

On Demand/Microtransit Feasibility Summary

Overview

- A. Engaged with Via Transportation, Inc. Analytics Team in a series of workshops to determine the feasibility of cost savings from replacing fixed route service or cost neutral opportunities to expand the service areas to include greater employment zones particularly to the east side and south side industrial areas.
- B. Via is a worldwide leader in On Demand and Microtransit services and operates FlexRide MKE and On Demand and paratransit for Green Bay Metro.
- C. The study group comprised of Via Analytics staff, Transit staff, Jeff Fortin from Community Development and SEWPRC staff.

Process

- D. Via analyzed a large volume of data from Waukesha Metro.
- E. The Workshops were to analyze and discuss potential service opportunities.

Results

- F. No cost savings solutions were found nor any weekday cost neutral solutions.
- G. Weekend cost neutral solutions could replace Routes 5, 6 & 15 but Via noted likely difficultly of finding a vendor for weekend only work. The effort required with no financial benefit and potential confusion to the passengers does not make this a viable option.
- H. Route 1 and 9 were too long and Route 4 ridership too high to be considered.
- I. Via recommended against an Expanded South Side Zone which included the South Side Industrial Areas and a Northern Zone that would replace Route 9 north of I-94 as both were considerably more expensive than current services.
- J. A scenario of reducing service to 7 Routes from 8 and replacing areas no longer served with fixed route with On Demand would actually increase costs and is not feasible.





Waukesha Microtransit Feasibility Workshop #3

City of Waukesha, WI

Via Strategies March 18, 2025

Project Approach

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Workshop 1: February 7, 2025

- Service goals & objectives
- Identification of use-cases
- High-level demographic and transit network analysis
- Ridership estimates based on peer services

Workshop 2: Late February 27, 2025

- Review microtransit ridership estimates
- Finalize key service parameters
- Run microtransit simulations
- Simulation outputs: vehicle and driver-hour requirements, cost estimates, estimated quality of service outcomes

Today's discussion

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Workshop 3: March 18, 2025

- Final service recommendations
- Executive summary presentation

Today's discussion

Service Alternatives

05 - East/West On-Demand Zone (Growth Scenario)

Population: 21,000 Jobs: 8,100 **Area:** 6.6 mi²

Rationale:

 Streamline Route 15 via East Avenue to reduce travel times and interline with Route 5 (both continue to operate hourly service)

O Zone 5

idership Education

Housing

Medical Shopping Social

Transit

- Route 6 is discontinued •
- Microtransit zone serves areas with suspended . fixed-route service south of College Avenue

Potential Challenges:

- No one-seat ride available to Downtown Transit Center, to reduce microtransit operating costs (transfers via Route 4)
- Not cost-neutral requires 3 vehicles to operate with smaller reduction in fixed-route service from Route 6 discontinuation



Service Alternatives

Route 9 Truncation

- Proposed alternative: truncate Route 9 at Silvernail Plaza, with GE Healthcare and Waukesha County Technical College served with microtransit --- enabling 30-minute frequency on shorter Route 9 alignment
- We **do not recommend advancing** this alternative to implementation:
 - Insufficient ridership at GE Healthcare and Technical College to support a one-vehicle service (avg. 15 weekday boardings), and no other destinations or use-cases present
 - Not cost-neutral: Saves just ~1,800 annual revenue-hours from Route 9, compared to the ~5,000 required to support a Monday-Saturday microtransit service with one vehicle

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Key Service Parameters



Service Hours:

Zone 1: Saturdays 9am - 7pm, Sundays 9am - 5pm, no weekday service Zone 2: Saturdays, 9am -6pm, no weekday service, no Sunday service Zone 3: Weekdays 6am -7pm, Saturdays 9am - 7pm, Sundays 9am - 5pm Zone 4: Saturdays 8:30am -6:30pm, Sundays 9:30am -6:30pm, no weekday service Zone 5: Weekdays 6am -7pm, Saturdays 9am - 7pm, Sundays 9am - 5pm



On-Demand Wait Time:

30 minutes Maximum

Vehicle Capacity:

<u>6-passenger minivans</u>, with at least one wheelchair-accessible vehicle (WAV) or one-third of total fleet, whichever is greater.



Pickup Style:

<u>Corner to corner:</u> riders may be asked to walk a short distance (up to ¼ mile) to meet the vehicle. Riders with disabilities will not be asked to walk any distance.



Travel Rules:

Zones 1, 2, and 4 allow travel to Waukesha Metro Transit Center (external service hub), but not other Downtown destinations.

Microtransit Ridership Estimates by Zone

Zone		Weekday Boardings*		Saturday	Sunday	Weekly*	Annual**	
		Low	Medium	High			Medium	Medium
1	Cost-Neutral Scenario: Saturday & Sunday Microtransit Service Replaces Routes 5/6	N/A - no	o weekday	service	90	60	150	8,000
2	Cost-Neutral Scenario: Saturday Microtransit Service Replaces Route 15	N/A - no) weekday	service	60	N/A	60	3,000
3	Southern On-Demand Zone (Growth Scenario)	30	50	80	30	20	310	16,000
4	Western On-Demand Zone (Growth Scenario)	N/A - no	o weekday	service	100	60	580	8,000
<mark>5</mark>	East/West On-Demand Zone (Growth Scenario)	70	120	180	110	70	790	41,000

*Figures rounded to the nearest ten.

**Figures rounded to the nearest thousand.

Partnership Models: Advantages / Disadvantages

	Directly Operated Service	Outsourced Turnkey Service
Advantages	 Allows Waukesha Metro Transit to exercise higher degree of control over microtransit service delivery May leverage existing vehicle and driver resources (if available) 	 More flexible and efficient staffing, allowing fleet sizes and driver shifts to be adjusted according to observed ridership patterns Ensures vehicles, drivers, and software platform work together interoperably Includes operations management staff and marketing/customer support with service contract
Disadvantages	 Greater burden on Waukesha Metro Transit staff to master new software tools, which can incur additional cost Requires greater Waukesha Metro Transit staff time for driver/dispatcher training and marketing 	 Reliance on a single vendor for all aspects of service delivery City has less direct control over some operational decisions (e.g. vehicle make/model, driver recruitment) – though a well-designed contract can address these concerns May need to implement multiple service zones (e.g. Zones 1, 2, and 4) to generate strong interest among prospective vendors

Key Assumptions

- **Turnkey operations:** Microtransit cost estimates assume a range of \$65 70 per vehicle-hour, inclusive of software license fees
- **Direct operations:** Microtransit cost estimates assume a range of \$80 85 per vehicle-hour, not including additional software license fees. This higher range is based on peer transit agency costs for directly operated microtransit services.
- **Fixed-route revenue-hours:** based on Waukesha Metro Transit data for revenue-hour totals during 2024 calendar year, by route
- **Fixed-route operating costs:** based on FY23 NTD reporting from Waukesha Metro Transit (\$112/rev-hour for fixed-route bus)

Service Alternatives Prioritization Matrix (Medium-Demand Scenario)

Metric	1	2	3	4	5
Service Area and Demand					
Area Served (square miles)	3.5	4.4	6.0	5.3	6.6
Population + Jobs Served	16,100	16,600	18,300	26,200	29,100
Annual Ridership	8,000	3,000	16,000	8,000	41,000
Investment					
Vehicles Required	2	2	2	2	3
Annual Operating Cost	\$94,000 - \$101,000	\$44,000 - \$47,000	\$350,000 - \$380,000	\$100,000 - \$110,000	\$494,000 - \$533,000
Fixed-Route Operating Cost Savings From Service Replacement by Microtransit, Approx.	\$120,000	\$61,000	N/A	N/A	\$273,000
Cost-Neutral?	Yes	Yes	No	No	No
Efficiency					
Avg. Productivity Boardings / Revenue-Hour	5.3 - 6.0	4.1 - 4.8	2.1 - 2.7	4.8 - 5.5	3.8 - 4.4
Cost per Passenger Trip	\$12 - 13	\$14 - 15	\$22 - 23	\$12 - 13	\$12 - 13

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Population + Jobs Served	16,100	16,600	18,300	26,200	29,100
Annual Ridership	8,000	3,000	16,000	8,000	41,000
Investment					
Vehicles Required	2	2	2	2	3
Annual Operating Cost	\$120,000 - \$128,000	\$56,000 - \$60,000	\$448,000 - \$476,000	\$128,000 - \$136,000	\$632,000 - \$672,000
Fixed-Route Operating Cost Savings From Service Replacement by Microtransit, Approx.	\$120,000	\$61,000	N/A	N/A	\$273,000
Cost-Neutral?	No	Yes	No	No	No
Efficiency					
Avg. Productivity Boardings / Revenue-Hour	5.3 - 6.0	4.1 - 4.8	2.1 - 2.7	4.8 - 5.5	3.8 - 4.4
Cost per Passenger Trip	\$15 - 16	\$19 - 20	\$28 - 30	\$16 - 17	\$15 - 16

Simulation Results: Cost-Neutral Scenario

1 Saturday/Sunday Replacement of Routes 5 and 6

	Medium		
Results	Low	Likeliest	High
Fleet Size Vehicles required at peak, excluding spares.	1 - 2	2	3
Saturday Ridership Boardings	50	90	140
Productivity (Saturday Avg.) Boardings / Revenue Hour	3.5 - 4.1	5.3 - 6.0	5.9 - 6.4
Typical Wait (Peak Period) Minutes	8 - 10 min	14 - 17 min	11 - 14 min
Annual Ridership Passenger Boardings	4,000	8,000	11,000
Annual Revenue-Hours Hours	1,200	1,500	1,900



Simulation Results: Cost-Neutral Scenario

2 Saturday Replacement of Route15

	Medium		
Results	Low	Likeliest	High
Fleet Size Vehicles required at peak, excluding spares.	1	2	2 - 3
Saturday Ridership Boardings	30	60	100
Productivity (Saturday Avg.) Boardings / Revenue Hour	4.1 - 4.8	4.1 - 4.8	5.2 - 5.8
Typical Wait (Peak Period) Minutes	9 - 12 min	11 - 13 min	7 - 9 min
Annual Ridership Passenger Boardings	2,000	3,000	5,000
Annual Revenue-Hours Hours	500	900	1,100



Simulation Results: Growth Scenario

3 Southern On-Demand

	Medium		
Results	Low	Likeliest	High
Fleet Size Vehicles required at peak, excluding spares.	1 - 2	2	2
Weekday Ridership Boardings	30	50	80
Productivity (Weekday Avg.) Boardings / Revenue Hour	1.6 - 2.2	2.1 - 2.7	3.4 - 4.0
Typical Wait (Peak Period) Minutes	9 - 12 min	12 - 15 min	11 - 13 min
Annual Ridership Passenger Boardings	8,000	16,000	24,000
Annual Revenue-Hours Hours	4,200	5,600	5,600



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Simulation Results: Growth Scenario

4 Saturday / Sunday Replacement of Route 8

	Medium		
Results	Low	Likeliest	High
Fleet Size Vehicles required at peak, excluding spares.	2	2	3
Saturday Ridership Boardings	50	100	140
Productivity (Saturday Avg.) Boardings / Revenue Hour	2.7 - 3.3	4.8 - 5.5	5.1 - 6.0
Typical Wait (Peak Period) Minutes	8 - 10 min	9 - 11 min	11 - 13 min
Annual Ridership Passenger Boardings	4,000	8,000	12,000
Annual Revenue-Hours Hours	1,600	1,600	2,000



Simulation Results: Growth Scenario

5 East/West On-Demand

		Medium	
Results	Low	Likeliest	High
Fleet Size Vehicles required at peak, excluding spares.	2	3	3 - 4
Weekday Ridership Boardings	70	120	180
Productivity (Weekday Avg.) Boardings / Revenue Hour	2.9 - 3.5	3.8 - 4.4	4.8 - 5.4
Typical Wait (Peak Period) Minutes	11 - 13 min	12 - 14 min	13 - 15 min
Annual Ridership Passenger Boardings	22,000	41,000	60,000
Annual Revenue-Hours Hours	5,600	7,900	9,300



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Key Takeaways

We recommend that Waukesha Metro Transit pursue Zones 1 and 2 for implementation:

- Zone 1 replaces Saturday/Sunday service on Routes 5 and 6, where current fixed-route operations underperform
- Zone 2 replaces Saturday service on Route 15
- Both options cost-neutral with respect to current network operating costs

A turnkey microtransit service may provide more cost-effective operations compared to direct operations:

- Turnkey operations often have lower hourly operating costs compared to direct operations and more likely to be cost-neutral
- However, it may be difficult to find quality turnkey vendors for implementation of weekend-only service

A turnkey microtransit vendor can provide **tailored assistance** with essential elements of launch preparation and operations such as:

- Marketing and rider engagement
- Driver recruitment and retention
- Vehicle selection and procurement
- Operations management, dispatch, and customer support
- Reporting and performance monitoring