



June 2024

MOBILITY NEEDS ASSESSMENT

LIVONIA COMMUNITY TRANSIT

PREPARED FOR:



PREPARED BY:



Contents

1.0	Plan Purpose	01
	1.1 Plan Purpose	02
	1.2 Approach	02
	1.3 Plan Goals	03
	1.4 Community Engagement	04
2.0	Existing Conditions	07
	2.1 Demographic Profile	08
	2.2 Transit Score Analysis	22
	2.3 State of Livonia Transit Services	24
	2.4 SWOT Analysis	29
3.0	Peer Agency Review	30
	3.1 Livonia Transit Data Summary	31
	3.2 Peer Agency Comparison	33
4.0	Recommendations	38
	4.1 Transit Service Improvements	40
	4.2 Additional Recommendations	54
5.0	Implementation	72
	5.1 Implementation Matrix	75
	5.2 Conclusion	77
6.0	Appendix	78
	6.1 Draft Marketing Materials	80

Figures

FIGURE 1: LIVONIA MOBILITY NEEDS STUDY AREA	9
FIGURE 2: POPULATION DENSITY IN LIVONIA	10
FIGURE 3: SENIOR POPULATION DENSITY IN LIVONIA	11
FIGURE 4: EMPLOYMENT DENSITY IN LIVONIA	13
FIGURE 5: ACTIVITY CENTERS IN LIVONIA	14
FIGURE 6: EMPLOYEE TRAVEL PATTERNS	16
FIGURE 7: COMMUTER PATTERNS INTO AND OUT OF LIVONIA	17
FIGURE 8: REGIONAL TRANSIT ROUTES	19
FIGURE 9: INDIVIDUALS LIVING BELOW THE POVERTY LINE	20
FIGURE 10: ZERO CAR HOUSEHOLD DENSITY	21
FIGURE 11: TRANSIT SCORE ANALYSIS	23
FIGURE 12: ANNUAL RIDERSHIP	25
FIGURE 13: TOTAL RIDERSHIP	25
FIGURE 14: HIGH POTENTIAL TRANSIT DEMAND AREAS	41
FIGURE 15: PHASE 2 PLYMOUTH ROAD PILOT	47

Tables

TABLE 1: LEADING EMPLOYERS IN LIVONIA	12
TABLE 2: HIGHER EDUCATION INSTITUTIONS IN LIVONIA	12
TABLE 3: TRAVEL PATTERNS IN LIVONIA	15
TABLE 4: TRAVEL PATTERNS SPECIFICS	15
TABLE 5: 2020 - 2024 DEPARTMENTAL REVENUE	28
TABLE 6: 2020 - 2024 DEPARTMENTAL BUDGET EXPENSES	28
TABLE 7: 2020 - 2024 PROGRAM TOTAL REVENUES AND EXPENSES	28
TABLE 8: MICHIGAN, OHIO, AND INDIANA TRANSIT AGENCY COMPARISON	33
TABLE 9: SMART FISCAL YEAR 2023 TOTAL RIDERSHIP ON ROUTES NEAR LIVONIA (SOURCE: SMART)	42
TABLE 10: DDOT FISCAL YEAR 2023 TOTAL RIDERSHIP ON ROUTES 27, 38, AND 43 (SOURCE: DDOT)	42
TABLE 11: DDOT FISCAL YEAR 2023 RIDERSHIP AT STOPS IN OR NEAR LIVONIA (SOURCE: DDOT)	42
TABLE 12: PLYMOUTH ROAD MICROTRANSIT ZONE	46
TABLE 13: PLYMOUTH ROAD MICROTRANSIT ZONE RETURN ON INVESTMENT	46
TABLE 14: CITYWIDE MICROTRANSIT ZONE	48
TABLE 15: CITYWIDE MICROTRANSIT ZONE RETURN ON INVESTMENT	48
FIGURE 16: PHASE 3 LIVONIA MICROTRANSIT ZONE	49
TABLE 16: DEVIATED FIXED ROUTE	50
TABLE 17: DEVIATED FIXED ROUTE RETURN ON INVESTMENT	50
FIGURE 17: PHASE 4 DEVIATED FIXED ROUTE	51
FIGURE 18: FARMINGTON/FARMINGTON HILLS SMART FLEX ZONE MAP	53
TABLE 18: MICROTRANSIT SERVICE METRICS	63
TABLE 19: POTENTIAL FUTURE FUNDING SOURCES	67
TABLE 20: IMPLEMENTATION MATRIX	75

This page is intentionally left blank

1.0

Introduction

PLAN PURPOSE

APPROACH

PLAN GOALS

COMMUNITY ENGAGEMENT

1.0 Plan Purpose

1.1 Plan Purpose

The Mobility Needs Assessment guides Livonia's decision-making and investments to envision the future of public transportation in the city. It is a living document that relies on current information, financial resources, and performance targets to plan for public transit services in Livonia.

In 2006, Livonia voters approved a 0.5 mills tax to support city-managed transit services, choosing to opt out of the services previously provided by the Suburban Mobility Authority for Regional Transportation (SMART) System. This shift towards Livonia Community Transit (LCT), now recognized as Liv&Go, was seen as financially strategic and a more efficient alternative. However, Liv&Go faces many operational challenges, exacerbated by areas of low density and changing demand since the beginning of the COVID-19 pandemic in 2020. Existing transit also faces limitations in connecting with key employment hubs, institutions, and neighboring cities.

Liv&Go operates on-demand services for Livonia's senior population aged 60 and above, along with disabled residents. Its services are tailored to enable individuals to conveniently reach essential destinations like medical appointments, shopping centers, salons, workplaces, and more. Reservations are scheduled on a first-come, first-served basis. However, the service is confined to weekdays, spanning Monday through Friday from 8:30 AM to 5 PM. Keeping accessibility in mind, the fare per ride remains affordable, priced at \$2 each way.

Further, Liv&Go extends a "To Work" service catering to passengers transitioning from the Suburban Mobility Authority for Regional Transportation (SMART) and Detroit Department of Transportation (DDOT) bus systems. The "To Work" service operates Monday through Friday with pickup times at 6:00 am, 7:00 am, and 8:00 am, and in the afternoon at 4:00 pm, 5:00 pm, and 6:00 pm. Service is not available on Saturdays and Sundays. Reservations are necessary, and scheduling is arranged on a first-come, first-served basis. Calls must be made to Liv&Go before noon the day before a ride is needed.

The services provided by Liv&Go fall under the Livonia Housing Commission, with a modest yet dedicated staff of 19 members, including one Department Head, one Program Supervisor, one Office Manager, three dispatchers, and 14 drivers. Serving approximately 94,000 residents, with 22,000 seniors aged 65 and above, Liv&Go plays a crucial role in meeting the diverse transportation needs of the Livonia community.

This Mobility Needs Assessment provides Liv&Go with the tools and technology necessary to address both immediate system needs and work toward long-term success. Liv&Go, in its current configuration, operates at full capacity, struggling to keep up with the evolving needs of the community driven by economic shifts, demographic changes, and technological advancements. As the mobility landscape transforms, the organization's leaders are actively exploring groundbreaking solutions to effectively address the current and forthcoming transportation requirements of all Livonia's residents and workers.

1.2 Approach

The plan employs technical insight, guidance from local leaders and transit users, and public input to expand Liv&Go's transportation options and address community-identified needs. The project approach reviewed existing transportation routes and ridership, gathered ideas and feedback from stakeholders, and looked to peer cities and their microtransit programs to identify possible scenarios and priority recommendations for Liv&Go.

1.3 Plan Goals

The mobility needs assessment positions Livonia to make data-driven decisions about its future. Recommendations will be organized around the following goals:

- **Identify the gaps** in the current system and **define “missing links.”**
- Prove **the value of transit** in Livonia to **justify additional investment.**
- Develop **feasible transit recommendations** with accurate cost estimates.
- **Connect** students, employees, seniors, and other residents **to jobs, schools, and amenities.**
- **Create new connections** between the public transit system, local employers, and hired talent.
- Prepare for transit system enhancements to **increase the attractiveness** of riding.

1.4 Community Engagement

From December 2023 through January 2024, OHM Advisors interviewed three stakeholder groups to understand their perceptions of the Liv&Go system including their needs, operational challenges, and ideas. OHM spoke with the following stakeholders:

- Schoolcraft College
- Liv&Go Transit Riders
- Corewell Health

Key Themes

Stakeholder Needs

- Students traveling to Schoolcraft College are transportation-burdened, do not have their driver's license, and/or receive financial aid, suggesting that affordable transportation would be preferable.
- Most students attending Schoolcraft come from Detroit, Romulus, Garden City, Westland, Redford, and Inkster. Students' safety concerns are a great obstacle to using transit to access the college in the origin cities of some of the students - especially certain neighborhoods in Detroit.
- There is a need for convenient transit options that connect to neighboring regional transit systems. Specific to Schoolcraft college, enrollment by Detroit residents is declining, and administrators hypothesize that this may be due to transportation challenges.
- Existing transportation options do not accommodate student and transit user travel schedules, impairing their ability to go to work, attend classes, go to appointments, and attend other responsibilities and outings.
- A well-functioning transportation system would allow Livonia's residents to take better care of themselves by having the ability to travel to the doctor's office. At times, Corewell Health arranges transportation to take patients home after appointments or procedures to avoid long waits at the bus stop. There are also accessibility challenges in getting from bus stops to the buildings transit users intend to visit.

Operational Challenges

- Liv&Go is very limited in what the service can be used for due to its scheduling cadence and availability. Rides must be scheduled weeks in advance, making the system challenging for riders to use. An operator to schedule rides over the phone is only available Monday-Friday from 7am to 6:30pm.
- Due to the Liv&Go office being closed over the weekend, if there are any issues with the bus arriving, there is little that can be done. Beyond this, riders are dealing with a driver shortage, likely due to lower wages and benefits.
- Liv&Go vehicle maintenance was better in the past when there was a service contract with Livonia Public Schools.
- First and last-mile challenges commuting to Livonia from other nearby communities with different transit providers. Riders often need to access appointment destinations that are just outside the city boundaries.
- Lack of lighting, pedestrian connections, and other factors discourage transit use.

New Ideas

- A shuttle service only serving Schoolcraft College students, pursued through a public-private partnership between Schoolcraft College and the City of Livonia, SMART, or another public entity.
- More flexibility in how rides can be scheduled, whether that be via telephone after hours or online any time of the day.
- Enlarge Liv&Go's service boundaries to expand one mile outside of the city.
- Consider a fare increase if it will improve and expand services.
- If Livonia ever had fixed-route transit in the future, potential routes would be Haggerty Road, Plymouth Road, and/or Seven Mile Road.
- Route schedules could be adjusted to better accommodate Corewell Health patients and employees who have appointments and shifts at times that fall outside of the current operating times.
- Information sessions to introduce stakeholder groups to the system, especially when there are system upgrades. Creating a space where potential new riders can ask questions may increase the likelihood that someone will use the system to get to their medical appointment, work, school, or the grocery store.



Source: <https://www.wxyz.com/news/community-connection/take-a-sneak-peek-at-beaumonts-new-state-of-the-art-livonia-outpatient-campus>



Source: <https://scf.schoolcraft.edu/engage/e-communications/>



2.0

existing conditions

DEMOGRAPHIC PROFILE

TRANSIT SCORE ANALYSIS

STATE OF LIVONIA TRANSIT SERVICES

SWOT ANALYSIS

2.0 Existing Conditions

2.1 Existing Demographic Conditions

The existing conditions analysis provides an overview of demographic, occupational, commercial, and travel patterns in the City of Livonia to identify the highest demand areas for public transportation. Livonia is a city with a well-educated population, a diverse employment landscape, and a relatively high standard of living. The emphasis on higher education, coupled with a mix of white-collar, blue-collar, and service industry jobs contributes to a balanced economy. The low unemployment rate and high median net worth further underscore the city’s economic health and overall prosperity. Insights derived from this analysis will guide the development of recommendations to help determine the future of Liv&Go.

Population

With a population of approximately 94,000 residents, the City of Livonia is the eighth-largest city in Michigan. Livonia is located just two miles from Detroit’s western boundary and offers a mix of residential, commercial, and industrial areas. Livonia’s robust educational system, featuring several well-regarded colleges such as Schoolcraft College and Madonna University, significantly contribute to its intellectual advancement. Livonia’s residents enjoy a high quality of life, supported by excellent healthcare facilities, well-maintained parks, and a range of recreational amenities.

As is the case in much of metro Detroit, modes of transportation shifted from passenger services to reliance on the automobile. According to the 2020 American Community Survey (ACS), 92% of working residents traveled by car; 85% traveled alone. With so many Livonia residents using personal vehicles to commute, it is essential that the transit network not only be efficient, but also safe and visible as a community service.

Livonia has an older population, including those who might face difficulties in using a car as their primary mode of transportation. Older adults are more likely to require more accessible and accommodating transportation options, such as low-floor buses, paratransit services, and vehicles with features like ramps or lifts. They’re also more likely to

rely on others in their household for transportation or live alone. In Livonia, 46% of households have one adult over 60 years old, and 13% of those over 65 live alone. Taken together, all of these factors could lead to increased demand for local public transportation options. Livonia will need to ensure that their transportation modes are easily accessible, affordable, and designed with the specific needs of older adults in mind.

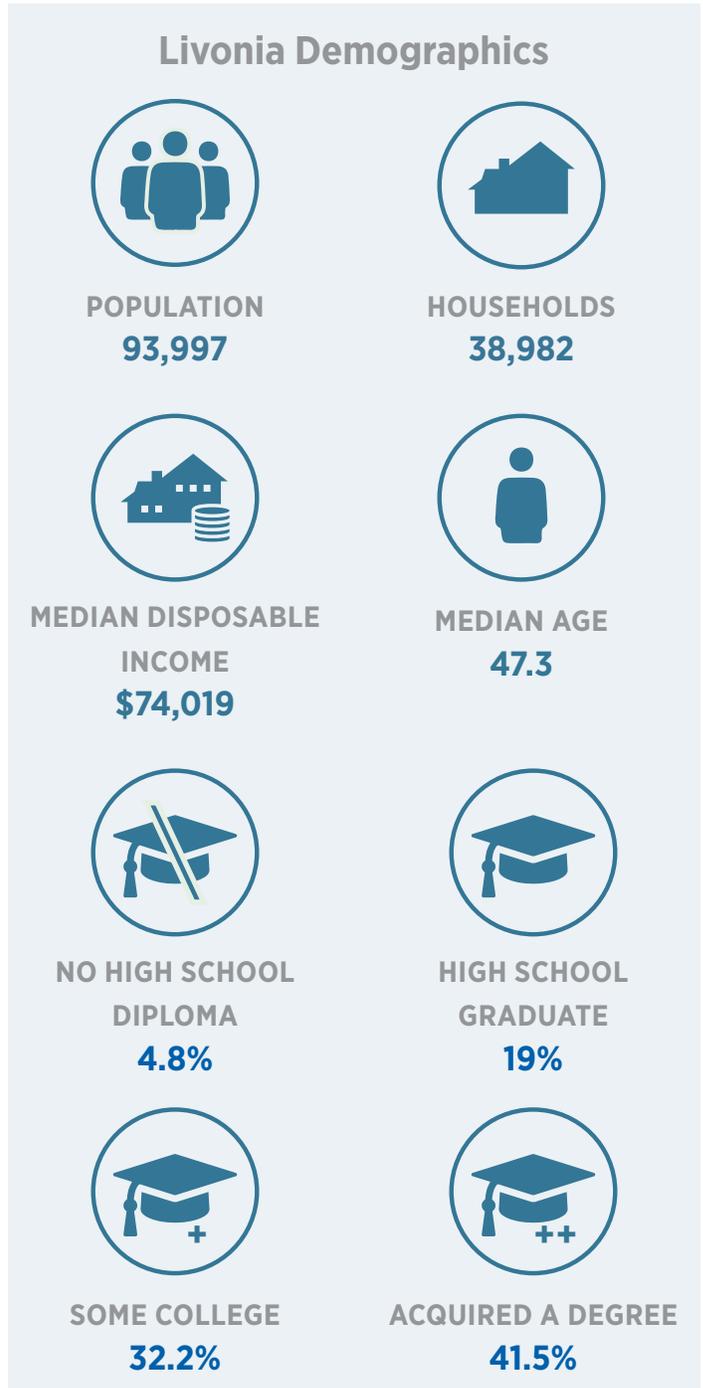


FIGURE 1: LIVONIA MOBILITY NEEDS STUDY AREA



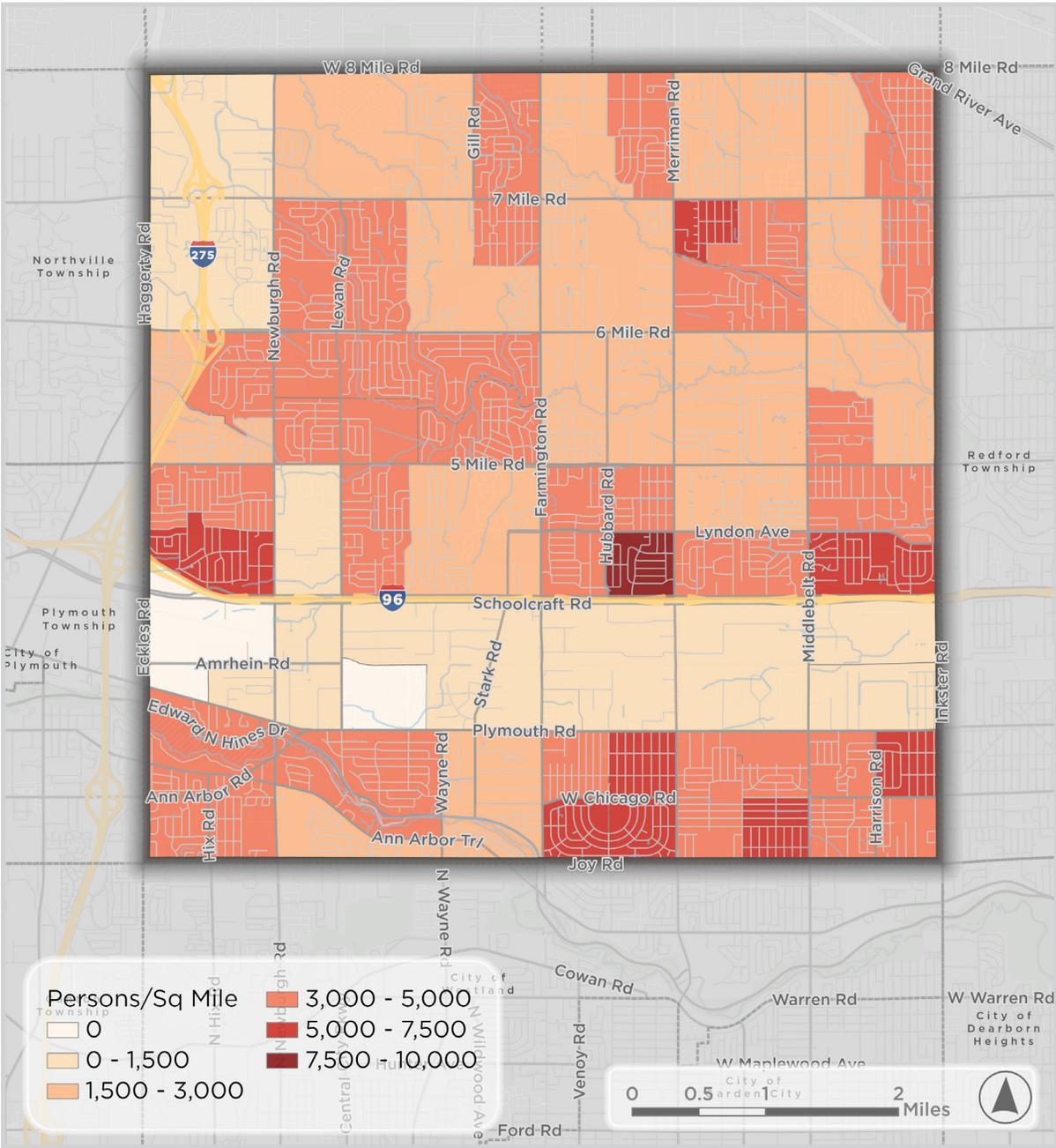
2.0 EXISTING CONDITIONS

Population Density

Public transit is most efficient when it connects population and employment centers where people can easily walk to and from bus stops. Transit’s reach is typically measured within one-quarter mile to one-half mile of the transit line, or a 10-minute walk.

Transit-supportive population density varies around the City of Livonia, with most of the residential areas ranging between 3,000 to 5,000 people per square mile. The neighborhoods with higher densities are areas where transit stops may be centrally located, and frequent service may be needed.

FIGURE 2: POPULATION DENSITY IN LIVONIA

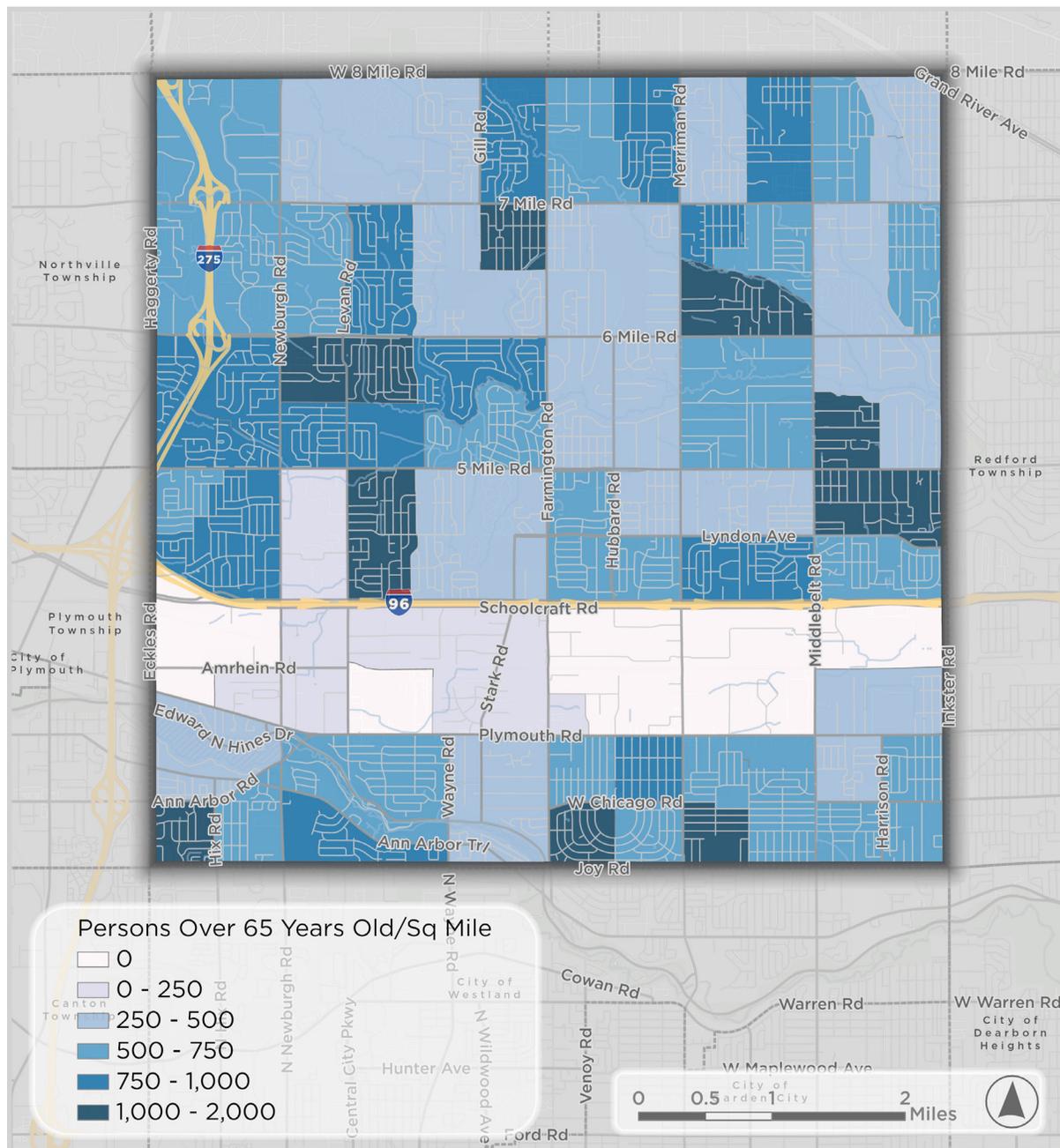


SOURCE: US CENSUS BUREAU, ACS 5-YEAR ESTIMATES 2017-2021, B01003

Senior Population Density

Areas with a high population density of older adults (aged 65 and older) generally align with the areas of high population density. However, the density of seniors is generally much lower than the overall population density.

FIGURE 3: SENIOR POPULATION DENSITY IN LIVONIA



SOURCE: US CENSUS BUREAU, ACS 5-YEAR ESTIMATES 2017-2021, B01001

2.0 EXISTING CONDITIONS

Employment and Higher Education Institutions

70% of Livonia’s workforce is predominantly engaged in white collar work. This is reflective of the city’s strong presence of professional and office-based industries, including technology, finance, healthcare, and other knowledge based sectors. About 18% of jobs are traditional manufacturing jobs, while the remaining 12% are in the service industry.

These jobs are essential for meeting various needs within society and contributing to economic growth and development. The manufacturing and service industry employees are also more likely to benefit from public transit services, given these are typically lower paying jobs than the white collar industries. There is also a unique opportunity to integrate public transportation with Livonia’s higher education centers.

TABLE 1: LEADING EMPLOYERS IN LIVONIA

#	Company	Industry	Count
1	Ford Motor Company	Auto/Manufacturing	4,317
2	Trinity Health	Health Care	2,850
3	St. Mary Mercy Livonia	Health Care	2,116
4	Livonia Public Schools	Education	1,867
5	NYX, Inc	Manufacturing	1,780
6	Schoolcraft College	Education	1,386
7	ZF Automotive	Manufacturing	1,359
8	Roush	Manufacturing	1,249
9	Amazon	Retailer	1,095
10	Mastronardi Produce USA	Grocery	1,050
11	UPS	Shipping	950
12	Comerica Bank	Financial	875
13	Valassis	Advertising	795
14	City of Livonia	Government	607
15	Walmart	Retailer	601
16	Madonna University	Education	557
17	Quality Metalcraft	Manufacturing	458
18	Republic National Distributing Company	Wholesaler	450
19	AAA Life	Insurance	450
20	Kroger	Grocery	282

TABLE 2: HIGHER EDUCATION INSTITUTIONS IN LIVONIA

Educational Institution	Employees	Students
Madonna University	557	1,780
Schoolcraft College	1,386	8,116

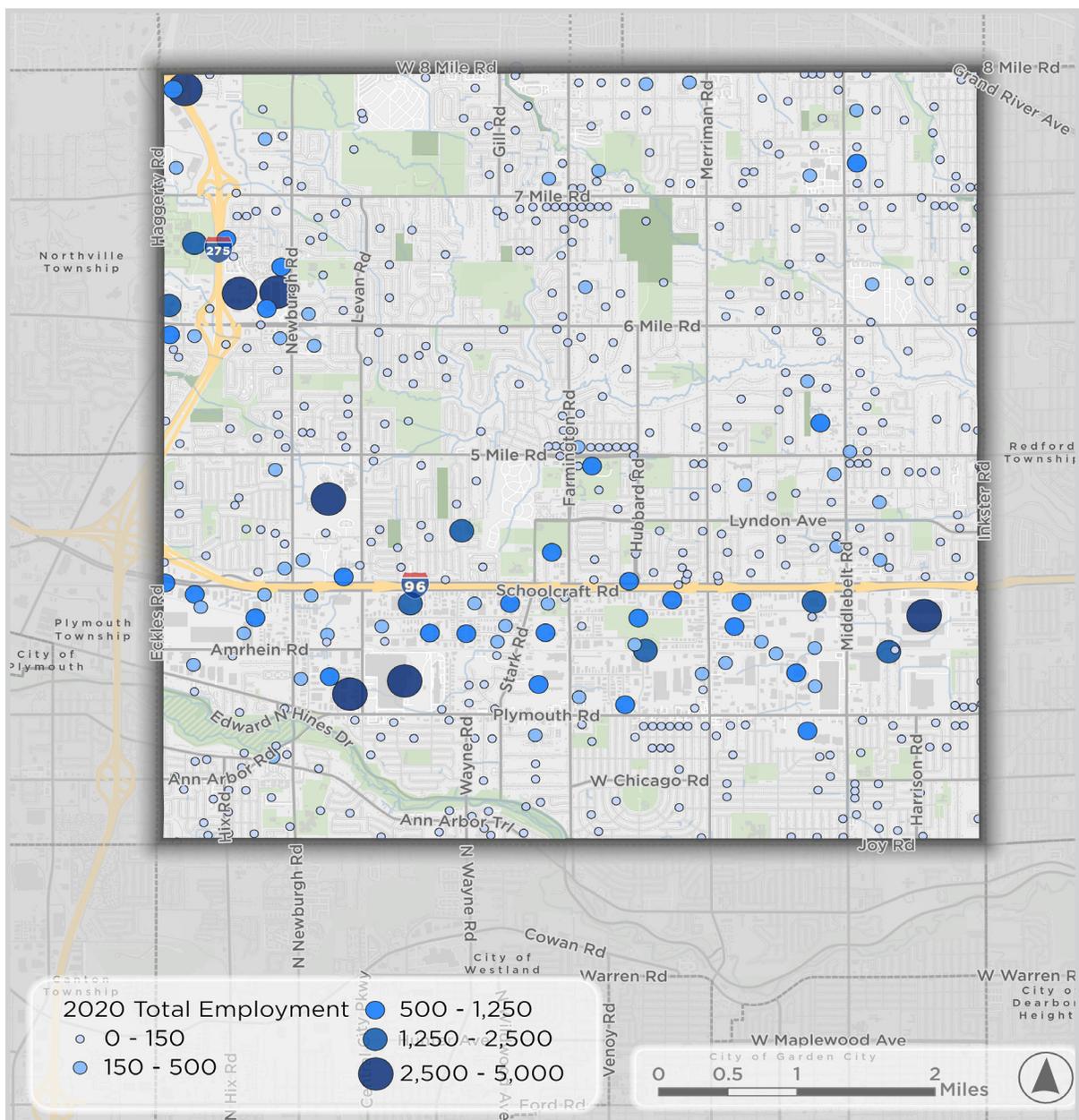
Employment Density

Much of Livonia's workforce is employed in the area south of I-96 and north of Plymouth Road. This area is characterized by office parks, industrial facilities, commercial businesses, and big box retail stores. The interior roads shift away from the grid pattern and are vehicle-dominated, with few to no sidewalks. Though not the most pedestrian-friendly, this area could be a hub for transit services.

Other high employment concentrations are located at:

- Newburgh Road and 5 Mile Road, home to St. Mary Mercy Livonia Hospital and Madonna University
- Newburgh Road and 6 Mile Road, home to Laurel Park Place Mall and a number of office buildings

FIGURE 4: EMPLOYMENT DENSITY IN LIVONIA



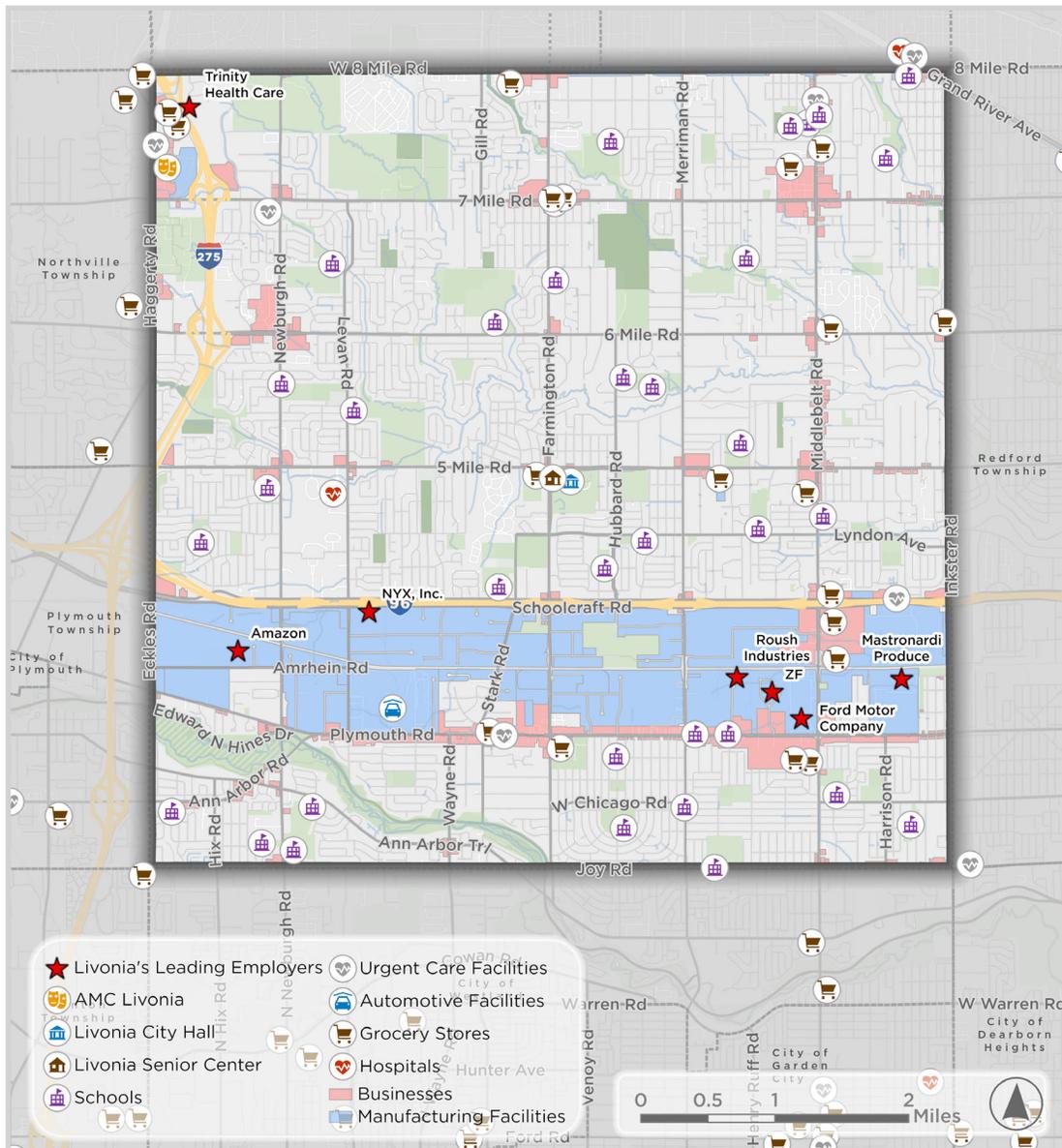
2.0 EXISTING CONDITIONS

Activity Centers

Activity centers are the key destinations that individuals frequently travel to as part of their daily routines and are important focal points within a community where people gather. These destinations typically include schools, grocery stores, hospitals, nursing homes, and houses of worship. Understanding and effectively catering to the transportation needs associated with these activity centers are key considerations for providing efficient and accessible public transportation services within a community.

Many activity centers in Livonia are located at the intersections of major corridors as well as in the commercial and industrial corridor south of I-96. By focusing transit services on these major activity centers, Livonia residents could have reliable transportation to and from employment and essential services for daily life.

FIGURE 5: ACTIVITY CENTERS IN LIVONIA



Travel Patterns

Given Livonia’s status as a regional employment center, work trips represent a large proportion of daily trips into and out of the city. Liv&Go accommodates some work trips through their “To Work” program, however this service is only available if there is additional capacity outside of serving seniors and riders with disabilities. To better understand the breadth of commuting into and out of Livonia, an analysis of worker travel patterns was conducted. **Maps 6 and 7 on the following pages help to visualize the worker travel patterns.**

TABLE 3: TRAVEL PATTERNS IN LIVONIA

	Count
Employed in the Selection Area	80,209
Living in the Selection Area	44,856
Net Job Inflow (+) or Outflow (-)	35,353

Based on data from the Longitudinal Employer Household Dynamics (LEHD) dataset from the US Census Bureau, Livonia had a total of 80,209 employees in 2020. Over 90% of these jobs are held by residents of other communities. This means that nearly 73,000 people are commuting into Livonia on a daily basis. By a substantial margin, the largest concentrations of workers who live outside of Livonia are in Detroit (6,843) and Westland (4,210). Transit service expansions should be considered that would open up public transit as a commuting option to these workers. About 7,500 residents of Livonia both live and work in the city. There are also a large number of Livonia residents who commute outside of the city for work. 37,335 people commute to jobs outside of Livonia. Most of these commuter locations are in the communities surrounding Livonia in cities such as Detroit, Dearborn, Southfield, Farmington Hills, and Novi.

TABLE 4: TRAVEL PATTERNS SPECIFICS

	Count
Living in Livonia	44,856
Living and Employed in Livonia	7,521
Living in the Selection Area but Employed Outside Livonia	37,335
Employed in Livonia	80,209
Employed in Livonia but Living Elsewhere	72,688

2.0 EXISTING CONDITIONS

Overall, there is a substantial pool of prospective riders that are traveling to work each day within Livonia. More commuters are coming into the city than leaving, but there appear to be great opportunities to serve the work trips between Livonia and the surrounding communities with transit.

FIGURE 6: EMPLOYEE TRAVEL PATTERNS

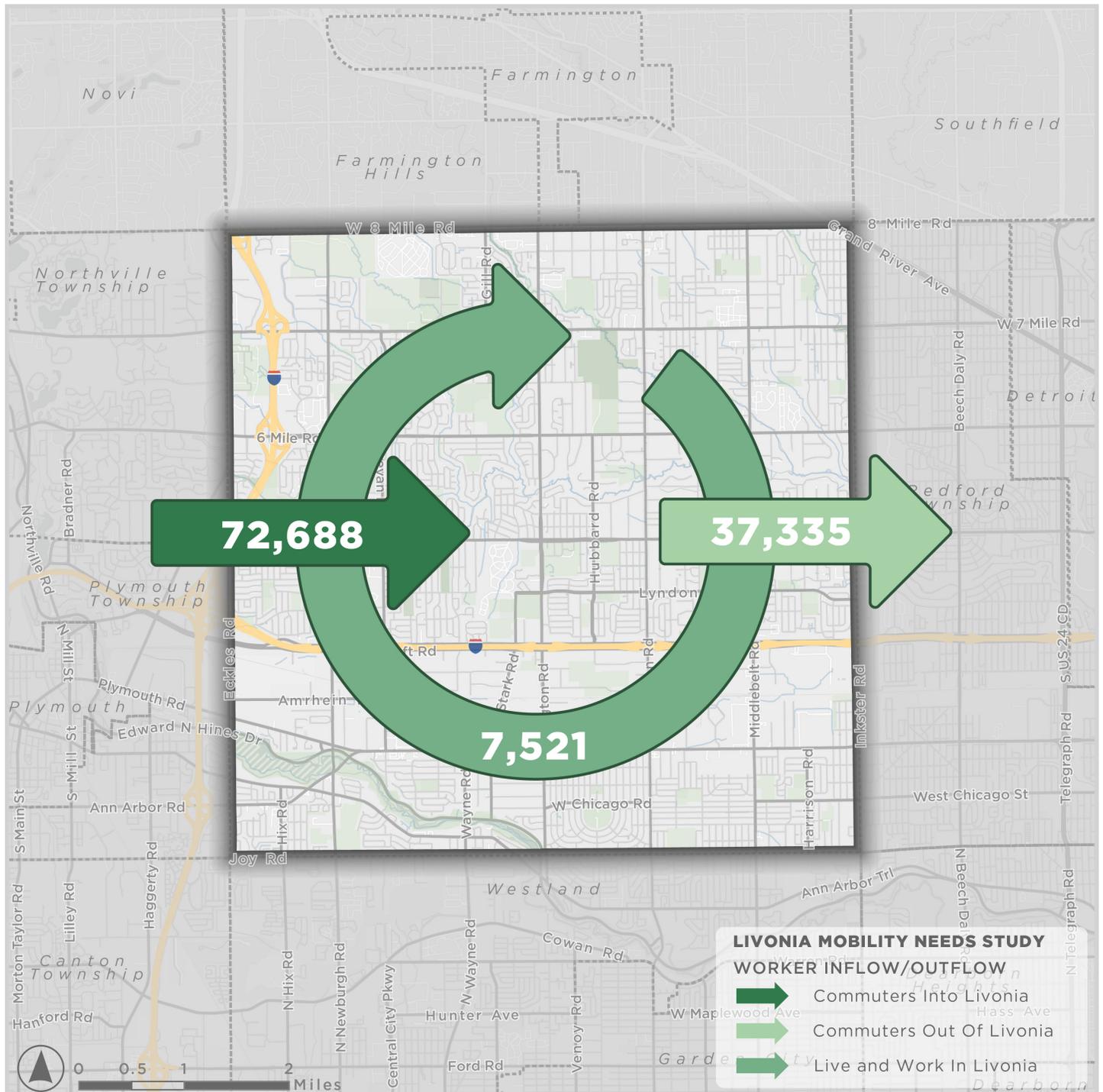


FIGURE 7: COMMUTER PATTERNS INTO AND OUT OF LIVONIA



2.0 EXISTING CONDITIONS

Regional Transit Network

Within Southeast Michigan, different transit service agencies operate across communities. The Suburban Mobility Authority for Regional Transportation (SMART) operates primarily in Metro Detroit but also provides service into Downtown Detroit. The Detroit Department of Transportation (DDOT) operates primarily within the City of Detroit and extends into some of the neighboring communities including Livonia. Currently, Livonia is not part of the SMART system as they have not “opted in” to paying for SMART service. No SMART routes extend into Livonia due to this.

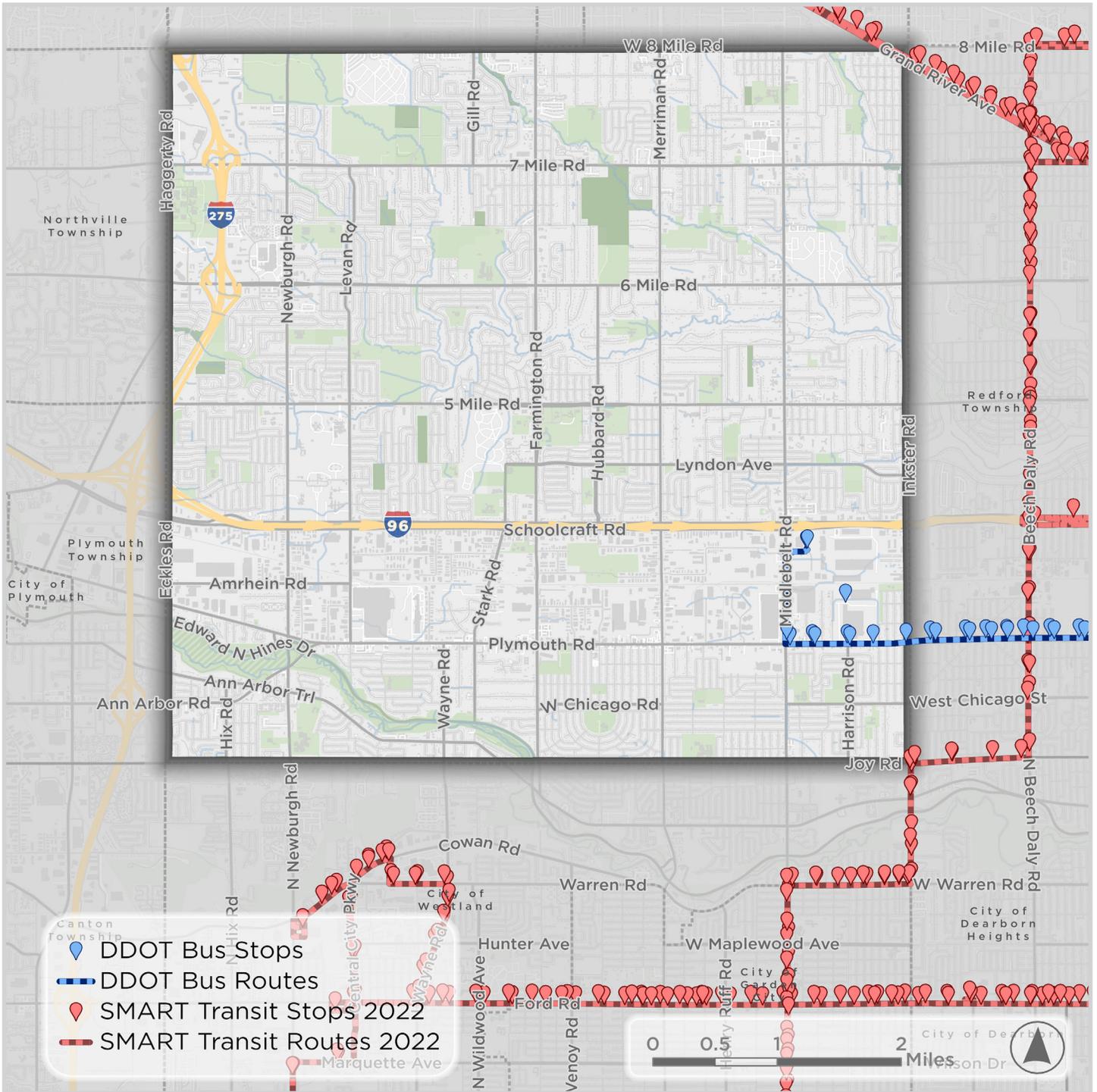
SMART Route 280 goes through the Inkster/Joy roads intersection in the SE corner of Livonia, and then continues further south where it links up with the Michigan FAST (Frequent. Affordable. Safe. Transit.) route at Michigan and Middlebelt. SMART Routes 305 and 805 cross the Inkster/8 Mile intersection in the NE corner of Livonia. Just south of Livonia’s border SMART Routes 210 and 250 stop at the Westland City Hall at Warren and Central City Parkway. SMART’s OCC Orchard Ridge Campus is located in Farmington at I-696 and Orchard Lake Road. Also, Westland City Hall has a SMART Park’n’Ride lot. DDOT’s Route 38 - Plymouth connects the City of Detroit to the east side of Livonia to help Detroit residents travel to jobs.

SMART also has a Connector Service that Livonia is currently ineligible for due to its opt-out status. This is an advance reservation, curb-to-curb service operated by SMART. When using Connector, you may travel anywhere within a 10-mile radius of a designated service area. Rides are available on a first come, first served basis and reservations are required. A six-business day notice is recommended for medical appointments and a two-business day notice for other destinations. All full (\$4 each way) fare customers (ages 6-64 without a disability) booking a Connector trip must live further than 1/3 of a mile from a fixed route. Reduced (\$1 each way) fare customers (Seniors 65+/ people with a disability) are exempt from the 1/3 of a mile provision. Connector operating hours are Monday through Friday from 6 a.m. to 6 p.m.

Finally, SMART also has ADA Paratransit Service that Livonia is currently ineligible for due to its opt-out status. This is an advanced reservation, curb-to-curb service (although you can request door-to-door) that is provided for people who are unable to use SMART’s fixed route bus service because of a disability. ADA Service has the same operating hours as the fixed route service, and pick-up/drop-off addresses must be 3/4 of a mile or less from a SMART fixed route bus stop. ADA trips are considered a premium fare and cost \$3.00 each way, although personal care attendants (PCA) ride for free.



FIGURE 8: REGIONAL TRANSIT ROUTES

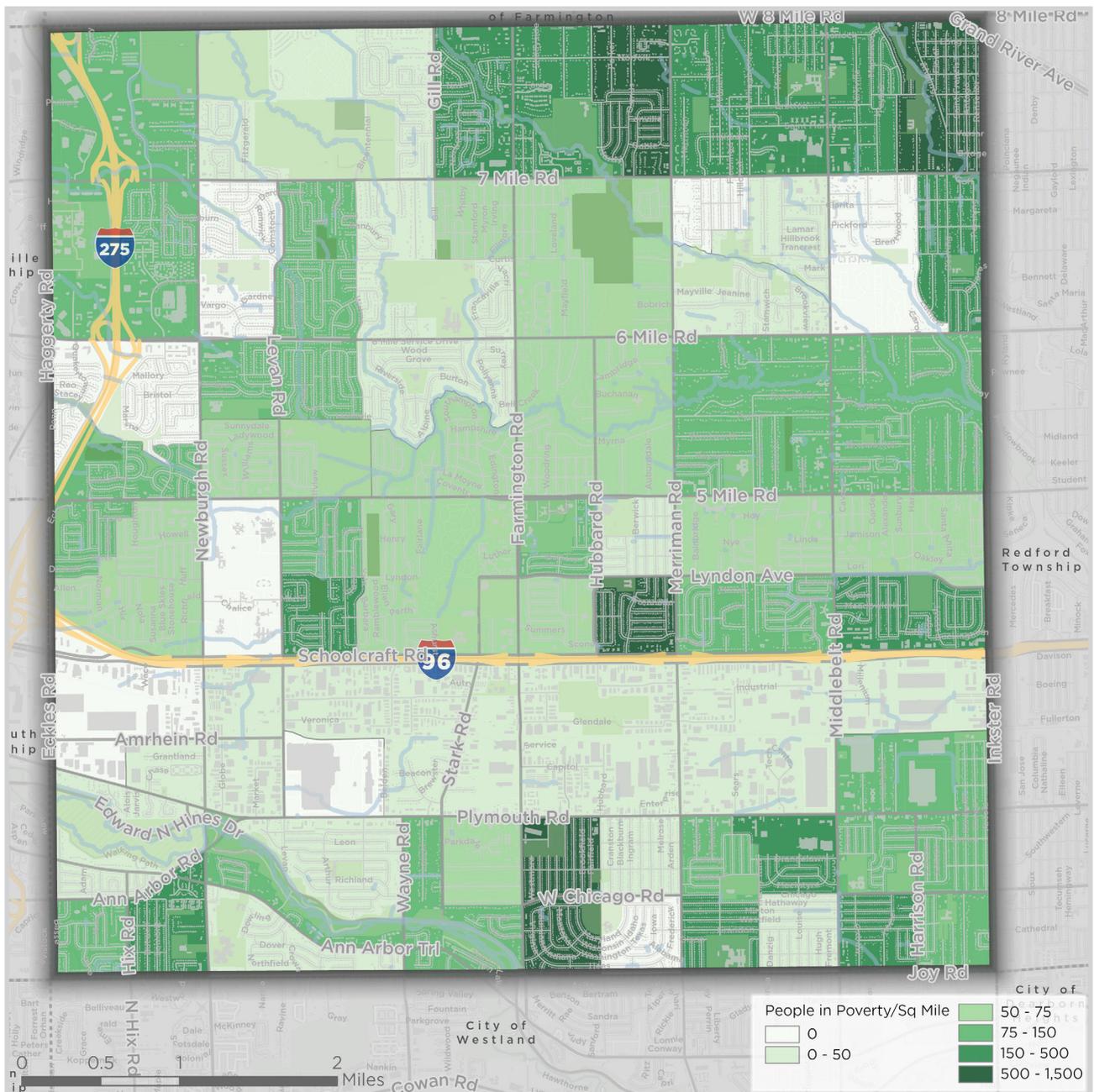


2.0 EXISTING CONDITIONS

Vulnerable Populations

Only 5.5% of the population is below the poverty level, but it is important to consider the transportation challenges they face. These individuals may have access to a vehicle but may also have family needs that require more than one. There is overlap between the high-density areas of individuals living in poverty and higher senior population densities. Additionally, the northeast corner of Livonia contains a larger concentration of individuals whose income is below the poverty line.

FIGURE 9: INDIVIDUALS LIVING BELOW THE POVERTY LINE

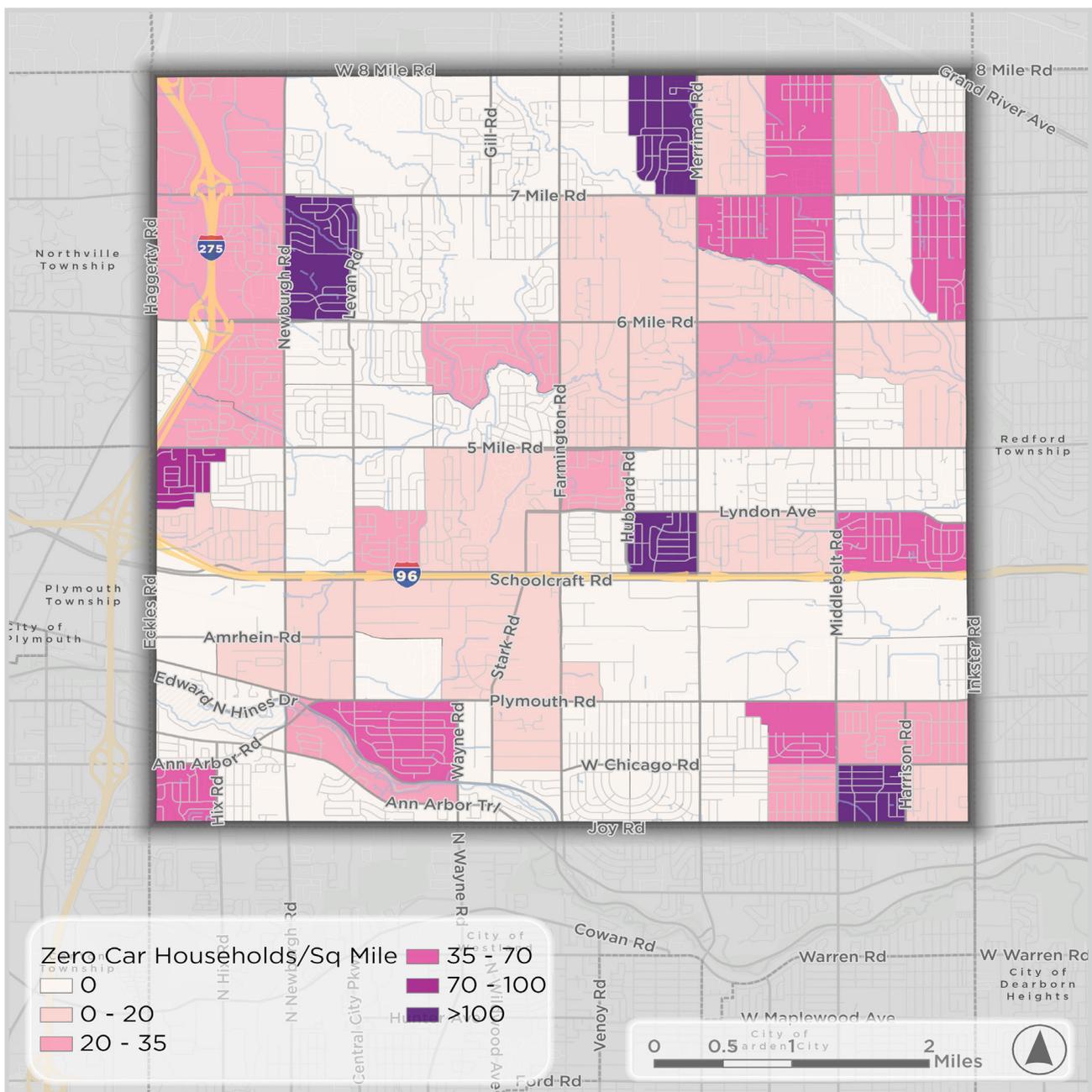


SOURCE: US CENSUS BUREAU, ACS 5 YEAR ESTIMATES 2017-2021, B17101

Vulnerable Populations

One significant factor in determining the demand for transit services is the prevalence of zero car households. This specific demographic was included in the Transit Score Analysis to focus on enhancing access to mobility options. Livonia is home to 1,327 zero car households with high density areas distributed citywide. Some of the higher density areas are located in the northeast corner of the city, where there is a higher concentration of individuals living below the poverty line.

FIGURE 10: ZERO CAR HOUSEHOLD DENSITY



SOURCE: US CENSUS BUREAU, ACS 5 YEAR ESTIMATES 2017-2021, B25044

2.2 Transit Score Analysis

The Transit Score focuses on areas where public transportation plays a crucial role in meeting the needs of vulnerable communities. The Transit Score Analysis averages six demographic data points to identify areas with a higher concentration of potential public transit riders. The data examined for the Transit Score assessment encompasses several population subsets that tend to exhibit increased transit ridership, including:

- Population Density
- Density of Low-Income Residents
- Density of Households without Cars
- Density of Senior Population
- Density of School-Aged Population
- Density of Individuals with Disabilities¹

The demographic analysis is conducted at the census block group level, which offers the most geographical detail provided by the US Census Bureau. To calculate the Transit Score, every block group is categorized into quintiles based on their density for each dataset. For instance, block groups with the highest population density are ranked from highest to lowest and divided into five equal groups (quintiles). Each group is then assigned a score ranging from one to five. The areas with the highest density receive a score of five, while those with the lowest density receive a score of one. By summing the scores for each dataset, the overall Transit Score for the block group is determined. This approach ensures a thorough assessment of transit viability at a fine-grained level of analysis.

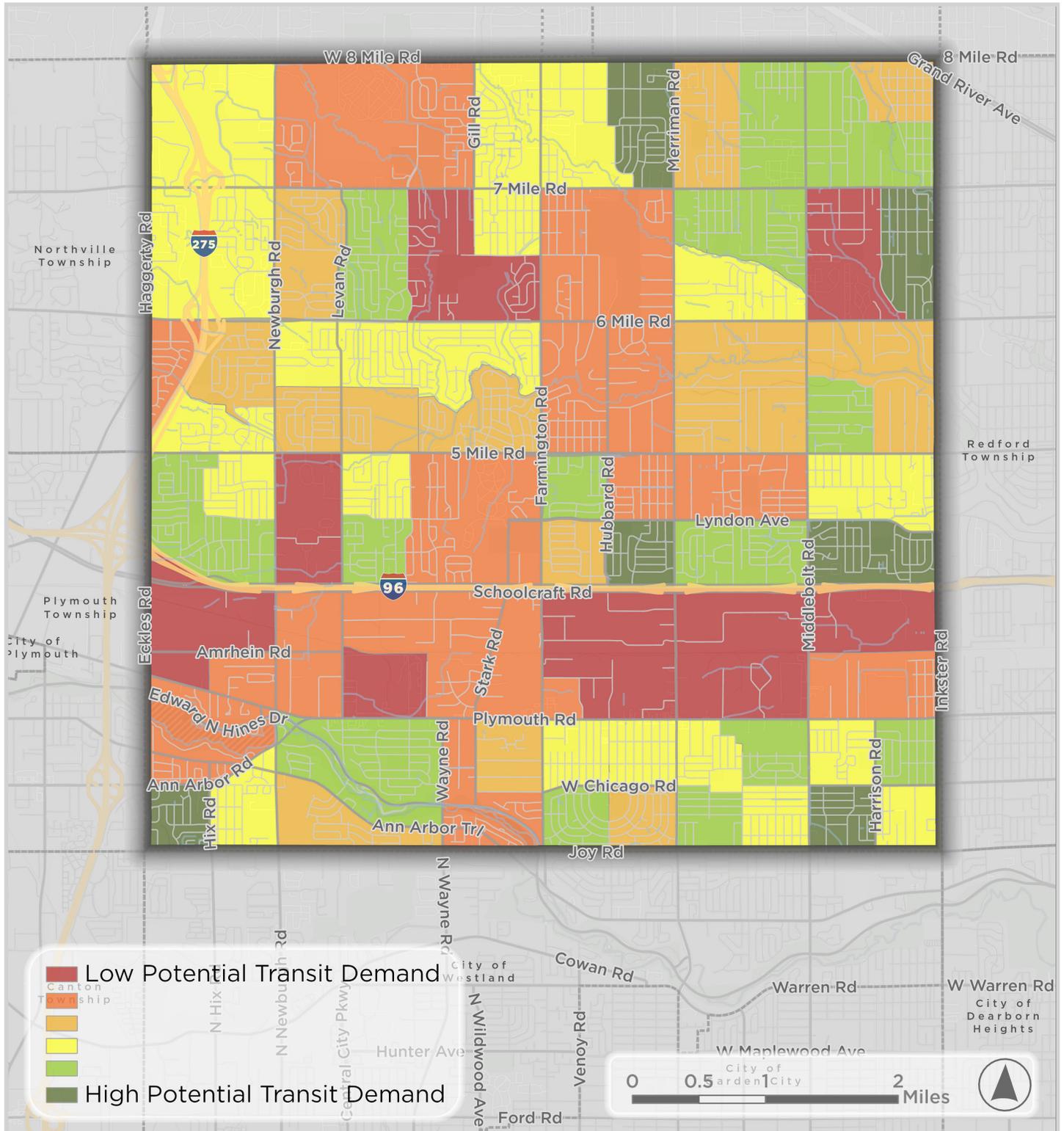
The results of the transit score analysis help illustrate the need for transit within Livonia. The map below shows the areas from highest potential of transit need (in green) to lowest potential for transit (in red). The following areas have higher concentrations of middle to high transit demand in Livonia:

- South of Plymouth Road from Eckles Road to Inkster Road
- Northeast Corner of Livonia: 6 Mile Road to 8 Mile Road, from Farmington Road to Inkster Road
- North of I-96 to 5 Mile Road, from Farmington Road to Inkster Road

The employment area south of I-96 shows up in the transit score analysis as having low transit demand due to a lack of residents in this area. However, if work trips are intended to be served by Liv&Go, this area will rise in transit demand as a major destination area.

¹ Individuals with disabilities may be undercounted in Census efforts, further demonstrating the need for reliable transportation options. Source: <https://today.ku.edu/2022/10/04/federal-surveys-missing-many-43-percent-individuals-disabilities-ku-study-finds>

FIGURE 11: TRANSIT SCORE ANALYSIS



2.3 State of Livonia Transit Services

Annual Ridership

In 2020, the highest number of passengers served occurred in November with 2,928, while the lowest count was in May with 634 passengers. The massive drop in ridership occurred between March and April when most non-essential businesses in the state were shut down due to COVID-19. With many people staying home during the height of the pandemic, ridership was predictably low, but began to rebound in the fall with the introduction of safer operating procedures related to COVID.

In 2021, the highest passenger count was in July with 2,138, while the lowest count occurred in February with 1,273 passengers. This decline could be attributed to changing travel patterns and transportation needs resulting from COVID-19. Some health care providers began mobility clinics, grocery delivery services started up, employers were still staffing back up after cuts, and people were working from home and traveling less all due to spillover effects of COVID.

In 2022, there was a mix of fluctuations and recovery in ridership. The highest number of passengers served was in March with 2,366, indicating a potential rebound from the previous year. However, there were still variations observed throughout the months, with some months experiencing higher ridership compared to others.

2023 Ridership

In 2020, the highest number of passengers served occurred in November with 2,928, while the lowest count was in May with 634 passengers. The massive drop in ridership occurred between March and April when most non-essential businesses in the state were shut down due to COVID-19. With many people staying home during the height of the pandemic, ridership was predictably low, but began to rebound in the fall with the introduction of safer operating procedures related to COVID.

Moving to 2021, there was a general decrease in ridership compared to the previous year as the pandemic continued.

The highest passenger count was in July with 2,138, while the lowest count occurred in February with 1,273 passengers. This decline could be attributed to changing travel patterns and transportation needs resulting from COVID-19. Some health care providers began mobility clinics, grocery delivery services started up, employers were still staffing back up after cuts, and people were working from home and traveling less all due to spillover effects of COVID.

In 2022, there was a mix of fluctuations and recovery in ridership. The highest number of passengers served was in March with 2,366, indicating a potential rebound from the previous year. However, there were still variations observed throughout the months, with some months experiencing higher ridership compared to others.

In 2023, the highest number of passengers served was in March with 2,305 passengers. Ridership consistently remained above 1,000 passengers per month throughout the year, with the lowest count being 1,158 in July. Consistent ridership suggests reliability in transit usage despite changing work and travel patterns.

Total Ridership

Total ridership saw a very small decline from 2020 to 2021, with a decrease of 822 riders. This decrease could be attributed to any number of changes in Livonia and, in general, is not a significant change in ridership. However, there was a substantial increase in ridership from 2021 to 2022. The ridership jumped by over 3,300 riders during this period and could suggest a return to a more normal or pre-pandemic mobility pattern.

FIGURE 12: ANNUAL RIDERSHIP

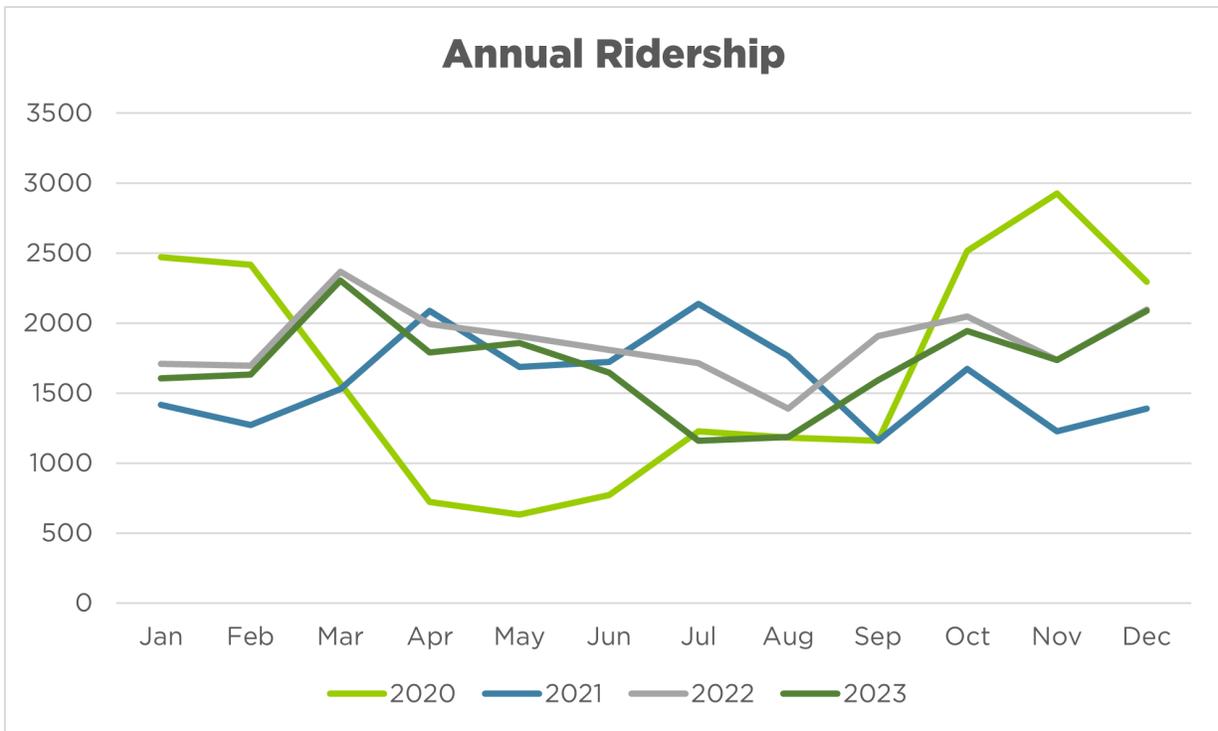
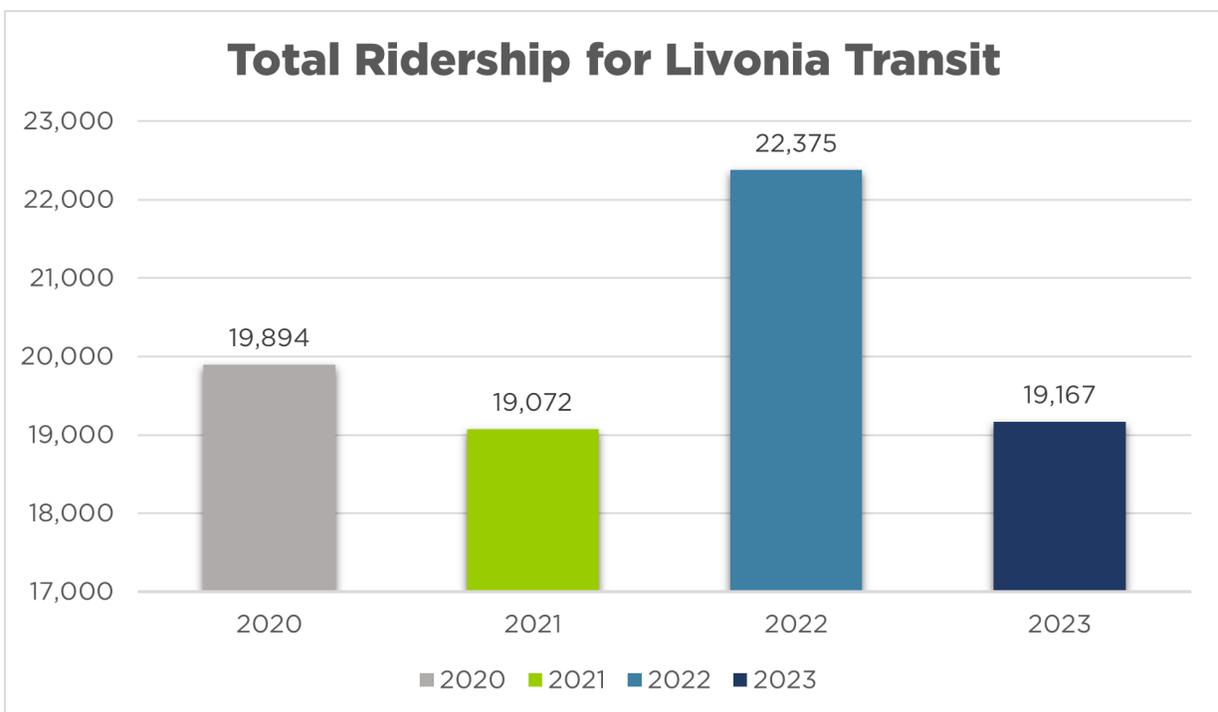


FIGURE 13: TOTAL RIDERSHIP



2.0 EXISTING CONDITIONS

Livonia Transit Operational Review

Staff

Liv&Go, located within the Livonia Housing Commission department, has a small structure with two main parts: administration and operations. The administration department, consisting of a Director, a Program Supervisor, and an Office Manager, oversees Liv&Go's overall functioning. There is shared leadership; Livonia Housing Commission's Director also serves as the Director of Liv&Go. The larger operations department manages day-to-day transit operations, with three dispatchers handling scheduling and coordination and 14 bus drivers ensuring safe and efficient transportation. Liv&Go has 19 staff members, which is less compared to similar systems. Liv&Go might need more staff to meet the growing demand for transit services in the city.

Staff Deficiencies

In 2019, Liv&Go had a peak number of 25 employees, but due to COVID-19 and other economic factors, the number of drivers has dropped to 14. Liv&Go plans to hire 4-6 more drivers to reach a total of 18-20 to maintain service levels. The shortage of drivers is causing reduced service and long wait times for riders. To meet the demand for transit service, extra staff are necessary to operate the vehicles. Future demand will be assessed using new optimization software.

Budget and Operating Costs

Liv&Go's budget is derived from various sources, including municipal credit reimbursement, specialized services, ride fares, interest, and contributions. Between 2020 and 2021, certain revenue sources remained stable, such as "Municipal Credit Reimbursement" and "Specialized Services," while "Ride Fares" experienced a notable increase, suggesting a rise in passenger demand. Funding from "Contributions - Tran & Cap 216," although gradually decreasing, plays a pivotal role in supporting Liv&Go by offsetting other service costs. On the other hand, revenue from the "Sale of Fixed Assets" constitutes a small portion of the budget and has been in decline. However, the 2023 Adopted Budget includes a \$7,000 line item, indicating a potential for supplementary revenue, albeit at lower levels. Continued inflation and the

rising costs of providing services must also be accounted for to ensure future projections can support efficient and effective operations. At the end of November 2023 year-over-year US inflation stands at 3.1%.

The analysis of Liv&Go's budget expenses from 2020 to 2023 provides insights into the allocation of financial resources. In 2020, the highest expenses were incurred for Drivers, followed closely by Administration and Dispatchers. Insurances and Supplies also made significant contributions. In 2021, Driver expenses increased, while Administration expenses decreased. Dispatchers and Supplies expenses rose, and new categories emerged, such as Printing and Publishing and Other Charges and Services. In 2022, Driver expenses decreased due to staff loss following the COVID-19 pandemic, and Dispatchers, Administration, and Supplies expenses also decreased compared to the previous year.

The 2023 Adopted Budget reveals significant changes, with a substantial surge in Driver expenses to \$322,950 – primarily to increase salaries to offset inflation. Liv&Go aims to add more drivers, bringing the total to a maximum of 20, and "Capital Outlay" expenses also increased, reflecting investments in long-term assets and infrastructure. Overall, total expenses increased gradually from \$611,666.51 in 2020 to \$622,723.32 in 2022. However, the 2023 budget indicates a substantial investment, reaching \$1,199,117.00, suggesting a commitment to enhancing Liv&Go's services. The financial analysis underscores the challenges faced by Liv&Go, especially in 2022 and the projected budget for 2023. Managing expenses and exploring revenue opportunities are crucial for long-term financial sustainability, enabling Liv&Go to continue providing essential transportation services to the Livonia community.



LIVONIA COMMUNITY TRANSIT
2023 AGENCY PROFILE

SERVICE AREA POPULATION

93,779

SERVICE AREA SIZE

35.85 sq. mi.

DEMAND RESPONSE BUSES
IN SERVICE

20

TOTAL OPERATING EXPENSES

\$903,170

ANNUAL UNLINKED TRIPS

19,167

COST PER RIDER

\$47.36

2.0 EXISTING CONDITIONS

Budget and Operating Costs

TABLE 5: 2020 - 2024 DEPARTMENTAL REVENUE

	2020	2021	2022	2023	2024 Adopted Budget
Municipal Credit Reimbursement	\$95,342	\$95,342	\$95,342	\$89,424	\$95,342
Specialized Services	\$18,486	\$22,103	\$22,103	\$22,103	\$22,103
Ride Fares	\$19,971	\$29,794.50	\$24,840.50	\$30,196	\$21,821
Interest	\$10,954.60	-\$1,457.17	-\$7,234.66	\$62,917	\$57,000
Sundry Income	\$0	\$15,825	\$50	\$0	Data not available
Contributions-Other	\$0	\$0	\$0	\$1650	\$5,000
Contributions - Tran & Cap 216	\$834,746.40	\$825,764.58	\$550,000	\$50,000	Data not available
Sale of Fixed Assets	\$11,756.40	\$895	\$0	Data not available	\$10,925
TOTAL	\$991,256.40	\$988,266.91	\$685,100.84	\$704,445.00	\$212,191

TABLE 6: 2020 - 2024 DEPARTMENTAL BUDGET EXPENSES

	2020	2021	2022	2023	2024 Adopted Budget
Dispatchers	\$82,711.17	\$89,022.35	\$64,452.29		\$95,342
Administration	\$161,606.06	\$129,700.98	\$98,369.25		\$22,103
Drivers	\$193,583.68	\$212,763.86	\$171,172.20		\$21,821
Supplies	\$75,461.42	\$91,772.34	\$89,709.80		\$57,000
Professional and Contractual Services	\$46,832.83	\$23,036.81	\$53,683.77		Data not available
Transportation - Senior Van Program	\$7,117.29	\$0	\$0	Data not available	\$5,000
Community Promotion	\$0	\$0	\$0		Data not available
Printing and Publishing	\$79.61	\$727.45	\$662.42		\$10,925
Insurances	\$59,980.25	\$62,964.61	\$60,352.09		\$212,191
Other Charges and Services	\$1,844	\$2,097.37	\$2,204.50		Data not available
Capital Outlay	-\$17,549.80	\$4,120	\$82,117		Data not available
TOTAL EXPENSES	\$611,666.51	\$616,205.77	\$622,723.32	\$903,170	\$1,157,114

TABLE 7: 2020 - 2024 PROGRAM TOTAL REVENUES AND EXPENSES.

	2020	2021	2022	2023	2024 Adopted Budget
Revenue Totals	\$991,256.40	\$988,266.91	\$685,100.84	\$257,290	\$212,191
Expense Totals	\$611,660.51	\$616,205.77	\$622,723.32	\$903,170	\$1,157,114
Community Transit Program Totals	\$379,595.89	\$372,061.14	\$62,377.52	-\$645,880	-\$944,923



LIVONIA TRANSIT SWOT ANALYSIS

STRENGTHS

- High demand for ridership – ridership has recovered from the COVID-19 pandemic reduction
- Operating relatively efficiently on a cost per rider basis
- Healthy budget to support agency
- Reputation as a valuable community service
- Small, nimble system

WEAKNESSES

- Too much demand to provide efficient trips
- Not enough drivers to meet demand
- Riders must book 2-3 weeks in advance – continued denial of trips could lead to reduced demand
- Deferred maintenance of vehicles
- Service mostly focused on seniors and individuals with disabilities. Few trips are available for commuters

OPPORTUNITIES

- High employment levels and two higher education institutions in Livonia drawing people from around Southeast Michigan
- Transit attracts a wide range of riders (youth, young adults, seniors, among others)
- Connections to regional transit routes
- Incorporation of technology to streamline transit services
- Support from community leaders to improve transit in Livonia
- Aging demographics of Livonia's population

THREATS

- Only one connection with regional transit routes
- Reduction in City's general fund contributions
- Changing views of transit
- Prominence of rideshare services



3.0

Peer Agency Review

LIVONIA 2021 TRANSIT DATA SUMMARY

PEER AGENCY COMPARISON

3.0 Peer Review Comparison

3.1 Livonia Transit Data Summary

The City of Livonia has shared data about Liv&Go's finances and operations for 2021. This information helps assess how Liv&Go is performing and identify areas for improvement when compared to similar transit agencies. The most recent peer agency data available is from 2021, making that year's transit data the basis for comparison. The infographic below outlines Liv&Go's key operating features in 2021.

LIVONIA COMMUNITY TRANSIT 2021 AGENCY PROFILE

SERVICE AREA POPULATION

93,779

SERVICE AREA SIZE

35.85 sq. mi.

DEMAND RESPONSE BUSES
IN SERVICE

20

TOTAL OPERATING
EXPENSES

\$616,205.77

ANNUAL UNLINKED TRIPS

19,072

3.2 Peer Agency Comparison

Peer agency review is an important part of understanding where Liv&Go is functioning well and where it could be functioning more effectively. The data in the chart below is from the National Transit Database (NTD), a nationwide database of American transit systems by the Federal Transit Administration (FTA). Transit agencies of similar size within Michigan and the neighboring states of Ohio and Indiana have been selected for this analysis, focusing on demand response data as Liv&Go doesn't operate Fixed Route service. The 2021 data is compared to assess annual ridership and cost per rider. An effective transit agency provides efficient and timely service, measured by factors like cost per rider and rides per hour, indicating high annual ridership with minimal operating expenses.

TABLE 8: MICHIGAN, OHIO, AND INDIANA TRANSIT AGENCY COMPARISON

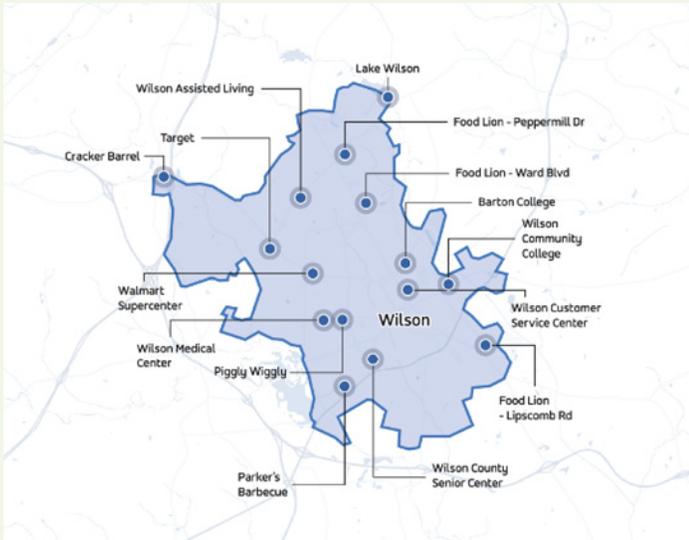
State	Agency	Service Area Population	2021 Ridership	Operating Expenses	Cost Per Rider	Rides per Hour
MI	Livonia Liv&Go	93,997	19,072	\$616,206	\$32.31	n/a
	City of Battle Creek	87,735	22,708	\$1,736,950	\$76.45	1.5
	City of Midland	42,075	63,543	\$1,922,730	\$30.26	3.4
	Bay Metropolitan Transit Authority	103,856	51,890	\$4,721,744	\$91.00	1.7
OH	City of Middletown	50,987	3,991	\$138,092	\$34.60	0.3
	City of Springfield	58,662	6,052	\$163,278	\$26.98	3.7
	Bowling Green Transit	30,808	29,654	\$576,796	\$19.45	4.6
IN	Bloomington Public Transportation	86,987	22,000	\$764,453	\$33.93	2.1
	City of Kokomo	59,604	82,057	\$1,778,702	\$21.68	2.7
	Muncie Indiana Transit System	70,085	35,118	\$1,495,060	\$42.57	2.7

Bold text indicates high performing statistics.

In general, Liv&Go performs well or similarly to peer agencies serving similar populations, like the City of Battle Creek (MI), Bay Metropolitan Transit Authority (MI), Muncie Indiana Transit System (IN), and Bloomington Public Transportation Corporation (IN). However, when compared to agencies with smaller service area populations like the City of Midland (MI) and City of Kokomo (IN), Liv&Go's performance is lower. Midland and Kokomo outperform Liv&Go in annual ridership and cost per rider, along with maintaining a high number of rides per hour. Both Midland and Kokomo have larger operating budgets, allowing for more vehicles and longer service hours, ultimately improving the overall efficiency of their systems.

Best Practices

A more detailed review of the high performing agencies was completed to better understand why these systems were performing more efficiently. The analyses provide valuable lessons about the context of each system that might be boosting ridership in these areas.



City of Wilson, North Carolina

Cities like Wilson, NC are aiming to enhance ridership in their transit systems. Wilson, situated about 40 miles from Raleigh with a population of approximately 49,000, collaborated with Via in 2020 to upgrade its transit system. In 2021, Wilson's demand response system, RIDE, facilitated 117,000 rides at operating costs totaling \$2,298,626. This resulted in a cost of \$19.70 per passenger trip, which is notably lower than Liv&Go's cost per rider.

RIDE allows riders to book trips through a designated app or over the phone, a feature lacking in many other demand response services. Moreover, passengers are picked up from a street corner close to their starting point, reducing pick-up time and enabling vehicles to return to their route more efficiently. The service covers a designated area, as indicated on the provided map.

Recently, Liv&Go has enlisted Via as a software vendor, enhancing operational efficiency. This partnership opens avenues for additional transit services operated by Via.

City of Bowling Green, Ohio

Despite having a service area population less than one third of Liv&Go's, the Bowling Green Transit (BGT) system provided more rides than Liv&Go in 2021 with a smaller budget. This resulted in a significantly lower cost per rider. BGT operates with seven fully accessible vans as a demand response service, similar to the City of Midland. Like Midland, BGT encourages riders to book trips in advance but also allows for same-day reservations. While BGT doesn't require over 24 hours' notice, they note that booking within the hour might not be accommodated quickly due to space availability.

Bowling Green, being much smaller than Livonia at about 12 square miles compared to Livonia's 36 square miles, enables quicker trips and faster service times with fewer vehicles and drivers. This efficiency allows BGT to provide a similar number of rides as Liv&Go but at a lower cost. Additionally, BGT's flexibility in allowing reservations within an hour likely contributes to additional rides.



Best Practices

City of Midland, Michigan

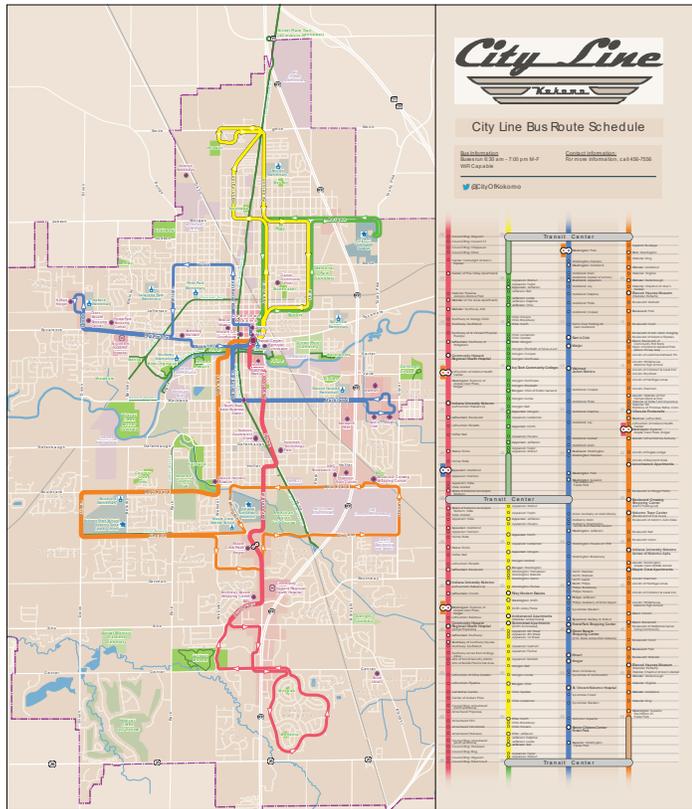
The City of Midland, MI provides a “Dial-A-Ride” (DART) service for residents within the city limits, offering curb-to-curb transportation. Despite serving a population less than half of Liv&Go’s, Midland sees about three times more riders annually. Although their operating expenses are approximately three times that of Liv&Go, the cost per rider is slightly lower. Midland’s higher budget allows for more buses, drivers, and longer operating hours, making the service more convenient and attracting more residents.

The curb-to-curb DART service doesn’t extend assistance beyond the curb, but riders needing extra care may travel with a personal staff member at no extra cost. This focus on point-to-point travel enhances the service’s efficiency.

Midland’s DART service relies on a ride scheduling system, using a “first-call, first served” approach with limited slots. Encouraging riders to book early (up to one month in advance) helps with efficient trip scheduling, while same-day reservations are accepted based on availability. Although effective, there is room for improvement through the adoption of new technology for better operation of the dial-a-ride service.



City of Kokomo, Indiana



The City of Kokomo runs both demand response and fixed route services to cater to various transportation needs. Their City Line Trolley covers five fixed routes, linking riders to key areas like education, retail, and medical facilities. The demand response paratransit service, designed for those over 60 and individuals with disabilities, focuses on providing extra care for these riders.

The City Line Trolley effectively covers much of the community, allowing the Spirit of Kokomo, the city’s paratransit system, to concentrate resources on those requiring additional assistance during travel. Although riders using the Spirit of Kokomo need to book trips at least one day in advance, this system helps optimize support for individuals with special needs.

Kokomo’s demand response service has the highest ridership among peer cities reviewed. With a comparable operating budget to Midland for Demand Response, Kokomo’s success in ridership could be attributed to its integrated fixed route system. The presence of both fixed route and demand response services contributes to a more transit-friendly community mindset and the potential for a more efficient overall transit system.



This page is intentionally left blank



4.0

recommendations

TRANSIT SERVICE IMPROVEMENTS

ADDITIONAL RECOMMENDATIONS

Planning for Growth



4.1 Transit Service Improvements

The City of Livonia has experienced a significant increase in demand for transit services over the past four years. More residents are looking to use the existing transit system but are having difficulty booking trips. In some cases, trips need to be scheduled up to three weeks in advance. In the case of Liv&Go, the demand for service is outpacing the capacity of the system and ability to provide the rides.

The existing conditions data revealed where employees, students, and residents are traveling, and what opportunities are available to serve those trips with transit. The proposed transit service options are dependent on the demand, concentration of origins and destinations, rider preference, and the need for connections to regional mobility services. Based on the transit score analysis, the highest potential transit ridership areas are in three locations as circled in green in Map 12: along the southern border of Livonia, along the north side of I-96, and in the northeast corner of the city. Nonetheless, it is important to remember that the transit score does not account for employment locations, only the locations of where residents live who may ride transit. Therefore, there is also likely a high demand for transit along Plymouth Road where most of Livonia's largest employers are located.



4.0 RECOMMENDATIONS

The existing DDO^T and SMART routes provide an opportunity to connect riders from farther away in Southeast Michigan with Livonia destinations. DDO^T's Plymouth Road Route 38 travels into the City of Livonia and serves a transit hub on Middlebelt Road at Millennium Park. A total of 32,422 bus riders traveled through this hub in 2023, and the route had an annual total of 222,027 riders making it the highest demand route in the area, hinting that there is additional unmet transit demand in Livonia. SMART does

not enter the city, but a few routes come within one mile of Livonia. **Ridership data for SMART and DDO^T routes in or near Livonia is provided in Tables 9 through 11 below.**

Generally, agencies with a connection to fixed route transit also tend to have higher demand response transit ridership. This is likely due to a greater understanding of the overall transit network and the ability to use both fixed route and demand response services in coordination with each other.

TABLE 9: SMART FISCAL YEAR 2023 TOTAL RIDERSHIP ON ROUTES NEAR LIVONIA (SOURCE: SMART)

Route	Weekday	Saturday	Sunday	Total
210 Michigan Local	59,373	8,697	5,788	73,858
250 Ford	36,993	0	0	36,993
275 Telegraph-Taylor/Tel-12	139,283	15,233	0	154,516
280 Western Wayne	59,110	9,406	6,766	75,282
305 Grand River	50,155	8,106	6,218	64,479
805 Grand River Park'n'Ride	8,036	0	0	8,036

TABLE 10: DDO^T FISCAL YEAR 2023 TOTAL RIDERSHIP ON ROUTES 27, 38, AND 43 (SOURCE: DDO^T)

Route	Weekday	Saturday	Sunday	Total
27 Joy	129,757	19,038	11,906	160,701
38 Plymouth	180,433	24,897	16,697	222,027
43 Schoolcraft	96,535	11,871	7,920	116,326

TABLE 11: DDO^T FISCAL YEAR 2023 RIDERSHIP AT STOPS IN OR NEAR LIVONIA (SOURCE: DDO^T)

Route	Stop	Board	Alight
38 Plymouth	Plymouth & Woodbine	2,594	4,180
38 Plymouth	Plymouth & Inkster	248	1,497
38 Plymouth	Plymouth & Deering	66	1,109
38 Plymouth	WB Plymouth & Harrison	39	3,703
38 Plymouth	EB Plymouth & Harrison	4,719	116
38 Plymouth	WB Plymouth & Garden	19	884
38 Plymouth	EB Plymouth & Garden	264	10
38 Plymouth	Middlebelt & Plymouth	306	13,827
38 Plymouth	Millennium Park NB	0	22,460
38 Plymouth	Millennium Park SB	9,962	0
43	Schoolcraft & Riverview	481	1,735

The recommendations developed as part of the Mobility Needs Analysis take a phased approach to increasing the amount of transit service that Liv&Go operates. Increasing the amount of transit service and the new service options in phases is recommended to ensure that service continues to function while building for the future. Liv&Go will have to figure out how to scale operations while taking a conservative approach to growth to allow staff to pivot as necessary. Pilot projects can be utilized to test service before making a long-term investment. The amount of additional funding needed to realize the service recommendations is significant. Liv&Go staff will need to prove that additional funding is warranted and show the data demonstrating why additional service will benefit the community.

Microtransit

VERY NEAR TERM OBJECTIVES

The concept of microtransit is like ride hailing applications, such as Uber or Lyft, allowing riders to book a trip using either a mobile application or by calling in to the main dispatching office. Microtransit generally offers curb-to-curb service for riders anywhere within a designated zone and does not operate on a pre-set route. This means that when a rider books a trip, a vehicle will meet them in the street at their origin and drop them at the curb of their destination.

Microtransit is a shared ride service meaning that other riders will likely be picked up or dropped off during each trip. However, the technology that powers microtransit provides route guidance that optimizes efficiency for all passengers. Many microtransit zones are small enough that the coordinated trips with other passengers do not add much to overall travel time.

Microtransit is a growing form of public transit that has been implemented at a variety of agencies large and small. In larger agencies, microtransit tends to operate in areas lacking consistent fixed route service and is intended to connect riders with fixed route buses. In smaller agencies, microtransit has been successful in replacing standard demand response, while providing a higher level of service. Depending on the goals of the agency, the budget, and demand areas, microtransit can be implemented in the way that best meets the needs of riders.

When launching a new service like microtransit in a city like Livonia, which is disconnected from the regional system, but maintains a high demand, the following techniques should be considered:

» **COMMUNICATIONS**

Liv&Go will need to rely heavily on communications and marketing to get the word out about service. Since this is new to most riders, they will need to be educated on how to use the service, where it goes, and the benefits of using it.

» **START SMALL, THEN EXPAND**

Next, Liv&Go should saturate service in a smaller zone rather than try to go too big too early. A poor experience at the launch can have lasting effects on how people use the service, while providing an easy and comfortable ride will draw riders in and keep them using it.

» **BE ADAPTABLE**

Liv&Go needs to be ready to adapt to changes in how riders use microtransit to ensure that the best service possible is being provided. The software will capture data that can be used to refine the service zone, change operating hours, or adjust response times.

» **FOCUS ON EFFICIENCY**

Liv&Go will need to maintain efficiency with service to ensure the right balance between rider travel time and operations costs. Microtransit is only efficient to a certain point, at which other service types can serve more riders per hour. As ridership grows, Liv&Go should investigate hybrid models of service that combine microtransit and fixed route elements to get more people where they need to go as quickly as possible.

The Mobility Needs Assessment recommends the adoption of microtransit service in the City of Livonia to help grow ridership and capitalize on transportation trends in the region. It is essential that early investments in transit enhancements are focused on providing service to core riders rather than attempting to grow the system.

4.0 RECOMMENDATIONS

Phased Implementation of Service

Livonia's large geographic area of 36 square miles is a challenge that complicates the delivery of reliable and efficient transit options. Therefore, four different scenarios were developed to guide planning and financial decisions for the next year of Liv&Go operations and beyond. The phased approach to increasing service assumes that over time, operations will gradually move from one scenario to another, providing additional capacity for both workforce and core riders.

PHASE 1: IMPLEMENT VIA TRANSIT SOFTWARE AND ADDRESS EXISTING SERVICE DEFICIENCIES

VERY NEAR TERM OBJECTIVES

Phase 1 of the Mobility Needs Assessment is to implement the forthcoming Via transit software that will transform Livonia Community Transit into Liv&Go. The software that Via will be implementing includes three major items that intend to improve the efficiency and operations of transit service in Livonia: centralized dispatch and operations, a rider mobile application and booking tools, and a driver mobile application. These tools are intended to streamline the booking, dispatching, and travel aspects of operating the service so that more riders can book trips nearer to their travel date.

CENTRALIZED DISPATCH

Via's Centralized Dispatch software will allow agency staff to easily capture, manage, route, and store ride data for Liv&Go. The most important feature of this software is the ability to automate a much larger portion of the ride booking system when paired with the rider application summarized below. The centralized dispatch software takes ride requests from both the app and those entered by dispatchers from call-in requests, automatically assigns riders to vehicles, and provides an optimized route in seconds. The efficiency gained through the implementation of the software should help Liv&Go serve more riders per day with the same number of dispatchers and drivers. Ultimately, this should reduce how far in advance riders must book trips.

Additionally, the centralized dispatch software collects a wide range of data associated with transit ridership. Data related to origins and destinations, booking times, total ridership, trip requests, travel times, response times, and more are captured with each trip that is booked, and the data is stored for later review. This data is an essential component to improve the future service. It is recommended that Liv&Go staff review and analyze these results and adjust service accordingly to maximize performance. Additionally, the patterns that can be gleaned from the data can help identify where new service options may be needed to address the unmet demand.

BRANDED RIDER APPLICATION

A new rider focused mobile application has been developed for the City of Livonia that will allow riders to book trips seamlessly from their smartphone. This application will include the new brand and color scheme developed for Liv&Go by Via and will be the first step in distributing the new look to the community. The application functions like other ride hailing applications, allowing for scheduling of trips, real time updates of vehicle locations, rider information, and the ability to pay for trips before boarding. For those riders who are uncomfortable or unsure about how to use a smartphone app, a call-in booking number is still available.

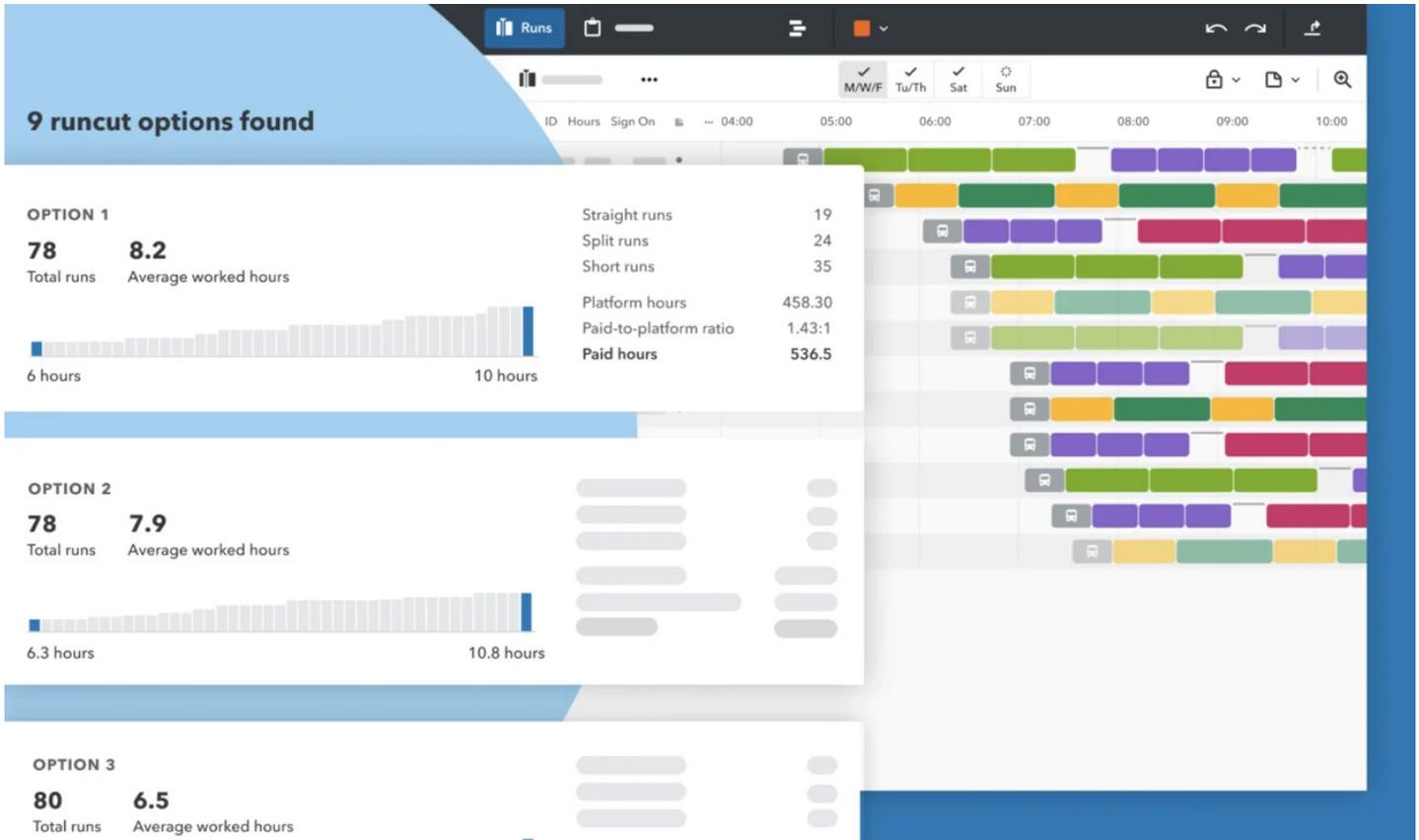
DRIVER APPLICATION

All Liv&Go vehicles will receive smartphones or tablets as part of the Via software upgrade. These devices will allow drivers to receive turn by turn navigation for each passenger that will update in real time based on traffic conditions, and as riders are picked up or dropped off. The tablets and smartphones are connected to the main centralized dispatch software, resulting in quick communications between drivers and dispatch staff.

ADDRESS EXISTING SERVICE DEFICIENCIES

Currently, Liv&Go riders need to book rides roughly three weeks in advance of their trip due to the high demand for transit service. There are a limited number of drivers and vehicles that are available to provide transit trips each day, requiring a much longer reservation lead-time to get on the schedule. The implementation of the Via software should help improve the efficiency of service delivery; however, additional operators may be needed to fill the gap. The agency’s goal should be to accommodate trips booked as early as 24 hours in advance to align with the service standard of Liv&Go’s peers.

It’s recommended that staff review the data following the Via software launch to see where additional capacity is needed and bring on additional operators to fill the gap. Ensuring this level of service for core riders will allow the agency to expand service into other areas of the city with microtransit, attracting new riders to the system.



4.0 RECOMMENDATIONS

PHASE 2: PLYMOUTH ROAD MICROTRANSIT PILOT

SHORT TERM OBJECTIVES

The first phase of transit service expansion is focused on implementing a microtransit pilot project along the Plymouth Road corridor with the goal of exploring the feasibility of employee targeted microtransit in Livonia. According to the Remix transit planning software, roughly 48,000 jobs in the corridor and nearby would be accessible within a 60-minute transit trip if this microtransit zone was implemented.

The service would operate primarily between Plymouth Road and Schoolcraft Road, connecting the large regional employers to both the surrounding neighborhoods and the DDOT transit hub on Middlebelt Road. The Plymouth Road service would be utilized as a proof of concept to see how many employees may benefit from the service to travel the “last mile” to their destination. This is a prime opportunity for a public-private partnership (PPP) between the City of Livonia, the Livonia Chamber of Commerce, and a coalition of employers located within the zone. In the spring of 2024, the City of Livonia applied for a Michigan Mobility Challenge Grant to explore potential opportunities for PPPs.

OPERATIONS CHARACTERISTICS

The Plymouth Road Microtransit Pilot Zone is intended to operate during the week from Monday through Friday beginning at 6 AM and ending at 6 PM. Upon launch of the service, the service should aim for picking up riders within one hour of booking. While this is a relatively long wait time for most microtransit systems, a 1-hour wait is a vast improvement from the current three-week booking time needed to book rides. Riders would book a trip through the Liv&Go mobile application or call ahead to the dispatching center.

The pilot service could be operated with up to three, six-passenger minivans depending on the coverage and response time desired by Livonia staff. Additionally, the number of vehicles to be added to service will also be dictated by the overall budget of the agency and how many riders are using the service. The service could be operated directly by the City of Livonia using the integrated software with the Via package or it could be contracted to an outside operator (including Via).

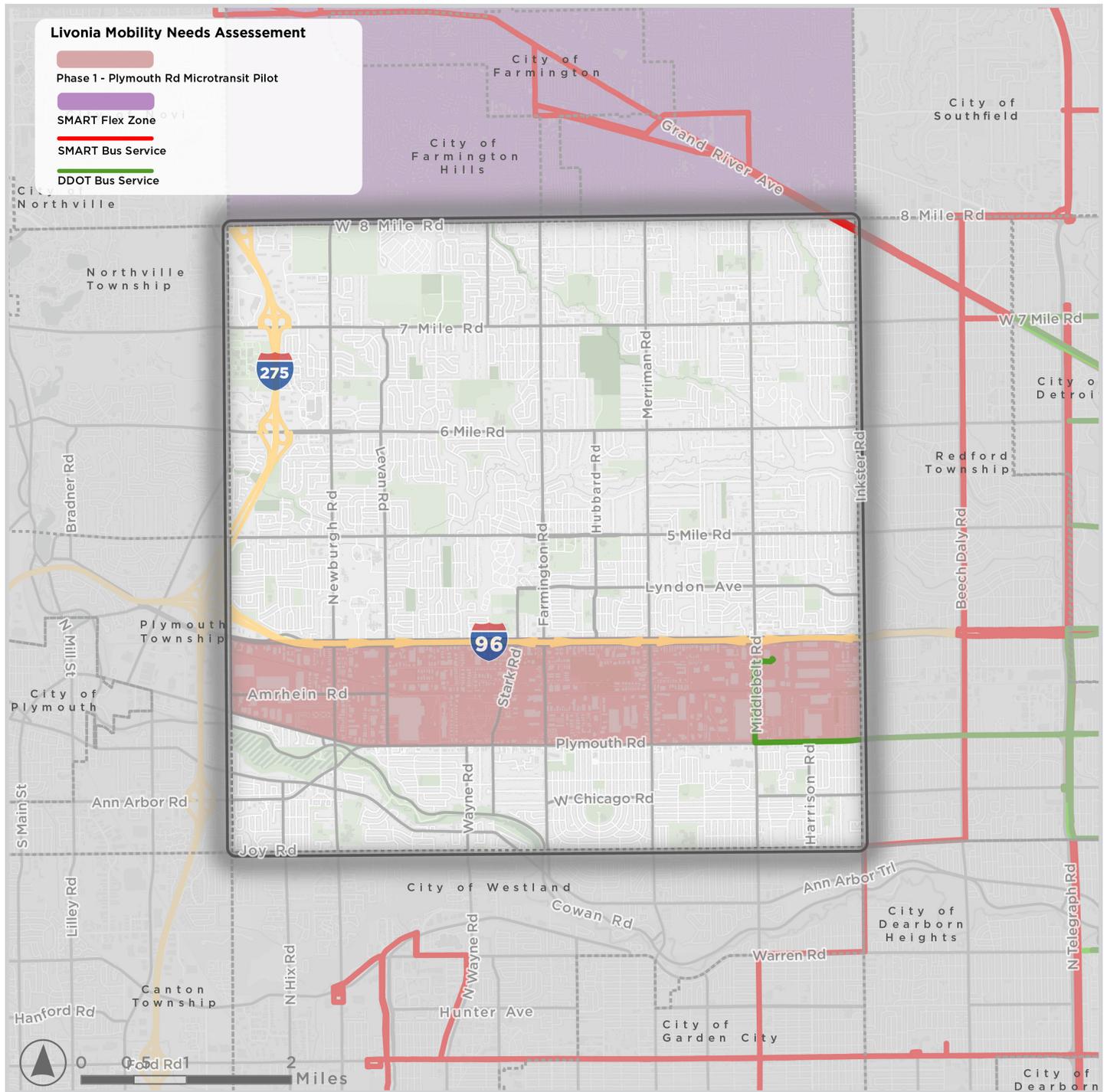
TABLE 12: PLYMOUTH ROAD MICROTRANSIT ZONE

Total Vehicles	Up to 3
Vehicle Type	6 Passenger Minivan
Initial Booking Response Time	1 hour or less (depending on vehicles)
Response Time Goal	10-20 minutes
Operating Hours	6 am – 6 pm
Total Vehicle Hours per Week	195
Operating Days	M-F
Annual Service Days	260
Annual Service Hours	6,240
Estimated Weekly Ridership	325
Estimated Annual Ridership	16,900
Estimated Annual Revenue	\$33,800
Annual Cost	\$405,000

TABLE 13: RETURN ON TRANSIT INVESTMENT

Travel Time	Population Accessible	Jobs Accessible
15	2,119	4,003
30	27,363	41,973
45	38,661	45,460
60	39,808	45,641

FIGURE 15: PHASE 2 PLYMOUTH ROAD PILOT



4.0 RECOMMENDATIONS

PHASE 3: CITYWIDE MICROTRANSIT ZONE

MID TERM OBJECTIVES

Following the successful implementation of the microtransit pilot project zone, a citywide microtransit zone should be implemented to help connect residents throughout Livonia to destinations within the city. The citywide zone would be an additional service overlay targeted toward members of the general public (non-seniors and individuals with disabilities). This service would introduce additional capacity to the transit system while maintaining the same amount of service dedicated toward seniors and individuals with disabilities. The goal with this service is to capitalize on the transit demand in the city and grow ridership of the system.

The service would operate within the city limits and be available to anyone needing a transit ride within the boundary. According to data from the transit planning software Remix, roughly 97,000 jobs would be accessible from the center of the city within a 60-minute transit ride if this microtransit zone was implemented. The goal with this expansion is to operate a microtransit service that operates similarly to a typical ride-hailing service, such as Uber or Lyft. The key is to ensure booking response times within the 15-to 20-minute window and provide as efficient of travel times as possible for riders. Focusing this service on the quick delivery of service will be a key aspect to attracting new riders to the service.

OPERATIONS CHARACTERISTICS

The addition of citywide microtransit service to Livonia would follow the successful implementation of the pilot microtransit project along Plymouth Road. The lessons learned from the microtransit pilot service would be utilized to ensure a smooth launch of the citywide service. The citywide service area is much larger than the pilot service area and would require additional vehicles, drivers, and costs to operate.

The Citywide Microtransit Zone is intended to operate during the week from Monday through Friday beginning at 6 AM and ending at 6 PM but could eventually expand to Saturdays. Upon launch of the service, the service should aim

for picking up riders within one hour of booking, moving towards a 15-20 minute response time as the service matures. Riders would book a trip through the Liv&Go mobile application or call ahead to the dispatching center.

Depending on the coverage and response time desired by Livonia staff six person minivans are the recommended vehicle. The pilot service could initially begin with two vehicles and expand to four vehicles if there is enough demand during peak hours. Additionally, the number of vehicles to be added to service will also be dictated by the overall budget of the agency and how many riders are using the service. The service could be operated directly by the City of Livonia using the integrated software with the Via package or it could be contracted to an outside operator (including Via).

TABLE 14: CITYWIDE MICROTRANSIT ZONE

Total Vehicles	2-4
Vehicle Type	6 Passenger Minivan
Initial Booking Response Time	1 hour or less (depending on vehicles)
Response Time Goal	20 minutes
Operating Hours	6 am – 6 pm
Total Vehicle Hours per Week	280
Operating Days	M-F, eventually expanding to the weekend
Annual Service Days	Up to 312
Annual Service Hours	Up to 14,560
Estimated Weekly Ridership	560
Estimated Annual Ridership	29,120
Estimated Annual Revenue	\$58,240
Annual Cost	\$582,400

TABLE 15: RETURN ON TRANSIT INVESTMENT

Travel Time	Population Accessible	Jobs Accessible
15	902	3,481
30	47,609	38,626
45	140,344	92,554
60	164,805	105,015

4.0 RECOMMENDATIONS

PHASE 4: DEVIATED FIXED ROUTE

LONG TERM OBJECTIVES

As is the case with many transportation systems and networks, microtransit is only effective up to a certain point. When ridership becomes too high on a microtransit service, it becomes more efficient to serve riders in a different way. The fourth phase of expansion for transit in Livonia is the addition of deviated fixed route(s) that connect areas of high activity within the city.

A deviated fixed route operates similarly to a standard fixed route service but offers flexibility to serve destinations up to one mile from the fixed route. A deviated fixed route can be a useful transit service option for areas that still lack the ridership levels to support a true fixed route, but also see a higher concentration of rides than other parts of a microtransit zone. Deviated fixed routes can also be useful in establishing general transit travel patterns in the city and can be formalized as a true fixed route as ridership continues to grow.

Deviated fixed routes operate like a fixed route in that the transit vehicle defaults to the established route if no deviations have been booked. Riders can pre-book specific destinations within the deviation zone, but this must be done in advance of the ride. Typically, agencies specify a 24-hour notice for route deviations, although this could be adjusted based on the overall use of the route. In the case of Liv&Go, riders would use the Liv&Go mobile app or call in to the agency to book the trip.

It is important to note that the addition of the deviated fixed route service would be an additional service to the microtransit zone and would add more capacity to the system when it is needed. **The route shown on the following page is one option based on the major destinations within Livonia, attempts to connect the two major employment zones and the two colleges in the city.** This route is subject to change depending on how residents use the service as it grows. Liv&Go staff should continue to monitor the ridership data, origin and destination data, and new developments in the city to develop a route that will meet the needs of the community.

OPERATIONS CHARACTERISTICS

The Deviated Fixed Route is intended to operate during the week from Monday through Friday beginning at 6 AM and ending at 6 PM. The service should aim for a 30 minute response time along the route with approximately 75% of riders booking in advance, and 25% of riders picked up and dropped off at the fixed stops along the route in accordance with the route schedule. Riders would book a trip through the Liv&Go mobile application or call ahead to the dispatching center.

The route would operate with one passenger bus. The service could be operated directly by the City of Livonia using the integrated software with the Via package or it could be contracted to an outside operator (including Via).

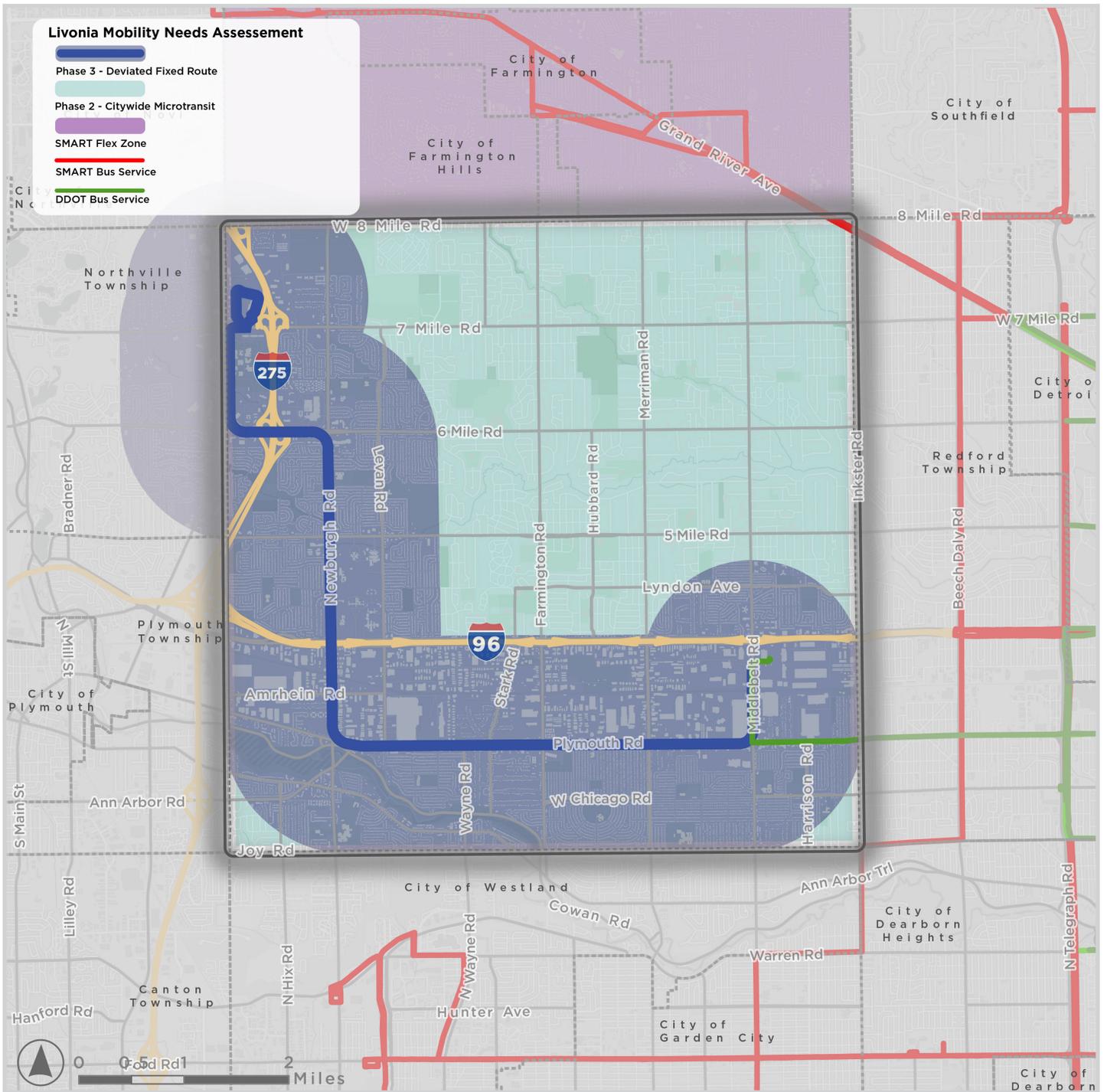
TABLE 16: DEVIATED FIXED ROUTE

Total Vehicles	3
Vehicle Type	Bus
Initial Booking Response Time	1 hour or less
Response Time Goal	30 minutes
Operating Hours	6 am – 6 pm
Total Vehicle Hours per Week	210
Operating Days	M-F
Annual Service Days	260
Annual Service Hours	10,920
Estimated Weekly Ridership	560
Estimated Annual Ridership	29,120
Estimated Annual Revenue	\$58,240
Annual Cost	\$873,600

TABLE 15: RETURN ON TRANSIT INVESTMENT

Travel Time	Population Accessible	Jobs Accessible
15	1,338	3,712
30	1,754	4,157
45	64,987	68,826
60	110,981	86,217

FIGURE 17: PHASE 4 DEVIATED FIXED ROUTE



4.0 RECOMMENDATIONS

PHASE 5: REGIONAL CONNECTIONS

LONG TERM OBJECTIVES

The first four phases of the transit service improvements intend to enhance mobility for Livonia residents and employees and allow for easier travel within the city limits. However, for many residents, their lives do not stop at the city boundary. They may have medical appointments, jobs, and friends that are in other cities within Southeast Michigan. They may want to visit shops, restaurants, or entertainment venues in other communities as well. Southeast Michigan is a large region with many amenities that Livonia residents deserve to be connected to.

The opportunities for regional transit connections range in size and cost. Some connections could be handled by the City in partnership with the nearby transit providers, while others may require expansions of regional transit service. The following are recommended for Liv&Go to explore to enhance regional connections:

- Establish a transit hub with DDOT at the Middlebelt Road terminus of route 38.
- Establish a transit hub with SMART along Grand River Avenue to connect with routes 305 and 805.
- Establish a link or cooperative arrangement with the SMART Flex microtransit zone in Farmington and Farmington Hills to allow for easier transfers between services.
- Extend the microtransit service zone to Telegraph Road and Central City Parkway providing access to the Redford Township MDOT Park'n'Ride lot on Plymouth Road, DDOT routes 27, 38, and 43, and SMART routes 275 and 280.
- Establish fixed routes through the City of Livonia that connect to SMART routes 305 and 805 in Farmington and Farmington Hills, and to SMART routes 210 and 250 in Westland.
- Establish an east/west oriented fixed route that connects SMART and DDOT services in Redford Township and Detroit to Livonia providing access

to the Redford Township MDOT Park'n'Ride lot on Plymouth Road, DDOT routes 27, 38, and 43, and SMART routes 275 and 280.

- Identify regional express service connections to job centers, educational hubs, DTW airport, and entertainment opportunities both within and outside Livonia.

SMART FLEX IN PARTNERSHIP WITH VIA

SMART contracts with Via to provide its on-demand zoned service called "Flex". Currently, there are five Metro Detroit Flex zones including Dearborn, Hall Road, Troy/Clawson, Pontiac/Auburn Hills, and Farmington/Farmington Hills. Following the launch of Liv&Go's citywide microtransit zone opportunities for these two services to interact and overlap should be explored to improve their efficiency. Specifically, Liv&Go could provide access to locations along the northern border of the City of Livonia that are also accessible from the Farmington Flex zone, and these locations could serve as transfer points for riders continuing north into Farmington/Farmington Hills. Some higher demand Farmington locations such as Beaumont hospital on Grand River Avenue should be accessible to Livonia residents without the need to transfer to Flex.

The SMART Flex App is built identically to the regular Via Rider app although one way it differs is that it allows for the input of DDOT/SMART/Transfer vouchers under the billing options. After the rider enters information on their origin and destination the app has an option to provide pick-up and drop-off notes for the driver. The app then searches for both micromobility and fixed-route options and provides any options that are currently available along with their cost.

Agencies such as Liv&Go and SMART that use a dynamic and flexible scheduling system like Via tend to have higher ridership. The customer reviews of SMART's Via-built app provides insight into potential issues that Liv&Go may want to track as they implement their own app. These potential issues include vans being late or unavailable during periods of high demand, GPS routing drivers in circles, glitchy software updates, and lack of detail on app maps. Other user feedback implies that the app may benefit from clearly stating or mapping the geographic areas it services upfront before prompting users to enter origins and destinations.

FIGURE 18: FARMINGTON/FARMINGTON HILLS SMART FLEX ZONE MAP



SOURCE: SMART

4.0 RECOMMENDATIONS

4.2 Additional Recommendations

Liv&Go's current transit offerings are providing a valuable service to those in need of transportation within the community. The challenge, however, is that demand is high for public transit in Livonia, and Liv&Go is having a hard time keeping up with trip requests. The recommendations developed for Liv&Go as part of the Livonia Mobility Needs Assessment plan intend to solve two issues:

- Ensure enough service is available for current riders to allow for standard 24-hour booking times, while reducing cancellations.
- Grow the service to capitalize on transit demand from interested non-riders such as employees working in Livonia.

The Mobility Needs Assessment focuses on improving six different aspects of Liv&Go's transit operations with the goal of making the service easier, more efficient, and more useful to ride. The recommendations focus on ensuring improvements to service and transit technology function long term through the appropriate increases in staffing, funding, and capital investments. The focus areas for the Mobility Needs Assessment are as follows:



Marketing and Branding

Public information and awareness are key aspects of ensuring that the community knows the services that are being offered. Recommendations in this focus area center on making the Liv&Go brand more visible in the community and ensure as many people as possible know how to use the service.



Transit Technology

Transportation and public transit is in the midst of a large influx of new technology tools to make the transit experience easier, quicker, safer, and more efficient. The technology improvement recommendations identify specific technology additions that Liv&Go can use to make their service run smoother for all parties involved.



Capital Investments

Buses and other infrastructure are the physical elements of every transit system. These elements need continual maintenance and replacement based on the amount of use they receive. The infrastructure and capital investments intend to help make Liv&Go more visible in the community and more efficient as an operation.



Service Improvements

The services that Liv&Go operates may not be running at maximum efficiency, which reduces the chances of new riders using transit. The service changes identified are intended to bring a more seamless and convenient transit service to Livonia.



Organizational Needs

The drivers and administrative staff of Liv&Go keep the transit service operational; however, changes to staffing may be needed to ensure that the other plan recommendations can function smoothly. Recommendations for new staff, policy and contractual changes, and future growth are summarized in this section.



Funding Opportunities

Like many other cities throughout Michigan, Livonia's transportation funding needs exceed their available revenues. The administrative staff of Liv&Go are tasked with stretching their resources and seeking creative new funding to achieve their transportation goals. Recommendations for federal, state, and philanthropic grant opportunities increase the City's chances of securing funding awards.



Marketing and Branding

Although Liv&Go is maximizing the amount of service they provide, the service is still relatively unknown within the City of Livonia. Additionally, the information available for those that are aware of the service is unclear and difficult to access. A near term goal for the agency should be to increase Livonia residents' awareness of Liv&Go to build the potential market base for riders.

BRANDING

VERY NEAR TERM OBJECTIVES

Prior to the development of this plan, Liv&Go (previously LCT) had little to no unique branding or identity beyond using the City of Livonia's colors and city seal. This scheme was used mostly on the agency's vehicles, but also was incorporated into the previous website and some informational materials. The few promotional and informational materials that are available have little in terms of design or graphic standards and may be hard to recognize as a transit focused document.

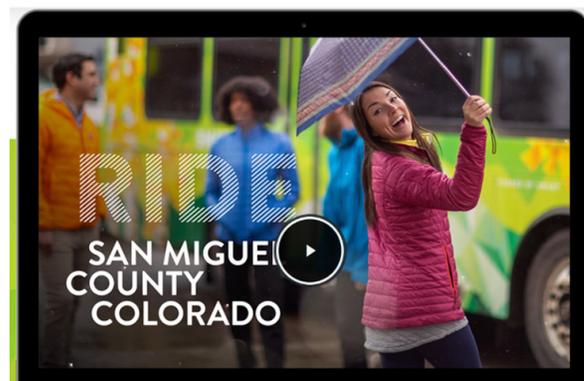
Through work with Via, the agency's transit technology provider, LCT was able to perform a rebranding of the system to Liv&Go, complete with a new logo, website, and mobile application. This new logo should serve as a standard to guide the design of all the documents and publicly facing aspects of the service. The logo and new color scheme should be applied to the following items:

- Vehicles
- Website
- Rider Guide Pamphlets
- Service Schedules
- Service Information
- Rider Applications

Examples of coordinated branding campaigns are shown below to inspire creative thinking regarding the new Liv&Go branding. This branding could be maximized for recognition and appeal across a broad audience in Livonia by applying it to diverse elements such as the website, promotional and marketing materials, signs, and vehicles.



Source: <https://transitbranding.com/telluride-colorado-smart-transit-brand/>



Source: <https://transitbranding.com/telluride-colorado-smart-transit-brand/>

4.0 RECOMMENDATIONS

LIVONIA COMMUNITY TRANSIT (LCT) WEBSITE

VERY NEAR TERM OBJECTIVES

The City of Livonia hosts the webpage for Livonia Community Transit on its CivicPlus platform. The overall description of the program focuses primarily on the services available for seniors and disabled residents. To find information about the “To Work” program webpage users must scroll to the end of the page. Overall, the website would be better suited to a more graphically oriented format that includes images, maps, and subpages to explain the details of the service to riders.

During the development of this plan, the former Livonia Community Transit webpage was replaced with a standalone webpage at LivandGo.org. This was one of the major recommendations for updating the website, as it makes the agency much more visible to the public.

The following are recommendations that should be incorporated into the new Liv&Go website:

- List locations of the SMART and DDOT transfer points where riders are picked up and dropped off.
- Link the MichiVan Commuter Service, and ensure the link is active.
- Simplify the contact form to minimize the amount of personal information requested. Requiring too much information could deter potential riders from reaching out with general questions.



Source: <https://transitbranding.com/asheville-north-carolina-art-transit-branding/>



Source: <https://transitbranding.com/asheville-north-carolina-art-transit-branding/>

FLYERS, POSTERS, AND OTHER PRINT MARKETING

VERY NEAR TERM OBJECTIVES

Print marketing and rider information can be a highly effective way of ensuring riders know how, when, and where to ride Liv&Go. Many transit riders in Livonia may not feel comfortable looking for information online or may not know where to look. As most of the rider information is currently on the agency's website, it is recommended that these materials be reformatted to reflect the updated brand standards and printed for distribution. The following documents should be redesigned to be easier to read, more graphically oriented, and include the colors and logo of Liv&Go:

- Rider Guide Pamphlet
- Information Flyer
- Route Schedules
- Rider Applications

The Appendix contains examples of each of these items, which can be distributed to riders following the completion of the plan.

The existing "To Work" flyer that is downloadable on the former LCT website is currently saved in a format that most users will be unable to open and view. All new Liv&Go downloadable materials should be formatted as more user-friendly PDF documents. Liv&Go should also ensure consistency between stop listings and service hours on the website and flyers. In the existing flyer, service hours are inconsistent with the website, and Six Mile and Haggerty at Comerica is listed as a stop, whereas on the website the stop is listed as Six Mile and Newburgh at Rite Aid.

Consider running print and digital ads in the monthly newsletters and e-newsletters of the Livonia organizations that are major destinations for riders such as Schoolcraft College, Madonna University, Beaumont, Trinity St. Mary, senior centers, and retirement homes. Liv&Go should also distribute rider information, schedules, and flyers at the Livonia Civic Park Senior Center, libraries, grocery stores, medical offices, and on the campuses of the major manufacturing businesses located along Plymouth Road to build awareness.

MULTIMEDIA ADVERTISING RECOMMENDATIONS

MID TERM OBJECTIVES

Advertising and other forms of community outreach are highly effective at creating awareness and explaining and selling transit services to grow local ridership. Oftentimes potential riders need or want to use transit services but may be unaware of their existence. Liv&Go should advertise on a variety of media formats. One option is radio, and the following stations reach the target audience:

- EMU Public Radio (WEMU 89.1 FM)
- Detroit Public Radio (WDET 101.9 FM)
- Livonia Spanish Language Radio (WCAR 1090 AM)

The City of Livonia operates a public access TV station called "Livonia Television" and a YouTube page. Liv&Go's staff is currently working with the City's marketing team to add current transit content to the cable and YouTube channels. The most recent transit services video posted by Livonia Television is about 10 years old. Nonetheless, the older video is higher quality and comprehensive. It could be updated and refreshed with the new branding, and then reposted to YouTube, public access, and Livonia's Facebook page.

Social media also remains a popular platform for marketing and advertising. Consider buying geographically and demographically targeted ads on Facebook for the senior and "To Work" services. Additionally, the City of Livonia maintains an e-mail and mobile phone text service called "Notify Me" that allows subscribers to opt into notifications specifically for Livonia transit news (<https://livonia.gov/list.aspx>).

OTHER ADVERTISING RECOMMENDATIONS

MID TERM OBJECTIVES

Liv&Go could consider developing an annual roadshow to promote the service with local organizations and businesses to inform the general public about Liv&Go's offerings.

4.0 RECOMMENDATIONS



Transit Technology

Over the past decade new technology in the transportation sector has been changing the way people travel around the City of Livonia and Southeast Michigan. Software and other tools are now available to transit service providers that make scheduling, routing, and dispatching much easier and more efficient. Additionally, riders now can book trips from their smartphones, watch in real time when vehicles will be arriving, and submit quality improvement feedback to the agency. When combined, these tools allow for a more efficient and easier to use transit system.

Liv&Go has been working with Via, a transit software provider, through the course of this plan to implement a number of technology-based solutions to maximize the efficiency of the system. This software will allow for more efficient back-end operations with dynamic routing, quick scheduling, and more robust data collection. The Via services launched in April 2024 and consist of the following improvements:

- Liv&Go Mobile app allowing riders to book trips and make mobile fare payments
- Computer-aided dispatching and scheduling
- Route optimization

Via (www.ridewithvia.com) is a public transit company that develops and provides on-demand public mobility solutions for commuters. The company transforms public transit from a regulated system of rigid routes and schedules to a fully dynamic, on-demand network. In addition to providing services to the City of Livonia, Via also partners with SMART to provide on-demand “Flex Zone” services.

Other Transit Technology Products

AUTOMATED PASSENGER COUNTING

MID TERM OBJECTIVES

Automated passenger counting (APC) systems consist of an electronic device that accurately records the number of riders who board and de-board the transit vehicle. Currently, Liv&Go relies on drivers to hand-count each rider who boards the vehicle. Passengers are sometimes missed, and this task adds additional stress to the drivers. APC devices should be installed on all vehicles to ensure accurate ridership data collection. This data is important to show how specific services are performing and can provide valuable insight to needed service changes.

REAL-TIME ARRIVAL DATA

VERY NEAR TERM OBJECTIVES

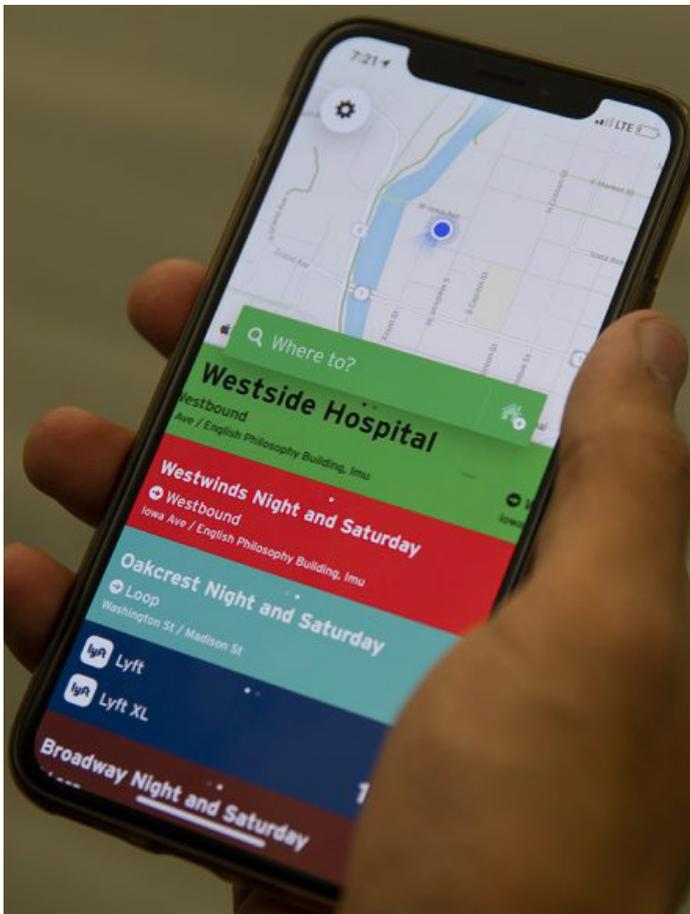
Real-time arrival information refers to the ability for transit agencies and riders to understand the status of transit vehicles, including their approximate locations and estimated arrival times. Typically, real-time transit data relies on two pieces of technology, the automatic vehicle location (AVL) software and global positioning systems (GPS), to estimate the location of a vehicle. Vehicle location information can be sent to a variety of destinations, including dedicated bus stop signage, a dedicated bus tracking website, or to a smartphone.

Liv&Go can utilize this technology to increase rider convenience and peace of mind by allowing them to track their ride. This technology will be included in the Via software package and information provided to riders via their smartphones. Future transit services may include physical stop locations lessening rider dependence on trips booked through a smartphone. Arrival data may need to be routed through an expansion of the Liv&Go app, a third-party app such as the Transit app, or to digital signage located at a physical stop.

TRIP PLANNING

SHORT TERM OBJECTIVES

To better inform riders of potential connections to nearby transit services, an online trip planning tool may be helpful in assisting Liv&Go riders with choosing the service that best fits their transportation needs. Online trip planning typically requires the use of General Transit Feed Specification (GTFS) data used by Google, the Transit app, or other trip planning applications to provide accurate timelines and directions for transit. Because Liv&Go does not operate any services with route timelines, any trip planning tools would need to incorporate the DDOT and SMART service schedules. If future fixed route services are added, GTFS data should be built out and provided to the appropriate entities to ensure accurate trip planning.



Source: <https://dailyiowan.com/2019/12/04/cambus-introduces-new-transit-navigation-app-to-replace-bongo/>

MOBILITY AS A SERVICE

MID TERM OBJECTIVES

Mobility as a Service (MaaS) is a newer development within the realm of transportation technology that allows for a shift away from personally owned transportation modes to shared options. The concept creates a single gateway for searching, booking, and paying for trips on a variety of modes using a single account. MaaS is typically a regional service that includes integrated options for using modes such as public transit, ride hailing, ride sharing, bike sharing, and other micromobility services.

In Southeast Michigan, a MaaS application may include the option to search, plan, and pay for trips on the following services currently available in the region:

- Liv&Go
- DDOT, SMART, and AAATA bus service
- SMART Flex microtransit
- QLine Streetcar
- People Mover
- D2A2 Regional Bus Service
- DAX Airport Service
- MoGo Bike Share
- Electric Scooter Share
- Uber and Lyft

The Regional Transit Authority of Southeast Michigan (RTA) would likely be involved in the implementation of this service, and support from Liv&Go would be helpful in advancing the concept to reality.

4.0 RECOMMENDATIONS



Capital Investments

A key aspect of every transit system is ensuring a ‘state of good repair’ for the vehicles that provide service. Liv&Go does not have much other capital infrastructure that it maintains because there are no dedicated stops and the agency does not currently have a maintenance facility. A top priority for Liv&Go into the future is ensuring that vehicles are in proper working order to ensure efficient delivery of service to riders. As the service recommendations of this plan are implemented in the future, a mix of vehicle types may be warranted. Additionally, the potential growth in ridership may necessitate transit stop areas or transfer areas, which will require a capital investment to construct.

ELECTRIC TRANSIT VEHICLES

LONG TERM OBJECTIVES

Over the next decade, there will be a transition in vehicles from internal combustion and gas or diesel powered to battery electric powered. Electric vehicles (EVs) will theoretically require less maintenance, be more efficient to operate, and potentially last longer than their gas-powered counterparts. Although this technology is still rolling out, electric vehicles are becoming more common and electric transit vehicles are starting to appear in transit fleets. Liv&Go should begin exploring the benefits of EV transit vehicles now to be better prepared for future infrastructure investments needed.

RIGHT SIZE VEHICLES TO CAPACITY

SHORT TERM OBJECTIVES

As Liv&Go continues to purchase new vehicles to replace older ones, consideration should be made regarding current vehicle utilization. If each vehicle is consistently underutilized, Liv&Go should add smaller vehicles to the fleet, which are easier and more efficient to operate. As an example, SMART’s Flex service is operated using six-passenger Chrysler Pacifica minivans. As demand increases, more vehicles are added to rotation to provide rides.

ADD ELECTRIC VEHICLES TO CAPITAL BUDGET

MID TERM OBJECTIVES

Although larger electric transit vehicles are not widely available and require significant investments in both the vehicle and charging infrastructure, it is important to begin planning for these in the short term to take advantage of potential grant opportunities, incentives from manufacturers, and to be on the front end of the change. It is recommended that the City of Livonia include both electric vehicles and the required charging infrastructure in their future capital budget planning. SEMCOG has resources to help agencies looking to transition their fleets to electric vehicles and can provide technical assistance in applying for state and federal grants.

Although electric transit vehicles currently are more expensive than a standard transit vehicle, prices are likely to decrease as the technology becomes more widely adopted. Larger electric transit vehicles, similar in size to Liv&Go’s current fleet, can cost about twice as much as a gasoline powered equivalent. However, it is recommended that Liv&Go start with smaller electric or plug in electric hybrid vans for the recommended microtransit services before exploring larger electric transit vehicles. Additionally, charging infrastructure will be needed to support these vehicles and can range in price depending on how powerful of a charger is needed.

IDENTIFY MAINTENANCE AND STORAGE FACILITY

MID TERM OBJECTIVES

Liv&Go is currently lacking a dedicated space for the storage and maintenance of their transit vehicles. At the time of writing this plan, transit vehicles were being stored in the parking lot of the Livonia Senior Center. It is recommended that Liv&Go identify a preferred location for a storage and maintenance facility that meets the needs of the organization. Although this is a large expense for the agency, it is an important aspect of being able to effectively provide transit service to the city. A centrally located site within Livonia, with ample space for driver and bus parking, is suggested to reduce the amount of deadhead miles (trips without a rider) and reduce operational costs.

ESTABLISH A PILOT EV PROGRAM

LONG TERM OBJECTIVES

As mentioned above, electric transit vehicles are being introduced to transit agencies around the country. As funding becomes available, prices for the vehicles shift to within budgetary range, and the charging infrastructure is finalized, it is recommended that Liv&Go begin bringing EV transit vehicles into the fleet. Bus wraps on the early electric fleet vehicles can indicate they are 100% electric to encourage new riders to try the service and display a commitment to technology at the agency.

DOCUMENT EV OPERATIONS, MAINTENANCE, AND PERFORMANCE

LONG TERM OBJECTIVES

Key to a successful pilot program is to learn from the initial implementation and improve the program through continued support. If Liv&Go establishes a transit EV pilot program, staff must document how the vehicles are performing to determine if a future investment in electric vehicles is worthwhile. Operations and maintenance requirements of the pilot EVs should be documented through the course of the first year to determine how costs vary from standard gasoline powered transit vehicles. Data collection efforts could include the following:

- Average mileage on full charge
- Average cost of charging each vehicle
- Peak electricity demand times
- Vehicle maintenance requirements
- Charge infrastructure maintenance requirements

STATIONS AND STOPS

LONG TERM OBJECTIVES

A deviated fixed transit route is recommended for future implementation in Livonia (see Section 4.1). When that route is established, Liv&Go should look to formalize high performing stop locations with the addition of dedicated transit stops at key points along the route. These can be as simple as a poured concrete pad connecting to a sidewalk, a bus stop sign, and a bus bench. They should be branded and include opportunities for advertising and other signage to make Liv&Go more visible. Dedicated stops are also helpful for showing riders exactly where to meet the bus and make it easier for transit operators to know where to look for riders. Liv&Go should also work with DDOT and SMART to invest in shared transit stops where transfers could occur. Finally, all stop infrastructure that is added must be compliant with the Americans with Disabilities Act.

COORDINATED LAND USE PLANNING

LONG TERM OBJECTIVES

An essential aspect of a high-quality transit system is adjacent transit-supportive land uses that encourage transit ridership. Although Livonia is mostly built-out, if there are new developments or redevelopments of existing sites they should be designed and constructed in ways that are walkable, connected, and foster transit use. The areas that are currently the most transit friendly are those that have a more compact development pattern with sidewalks and a highly connected street grid. These same design principles should be part of any new developments to ensure that residents can easily use public transit if they choose to.

It is recommended that Liv&Go and the planning department work together to advocate for transit-supportive development so that public transit becomes a more viable option for residents, particularly as the city's population continues to age and demand for transit increases.

4.0 RECOMMENDATIONS



Service Improvements

These supplemental transit service improvements compliment the phased implementation of service discussed on page 41 and are not tied to a specific service phase. Data collection should occur throughout every phase, and Public-Private Partnerships (PPPs) and other types of contract services can be explored as needed. It's recommended that any new type of contract service begin with an exploratory pilot phase before becoming permanent. It's also recommended that pilot programs are wholly funded via private investment, rider revenue, and grants to ensure that Liv&Go's capital and operating budgets are not impacted by unexpected shortfalls related to exploratory programming.

ONGOING DATA COLLECTION

SHORT TERM OBJECTIVES

This Plan recommends that Liv&Go undertake a large shift in how they operate transit service within Livonia. The recommended short term service changes are focused on establishing and growing a microtransit service model. In response to the changes in mobility needs the city has experienced since 2020, microtransit is likely to help fill the gap for those who may not have reliable transportation. However, this is a new service and must be tailored to fit the needs of current and prospective riders; data collection and metrics are an important part of refining the service to meet rider demands.

The details summarized above for the pilot microtransit zone and full citywide zone are intended to act as a starting point for each based on the existing ridership, pick up and drop off locations, and data available. The microtransit software will allow for more data to be collected and will allow Liv&Go staff to continue to refine the service as ridership grows. Staff should collect data and monitor the following service metrics to refine the microtransit service over the course of the pilot project and beyond:

1. Vehicle response time
2. Total monthly ridership
3. Riders per hour
4. Peak demand times
5. Trip request locations
6. Trip requests vs total trips (cancellation rate)

To start, Liv&Go should monitor each of these metrics for the Plymouth Road Pilot on a biweekly basis and make tweaks to the service as needed. **Table 18 shows the list of metrics, goals for the service, and how to react to specific data observations.** As the pilot becomes established and riders gain familiarity with it, monitoring and refinement can reduce to a monthly occurrence. When the service is expanded to the entire city, data monitoring should return to a biweekly basis for the first few months to keep track of how the service is utilized and respond to trends such as booking times, response times, and high demand locations. Microtransit is a dynamic service option that is easily manipulated and refined in real time. As Livonia and its ridership evolve into the future, so should the microtransit service.

TABLE 18: MICROTRANSIT SERVICE METRICS

Metric	Goal	Observations	Reaction
Response Time	1 hour response time	Faster Response Time	Choose One: <ul style="list-style-type: none"> • Expand zone boundary • Reduce response time
		Slower Response Time	Choose One: <ul style="list-style-type: none"> • Reduce zone boundary • Increase response time • Add additional vehicle
Total Ridership	City of Livonia 24,000 Annually or 2,000 Monthly	Greater ridership	Review response times and ensure that service is being provided efficiently so riders are not lost
		Lower Ridership	If trending up, continue with current service options. If remaining stagnant, distribute additional rider information
Riders per Hour	6-10 riders per hour	Over 8 riders per hour	Explore cost to add additional vehicle during highest demand periods
		6-8 riders per hour	Monitor response and travel times to make sure goals are maintained
		Less than 6 riders per hour	Consider removing one vehicle from service to maintain efficiency
Peak Demand Times	Enough service to provide rides for all requests at high demand	Review when demand is highest throughout the day	Adjust service as needed to accommodate demand
Trip Requests vs Total Trips	As close to 100% trip success rate	90% or higher trip success rate	No change
		75% - 90% trip success rate	Explore changes related to response time or zone boundary
		Less than 75% trip success rate	Survey riders to determine why trips are being canceled. Make appropriate changes to address

4.0 RECOMMENDATIONS

PUBLIC-PRIVATE PARTNERSHIPS

MID TERM OBJECTIVES

Public-private partnerships (PPPs) allow service expansions with minimal operational and capital costs because private investment covers most costs. Potential PPP partners include institutional entities such as higher education institutions and hospitals, as well as major Livonia employers.

A service expansion option currently being discussed by Liv&Go is the possibility of entering into a PPP to offer shuttles for Detroit-based students to and from Schoolcraft College. Representatives from Schoolcraft College expressed that most students attending Schoolcraft come from Detroit, Romulus, Garden City, Westland, Redford, and Inkster. Students' safety concerns are a great obstacle to using transit to access the college in the origin cities of some of the students – especially certain neighborhoods in Detroit. Schoolcraft's representatives believe that if students can congregate at shuttle stops in their home neighborhoods in areas that have higher levels of activity during both the day and night, they will be more comfortable using microtransit services. Suggested neighborhood locations included large grocery stores such as Meijer, and police and fire station that have 24-hour staffing. Another option to consider for students is to take a fixed-route bus to the Rosa Parks Transit Center in downtown Detroit and then get picked up by a microtransit shuttle at the center.

If Liv&Go and Schoolcraft entered a PPP to provide shuttle service, the shuttle bus could display its own unique branding skewed towards a student demographic. For example, the Detroit Bus Company names each of its buses after something from popular culture, and typically spray paints them in the theme of the name of the bus or in a graffiti street art style.



Source: <https://news.microsoft.com/features/the-detroit-bus-company-empowers-youths-in-mission-to-improve-mass-transit/>

NEW CONTRACT SERVICES

LONG TERM OBJECTIVES

Similar agencies across the state and county provide contracted services to local organizations that require transportation services. These organizations are typically senior centers, developmental agencies, and other social service agencies and would pay an annual fee for their members to use the service. By partnering with these groups, Liv&Go is ensured a specific amount of revenue for the year, allowing for more accurate service and financial planning. Additionally, the contracted agencies can ensure rides for their members.

It should be noted that by providing contract services, Liv&Go will need to maintain enough transit capacity to serve both their existing riders and the new contract agencies. Additional drivers and/or vehicles may be needed to provide timely and efficient rides to all potential riders on any given day.



Organizational Needs

Public transit is an inherently staff-heavy industry. Drivers and dispatchers make up the majority of Liv&Go’s staff and are responsible for delivering transit service to riders around the city. Liv&Go has had trouble providing adequate service and is experiencing the need for more drivers. Additionally, the agency is likely to need more staff when transit service increases are added to ensure they are successful. The recommendations below highlight the short-, medium-, and long-term staff needed to operate a successful system.

ADD MORE FULL TIME DRIVERS

VERY NEAR TERM OBJECTIVES

One issue Liv&Go currently faces is that there is a high demand for transit, but too few drivers to be able to provide adequate service. The issue is that more rides are booked each day than the available capacity of the system, causing riders to have to book their trip weeks in advance. If a resident needs a short notice ride, Liv&Go has trouble accommodating this request. With additional staff, there would be more capacity to support trips scheduled as early as a day in advance.

It is recommended that Liv&Go add up to six additional drivers to the agency to account for current deficiencies in staffing, as well as to support new the transit services recommended in this plan. This would result in a total of 20 drivers on staff. As more capacity is needed to support future transit service investments, additional drivers may be needed to ensure efficient operations. Liv&Go will need to account for budget increases and additional administrative staff support if and when this happens.

ENTRY LEVEL TRANSIT PLANNER

MID TERM OBJECTIVES

To assist with the implementation of future transit services, interface with riders, and identify opportunities for collaboration with other communities and transit agencies, the City of Livonia should consider adding a planning staff member to assist Liv&Go with implementing this plan. Job duties of this position may include writing transit grants, identifying future funding sources, analyzing and reporting on transit data, developing public information materials, and assisting dispatchers. This position would likely be a “jack of all trades” to help ensure transit is moving in a positive direction within the City through ridership growth, transit partnerships, and addressing customer needs.

COMMUNITY OUTREACH COORDINATOR

MID TERM OBJECTIVES

As discussed, marketing and rider information is essential to a successful transit system. The City of Livonia should consider adding a Community Outreach Coordinator to distribute information to residents about transit service. This position could support other departments at the city as well. The community outreach coordinator would perform two main job duties for Liv&Go; community engagement/ outreach and marketing and awareness. Community engagement would focus on face-to-face interactions with existing riders, and may involve communicating service changes to riders, interfacing with agency partners, showing new riders how to use the service, and relaying feedback to other transit staff. This person would also assist with marketing and awareness focused on distributing information to Livonia residents about the service.

4.0 RECOMMENDATIONS

DISPATCHERS

MID TERM OBJECTIVES

Transit dispatchers are an important piece of Liv&Go staff who ensure that service is being delivered to those that need it in an efficient manner. With the addition of the Via transit software, dispatching should become easier for the existing staff to handle. Via's software allows for easier, more seamless scheduling that will reduce the administrative burden on dispatchers who previously had to manually enter and record all trips. It is recommended that as ridership and request increase, additional dispatching staff are added to ensure an appropriate workload. Liv&Go leadership should consistently check in with dispatch staff to monitor their workloads and identify the correct time to add additional staff members.

REVIEW STAFF PERFORMANCE AND REALLOCATE POSITIONS AS NEEDED

LONG TERM OBJECTIVES

Similar to the short-term recommendation to readjust the staffing levels and types based on the demands of the service, Liv&Go should continue to monitor staff performance, rider demands, route changes and updates, call scheduling volume, and reporting requirements to ensure that the agency is operating in an efficient manner. Every year, Liv&Go leadership should reassess the staffing levels and determine which positions are most needed and if other staff positions can be reallocated to meet the demand.



Funding

This report recommends transformative changes to Livonia's existing transit services, and without new financial investment and new revenue streams these changes will be difficult to fully implement. Data and reporting will be the key to proving that current and future investments are warranted. As previously discussed, the microtransit software will allow for more data to be collected. Staff should collect data and monitor the following financial metrics to ensure that expenses and revenues remain balanced:

1. Daily, weekly, monthly, quarterly, and annual farebox revenue for each service
2. Daily, weekly, monthly, quarterly, and annual cost of each service
3. Quarterly and annual advertising revenue
4. Quarterly and annual private investment
5. Quarterly and annual grant funding
6. Annual tax revenue

Regular review of these funding metrics will not only ensure that Liv&Go's budget remains sustainable, but also enables Liv&Go to balance ridership increases with service increases. Tracking this data will also assist Liv&Go with making long-term capital investments which can be easier to undertake than operational investments.

Newly identified potential funding streams that can be used for new vehicles, services, and amenities are listed below. These potential options help address the mobility goals and desires of Liv&Go and the larger community.

VEHICLE WRAPPING/ADVERTISING

MID TERM OBJECTIVES

Exterior brand bus advertising (vehicle wrap) is defined as a vinyl, wrap-around advertisement that partially or fully covers the perimeter of the bus and can include end-caps and roof. The wrapping may include partial decal/die cut covering of the bus windows. Additional advertising space could be sold on the interiors of the Liv&Go vehicles.

OTHER COMMERCIAL ADVERTISING

MID TERM OBJECTIVES

Online and printed program and services brochures, printed tickets, and other informational materials provide additional opportunities for paid advertising to increase agency revenue.

GRANTS AND LOANS

VERY NEAR TERM OBJECTIVES

Grants and loans are another important funding option, and are organized below into capital equipment and operating grant and loan funding sources:

Government Grants and Loans

Detailed descriptions of each government grant or loan program listed in Table 19 can be found listed alphabetically on the following pages.

TABLE 19: POTENTIAL FUTURE FUNDING SOURCES

Funding Options	Program	Local Match	Minimum Amount	Maximum Amount
Capital Equipment	FTA Community Project Funding	Varies annually	Varies annually	Varies annually
	FTA FY24 Innovative Coordinated Access and Mobility Grants	Minimum 20%	No minimum	No maximum
	FTA Innovative Finance and Asset Concessions Grant	Not required	\$100,000	\$2,000,000
	MI State Infrastructure Bank Loan	N/A	No minimum	\$2,000,000
Operations	MDOT Specialized Services Program	Unknown	Unknown	Unknown
	Kresge Foundation	N/A	Varies	Varies
	W. K. Kellogg Foundation	N/A	Varies	Varies

4.0 RECOMMENDATIONS

FTA Community Project Funding (CPF)/ Congressionally Directed Spending

CPF is competitively appropriated and allocated from the General Fund for Transit Infrastructure Grants only on an annual basis and at the discretion of Congress. The total funding amounts are specified in the Consolidated Appropriations Act corresponding with each fiscal year, if applicable.

FTA FY24 Innovative Coordinated Access and Mobility Grants

Access and Mobility Partnership Grants seek to improve access to public transportation by building partnerships among health, transportation, and other service providers. This program provides competitive funding to support innovative capital projects for the transportation disadvantaged that will improve the coordination of transportation services and non-emergency medical transportation services. Eligible projects include regional mobility management projects; deployment of coordination technology; or regional projects that create or increase access to one-call/one-click centers. There is no minimum or maximum grant award amount; however, FTA intends to fund as many meritorious projects as possible with a total available amount of \$4.8 million. A minimum 20% local match is required. FY24 applications are due on February 18, 2024.

FTA Innovative Finance and Asset Concessions Grant

The Bureau expects to issue the Notice of Funding Opportunity (NOFO) the first quarter of 2024. There are two fiscal years of awards planned, totaling \$40 million. This forecasted grant is to assist eligible public entities in facilitating and evaluating public-private partnerships and exploring opportunities for innovative financing and delivery for eligible transportation infrastructure projects including transit. Two types of grants will be available: Technical Assistance Grants will be awarded to build organizational capacity to explore innovative finance opportunities in a portfolio of assets and projects. Expert Services Grants will be awarded for project development of identified assets, including

hiring professional services to explore opportunities for leverage. Applicants can seek either type of grant but must choose one for this round of funding.

MDOT Specialized Services Program

The Specialized Services Program provides operating assistance for transportation services primarily for seniors and individuals with disabilities. Funds may be used to provide or purchase service and/or lease vehicles to provide service. The service to be provided is based on an annual application approved by the Office for Passenger Transportation (OPT). The Specialized Services Recipients and Subrecipients are reimbursed per mile or per one-way unlinked passenger trip up to the contract maximum. The Specialized Services Program is a state-only funded program.

Michigan State Infrastructure Bank (SIB)

The SIB loan program complements traditional funding techniques and serves as a useful tool to meet urgent project financing demands. The goal of the program is to address customer financing needs in a timely and flexible fashion. Applications will be accepted year around and will be evaluated by MDOT staff as quickly as possible. SIB loan program priorities are focused on: accelerating the delivery of transportation projects by providing financial assistance that is otherwise providing financial assistance that is otherwise unavailable in the short-term, especially during emergency situations; increasing the financial viability of transportation projects by reducing borrowing costs; and attracting new public and private investment in transportation infrastructure.

PHILANTHROPIC GRANTS

SHORT TERM OBJECTIVES

In addition to these public sources of funding, private philanthropic organizations may also provide grant funding if the proposed scope of work aligns with their focus areas. For instance, the development of a student shuttle between Detroit and Schoolcraft or a zoned microtransit system that increases job accessibility may align with philanthropic educational and workforce goals focused on ending the cycle of poverty and helping people obtain and maintain stable, well-paying jobs.

Kresge Foundation

The Kresge Foundation has historically funded transit-related projects under their focus areas of equitable and place-based community development. Locally they have provided operating funds to M1 Rail, the RTA, and Transportation Riders United. Similar to the student transportation problem currently faced by Schoolcraft College, in 2019 Kresge provided a \$45,000 one-year grant to Rio Hondo College in Los Angeles County to support efforts to develop partnerships with transit agencies, identify current transit barriers, and design alternative transportation solutions for Rio Hondo College students. They also funded a similar one-year grant for \$100,000 to Dillard University in New Orleans to identify and address transit barriers to college student success. They typically do not fund capital requests.

W. K. Kellogg Foundation

The Kellogg Foundation has two focus areas that overlap with LCT's vision for community transit. These focus areas are helping families obtain stable, high-quality jobs, and increasing community equity. They typically do not fund capital requests.

SUPPLEMENTAL FUNDING

Overall, supplemental funding would account for a small portion of Liv&Go funding:

- Bus advertising – could account for 2% of revenue
- Philanthropic support – businesses or organizations to support transit funding
- Other local use taxes – hotels, rental cars, development fees, etc.

PASSENGER FARES

SHORT TERM OBJECTIVES

With increased ridership, more passengers will be paying a fare to ride transit. As of 2022, Liv&Go collected about \$45,000 in revenue from the fares from the 22,375 rides Liv&Go provided that year. The drop in ridership in 2023 led to a reduction in fare revenue of about \$30,000. Liv&Go's revenue can increase in two ways; either by increasing ridership or increasing the cost of each trip. With additional revenue in the budget, Liv&Go can support additional service, purchase new vehicles, add new amenities to the system, or support the other recommendations of this plan. Below are some examples of how funding might increase if fares and/or ridership increased:

- » 30,000 riders at \$2 per ride = \$60,000 in annual revenue
- » 30,000 riders at \$2.50 per ride = \$75,000 in annual revenue
- » 40,000 riders at \$2 per ride = \$80,000 in annual revenue
- » 40,000 riders at \$2.50 per ride = \$100,000 in annual revenue

With every increase of 10,000 riders, Liv&Go could expect to bring in an extra \$20,000 in revenue at their current fares (\$2 per ride). With an increase in fares to 2.50 per ride, Liv&Go could expect to see an increase in revenue

4.0 RECOMMENDATIONS

of \$25,000 for each increase of 10,000 riders. With the current levels of inflation, fares may need to be raised to account for rising costs throughout the region. In the next few years, the time may be right to explore an increase in fares.

Additionally, Liv&Go could offer additional services to Livonia residents that expand the service area for riders but come at a higher price. Current riders indicated their desire to use Liv&Go to travel beyond city limits for medical appointments, shopping, or entertainment, but are unable to do so. Liv&Go should consider offering a tiered fare structure that allows riders to pay more for longer trips. The following structure could be used as a starting point:

- Trips within a 1-3 Mile Radius of Livonia - \$5 per trip
- Trips within a 3-5 Mile Radius of Livonia: \$7 per trip
- Trips within a 5-10 Mile Radius of Livonia: \$10 per trip

These trips would need to be scheduled further in advance and would not take priority over trips within city limits.

Finally, the To Work service could be structured so that its operations are covered wholly by a combination of revenue from the riders and employers served by the program. Once the cost of each ride is determined, employers along the corridor could decide how much of the fare they are willing subsidize for their employees. In other To Work programs around Michigan employers have subsidized as little as 0% and as high as 100% of the rider fares. The amount that employers are willing to subsidize is usually directly correlated to their need to attract new employees.

It should be noted that fare increases can have impacts to ridership that are typically short lived. As with any good or service, when the price is increased, the demand typically retracts. For something as essential as public transit, increasing fares may lead to short term reductions in ridership, but typically return to normal within a few months. Forecasting the effects of these impacts to the overall budget is essential to ensuring a balanced budget. Liv&Go Staff should perform detailed ridership and financial planning before implementing a fare increase.



5.0

implementation

IMPLEMENTATION MATRIX

CONCLUSION

5.0 Implementation Plan

The recommendations of the Mobility Needs Assessment have been developed in a way that will allow for the implementation of short- and long-term investments to establish a more efficient service model. The Plymouth Road pilot microtransit service is intended to serve as a proof of concept for microtransit in the city before a greater investment is made. This will allow Liv&Go to test this new model of service operations before committing to a substantial investment over the long term. The following service improvements are intended to introduce new transit services at a deliberate pace, while testing and refining a new way of operating to ensure that Liv&Go is delivering effective service to residents.

The costs associated with the potential service options have been calculated using anticipated operating hours and an increased operating cost per hour of \$40 to account for inflation. In addition to the anticipated operating costs, there may be additional monetary costs associated with fuel prices, maintenance needs, salary increases, and other inflation related cost increases that are out of the control of the agency.

The non-service related improvements, such as marketing, vehicle purchases, and technology upgrades are typically one-time costs and will not happen annually. In many cases, grant funding, philanthropic donations, or allocations from the City’s general fund can be utilized to pay for these items.



TABLE 20: IMPLEMENTATION MATRIX

Project Name	Responsible Parties	Priority Rank	Timeline	Estimated Cost
MARKETING & BRANDING				
Branded Rider Guide	<ul style="list-style-type: none"> Liv&Go OHM 	High	Now	Included
Branded Service Schedules	<ul style="list-style-type: none"> Liv&Go Marketing Consultant 	High	Now	Included
Branded Website	<ul style="list-style-type: none"> Liv&Go Via 	High	Now	Part of Via Service Contract
Branded Social Media	<ul style="list-style-type: none"> Liv&Go Livonia Communications Dept 	Medium	Now	Coming Soon
Branded Vehicles	<ul style="list-style-type: none"> Liv&Go Vehicle Wrap Vendor 	Medium	1-2 years	-\$3,000 per bus
Branded Promotional Materials/Flyers	<ul style="list-style-type: none"> Liv&Go 	High	1-2 years	-\$5,000 Annually
Develop Marketing Plan	<ul style="list-style-type: none"> Liv&Go Marketing Consultant 	High	1-2 years	-60,000
Multimedia (TV, Radio, Internet) Liv&Go Advertising	<ul style="list-style-type: none"> Liv&Go Marketing Consultant 	Medium	3-4 years	-\$10,000 annually
Annual Roadshow	<ul style="list-style-type: none"> Liv&Go 	Low	1-2 Years	Staff Time
Implement Marketing Plan	<ul style="list-style-type: none"> Liv&Go 	High	3-4 years	TBD
3rd Party Bus Advertising	<ul style="list-style-type: none"> Liv&Go 3rd Party Advertisers 	Low	3-4 years	Staff Time
Other 3rd Party Commercial Advertising	<ul style="list-style-type: none"> Liv&Go 3rd Party Advertisers 	Low	3-4 years	Staff Time
TRANSIT TECHNOLOGY				
Mobile Ticketing	<ul style="list-style-type: none"> Liv&Go Via 	High	1-2 years	Available with Via App
Real Time Arrival	<ul style="list-style-type: none"> Liv&Go Via 	High	Now	Available with Via App
Trip Planning	<ul style="list-style-type: none"> Liv&Go Via 	Medium	1-2 years	Available with Via App
Automatic Passenger Counting	<ul style="list-style-type: none"> Liv&Go 	Medium	1-2 years	\$8,000 per vehicle
MaaS Gateway Integration	<ul style="list-style-type: none"> RTA Liv&Go 	Medium	3-4 years	Staff Support
CAPITAL INVESTMENTS				
Right Size Vehicles	<ul style="list-style-type: none"> Liv&Go 	High	1-2 years	-95,000 per vehicle
Explore Potential Public-Private Partnerships/Contract Services	<ul style="list-style-type: none"> Liv&Go Local Businesses Institutions 	Low	1-2 years	N/A
Launch PPPs/Contract Services	<ul style="list-style-type: none"> Liv&Go Local Businesses Institutions 	Low	3-4 years	N/A

5.0 IMPLEMENTATION

Project Name	Responsible Parties	Priority Rank	Timeline	Estimated Cost
Collect Data on PPP and Contract Service Operations and Performance	Liv&Go, Local Businesses, and Institutions	Low	3-4 years	Staff Support
Launch EV Pilot Program	• Liv&Go	Low	3-4 years	N/A
Document EV Operations, Maintenance, and Performance	• Liv&Go	Low	3-4 years	Staff Time
Identify Maintenance and Storage Facility	• Liv&Go • City of Livonia	Medium	3-4 years	Staff Time
Charging Infrastructure	• Liv&Go • City DPW	Low	4-8 years	~\$80,000 for a 3 vehicle charger
Begin Replacing Buses with EVs	• Liv&Go	Low	4-8 years	~\$200,000 per vehicle
Branded Stops	• Liv&Go • City DPW	Low	4-8 years	~\$15,000 per stop
Coordinated Land Use Planning	• Liv&Go • City Planning Staff	Low	4-8 years	Staff Time
SERVICE IMPROVEMENTS				
Phase 1: Implement Via Software and Address Service Deficiencies	• Liv&Go • Via	High	Now	In Process
Phase 2: Plymouth Road Microtransit Pilot	• Liv&Go • Local Businesses • Institutions	High	1-2 years	\$405,000
Phase 3: Citywide Microtransit Zone	• Liv&Go	High	3-4 years	\$582,400
Phase 4: Deviated Fixed-Route	• Liv&Go • Local Businesses • Institutions	High	4-8 years	\$873,600
Phase 5: Regional Connections	• Liv&Go • RTA • SMART • DDOT	Medium	4-8 years	TBD
Monitor Service Performance Metrics/Data	• Liv&Go • Via	High	1-2 years	Staff Time
Continue to Monitor Service Data and Refine Microtransit As Needed	• Liv&Go • Via	High	3-4 years	Staff Time
Reduce trip reservation time to 15 minutes	• Liv&Go	Medium	3-4 years	Based on Demand. \$40 per day per vehicle
Extend Microtransit Services to Saturdays	• Liv&Go	Low	3-4 years	\$2,000 per week for 3 vehicles
Ongoing Service Refinement	• Liv&Go	Medium	4-8 years	Staff Time
ORGANIZATIONAL NEEDS				
Add More Full-Time Drivers	• Liv&Go • City Council	High	Now	~\$40,000 annual starting salary
Hire Community Outreach Coordinator	• Liv&Go	Medium	3-4 years	~\$50,000 - 60,000 annual salary
Hire More Dispatch Staff	• Liv&Go	Medium	3-4 years	~\$50,000 - 60,000 annual salary
Hire Entry Level Transit Planner	• Liv&Go	Medium	3-4 years	~\$45,000 - 55,000 annual salary
Review Staff Positions and Reallocate Staff as Needed	• Liv&Go	Medium	4-8 years	Staff Time



Project Name	Responsible Parties	Priority Rank	Timeline	Estimated Cost
FUNDING				
Seek Discretionary Federal/State Grant Funding	<ul style="list-style-type: none">Liv&GoRTA	High	Now	Staff Time
Seek Philanthropic Funding	<ul style="list-style-type: none">Liv&GoPhilanthropic Institutions	Low	1-2 years	N/A
Passenger Fare Increase	<ul style="list-style-type: none">Liv&GoCity Council	High	1-2 years	N/A

Conclusion

Liv&Go is in a strong position to innovate its service to one that fits the needs of existing riders and attracts new riders. With the addition of new microtransit service to supplement the current demand response service Liv&Go can address riders' desires for more flexibility, improved travel time, and an easier to understand service, as well as adding additional capacity to accommodate the mobility needs of workers, students, and other interested residents. Key to ensuring the recommended new services are well utilized will be ongoing public information and community coordination, as well as an increased focus on marketing the service to potential new riders.

As the service continues to grow and rider demand increases, new routes and services may be added to meet rider needs; however, these should be added only if the funding and staff is available to support them. The benefit of the Mobility Needs Assessment is that the recommendations can be implemented as resources are available. The recommendations should, however, be applied based on the timeframe listed here (i.e. the short-term recommendations should be finished before the mid-term recommendations are started) because the early recommendations set the stage for later improvements. If funding, ridership, or other issues delay the implementation of recommendations, Liv&Go can stay patient and wait until the time is right to ensure that they are added in a successful manner.

6.0

appendix

DRAFT BROCHURE

DRAFT INFORMATIONAL FLYER

DRAFT ADVERTISING GUIDE

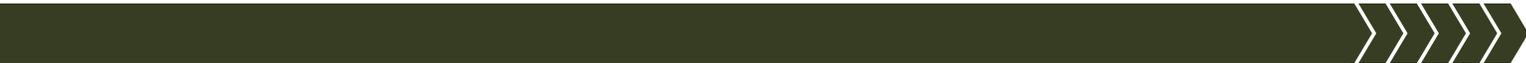
DRAFT RIDER APPLICATION

DRAFT SCHEDULE

Draft Marketing Materials for Liv&Go

The Appendix contains sample marketing materials designed to introduce and promote the new Liv&Go brand. The brochure and informational flyer aim to effectively communicate Liv&Go's services to the community and how to access the service. An advertising guide reflects potential operations and agreement language for campaigns on Liv&Go vehicles.

- Draft brochure
- Draft informational flyer
- Draft advertising guide
- Draft rider application
- Draft route schedule



This page is intentionally left blank

HOW TO USE LIV&GO TRANSIT

APP



CALL



RIDE



- 1 Download the app, visit livonia.gov, or call (734)466-2700.
- 2 Create an account with your name, phone number, and email, and log in.
- 3 Enter your pick-up and drop-off locations.
- 4 Choose a date and time.
- 5 **Choose your payment option** - riders can pay online or through the app with a credit card or opt to pay cash at the time of pick-up.
- 6 Arrive 5 minutes early to your pick-up location.
- 7 Look for the Liv&Go logo on the vehicle and say hello to your driver!
- 8 Sit back and enjoy the ride!

Help us improve
your travel
experience.

QR Code

Scan the QR code to take our survey and share your feedback.

Liv&Go

FOR MORE
INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov

YOUR GUIDE TO USING TRANSIT IN LIVONIA



WELCOME ABOARD

Liv&Go connects you **TO WORK**

Liv&Go connects you **TO MEDICAL CARE**

Liv&Go gets you to where you need to be, **faster!**

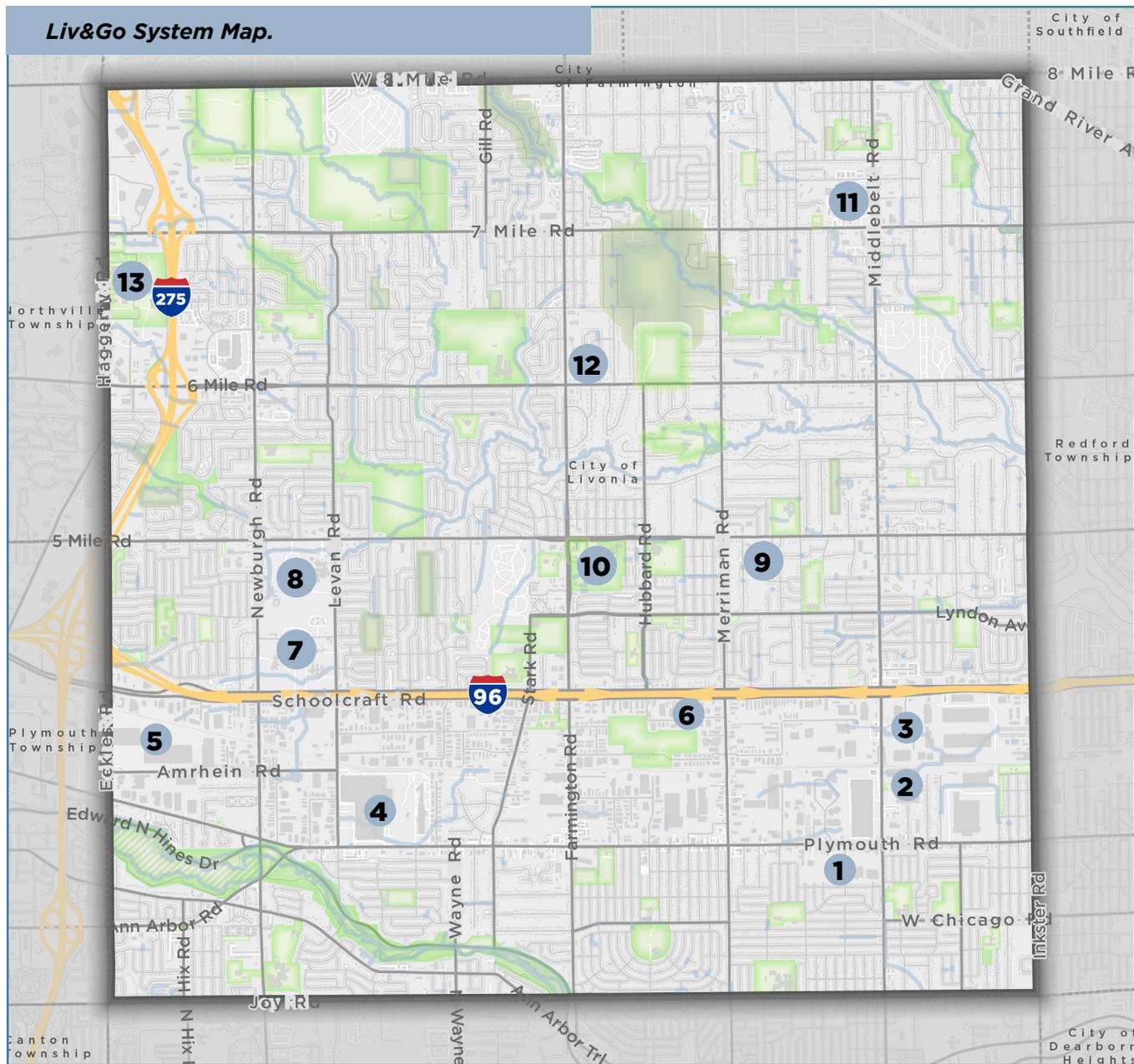
Liv&Go offers safe and reliable transit service to destinations within the City of Livonia. Connecting riders to work, medical appointments, shopping centers, and to the DDOT and SMART stops in Livonia.

Shuttle fare is \$2.00 per trip, per person. Pay online or bring exact change. Punch tickets for 10 rides can be purchased for \$20.

Hours of Service

Monday - Friday 7am to 6:30 pm

OFFICE HOURS: Monday - Friday 8:30AM to 5PM



- | | | |
|--------------------------------|--|---|
| 1 Walmart and Target | 6 Schoolcraft College - Academy Training Center | 10 Livonia Municipal Campus (City Hall, Library, Courthouse) |
| 2 Meijer | 7 Madonna University | 11 Livonia Marketplace |
| 3 Costco and Home Depot | 8 Trinity Health Hospital | 12 Secretary of State |
| 4 Ford Livonia | 9 Kroger | 13 Schoolcraft College |



WELCOME ABOARD

LIVONIA'S PLYMOUTH ROAD TRANSIT PILOT



Liv&Go offers safe and reliable transit service to destinations within the City of Livonia.

- » This pilot transit line connects riders to work, medical appointments, shopping centers, and to the DDOT and SMART stops in Livonia.

GETTING STARTED

To start riding with Liv&Go, download the app, visit www.livonia.gov, or call (734)466-2700.

APP



CALL



RIDE



FOR MORE INFORMATION



(734)466-2700



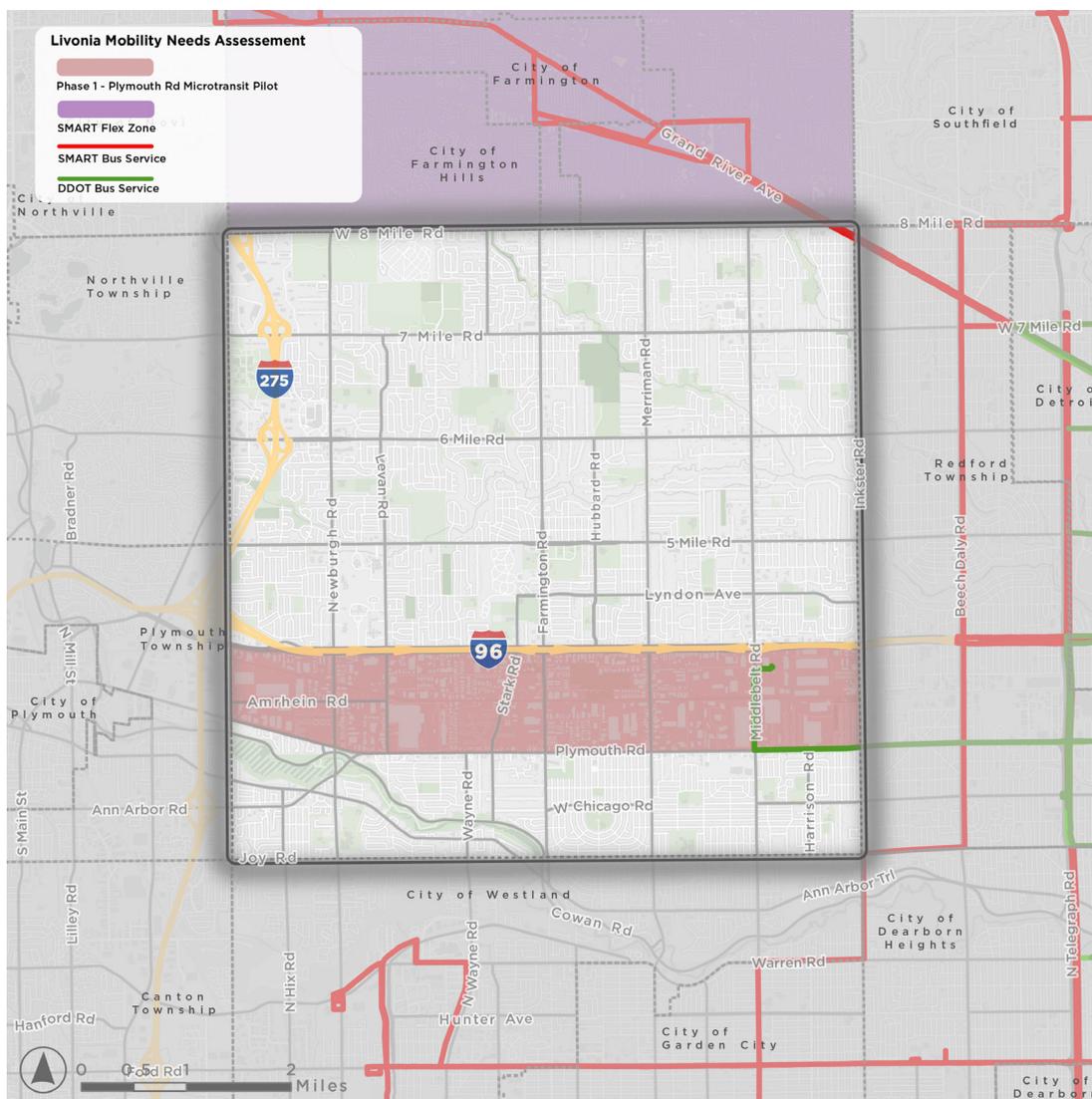
transit@livonia.gov



www.livonia.gov



PLYMOUTH ROAD TRANSIT PILOT



PLYMOUTH ROAD ROUTE

Days of Service	TBD
Hours of Service	TBD
Service Frequency	TBD
Service Area	Plymouth Road from Eckles Road to Inkster Road
Points of Interest	Amazon Fulfillment Center, Ford Livonia, Walmart, Target



ADVERTISING GUIDE

ABOUT LIV & GO BUS ADVERTISING

Buses are a moving billboard, and bus advertising sends your message to pedestrians, vehicles, and riders.

Disclaimer: This is an example advertising guide only.

From vinyl wraps to posters and flyers, bus advertising has a variety of formats and can be tailored to fit almost any budget. You can target a specific area or advertise on multiple buses to reach your audience.

Liv&Go has adopted the concept of commercial advertising on its vehicles as a means of raising revenue for the transit system. Revenue generated from commercial advertising is returned to the general operating budget and used to reduce local contributions to fund operations. In order to realize the maximum benefit from the sale of advertising space, the program will be managed in a manner that produces as much revenue as practical, while ensuring that the advertising:

- Encourages the use of the transit system;
- Elevates Liv&Go's reputation in the community;
- Does not in any way interfere with the operations or the health, safety, and welfare of passengers, employees, and the public; or
- Does not cause offense to its customers and the general public.

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov



HOW DO YOU ADVERTISE ON A BUS?

1

Determine your advertising details, including budget, goals, and target audience. This will help you choose the format of bus ads and how long your campaign should run.

2

Contact Liv&Go at **(734)466-2700 OR transit@livonia.gov** for more information, including availability, pricing, and requirements.

3

Schedule the campaign and choose the type of advertising space that suits your requirements.

4

Design the ad to be clear, memorable, and convey your message. Artwork must meet the resolution criteria provided by Liv&Go.

5

Submit the ad for approval. All ads are subject to design and content review by Liv&Go. Bus ads must be approved by Liv&Go to comply with regulations and guidelines. **Liv&Go shall approve or reject a proposed advertisement within 15 days of when the request and all other documents are received.** If Liv&Go fails to formally approve or reject a proposed advertisement within that time period, the proposed advertisement will be assumed to be rejected.

6

Pay for the campaign according to the agreed-upon pricing and payment terms. Bus advertising costs vary depending on the ad's location, duration, and format.

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov

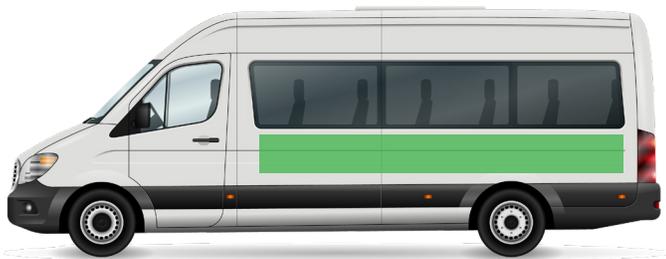


CHOOSING YOUR BUS AD FORMAT

Advertising materials will be produced at the advertiser's expense and must be of good quality and conform to standards for size, weight, materials, and other physical characteristics as established by Liv&Go.

Each ad has a one-time production, installation, and removal fee that includes labor and materials. It is the advertiser's responsibility to deliver or reclaim materials or they may be disposed of at Liv&Go's discretion.

EXTERIOR ADVERTISING



KING

Driver's side, 25 inches x 144 inches

\$TBD

4 weeks



QUEEN

Passenger side, 25 inches x 88 inches

\$TBD

4 weeks



REAR

Half back, 32 inches x 84 inches

\$TBD

4 weeks

INTERIOR ADVERTISING



INTERIOR RAIL CARD

Size varies

\$TBD

4 weeks

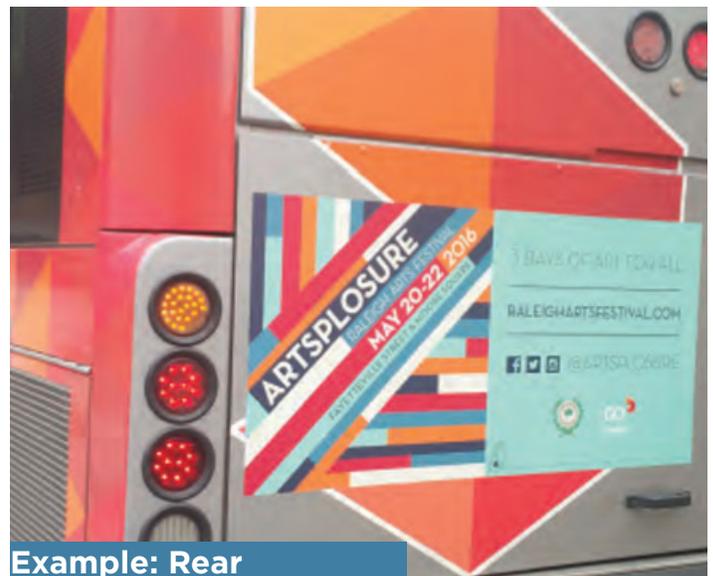
EXAMPLES OF BUS ADS



Example: King



Example: Queen



Example: Rear

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov



WELCOME ABOARD

LIVONIA'S ADA TRANSIT SERVICE

The information obtained in this application will be used solely by Liv&Go to determine eligibility for ADA Service.

It is important that you answer every question on this application. Evaluation of your request cannot begin until the form is completed and received at the Liv&Go office, together with the signed Professional Verification form. Once the forms have been received, a determination is made within 21 days.

UNREADABLE OR INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED.

RIDER INFORMATION

Name

Address

Apt

City

State

Zip Code

Phone
Number

Email

Date of
Birth

1. What is the nature of your disability? _____

2. Is the disability temporary? YES NO

If YES, expected duration until: _____

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov



RIDER INFORMATION

3. Do you travel with a personal care attendant?

ALWAYS

SOMETIMES

NEVER

4. Are there any other affects of your disability that we should know about?

5. Please check one mobility aid that you will most often use when riding Liv&Go.

MANUAL WHEELCHAIR

POWERED SCOOTER

ELECTRIC WHEELCHAIR

LARGE WHEELCHAIR

CANE OR WALKER

SERVICE ANIMAL

EMERGENCY CONTACT

Emergency Contact
Name

Phone Number

Relationship to Applicant

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov



APPLICANT'S SIGNATURE

By signing this document, I hereby give the City of Livonia, its officers, agents and employees, including but not limited to the Liv&Go, permission to review and consider the medical information set forth below to determine my eligibility to utilize the Liv&Go system. If Liv&Go observes an incident where my safety is in question, they have the right to evaluate my ability to continue riding Liv&Go and /or require an updated ADA certification in order to make a determination of eligibility. I hereby waive my right of privacy, if any, relative to the medical information set forth herein. I certify that the information I gave in this application is true and correct.

Signature of Applicant

Date

APPLICANT'S REPRESENTATIVE

If this application has been completed by someone other than the person requesting certification, that person must complete the following: Please check one:

I certify that the information provided in the application is true and correct, based upon information given me by the applicant.

I certify that the information provided in this application is true and correct, based upon my own knowledge of the applicant's health condition or disability.

Name

Address

Apt

City

State

Zip Code

Relationship
to Applicant

Phone
Number

Signature

Date

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov



WELCOME ABOARD

ROUTE 1	
Days of Service	
Hours of Service	
Service Frequency	
Service Area	
Points of Interest	

ROUTE 2	
Days of Service	
Hours of Service	
Service Frequency	
Service Area	
Points of Interest	

ROUTE 3	
Days of Service	
Hours of Service	
Service Frequency	
Service Area	
Points of Interest	

FOR MORE INFORMATION



(734)466-2700



transit@livonia.gov



www.livonia.gov

ADDITIONAL SERVICES

1. Fidelity Transportation (248) 536-2022

- » Office hours: Monday - Friday 8:30 AM - 8 PM
- » Non-emergency medical transportation services
- » Wheelchair lifts and mini vans

2. St. Mary Hospital Transportation Service (734) 655-4826

- » Service hours: Monday - Friday 8 AM - 4 PM
- » Free service to transport patients from their homes to appointments in Diagnostic Services, Physical Medicine and Rehabilitation, and Radiation Oncology Services
- » Free service to Freedom Medical Clinic on Farmington Road and Levan Internists.
- » Does not provide transportation for routine doctor office visits.
- » Patients must live within the following boundaries: South of Nine Mile Rd, East of Beck Rd, West of Beech Daly Rd, North of Ford Rd.
- » Appointments should be scheduled 3 days in advance.
- » Riders should be ready 30 minutes before their scheduled pick-up time.

3. Go Seniors Transportation (248) 929-9000

- » Office hours: Monday - Saturday 9 AM - 6 PM
- » Non-emergency medical transportation services for Oakland, Macomb, Genessee, and Wayne County residents.
- » Pricing varies depending on the day of the week, mileage distance, and wait time.