meeting community needs. This study will examine the adoption of the new system by riders, the ability of microtransit service to attract new riders, and the impact on quality of life.

This study will include a technical assessment of ridership data, an update of the City of Winchester's travel patterns to determine what may have shifted, and public and stakeholder engagement. The technical data analysis will measure the performance of the system based on the previously established performance measures outlined in Chapter 2. The travel pattern examination will reveal how users are interfacing with the system and create the foundation for potential zoning if necessary. Lastly, the public engagement portion will evaluate rider and community satisfaction. This will include an engagement effort and survey as well as an analysis that includes any feedback received on the service between the spring 2024 implementation and the study.

Based on the findings from these assessments, the study will determine which areas are overperforming and which are underperforming and make recommendations regarding opportunities for improvement. Recommendations may include microtransit expansion, changes to fixed-route service, or others depending on the study outcome.

Needs Fulfillment

This project meets Winchester Transit's goals to increase accessibility and community focus. Specifically, this project ensures that Winchester Transit can evaluate microtransit's access to community facilities in practice and incorporate public and stakeholder feedback into project development. The study will ensure efficient allocation of resources, and by examining the impact of the new system on the surrounding community, the study can also build trust between Winchester Transit and its users.

Project S2: Assess Areas Outside of the City for Microtransit Feasibility (FY 2030)

Project Description

Following the overall assessment of the microtransit system, Winchester Transit can conduct a more specific examination of the potential for expanding service to more areas outside the City. The desire for expanded service was identified in the initial Microtransit Feasibility Study and has been echoed by citizens and community agencies. While the current system serves three major destinations outside of City borders, connection to surrounding areas may further expand access to employment, residential, and commercial hubs.

This study will include a travel pattern analysis, stakeholder coordination, and funding assessments. The travel pattern analysis will examine areas outside the City of Winchester which have sufficient activity to sustain expansion. Stakeholder coordination is necessary, as an expansion would involve additional jurisdictions including Frederick County and community agencies outside of Winchester. Lastly, a funding assessment is necessary to determine where the funds for the increase in service area would come from. It may be necessary to create a funding agreement with Frederick County.

Needs Fulfillment

This project meets Winchester Transit's goals of community focus and increased accessibility. Specifically, this project will strengthen partnerships with Frederick County and surrounding employers, educational facilities, and other private entities; and to offer direct and convenient access to community facilities.

Project S3: Reevaluate Service Delivery (FY 2033)

Project Description

This study's purpose is a long-term examination of system performance after residents have already adapted to the new system and relevant service changes and expansions have already been evaluated and implemented. This study creates an opportunity for Winchester Transit to consider advances in transit service technology and evaluate the system's modernization needs.

This study could be completed internally as a separate contracted planning effort, or it could be combined with the next TDP. A more defined scope should be determined closer to the period to determine what technical and engagement efforts need to be included. For purposes of this TDP, it is assumed to be an internal effort.

Needs Fulfillment

This project is an overall examination of the system's ability to meet Winchester Transit's goals as identified in Chapter 1. As such, this meets all the goals for increased accessibility, enhanced service, and community focus. Additionally, this project supports system modernization, efficiency, and sustainability.

3.1.2 Service Changes

The following are potential recommended changes to Winchester Transit's service over the course of the TDP based on results for the above studies.

Project SC1: Increase Frequency of Loop Route with 15-minute Headways (FY 2028)

Project Description

The first step to improving microtransit Loop Service would be to increase the frequency of the Loop Route by decreasing headways. Through analysis of peak demand during high ridership periods, the Loop Route service can be adjusted to handle the dynamic travel patterns that occur. Additionally, after analyzing the travel patterns, vehicle routes can be adjusted to bypass certain stops based on real-time traffic and passenger demand conditions for more efficient vehicle use.

Needs Fulfillment

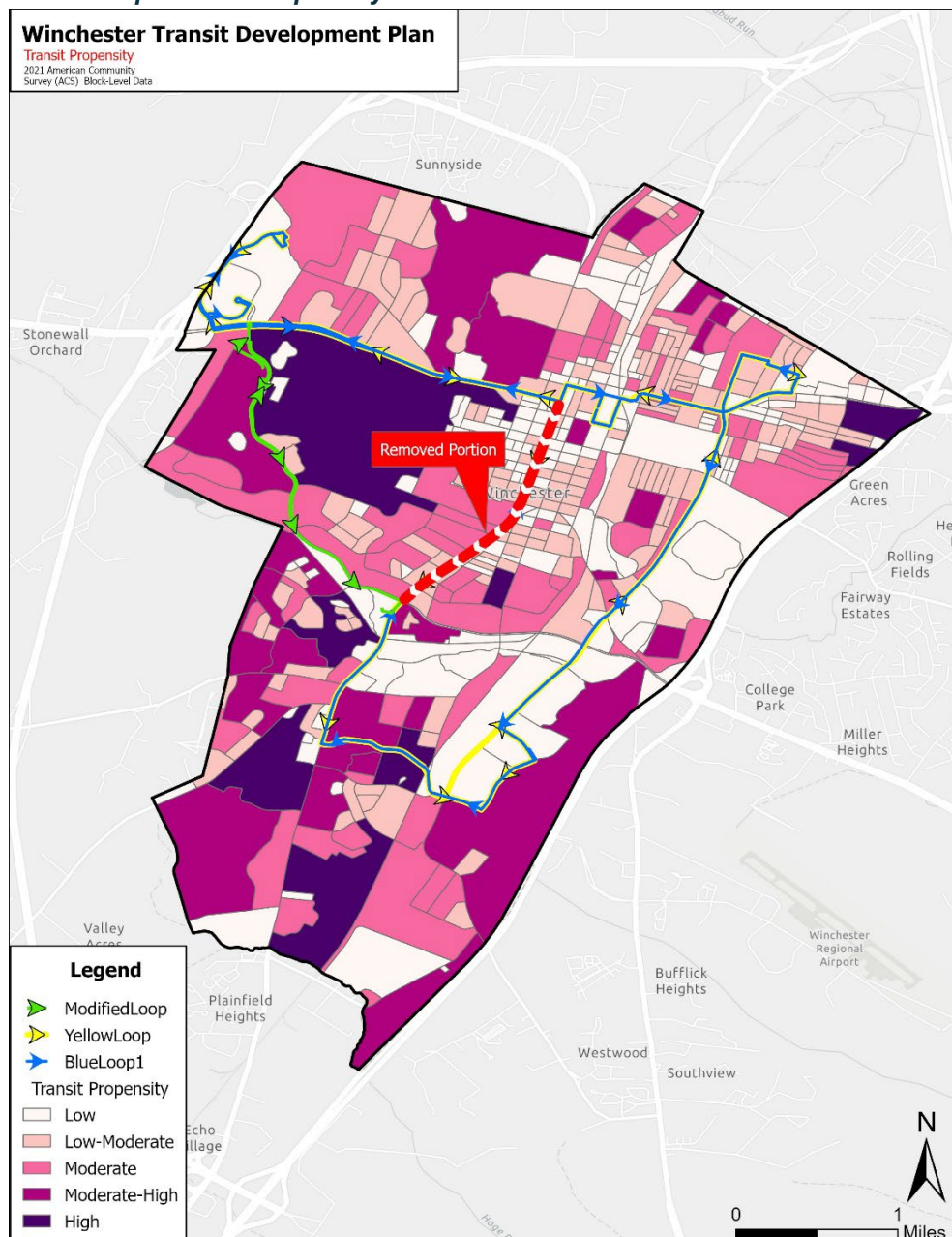
With decreased headways of the Loop Route service, users can rely on increased efficiency and reliability when it comes to their daily schedule. This in turn would improve ridership for the service and possibly lead to increased scalability. There are several methodologies that can improve frequency but by decreasing headways riders can expect an increased capacity and greater flexibility in terms of their transit choices. This service would lead to a reduction in vehicle idle time and improved passenger experience by prioritizing high activity stops.

Project SC 2: Modify Loop Route (FY 2029)

Project Description

Another option to consider would be expanding the service available within the bounds of Winchester. Due to projected growth in both population and employment density, the area surrounding the Medical Center is a prime target for access modifications. Currently, Amherst Street is the only arterial that provides access to this area, therefore, adding a new line of service would serve a larger portion of the surrounding population. One proactive move could be reallocating service from areas of projected loss, such as the middle portion of Valley Avenue and Braddock, and replacing them with a bi-directional route using West Jubal Early Drive. With this change, the Loop Route would continue to serve Amherst Street and decrease the overall microtransit cost while staying more efficient and in-line with the projected spatial growth of the city.

Figure 3-2: Modified Loop Transit Propensity



Needs Fulfillment

This project fulfills the need to increase accessibility to greater portions of the Winchester population. In accordance with the projected population distribution (**Figure 2-8**), this portion of the city would be a productive corridor for transit ridership.

Project SC3: Increase Microtransit Service Level (Within City) (FY 2027)

Project Description

Currently, the microtransit zone for Winchester is set to have an average wait time of 15 minutes. However, if studies indicate that trip requests are being denied due to full vehicles or that longer than expected wait times are being experienced regularly, decreasing wait times could be an option to improve the service level and provide greater accessibility to different areas of the city. To accomplish this, another vehicle would be added to the fleet, resulting in a greater number of weekly trips and reducing wait times to 10 minutes. With respect to operations, Via's fleet management software could organize and optimize vehicle deployment to strategic areas of need that best serve dynamic passenger demands.

Additionally, if studies indicate customers' desire for increased service span based on the number of requests occurring on Saturdays, service hour span could be extended on Friday and Saturday and service could be added on Sundays.

Needs Fulfillment

This project fulfills the need to increase accessibility to a greater portion of the population and to serve an area of both employment and population growth. By increasing microtransit service, a greater number of seats become available that would alleviate overcrowding and/or reduce wait times during peak hours. High density locations should be prioritized first by analyzing stops and pick up points that have the largest number of boardings so that vehicles can be allocated spatially that reflect these needs.

Project SC4: Begin Service Outside the City (FY 2032)

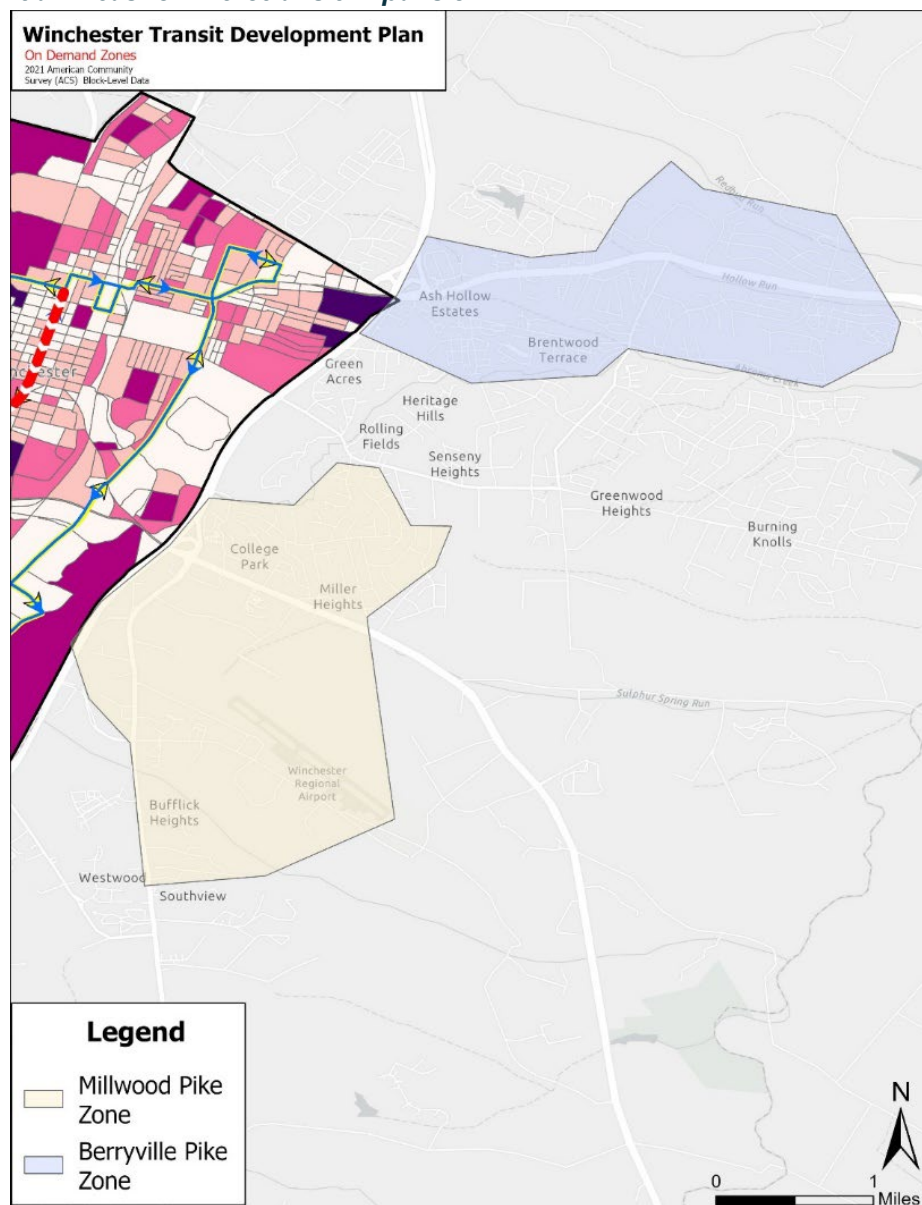
Project Description

Winchester currently serves as an employment center for many of the surrounding areas, but towns such as College Park and Round Hill are projected to grow by more than 1,500 persons by 2040. Based on this projection, it would be advantageous to serve these areas by connecting them to Winchester's quickly growing employment density. To accomplish this, two zones of microtransit service could be implemented along Millwood Pike between Braddock Street and Miller Heights, or along Berryville Pike until Woods Mill Road. Microtransit connectivity would increase accessibility to Winchester's city centers, and these arterial roads can act as efficient collectors for the surrounding neighborhoods for a service outside the city. These zones are illustrated in **Figure 3-3** and the demographics of these zones have been summarized below in **Table 3-1**.

Table 3-1: Millwood Pike and Berryville Pike Demographics

Demographic Trait	Millwood Pike Demographic Values	Berryville Pike Demographic Values
Population	1,500	3,100
Households	500	1,200
Jobs	700	700
Poverty	12%	22%
Non-White/Hispanic or Latino	40%	44%
Zero-Car Household	13%	5%
One-Car Household	37%	39%
Use Public Transit to Work	4%	2%
Above 65 years old	14%	14%
Walk to Work	9%	1%

Figure 3-3: Potential Areas for Microtransit Expansion



Needs Fulfillment

This project fulfills the need to connect neighborhoods with limited transit access to microtransit and expanding service offerings outside the city. Given the current transit propensity for these new areas, this could boost the level of service for those who live or even work here. Some of the new destinations that would be served in these zones include the Winchester Regional Airport, the Costco, Retail along Berryville Pike, Millbrook High School, and residential neighborhoods.

3.2 Prioritization of Planned Service Improvements

The 10-year time period of this TDP is broken down into three timeframes for implementation:

- Short-term transit improvements (FY 2025 – FY 2027)
- Mid-term transit improvements (FY 2028 – FY 2031)
- Long-term transit improvements (FY 2032 – FY 2034)

The studies only have one-time costs associated with them and assume the use of the third-party consultant for price estimation. These costs were developed with an understanding of the scope components necessary for each project and the related costs for similar efforts.

In the projects, the project team recommended modifying the existing route (Project SC2) due to projected growth, adding vehicles (Project SC3) to accommodate for an increased level of service, and/or developing new services outside the city (Project SC4). Vehicles have been estimated to cost approximately \$130,000 per unit in capital expenses, while new lines and transit zones have an approximate cost of \$100/hour of service.

Table 3-2 places each project into a timeframe and includes the following information:

- Expected completion FY based on the assigned timeframe (subject to change as funding availability becomes more defined)
- Potential external funding sources
- Capital/one-time and annual operations costs (if applicable) expressed in current year dollars.

Table 3-2: Summary of Planned Improvements

Timeframe	Fiscal Year	Project Number	Project Name	Potential External Funding Sources	Capital/One-Time Costs	Annual Operations Cost (Additional)
Short-Term	2026	S1	Study: Assess Microtransit & Loop Route (Complete Study)	State Technical Assistance Grant	\$150,000	N/A
Short-Term	2027	SC3	Service Change: Increase Microtransit Service Level (Within City)		\$130,000	\$606,000
Mid-Term	2028	SC1	Service Change: Increase Loop Route to 15-minute headways		\$0	\$1.24 M
Mid-Term	2029	SC2	Service Change: Modify Loop Route		\$0	\$1.16 M
Mid-Term	2030	S2	Study: Assess Areas outside the City	State Technical Assistance Grant	\$100,000	N/A
Long-Term	2032	SC4	Service Change: Begin Service Outside the City (Per Zone) (1 Vehicle)		\$130,000	Berryville: \$407,000 Millwood: \$291,200
Long-Term	2033	S3	Study: Reevaluate service delivery		\$0	N/A

Facility Improvements and Capital Projects

Winchester Transit is currently designing and building a replacement vehicle maintenance facility to increase operational efficiency and structural safety. Besides this maintenance facility, there are no other planned facility improvements or capital projects, aside from state of good repair (SGR) fleet replacements.

Some facility improvements relate to modifying the route (Project SC2) by reallocating services to areas of potential growth, ultimately changing annual operations costs. In other cases, adding vehicles (Project SC3) would serve capital costs.

Funding Sources and Considerations

Winchester Transit is funded through a combination of federal, state, and local funds. These funds are allocated towards both ongoing operations and maintenance of the system as well as capital budgets. The breakdown of the funds and sources as outlined in DRPT's Six Year Improvement Plan (SYIP) are summarized below in **Table 3-3**. The capital expense is incurred from the construction of a new maintenance facility for Winchester Transit vehicles.

As the projects outlined in this chapter are contingent on the success of the microtransit implementation, which is currently undetermined, none of the outlined projects have already been submitted to the CLRP. Any service changes and resulting capital changes determined through the Microtransit studies would impact Winchester Transit's operating and capital budgets. These would then be incorporated into funding requests to DRPT for future years. These studies would fall under the technical assistance grant for the SYIP. They would also be submitted to the six-year plans.

Table 3-3: FY 2024 Winchester Transit Funding from SYIP

Funding Source	Operations & Maintenance Expense	Capital Expense
Federal	\$1,002,600	\$5,900,000
State	\$427,000	\$242,000
Local	\$950,100	\$339,300

Source: DRPT FY 24 SYIP

3.3 Service Development

The following Service Developments were derived from a combination of Chapter 2 data analysis related to employment and population forecasts. This data motivated the following projects such as loop modifications and expansion projects outside the city.

3.3.1 Service Levels

Table 3-4 includes potential changes to ridership and service levels assuming all the considered service changes are implemented. There are no planned reductions in service levels.

Table 3-4: Summary of Service Development

Timeframe	Project Number	Description	Annual Ridership	Annual Revenue Hours	Annual Revenue Miles
FY 2022	Analysis Year	Base service	124,000 (Existing Ridership)	11,800 (Existing Hours)	139,000 (Existing Miles)
FY 2023	Existing Service	Latest existing service	180,600	20,200	227,000
FY 2024	WinReady Implemented	Microtransit implemented March 2024	100,000	19,800	234,000
Short-term (FY 2025 - 2027)	SC3	Increase microtransit service level within the city (adding vehicles)	+ 8,800	+ 6,100	+ 92,100
Mid-term (FY 2028 - 2031)	SC1	Increase Loop Route frequency to 15-minute headways	+ 13,700	+ 10,600	+ 183,300
Mid-term (FY 2028 - 2031)	SC2	Modify the Loop Route: Adding a loop on Meadow Branch Avenue for more neighborhood connectivity to the medical center and remove Middle portion	+ 880	-1,700	-19,400
Long-term (FY 2032 - 2034)	SC4	Expand microtransit to service areas surrounding Winchester: Potential additions include Millwood and Berryville Pike	Millwood: +1,100 Berryville: +2,200	Millwood: +3,600 Berryville: +5,100	Millwood: +31,800 Berryville: +41,500

Source: Base service values are from the National Transit Database (NTD); WinReady Implementation and SC1-SC4 values are estimated through analysis; FY 2024 results are based on a combination of fixed-route and paratransit (prior to March 2024) and Loop Route and microtransit post-launch. Results for June 2024 are forecasted.

3.3.2 Title VI Service Considerations

Winchester's Title VI Program outlines a community outreach process to ensure that all communities can participate in public engagement, including communities with limited English proficiency. The program broadly analyzes demographics of the census tracts in the city and delineates the process in which riders can submit complaints if any Title VI violation has been experienced.

There are currently no service changes planned in response to this Title VI program.

3.3.3 Potential Issues Impacting the Existing or Planned System

Since this microtransit service is very new, its performance is still uncertain. This means that there will likely be adjustments that need to be made to support the system transition, necessitating a period of testing and evaluation to update the TDP.

Winchester Transit is also currently performing a zero-emissions study. The results of this study may impact the existing fleet and the fleet expansion plan because of the possible transition into zero-emission vehicles.

3.3.4 Projects Schedule

Winchester has two projects that are ongoing or recently completed. These two projects are a new maintenance facility at City Yards and the microtransit implementation. The schedules for these projects have been

summarized below. The other projects listed in this chapter are all potential projects and have anticipated timeframes in the project descriptions and in **Table 3-2**.

New Maintenance Facility at City Yards

This project includes a total reconstruction of the Winchester Transit vehicle maintenance facility located at the City of Winchester Public Services Campus. The existing maintenance facility was built in 1985 and needs structural repairs, safety improvements, and overall upgrades to improve the efficiency of repairs and maintenance to transit vehicles. **Table 3-5** details the timeline related to the design and construction of the new maintenance facility.

Table 3-5: City Yards Maintenance Facility Timeline

Timeframe	Project
June 2023	Final Design of Maintenance Facility Completed
June 2023 – February 2024	FTA Design Approval
May 2024	Notice to Proceed and Construction Started
February/March 2026	Estimated Final Facility Completion

Microtransit Service Implementation

The current microtransit service started with a Feasibility Study and after rounds of Council Approval, started service in March 2024. **Table 3-6** details the timeline of events related to the implementation of microtransit in Winchester.

Table 3-6: Microtransit Service Implementation Schedule

Timeframe	Project
August – February 2023	Winchester Microtransit Feasibility Study
June 27, 2023	Resolution approving the implementation of microtransit service adopted by the Common Council of the City of Winchester
December 12, 2023	Resolution approving the modifications of Winchester Transit Fixed-Routes in conjunction with implementing microtransit service adopted by the Common Council of the City of Winchester
February – March 2024	Public engagement sharing details about the microtransit service
March 23, 2024	Launch of microtransit service

3.3.5 Policy, Funding, and Infrastructure Needs for Implementation

This section describes some non-service-related decisions and other considerations for successfully implementing service changes. Many of these items are included in TSP projects in the preceding sections.

Project S2 calls for Winchester to assess areas outside of the city for microtransit expansion. To implement this expansion, Winchester would need to work with Frederick County to outline a funding and service agreement with the county.

There are no capital projects for the currently proposed service changes. This may change depending on the results of the zero-emissions vehicle study or potential service change recommendations that call for expanded stop or facility infrastructure.

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Chapter 4:

Implementation Plan

4 Contents

- 4 Chapter 4: Implementation Plan.....4-1**
- 4.1 Asset Management.....4-1
 - 4.1.1 Policies for Replacement, Rehabilitation, Retrofitting, Expansion, and Reduction of Vehicle Fleet4-1
 - 4.1.2 Maintenance and Operations Facilities Policies.....4-1
 - 4.1.3 Passenger Facilities, Infrastructure, and Amenities Policies4-2
 - 4.1.4 Technology and Intelligent Transportation Systems (ITS) Policies4-2
- 4.2 Capital Implementation Plan4-2
 - 4.2.1 Rolling Stock4-3
 - 4.2.2 Capital Needs4-5

4 CHAPTER 4: IMPLEMENTATION PLAN

Chapter 4 of the TDP outlines the essential actions and financial investments needed to execute the operational enhancements and service upgrades outlined in Chapter 3. The implementation strategy delineates the procedures essential for sustaining the condition of existing assets and outlines the supplementary capital requirements for proposed expansions or alterations to services. Each element of the implementation plan is centered on advancing the service improvements or expansions specified in Chapter 3, and/or addressing previously recognized projects.

4.1 Asset Management

Transit agencies receiving federal funding from the Federal Transit Administration (FTA) are obligated to establish and uphold a Transit Asset Management (TAM) plan covering rolling stock, non-revenue vehicles, facilities, and other equipment. The specifics of the TAM plan depend on whether the agency falls under Tier I or Tier II classification, which is determined by factors such as the presence of rail and fleet size. In Virginia, the Department of Rail and Public Transportation (DRPT) is responsible for crafting and maintaining Tier II plans for eligible agencies, while Tier I agencies are tasked with developing their own TAM plans.

Winchester, which is classified as a Tier II agency, participates in the group TAM plan developed by DRPT. They have formulated specific policies governing their service, fleet, and facilities. When necessary, Winchester adheres to the overarching asset management protocols outlined in DRPT's biannual Virginia Group Tier II Transit Asset Management Plan. These policies, at a minimum, align with and fulfill the standards established in the group TAM plan for the fiscal years 2022 to 2025¹.

4.1.1 Policies for Replacement, Rehabilitation, Retrofitting, Expansion, and Reduction of Vehicle Fleet

Winchester Transit adheres to the policies and benchmarks identified in DRPT's TAM Plan. **Table 4-1** summarizes DRPT's performance targets for revenue vehicles in Winchester Transit's rolling stock. Winchester Transit has one vehicle that is beyond DRPT's Useful Life Benchmark (ULB). This is within DRPT's target percentage of vehicles that have met or exceeded their ULB.

Table 4-1: DRPT Vehicles and Vehicle Performance Targets

Asset Class	ULB (Years)	Target %	# of Vehicles	# Beyond ULB
Cutaway	10	10%	12	1
Automobiles (non-revenue)	8	30%	2	1

Source: DRPT TAM Plan, Winchester Transit Vehicle Inventory

Each vehicle will be replaced once it has reached the end of its useful life. This is determined by the years of operation of the vehicle. A replacement schedule for the vehicles is included in section 4.2.

4.1.2 Maintenance and Operations Facilities Policies

Winchester Transit uses the FTA Transit Economic Requirements Mode (TERM) Scale and Performance Targets to evaluate maintenance and operations facilities. The TERM Scale is shown below in **Table 4-2**. DRPT's Facilities Performance Target describes an allowable percentage of facilities to drop below a three, at which point they should be replaced to maintain state of good repair (SGR). A 3.0 is described as "moderately deteriorated or

¹ <https://drpt.virginia.gov/wp-content/uploads/2023/07/tam-plan-2022.pdf>

defective but has not exceeded useful life". These targets and Winchester Transit's total facilities are shown in **Table 4-3**.

Table 4-2: FTA Transit Economic Requirements Mode (TERM) Scale

Term Rating	Condition	Description
Excellent	5	No visible defects, new or near new condition, may still be under warranty if applicable
Good	4	Good condition, but no longer new, may be slightly defective or deteriorated, but is overall functional
Adequate	3	Moderately deteriorated or defective; but has not exceeded useful life
Marginal	2	Defective or deteriorated; in need of replacement; exceeded useful life
Poor	1	Critically damaged or in need of immediate repair; well past useful life

Source: FTA TAM Facility Performance Measure Reporting Guidebook

Table 4-3: Winchester Transit Facilities and Performance Targets

Asset Class	TERM	Target %	# of Facilities	# of Facilities with TERM Rating Below a 3.0
Administration Facilities	<3	10%	1	
Maintenance Facilities	<3	10%	2	1
Passenger Facilities	<3	15%	1	

Source: DRPT TAM Plan

The maintenance facility that falls below the TERM rating of 3.0 is the vehicle and maintenance facility that is currently being repaired and improved. This is described in Section 4.2.2.

4.1.3 Passenger Facilities, Infrastructure, and Amenities Policies

Winchester Transit also uses FTA's TERM scale to establish performance targets for passenger facilities. As shown in **Table 4-3**, this performance target calls for less than 15 percent of passenger facilities to fall beneath a 3.0. Winchester has one passenger facility, and it is still within FTA's acceptable TERM rating.

4.1.4 Technology and Intelligent Transportation Systems (ITS) Policies

Winchester Transit updates its technological systems as necessary. This includes tablets installed in vehicles related to operation of the WinReady microtransit system. This technology provides information on vehicle location and rider information that is integrated into the passenger booking system.

In FY 2026, Winchester Transit plans to purchase fare automation equipment and off-site kiosks for select vehicles and locations.

4.2 Capital Implementation Plan

The following capital implementation plan outlines the asset investments mandated by the TAM plan and projects proposed in Chapter 3 of this document. The anticipated expenses are categorized into rolling stock and capital requirement classifications.

4.2.1 Rolling Stock

The City of Winchester will be responsible for maintaining its paratransit and fixed-route vehicles in SGR and incorporating plans to acquire vehicles for newly proposed services through the duration of this TDP. These capital costs will be summarized according to their upkeep and the development of the fleet. Winchester currently maintains four vehicles for paratransit, four vehicles for fixed-route, and four vehicles for microtransit. The fixed-route service has two vehicle types for two routes and has been split accordingly. The useful life for all revenue vehicles is five years and for administrative vehicles is 5-10 years. These costs are based on DRPT estimates.

Should Winchester Transit in the future decide to change vehicle type related to size or propulsion method, an update to the TDP would be required to understand changes to timelines and costs.

Table 4-4: Useful Life and Assumed Costs of Winchester's Vehicles

Vehicle Type	Useful Life	Assumed Cost
Paratransit	5	\$130,000
Fixed-route	5	\$130,000
Fixed-route – LRCC	5	\$130,000
Microtransit	5	\$130,000
Administrative	10	\$65,000

Source: FTA, City of Winchester

Replacement Vehicles

A replacement schedule for the vehicles has been developed to maintain SGR. These values have been estimated based on Winchester Transit's existing fleet and the associated useful life and costs. **Table 4-5** depicts the number and type of vehicles that will need to be replaced in each fiscal year to meet SGR needs. Additionally, the table shows vehicle replacement costs assuming five percent inflation each year. All costs are shown in thousands. The listed replacement years are one year less than the conclusion of their useful life to allow a buffer period to procure and deliver new vehicles in their stead. There are plans to purchase 28 replacement vehicles between FY 2025 and FY 2034.

Table 4-5: Replacement Vehicle Purchases by Year and Type

Type of Vehicle	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Revenue Vehicles										
Cutaway	4	4	3	1	3	2	4	4	1	3
Support Vehicles										
Service Vehicles	0	2	0	0	0	0	0	0	0	0
Total Vehicles	4	6	3	1	3	2	4	4	1	3
Revenue Vehicles Cost	\$632	\$504	\$430	\$151	\$474	\$332	\$697	\$732	\$192	\$605
Support Vehicles Cost	\$0	\$137	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs¹	\$632	\$641	\$430	\$151	\$474	\$332	\$697	\$732	\$192	\$605

Source: City of Winchester

1. All costs are shown in thousands

2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Proposed Improvement and Expansion

In addition to the vehicle purchases needed to sustain current service levels, this TDP also examines the vehicle purchases necessary to support the service expansions identified in Chapter 3. **Table 4-6** summarizes the proposed service expansions and associated costs. Projects SC3 and SC4 have identified capital costs associated with new vehicle purchases. Two expansion vehicles will be needed to support these service changes between FY 2025 and FY 2034.

Table 4-7 identifies the vehicle purchases by year to support these service expansions as well as the associated costs. This includes the cost of replacement for the expansion vehicle first proposed in FY 2027.

Table 4-6: Proposed Service Expansions by Year

Timeframe	Fiscal Year	Project Number	Project Name
Short-Term	2026	S1	Study: Assess microtransit & Loop Route (Complete Study)
Short-Term	2027	SC3	Service Change: Increase microtransit service Level Increase (Within city)
Mid-Term	2028	SC1	Service Change: Increase Loop Route to 15-minute headways
Mid-Term	2029	SC2	Service Change: Modify Loop Route
Mid-Term	2030	S2	Study: Assess areas outside the city
Long-Term	2032	SC4	Service Change: Begin service outside the city
Long-Term	2033	S3	Study: Reevaluate service delivery

Table 4-7: Expansion Vehicle Purchases by Year and Type

Type of Vehicle	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Revenue Vehicles										
Cutaway	0	0	1	0	0	0	0	1	0	0
Total Vehicles	0	0	1	0	0	0	0	1	0	0
Revenue Vehicles Cost	\$0	\$0	\$143	\$0	\$0	\$0	\$0	\$192	\$0	\$0
Total Costs¹	\$0	\$0	\$143	\$0	\$0	\$0	\$0	\$192	\$0	\$0

Source: City of Winchester

1. All costs are shown in thousands

2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Table 4-8 summarizes total vehicle capital needs for the duration of the 10-year TDP timeframe. This covers the replacement and service expansion vehicles.

Table 4-8: Total Vehicle Purchases by Year and Type

Type of Vehicle	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Revenue Vehicles										
Cutaway	4	4	4	1	3	2	4	5	1	3
Support Vehicles										
Service Vehicles	0	2	0	0	0	0	0	0	0	0
Total Vehicles	4	6	4	1	3	2	4	5	1	3
Revenue Vehicles Cost	\$632	\$554	\$573	\$151	\$474	\$332	\$697	\$924	\$192	\$605
Support Vehicles Cost	\$0	\$137	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Costs¹	\$632	\$641	\$573	\$151	\$474	\$332	\$697	\$924	\$192	\$605

Source: City of Winchester

1. All costs are shown in thousands

2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

4.2.2 Capital Needs

Facilities Operations and Maintenance

Winchester Transit is replacing the vehicle maintenance facility that has fallen below a TERM rating of three. Winchester Transit has completed the final design of this facility and once the design is approved by FTA, construction of the facility will begin. The facility is estimated to complete construction in the spring of 2026. The costs associated with replacing this maintenance facility have been allocated in previous fiscal years. **Table 4-9** shows the costs of purchasing and installing fare automation equipment for Winchester Transit vehicles, off-site kiosks for fare payment, and for a parking lot canopy to shelter buses.

Table 4-9: Facilities Operations and Maintenance Capital Costs by Year

Facility	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Fare Automation Equipment and Off-Site Kiosks	\$0	\$1,000	\$0	\$0	\$0	\$0	\$1,276	\$0	\$0	\$0
Parking Lot Canopy for Sheltering Buses	\$0	\$1,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cost of Purchase	\$0	\$2,200	\$0	\$0	\$0	\$0	\$1,276	\$0	\$0	\$0

Source: City of Winchester

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Passenger Facilities and Amenities

Winchester has one passenger facility, the Boscawen Street Transfer Center. Winchester Transit is also working to transition existing bus shelters and benches over to the newly implemented Loop Route in coordination with sidewalks projects that are being implemented through the City of Winchester's capital improvement program. This will create more space for shelters at bus stop locations and improve passenger experience. The costs to maintain these passenger amenities are summarized in **Table 4-10**. These facilities were estimated according to the planned service improvements and Winchester's Annual Planning schedule.

Table 4-10: Passenger Facilities and Amenities Capital Costs

Passenger Facility	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Shelters and Benches Units	2	0	0	1	1	0	0	2	0	0
Shelters and Benches Cost	\$22	\$0	\$0	\$13	\$13	\$0	\$0	\$31	\$0	\$0
Fixtures and Signing Units	5	0	0	5	3	0	0	5	0	0
Fixtures and Signings	\$2	\$0	\$0	\$2	\$1	\$0	\$0	\$3	\$0	\$0
Total Cost of Purchase	\$24	\$0	\$0	\$15	\$14	\$0	\$0	\$34	\$0	\$0

Source: City of Winchester

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Technology and Intelligent Transportation Systems (ITS)

Winchester Transit has updated its microtransit vehicles with tablets to interface with Via's microtransit scheduling system. This will support Winchester Transit in collecting data on ridership, average wait time, and trip length. This technology will be incorporated into future microtransit vehicle purchases and will be maintained and replaced to ensure consistent communication with the microtransit scheduling platform. Estimated yearly costs for these updates are summarized in **Table 4-11**.

Table 4-11: Technology and Intelligent Transportation Systems Capital Costs

Technology	FY25	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34
Units	0	5	0	1	7	4	1	1	1	6
Microtransit Hardware (tablets)	\$0	\$2.5	\$0	\$0.6	\$5	\$3	\$0.7	\$0.7	\$8	\$5
Total Cost of Purchase	\$0	\$2.5	\$0	\$0.6	\$5	\$3	\$0.7	\$0.7	\$8	\$5

Source: City of Winchester

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Chapter 5:

Financial Plan

5 CONTENTS

5 Chapter 5: Financial Plan	5-1
5.1 Funding Sources, Costs, and Revenues	5-1
5.1.1 Available Funding Sources	5-1
5.1.2 Previous Funding Sources and Revenues.....	5-2
5.2 Operations and Maintenance	5-3
5.3 Capital and One-Time Investments.....	5-4
5.3.1 Fleet Investments	5-4
5.3.2 Studies and Other Capital Investments	5-5
5.4 Summary.....	5-7

5 CHAPTER 5: FINANCIAL PLAN

5.1 Funding Sources, Costs, and Revenues

The following chapter projects annual operating, maintenance, and capital costs expected over the next 10 years (fiscal year (FY) 2025 – FY 2034). The financial plan covers the baseline plan assuming no additional projects or expenses from the TDP as well as the expenses from the projects recommended in Chapter 3. The proposed financial plan determines which anticipated funding sources will cover or offset the anticipated expenses.

5.1.1 Available Funding Sources

The following sections describe the categories for funding available to the City of Winchester. These sources include federal and state funding as well as internal revenue-generating sources such as general funds, fareboxes, and advertising.

Federal Funding

The City of Winchester previously received funding through the Coronavirus Aid, Relief, and Economic Security (CARES) Act in FY 2021 and FY 2022 and through the American Rescue Act in FY 2023. Moving forward, the City of Winchester will only receive federal funding through the Capital Assistance grant administered by DRPT and federal formula funding (Section 5307).

State Funding

The City of Winchester can expect to receive annual state funding through the formula-based Operating Assistance grant, one of several MERIT State Aid Grant Programs administered by Virginia Department of Rail and Public Transportation (DRPT). The amount of state funding available is contingent on Winchester Transit's performance compared to other transit systems within DRPT's purview. The funding formula considers agency size and three-year performance trends. Agency sizing metrics include operating cost (50 percent), ridership (30 percent), revenue vehicle hours (10 percent), and revenue vehicle miles (10 percent). Performance metrics include passengers per revenue vehicle hour, passengers per revenue vehicle mile, operating cost per revenue vehicle hour, operating cost per revenue vehicle mile, and operating cost per passenger.

[Additional state funding sources](#) include:

- DRPT Capital Assistance grant – This funding opportunity provides for the replacement or rehabilitation of existing assets through State of Good Repair (SGR) or to add capacity through the purchase of additional assets through Minor Enhancement (68 percent state match). In FY 2023, City of Winchester used this funding source for transit vehicle replacements. The federal government provides an 80 percent match, the state government provides a 16 percent match, and the City of Winchester provides the remaining four percent.
- DRPT Demonstration Project Assistance grant – This funding opportunity provides for new service to an area not currently served by transit or to an area that will provide additional transit connections. It is also a funding opportunity for technology and innovation.
- DRPT Technical Assistance grant – This funding opportunity supports studies that help to improve public transportation services (50 percent state match).

Farebox Revenue

The City of Winchester previously charged fares in FY 2020 and FY 2021 for its fixed-route service, paratransit service, and trolley service. The trolley service is no longer active as of March 25, 2024. In FY 2022 and FY 2023, the City of Winchester provided fare-free transit service. The City is now proposing a new fare structure that will be voted on by Council on June 11, 2024. Per the Federal Transit Administration (FTA), half-fares for fixed-route

service are available for Medicare card holders, individuals over 65, and individuals with disabilities. Students under the age of 18 ride transit service for free.

Table 5-1: Proposed Fare Structure

Fare Type	Fare per Ride
Loop Route – Full Fare	\$1.00
Loop Route – Half-Fare	\$0.50
Laurel Ridge Fixed-Route – Full Fare	\$2.00
Laurel Ridge Fixed-Route – Half-Fare	\$1.00
WinReady	\$1.50
Paratransit	\$1.50

Source: City of Winchester

Advertising Revenue

Advertising revenue come from placements of marketing materials on local buses, paratransit vehicles, microtransit vehicles, and bus shelters.

Local Funding

Local funding comprises funds from local taxes.

5.1.2 Previous Funding Sources and Revenues

Budget amounts for FY 2020 – FY 2024 are based on documents provided by the City of Winchester and DRPT documentation. Values for FY 2020 – FY 2023 are based on the actual budgets, while FY 2024 values are based on the original budget and is subject to change as expenditures and revenues change through the remainder of the fiscal year. FY 2025 adopted budget and the FY 2024 original budget were used as the baseline for future year projections.

Table 5-2: FY 2020-FY 2024 Operational Revenue Funding Sources

Funding Source	FY 2020 (Actual)	FY 2021 (Actual)	FY 2022 (Actual)	FY 2023 (Actual)	FY 2024 (Adopted)
Federal Funding	\$824	\$764	\$932	\$1,783	\$1,408
State Funding	\$314	\$249	\$396	\$381	\$427
Farebox Revenue	\$65	\$52	\$0	\$0	\$0
Advertising Revenue	\$33	\$25	\$37	\$31	\$30
Local Funding	\$274	\$122	\$0.6	\$168	\$459
Total	\$1,509	\$1,213	\$1,365	\$2,363	\$2,324

Source: City of Winchester Financial Records (FY 2020 – FY 2024)

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

5.2 Operations and Maintenance

Table 5-3 shows the operations and maintenance costs for FY 2025 – FY 2034. All costs are the expected costs for the year of expenditure, which was done by considering a five percent annual rate of inflation. Existing operating costs for fixed-route service, microtransit service, and paratransit service are based on the proposed FY 2025 City of Winchester budget. For projects proposed in the TDP, additional operating costs are based on expected revenue miles and revenue hours. Additional services and expenditures for operations and maintenance in future fiscal years assume a similar distribution of federal, state, and local funding as FY 2025.

Table 5-3: Operations and Maintenance Costs

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Existing fixed-route and microtransit service	\$1,640	\$1,722	\$1,809	\$1,899	\$1,994	\$2,094	\$2,198	\$2,308	\$2,424	\$2,545
Existing paratransit service	\$784	\$823	\$864	\$907	\$953	\$1,000	\$1,050	\$1,103	\$1,158	\$1,216
Administration	\$221	\$232	\$244	\$256	\$269	\$282	\$296	\$311	\$326	\$343
SC1: Increase Loop Route to 15-minute headways	\$0	\$0	\$0	\$1,435	\$1,507	\$1,583	\$1,662	\$1,745	\$1,832	\$1,924
SC2: Modify Loop Route	\$0	\$0	\$0	\$0	\$1,410	\$1,480	\$1,555	\$1,632	\$1,714	\$1,800
SC3: Increase Microtransit Service Level (Within City)	\$0	\$0	\$668	\$701	\$736	\$773	\$812	\$852	\$895	\$940
SC4: Begin Service Outside the City	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$982	\$1,032	\$1,083
Total	\$2,645	\$2,777	\$3,584	\$5,199	\$6,869	\$7,212	\$7,573	\$8,934	\$9,380	\$9,849

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Table 5-4: Operations and Maintenance Revenues

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Federal Funding	\$1,323	\$1,389	\$1,792	\$2,599	\$3,434	\$3,606	\$3,786	\$3,976	\$4,174	\$4,383
State Funding	\$428	\$444	\$573	\$832	\$1,099	\$1,154	\$1,212	\$2,058	\$2,161	\$2,269
Local Funding	\$895	\$944	\$1,219	\$1,768	\$2,335	\$2,452	\$2,575	\$2,900	\$3,045	\$3,197
Total	\$2,645	\$2,777	\$3,584	\$5,199	\$6,869	\$7,212	\$7,573	\$8,934	\$9,380	\$9,849

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars

5.3 Capital and One-Time Investments

Capital costs consist of fleet, technology and ITS, and facilities and amenities expenses. This section also includes one-time costs for studies. The section is broken down into fleet investments and into studies and other capital investments.

5.3.1 Fleet Investments

Table 5-5 encompasses bus replacement and expansion over the next decade. This incorporates previously scheduled bus replacements and expansion vehicles in accordance with Chapter 3 recommendations. **Table 5-6** delineates the funding sources for revenues and the overall costs to the County. Vehicle replacement schedule and unit cost of vehicles can be found in Chapter 4. Vehicles are assumed to be funded by 80 percent federal, 16 percent state, and four percent local funding.

Table 5-5: Fleet Costs

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Replacement Vehicles	\$632	\$641	\$430	\$151	\$474	\$332	\$697	\$732	\$192	\$605
Expansion Vehicles SC3: Increase Microtransit Service Level (Within City)	\$0	\$0	\$143	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Expansion Vehicles SC4: Begin Service Outside the City	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$192	\$0	\$0
Total	\$632	\$641	\$573	\$151	\$474	\$332	\$697	\$924	\$192	\$605

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Table 5-6: Fleet Revenues

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Federal Funding	\$506	\$512	\$459	\$121	\$379	\$265	\$557	\$739	\$154	\$484
State Funding	\$63	\$102	\$92	\$24	\$76	\$53	\$111	\$148	\$31	\$97
Local Funding	\$63	\$26	\$23	\$6	\$19	\$13	\$28	\$37	\$8	\$24
Total	\$632	\$641	\$573	\$151	\$474	\$332	\$697	\$924	\$192	\$605

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars

5.3.2 Studies and Other Capital Investments

Table 5-7 illustrates the one-time and maintenance expenses associated with the studies recommended in Chapter 3 and other capital needs such as technology, facilities, or amenities. Meanwhile, **Table 5-8** outlines the funding sources and their projected revenues designated for covering the costs associated with these recommendations and other capital needs.

Table 5-7: Studies and Other Capital Costs

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
S1: Assess Microtransit & Loop Route	\$0	\$158	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
S2: Assess Areas Outside the City	\$0	\$0	\$0	\$0	\$0	\$128	\$0	\$0	\$0	\$0
S3: Reevaluate Service Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fare Automation Equipment/Off-Site Kiosks	\$0	\$1,000	\$0	\$0	\$0	\$0	\$1,276	\$0	\$0	\$0
Parking Lot Canopy for Sheltering Buses	\$0	\$1,200	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Shelters and Benches	\$22	\$0	\$0	\$13	\$13	\$0	\$0	\$31	\$0	\$0
Fixtures and Signing Units	\$2	\$0	\$0	\$2	\$1	\$0	\$0	\$3	\$0	\$0
Microtransit Hardware	\$2	\$0.5	\$0	\$0.6	\$5	\$3	\$0.7	\$0.7	\$8	\$5
Total	\$26	\$2,358	\$0	\$16	\$19	\$131	\$1,277	\$35	\$8	\$5

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%

Table 5-8: Other Capital Revenues

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Federal Funding	\$0	\$1,760	\$0	\$0	\$0	\$0	\$1,021	\$0	\$0	\$0
State Funding	\$0	\$431	\$0	\$0	\$0	\$64	\$204	\$0	\$0	\$0
Local Funding	\$26	\$167	\$0	\$16	\$19	\$67	\$52	\$35	\$8	\$5
Total	\$26	\$2,358	\$0	\$16	\$19	\$131	\$1,277	\$35	\$8	\$5

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars

5.4 Summary

Table 5-9 is a total of all expected revenues over the 10-year horizon of this TDP. The local funding is a total of general funds, farebox revenues, and advertising revenues.

Table 5-9: Summary of Revenues

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Federal Funding	\$1,828	\$3,661	\$1,847	\$2,720	\$3,814	\$3,871	\$5,365	\$4,715	\$4,328	\$4,867
State Funding	\$491	\$978	\$537	\$856	\$1,175	\$1,271	\$1,527	\$2,206	\$2,191	\$2,366
Local Funding*	\$958	\$1,137	\$967	\$1,789	\$2,373	\$2,532	\$2,654	\$2,972	\$3,061	\$3,226
Total	\$3,277	\$5,776	\$3,351	\$5,365	\$7,362	\$7,674	\$9,546	\$9,892	\$9,580	\$10,459

1. All costs are shown in thousands
2. Costs stated in years of expenditure dollars, with assumed annual inflation rate of 5%
3. *Local funding includes farebox revenue and advertising

WINCHESTER TRANSIT
Transit Development Plan
Fiscal Year 2025-2034

Appendix A:

**Agency Profile and
System Overview**

A Contents

A Appendix A: Agency Profile and System Overview A-1

 A.1 History..... A-1

 A.2 Governance..... A-1

 A.3 Organizational Structure A-2

 A.4 Services Provided and Areas Served..... A-3

 A.4.1 Loop Route A-3

 A.4.2 Laurel Ridge Route..... A-5

 A.4.3 WinReady Microtransit..... A-6

 A.5 Fare Structures, Payments, and Purchasing A-7

 A.6 Transit Asset Management – Existing Fleet and Facilities A-7

 A.6.1 Existing Fleet..... A-7

 A.6.2 Existing Facilities A-8

 A.7 Transit Security Program A-9

 A.7.1 Fare Inspection..... A-9

 A.7.2 Safety and Security Program A-9

 A.8 Intelligent Transportation Systems (ITS) Programs A-10

 A.9 Data Collection and Ridership/Revenue Reporting Method A-11

 A.9.1 Data Collection A-11

 A.9.2 Data Storage A-11

 A.9.3 Data Validation and Reporting A-11

 A.10 Coordination with Other Transportation Service Providers..... A-11

 A.10.1 The Shenandoah Area Agency on Aging..... A-11

 A.10.2 ShenGO Regional Transit..... A-12

A APPENDIX A: AGENCY PROFILE AND SYSTEM OVERVIEW

A.1 History

The City of Winchester established a city department to operate public transportation in 1950 when Winchester purchased the service from a private operator. The system has grown in the following years, providing a variety of different transit services to the greater Winchester region. The following recent milestones show Winchester Transit’s incremental growth from a municipal service to a regional transit provider:

- 2021 – Winchester Transit suspended fare payments in response to the COVID-19 pandemic
- 2022 – Winchester Transit conducted a feasibility study to explore the feasibility of a microtransit system
- 2023 – The City of Winchester approved the initiation of a microtransit service within city limits
- 2024 – Winchester Transit underwent an agency rebrand, dropping the moniker “WinTran”
- 2024 – Winchester Transit partnered with Via Transportation, Inc (Via) to launch “WinReady,” a microtransit service servicing the entirety of the City of Winchester
- 2024 – Winchester Transit contracted its existing nine fixed-route routes and replaced them with the Loop Route and the WinReady microtransit service
- 2024 – Winchester Transit proposes to reinstate fares (planned for July 2024, pending approval)

A.2 Governance

Winchester Transit is operated as a city division for the City of Winchester, located under the Department of Public Services. The Transit Director reports to the Public Works Division Manager, who reports to the Public Services Director, who reports to the City Manager, who reports to the City Council. This relationship is illustrated below in **Figure A-1**.

The City of Winchester operates under a Council-Manager form of government. The nine-member Council (known also as the Common Council) is the city’s main governing body, with two council members elected from each of the City’s four wards and a mayor who is elected at-large. The city manager oversees the administration of policies and projects approved by the Council and Mayor. The current mayor, council members, and city manager are listed below in **Table A-1**. Each council member and the mayor serve a four-year term.

Winchester Transit’s issues and initiatives brought to the Winchester City Council are first overseen by the three-member Planning and Economic Development Committee. There are no active committees representing all Winchester Transit riders, but a passenger advisor committee for the WinReady service has been initiated, which held its first meeting in May 2024.

Table A-1: Winchester City Council Members

Position	Councilor	Term Expiration
Mayor	John David Smith, Jr.	2024
Ward 1 Councilor	Les Veach	2024
	Richard Bell	2026
Ward 2 Councilor	Emily Rose Windle	2026
	John Hill (Vice-Mayor)	2024
Ward 3 Councilor	Kim Herbstritt	2026

Position	Councilor	Term Expiration
	Corey Sullivan	2024
Ward 4 Councilor	Kathy Tagnesi	2026
	Phillip "Phil" Milstead	2024

A.3 Organizational Structure

The Transit Director directly oversees Winchester Transit drivers and operations staff. The Transit Director manages the day-to-day administration of the agency. They are aided by a Transit Operations Manager who manages the drivers and day-to-day operations, and by an Office Assistant who performs tasks requested by the Transit Director, in addition to answering phones, scheduling paratransit trips, and conducting the fare counting.

The City of Winchester directly operates Winchester Transit, without any outside contracted transportation services; Winchester Transit does contract with Via for their microtransit software, but the microtransit service is run with Winchester Transit vehicles and operators. Winchester Transit’s transit operators and maintenance technicians are not unionized. The Winchester Transit’s organizational chart, as of May 2024, is shown in **Figure A-1**.

Figure A-1: Winchester Transit Organizational Structure (as of May 2024)



A.4 Services Provided and Areas Served

Winchester Transit provides local bus services across the City of Winchester and into Frederick County. Winchester Transit operates a combination of fixed-route, paratransit, and microtransit services.

Winchester Transit serves a nine-square-mile area within the greater Winchester region, operating within the City of Winchester and Frederick County. As of May 2024, Winchester Transit operates one fixed-route route and one commuter route (not including additional patterns). Service is provided Monday through Friday from 7:00 a.m. to 9:10 p.m., and Saturdays from 9:00 a.m. to 5:00 p.m. The Loop Route and the Laurel Ridge Route operate with 30-minute and 70-minute headways, respectively.

In Spring 2024, Winchester Transit launched a microtransit service branded as “WinReady”. Riders can book rides via an app or by calling to have a microtransit vehicle dispatched to pick them up. The service operates from 6:00 a.m. to 8:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. This system connects riders to locations within the City of Winchester as well as Westminster-Canterbury, the Northwestern Regional Adult Detention Center, and the VA Clinic outside city limits in Frederick County. WinReady also serves as Winchester Transit’s paratransit service to comply with the Americans with Disabilities Act (ADA).

Table A-2 provides an overview of Winchester Transit’s services. Major destinations for each route are displayed in the route sheets listed further down in this section. An in-depth service analysis is provided in Chapter 2.

Table A-2: Winchester Transit Service Summary

Service	Areas Served	Service Hours	Frequency
Loop Route	Old Town, Valley Health Hospital, Shenandoah University	Monday – Friday: 7:00 a.m. 7:00 p.m. Saturday: 9:00 a.m. – 5:00 p.m.	30 minutes
Laurel Ridge Route	Old Town, Shenandoah University, Laurel Ridge Community College	Monday – Friday: 7:10 a.m. – 9:10 p.m.	70 minutes
WinReady/Paratransit	The City of Winchester	Monday – Friday: 6:00 a.m. 8:00 p.m. Saturday: 9:00 a.m. – 5:00 p.m.	On-Demand

A.4.1 Loop Route

The Loop Route provides bi-directional circulator service through the central spine of the City of Winchester. The service begins Boscawen Street near City Hall where it then loops around the Apple Valley Marketplace and heads south on South Pleasant Valley Road. The route then serves Shenandoah University and the commercial areas of southern Winchester before transferring to U.S 11 via Hope Drive. The route then travels onto Amherst Street to serve the hospital before returning to Old Town and completing the loop. The Loop Route alignment is displayed in **Figure A-2**.

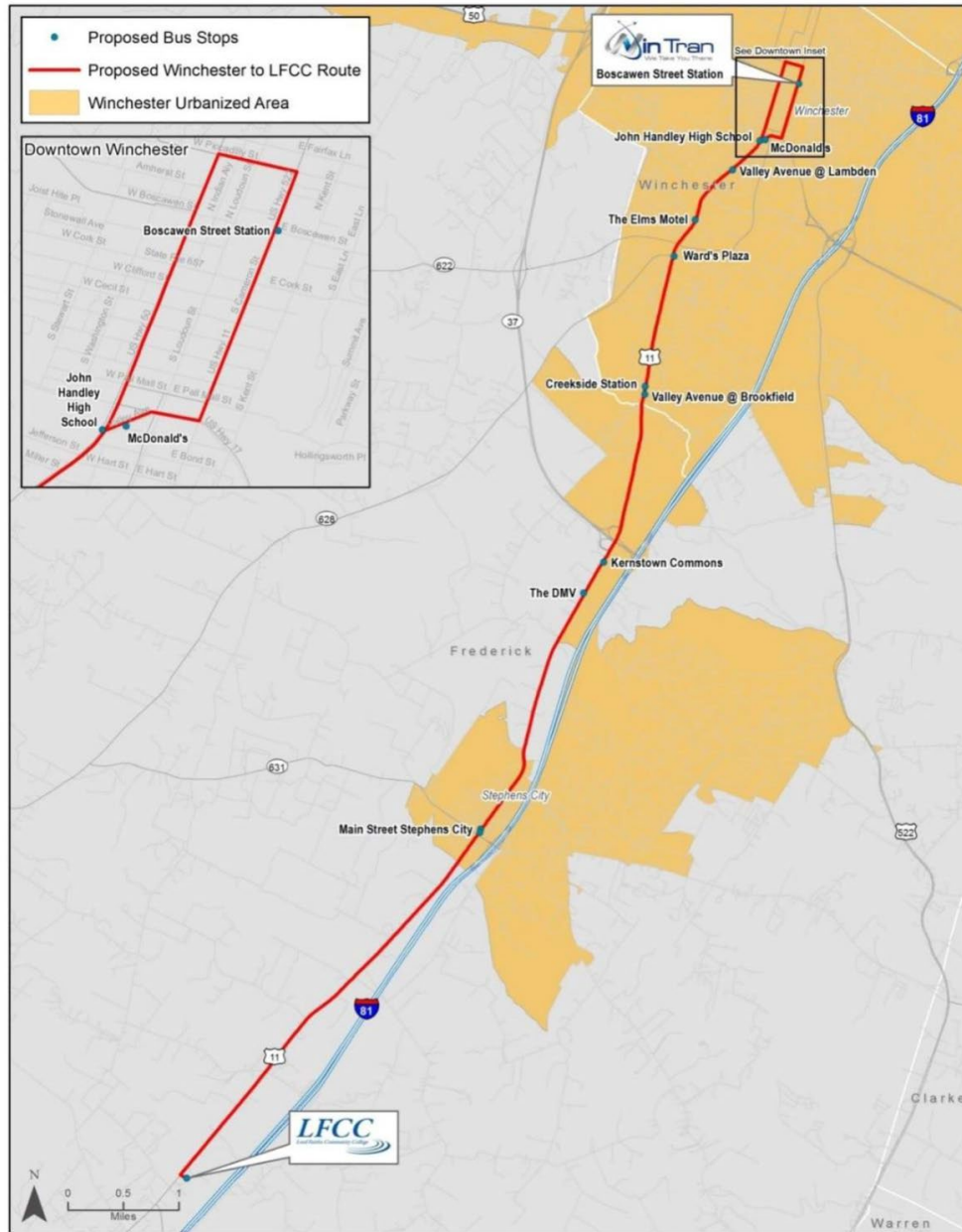
Figure A-2: Loop Route Alignment



A.4.2 Laurel Ridge Route

The Laurel Ridge Route provides commuter service between Old Town Winchester and the Laurel Ridge Community College in Frederick County. The Laurel Ridge Route makes six collection stops around Old Town Winchester, the John Handley High School/Shihadeh Innovation Center, and Shenandoah University before departing the City of Winchester and terminating at the community college. The Laurel Ridge Route alignment is illustrated in **Figure A-3**.

Figure A-3: Laurel Ridge Route Alignment*



*This map was created when the Laurel Ridge Route was still a proposal. At that time, Laurel Ridge Community College was named Lord Fairfax Community College and Winchester Transit went by the moniker "WinTran."

A.4.3 WinReady Microtransit

The WinReady microtransit service provides on-demand and ADA paratransit service throughout the City of Winchester's city limits and as well as Westminster-Canterbury, the Northwestern Regional Adult Detention Center, and the VA Clinic outside city limits. Rides can be booked either through the WinReady app or via a phone call. WinReady's service area is shown in **Figure A-4**.

Figure A-4: WinReady Microtransit Service Area



A.5 Fare Structures, Payments, and Purchasing

From 2021-2023, Winchester Transit provided fare-free service to riders using funding from the CARES Act. As of Spring 2024, public comment is underway on the proposed reintroduction of fares and the proposed fare structure which is set to commence at the start of FY 2025.

Winchester Transit plans to reintroduce fares in the form of flat fees to ride the fixed-route and on-demand service. Select individuals, such as seniors, students, and children, receive discounted fares. Payment of fares for the WinReady service can be done using credit or debit cards through the WinReady mobile app, or via cash on the bus. Fares for the Loop Route and the Laurel Ride Community College Route must be paid by cash.

Table A-3 outlines the fare for a single trip on Winchester Transit buses.

Table A-3: Winchester Transit Proposed FY 2025 Fares

Passenger Type	Fare for One Trip
WinReady (Microtransit & Paratransit)	\$1.50
Loop Route	\$1.00
Loop Route Half-Fare	\$0.50
Laurel Ridge Community College Route	\$2.00
Laurel Ridge Community College Half-Fare	\$1.00
Students/Children Under 17	Free

Source: City of Winchester

A.6 Transit Asset Management – Existing Fleet and Facilities

A.6.1 Existing Fleet

Winchester Transit's vehicle fleet consists of 14 vehicles; including, two admin vehicles and 12 revenue service vehicles. Winchester Transit's revenue service fleet consists of medium-duty cutaway buses with makes from ARBOC, StarCraft, and Chevy. During peak service, Winchester Transit operates three buses and six demand response vans from its fleet. **Table A-4** provides a summary of FXBGO!'s current revenue vehicle fleet.

The Federal Transit Administration (FTA) published a Final Rule for Transit Asset Management in July 2016 requiring FTA grant recipients to develop transit asset management plans. Agencies have the option of developing their own transit asset management (TAM) plan. In the Commonwealth of Virginia, Winchester Transit is one of the operators opting to use DRPT's statewide Tier II TAM plan, which is permitted under the FTA rule. The TAM plan covers public transportation assets including vehicles, facilities, equipment, and other infrastructure. The latest edition of the statewide TAM plan was published in 2022 and covers FY 2022 through FY 2025.

Table A-4: Winchester Fleet (March 2024)

Year	Service	Useful Life	Model	Quantity
2009	Paratransit	5	Chevrolet Supreme	1
2013	Admin/Supervisor	10	Nissan Exterra	1

Year	Service	Useful Life	Model	Quantity
2016	Paratransit	5	Arboc Spirit of Mobility	2
2019	Paratransit	5	Arboc Spirit of Mobility	1
2019	Fixed-Route	5	Arboc Spirit of Mobility	1
2019*	Admin/Supervisor	5	Ford Escape	1
2023	Microtransit	5	Arboc Spirit of Mobility	4
2023	Fixed-Route	5	Arboc Spirit of Mobility	1
2024	Fixed-Route – LRCC	5	StarCraft – AllStar	2

Source: Winchester Transit

* This vehicle was purchased without using federal funds thus the FTA's typical useful life for automobiles of 10-years does not apply.

A.6.2 Existing Facilities

City Yards Complex

City Yards is the location for Winchester Transit's administration and maintenance facilities. Located at 301 East Cork Street, City Yards is the City of Winchester's public service campus where multiple city departments conduct their operations from, including Winchester Transit, Winchester Public Schools, Winchester's Public Service Department, etc. The City of Winchester recently constructed a new administrative building on the City Yards site, improving the accommodation of the Winchester Public Services Department staff, including Winchester Transit's staff. The City Yards site also contains a 7,400 square foot storage facility, with space for each Winchester Transit fleet vehicle to have its own bay.

Winchester Transit is in the process of renovating the Winchester Fleet Maintenance Facility as it has fallen below the TERM rating of 3.0. Final design has been completed and construction will begin upon the FTA's approval of the final design. The renovation of the facility is expected to be completed by the end of FY 2026. Winchester Transit also plans on installing a parking lot canopy to its storage facility in FY 2026.

Boscawen Street Transfer Center

The Boscawen Street Transfer Center is Winchester Transit's passenger facility and features one shelter, one bench, one trashcan, and an informational display board.

The complete list of Winchester Transit's facilities registered in the DRPT statewide TAM plan are listed in **Table A-5**

Table A-5: Winchester Transit's TAM Plan Facilities

Facility Name	Type	Address
Winchester Transit Administration Facility	Administration	301 E Cork Street, Winchester, VA 22601
Winchester Street Maintenance	Maintenance	316 E Pall Mall Street, Winchester, VA 22601
Winchester Fleet Maintenance Facility	Maintenance	338 E Pall Mall Street, Winchester, VA 22601
Boscawen Street Transfer Center	Passenger	E Boscawen Street, Winchester, VA 22601

Source: DRPT Tier II Tam Plan (2022)

A.7 Transit Security Program

Winchester Transit's security program consists of several correlated initiatives and plans that enable the agency to provide safe and reliable transit service to the public. The following section outlines the different aspects of Winchester Transit's security program.

A.7.1 Fare Inspection

Winchester Transit suspended fares in 2021, and thus fare inspection methods were also suspended. The following fare inspection methods were conducted before the suspension of fares in 2021 and will be revived along with the reintroduction of fares beginning in FY 2025.

Winchester Transit employs the following procedures for ensuring secure fare collection. Currently, all revenue service vehicles are equipped with a secure fare box for collection of fares, and the transit agency has established an exact change only policy. This helps to minimize the number of service-theft crimes. Transit operators enforce the policy as each passenger boards. At the end of their shifts, each operator turns in their collected fares to a "night deposit" drop box in the Office Assistance's office wall, which provides secure storage of fares until they can be counted. Each business day, the Office Assistant counts and reconciles the fare box revenues. The night deposit box is emptied, and revenues are counted and compared to each operator's "meter" sheet (a summary of total passengers by fare category transported during the operator's shift). If there is a discrepancy between the fares and the meter sheet, the Office Assistant makes note of it.

After all counts have been completed, the Office Assistant records the values into an Excel spreadsheet that captures daily ridership and revenues. A bank deposit slip is then prepared, and the fares and deposit slip are returned to the lock box until the Transit Supervisor can take them to the bank, which occurs at the end of each day. A copy of the deposit slips is also turned into the City's Treasurer.

A.7.2 Safety and Security Program

Winchester Transit adopted a System Safety and Security Program (SSEPP) that serves as a guide for the safe operation of the system and for responding to significant events that affect Winchester Transit and the City of Winchester. The plan includes an emergency preparedness plan that provides procedures and protocol for responding to threats. It also contains several tools for minimizing safety risks and for ensuring safe daily operation. These tools include recommendations related to operator selection, training, and vehicle maintenance. The SSEPP was most recently updated in 2014.

Security features on vehicles

Winchester Transit has equipped all its fleet vehicles with on-board surveillance cameras. The cameras help to ensure operator and passenger safety, and they provide additional information for the agency when incidents occur outside and/or inside of the vehicles. This information can be used to investigate incidents, identifying issues, and address safety concerns.

The SSEPP also outlines a number of preventative procedures for the agency and drivers to ensure a safe environment for passengers and to safeguard vehicles from theft and vandalism. For instance, the SSEPP recommends that Winchester Transit consider transit operator qualifications, driving record, medical background, and violations when hiring new operators, and that such background checks be documented in operator qualification file in accordance with the Federal Motor Carrier Safety Administration (FMCSA). These procedures outline proactive measures to reduce safety risks.

Security features at stations

Winchester Transit periodically conducts passenger surveys to understand customer satisfaction with existing service. The SSEPP includes a suggestion that surveys incorporate questions that assess the perception of safety at bus stops and whether changes need to be made to elevate safety at stops (i.e.: lighting, landscaping, vandalism). The SSEPP also includes a recommendation that office managers reassess bus stop locations annually to determine if they are in the most secure areas possible, while providing accessibility to the public.

Security training programs and drills/exercises

The SSEPP recommends that all Winchester Staff attend two baseline trainings—one to learn about the Incident Command System (ICS) and a second course to learn how to operate during an incident command system. The SSEPP further recommends that the Director and Senior Staff supplement this baseline training with intermediate and advanced courses on ICS, an introduction to the National Incident Management System (NIMS), and a course for organizational leaders about partnerships between response agencies. The SSEPP suggests that all Winchester Transit personnel attend periodic briefings with the Winchester Police and Emergency Management.

Public Awareness Campaign

Winchester Transit does not currently have a formal public Awareness Program or Campaign.

A.8 Intelligent Transportation Systems (ITS) Programs

ITS programs in public transportation encompass a broad range of communication-based information and electronic technologies that serve to improve safety, efficiency, and service, through use of real-time information. Winchester Transit has already integrated a number of technology systems and devices into its operations.

Winchester Transit partnered with Via to implement the WinReady microtransit service. Via is a software contractor specializing in on-demand public transportation, and provides Winchester Transit the software and technological support for WinReady. Via provides a mobile app where riders can book trips and see real-time vehicle locations. Additionally, Via provides route scheduling and run cutting software for the microtransit service, finding the most optimal ways to match multiple riders to increase the speed and efficiency of each trip.

Winchester Transit's vehicles do not have automatic passenger counters (APCs). Automated passenger counts can be conducted currently for Winchester Transit's on-demand services through bookings on the WinReady mobile app.

Winchester Transit uses an onboard Automatic Vehicle Location (AVL) system, which feeds into the Via software to display current bus locations. The information can be accessed by mobile devices via the WinReady mobile app.

A.9 Data Collection and Ridership/Revenue Reporting Method

Winchester Transit currently collects ridership and revenue data using two methods—manual operator counts and AVL-based software. Winchester Transit implemented AVL technology on its buses in which the ridership and operational data is transmitted to Via’s software. As a result, transit operators enter ridership data electronically and validate the information using manual counts. Data is collected at the route level, per trip, and by stop. Ridership and revenue data for demand response service is recorded by stop.

A.9.1 Data Collection

When fares were still collected, operators record fixed-route passenger counts by passenger type—adult, half-fare, students, children under two years, and transfers—on an onboard tablet. This data is validated against manual counts completed by operators and recorded on “meter cards.” For demand response routes, ridership counts are derived from the scheduling system and all data is recorded manually. No-shows are indicated on the paper manifest where data is collected, called into dispatch, and entered into CTS Software.

Revenue hour and miles data is collected in a similar way as ridership data. Operators use onboard tablets to track revenue miles and hours data. This information is also compared against start and end odometer readings, as well as start and end times recorded by drivers. For demand response routes, all information is recorded through the Via software and is checked against manually recordings.

A.9.2 Data Storage

Operators submit their “meter cards” at the end of their shift. After staff reconcile the meter cards and collected fares, they enter the data manually in a spreadsheet. Data from the tablets is downloaded wirelessly to the Via server in real-time.

Data is transferred daily, and it is either stored on an internal server (for manual data) or on cloud-based storage (for electronic data) provided by a vendor.

A.9.3 Data Validation and Reporting

Meter cards are verified against collected revenue, and the data is then used to validate the data electronically collected via tablets. Additionally, staff also check the data for inconsistencies. For fixed routes, this check is performed on a weekly basis. For demand response routes, this check is conducted daily.

Once the data is validated, a custom report is generated from the CTS Software containing ridership, revenue miles, and revenue hours is generated for the Transit Operations Manager’s review. The data is also entered into OLGA for reporting to DRPT, and the information is reported annually to NTD.

A.10 Coordination with Other Transportation Service Providers

A.10.1 The Shenandoah Area Agency on Aging

The Shenandoah Area Agency on Aging is a 501(c)(3) organization operating a van service (WellTran) that serves seniors and people with disabilities, providing non-emergency transportation for a variety of trip purposes. WellTran is an on-demand service providing point-to-point service to and from medical facilities and senior centers. WellTran’s service area includes the counties of Clarke, Frederick, Page, Shenandoah, Warren, and the City of Winchester.

A.10.2 ShenGO Regional Transit

In 2019, the Northern Shenandoah Valley Regional Commission conducted a public transit feasibility study in coordination with Shenandoah County and DRPT. The feasibility study recommended three potential routes to service Shenandoah County: a northern route between Woodstock and Strasburg, a southern route between Woodstock and New Market, and a commuter route between Strasburg and Laurel Ridge Community College (LRCC). ShenGO Regional Transit (ShenGO) was founded in 2021 off the basis of the feasibility study and runs the northern and southern routes detailed in the feasibility study. If ShenGo implements the Strasburg-LRCC route, the route will intersect with Winchester Transit's LRCC commuter route making it possible to transfer between the two transit systems. The proposed LRCC route has a planned service span of 7:00 a.m. to 6:00 p.m. and an hourly headway. As of Spring 2024, the proposed Strasburg-LRCC route has not been implemented.