Utah Transit Authority

Innovative Mobility Zone (IMZ) Planning Memo

IMS Service Improvements 2030 Study

Executive Summary

This report serves as an update to the Utah Transit Authority (UTA)'s 2020 Microtransit Planning Study, with the goal of re-evaluating the potential of introducing Innovative Mobility Zones (IMZs) across UTA's diverse and large service area. The 2020 study identified 18 potential IMZs through analyzing areas of high transit need and transit potential that are not well served by existing bus and rail services. Since that study, UTA has introduced three additional microtransit zones. This memo leverages the data gathered from these services to better inform the projected performance of IMZs and to guide service planning decisions around transit access and mode choice.

For this study, the project team used updated US Census Bureau data and UTA ridership statistics to update the Transit Need Assessment conducted in 2020, particularly in light of population and economic changes in the region. The 18 previously proposed zones were then evaluated spatially against the new areas of high transit need and high transit potential, resulting in boundary modifications, expansions, and the introduction of a new zone. Zones were also updated to accommodate new likely trip generators, projected changes in fixed route service, and other use cases. The team then developed low, medium, and high ridership projections for each of the 19 updated zones based on criteria identified as significant indicators of microtransit potential, including population, jobs, existing transit ridership, walkability and land use patterns, poverty rates, zero and one vehicle households, and parking availability. These updated projections were calibrated against the performance of UTA's four existing microtransit deployments to improve the accuracy of the demand estimates. The team then used an agent-based simulation tool to calculate the number of vehicles and vehicle hours required at each ridership level to meet UTA's quality of service targets, such as average wait time of under 30 minutes and walks of up to ¼ mile to meet a vehicle.

With UTA's experience overseeing IMZ services for five years, its ongoing development of service design guidelines, and the evolution of transit technology, this study also introduces three new concepts for consideration.

1. First, the report discusses vehicle requirements assuming higher capacity, electric vehicles that are also wheelchair accessible. This vehicle update is grounded in UTA's goal of ensuring fully accessible and low-emissions mobility options for riders across its service area; vehicle requirements therefore reflect charging requirements and range constraints.
2. Secondly, UTA has determined targets for utilization and other KPIs. For IMZs that do not meet these targets, UTA is instead considering Transportation Network Company (TNC) partnerships. Four of the zones modeled in this study were identified as potential TNC zones based on this criteria. Estimated annual operating costs were calculated using existing TNC rates. However, the use of TNCs in transit service does have limitations (for example, limited guarantee for wheelchair accessible vehicles), which are presented in the study.
3. Lastly, microtransit technology now has the programmatic capacity to offer "fixed route referral," which is the ability to compare viable fixed route and microtransit journeys and only offer microtransit proposals when no suitable fixed route trip is available within certain wait times or walking distances. As such, IMZs are able to overlap with fixed-route services without competing for ridership.

As UTA continues to evaluate the most cost effective methods for improving transit access across its service area, this report can provide a guide to deploying additional IMZs.

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Methodology

Innovative Mobility Zones (IMZs)

Based on the technical analyses described, the project team identified 19 Innovative Mobility Zones (IMZs) for further analysis and modeling. These zones are distributed throughout UTA's service area, extending as far north as Brigham City and as far south as Santaquin. This analysis builds on the 2020 UTA Microtransit Planning Study. Several zones from the previous study were refined and new zones have been added based on lessons learned over the past five years and the performance of existing IMZs.

Transit Needs Assessment

IMZs must be designed to meet the needs of passengers and each zone may have its own unique goals and use-cases. For example, it can help to eliminate transit 'deserts' in low-density areas, or to provide high-quality first-and-last mile connections in denser areas.

The following methodology was used to identify areas where implementing an IMZ service could achieve one or more of UTA's goals and objectives. This methodology is based on three important characteristics - transit need, transit potential, and existing transit service levels.

- **Transit potential** reflects population and employment density. Areas with high transit potential may be served by various modes of transit. Areas with medium-to-low transit potential are often poor candidates for fixed-route transit, but may be well served by IMZs.

- **Transit need** focuses on socio-economic characteristics such as income, automobile availability, age, and disability status, which are indicative of a higher propensity to use transit.

- **Transit service level** is the quality and quantity of transit available in an area. It is based on proximity to a transit stop, frequency of service, and historical ridership in the area.

To identify potential IMZs in the Salt Lake City region, the study team began by examining the Transit Potential and Transit Need of the region, by Traffic Analysis Zones (TAZ). These indices were calculated for each of the counties served by UTA, including Box Elder, Cache, Davis, Morgan, Salt Lake, Summit, Tooele, Utah, Wasatch, and Weber counties. Within the UTA service area, Transit Potential and Transit Need are generally well-aligned, as shown in Figures 1-6 on the following pages.

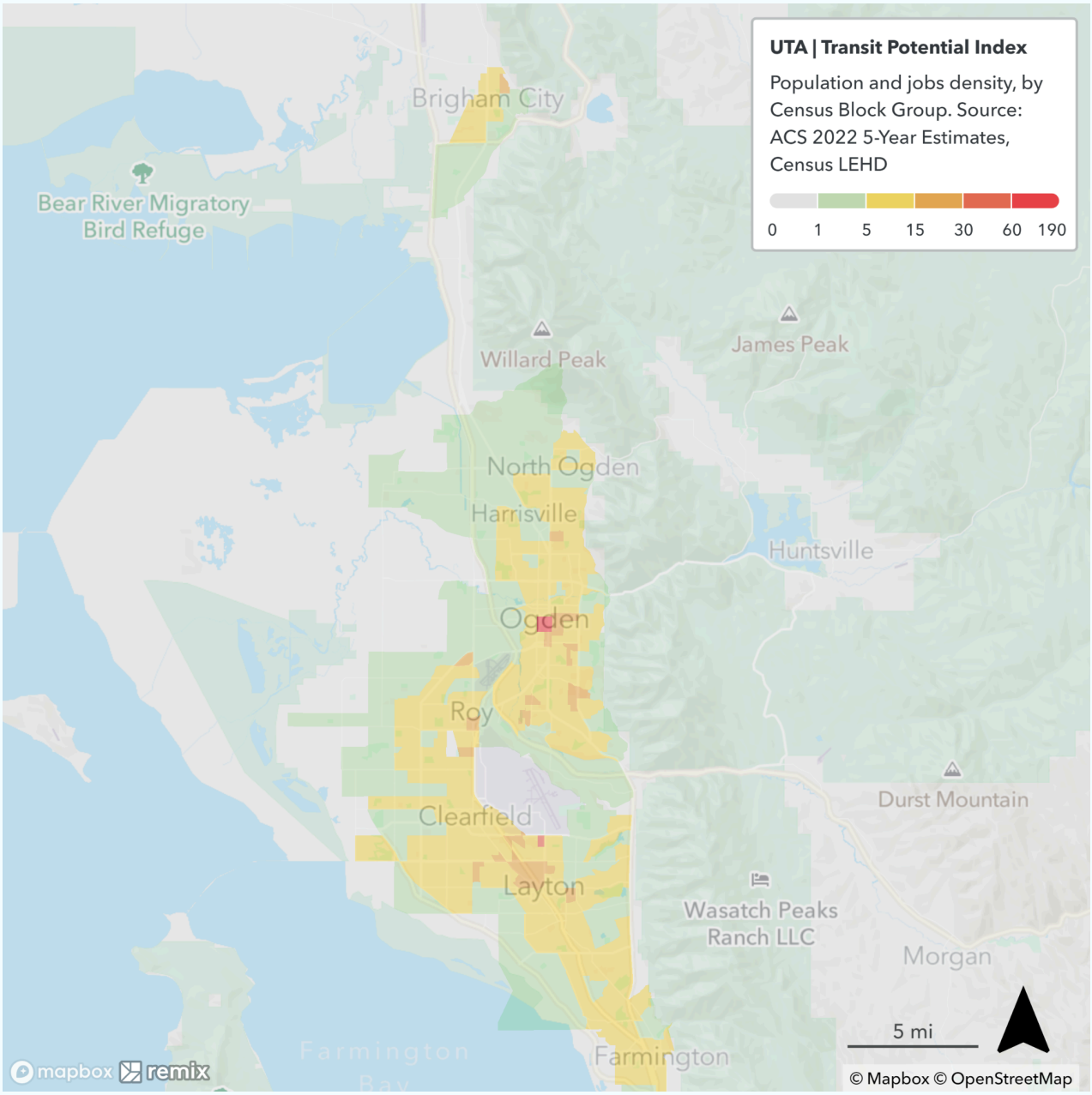


Figure 1. Transit Potential Index in UTA Service Area (North)

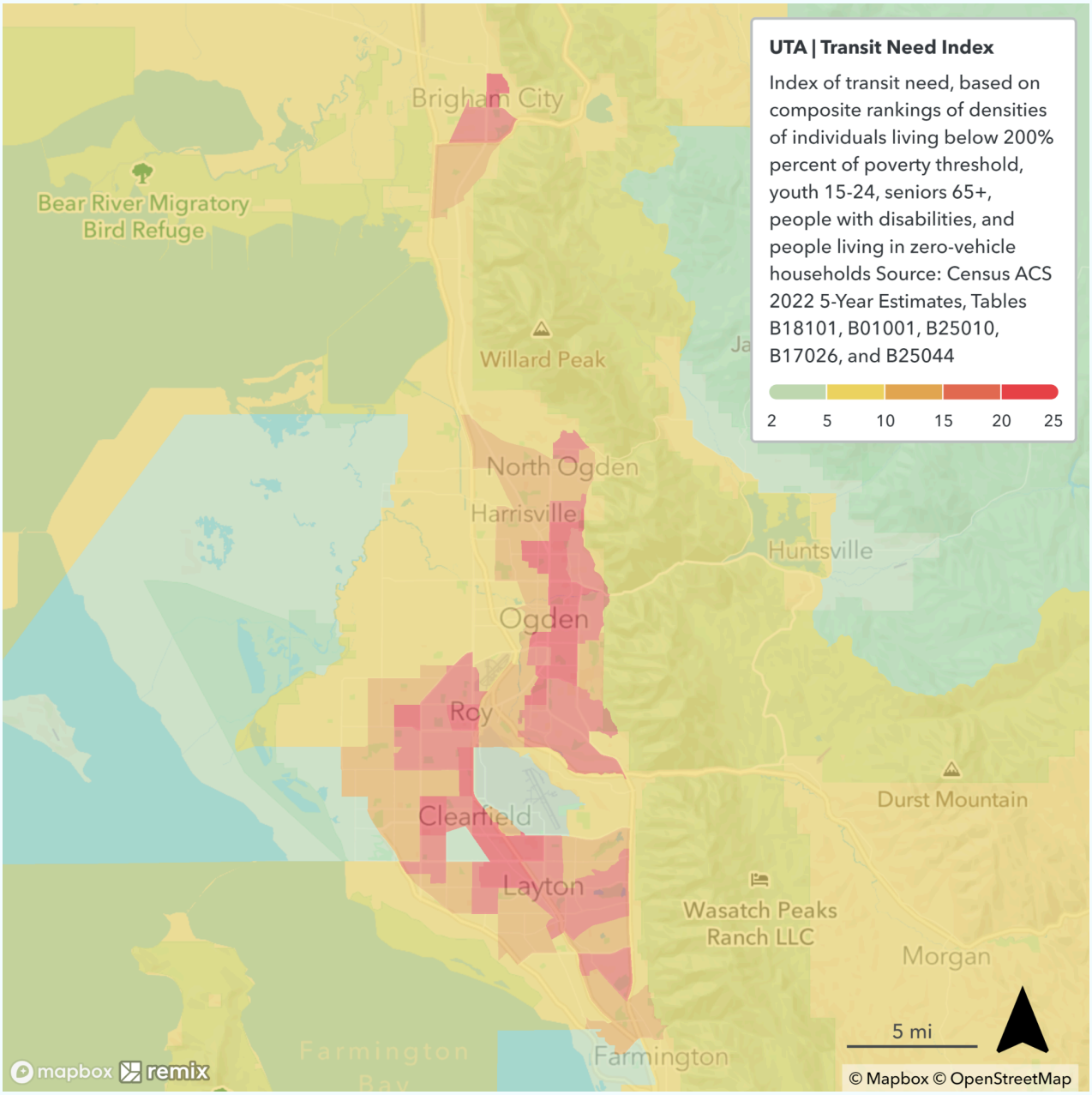


Figure 2. Transit Need Index in UTA Service Area (North)

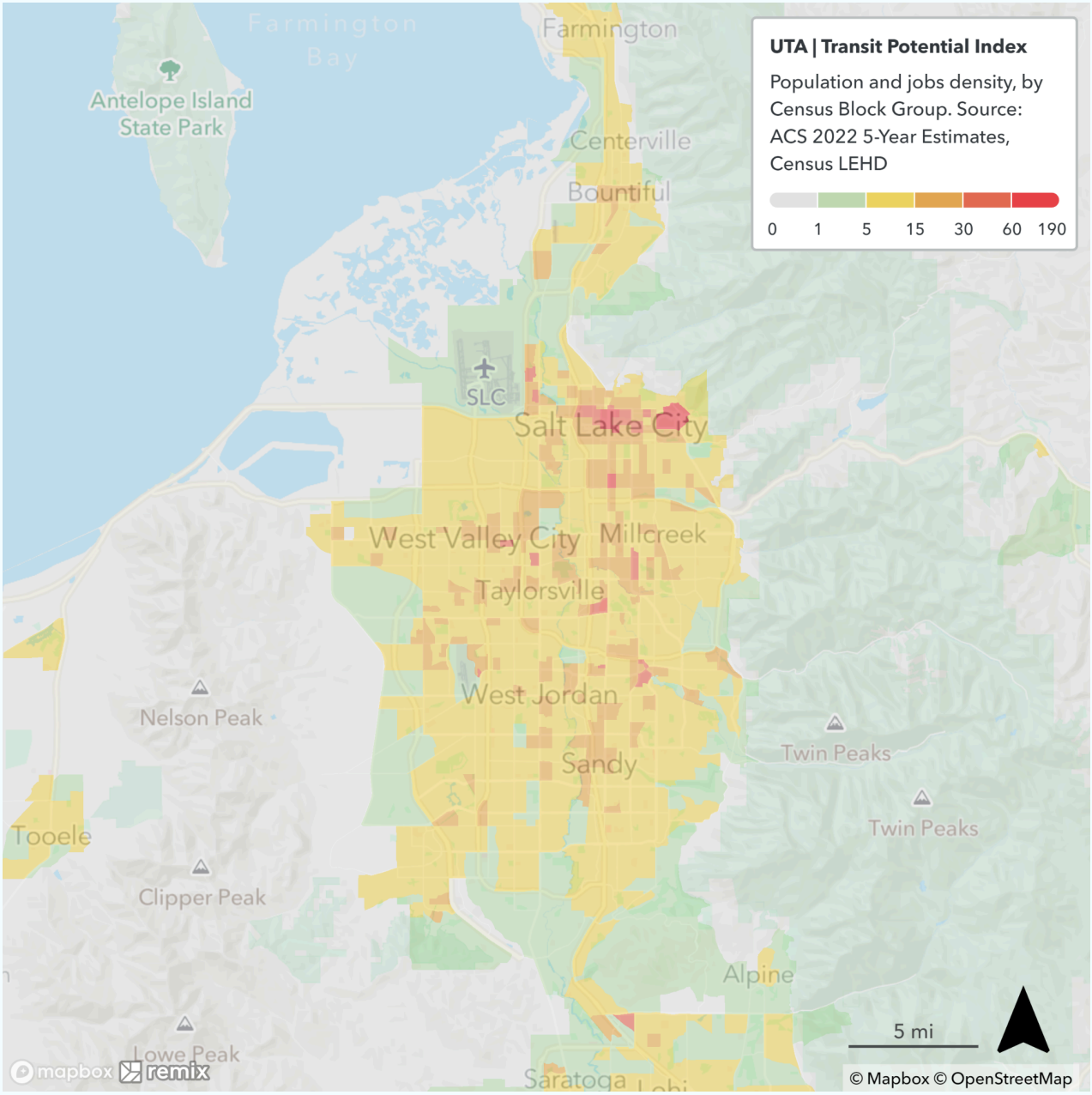


Figure 3. Transit Potential Index in UTA Service Area (Center)

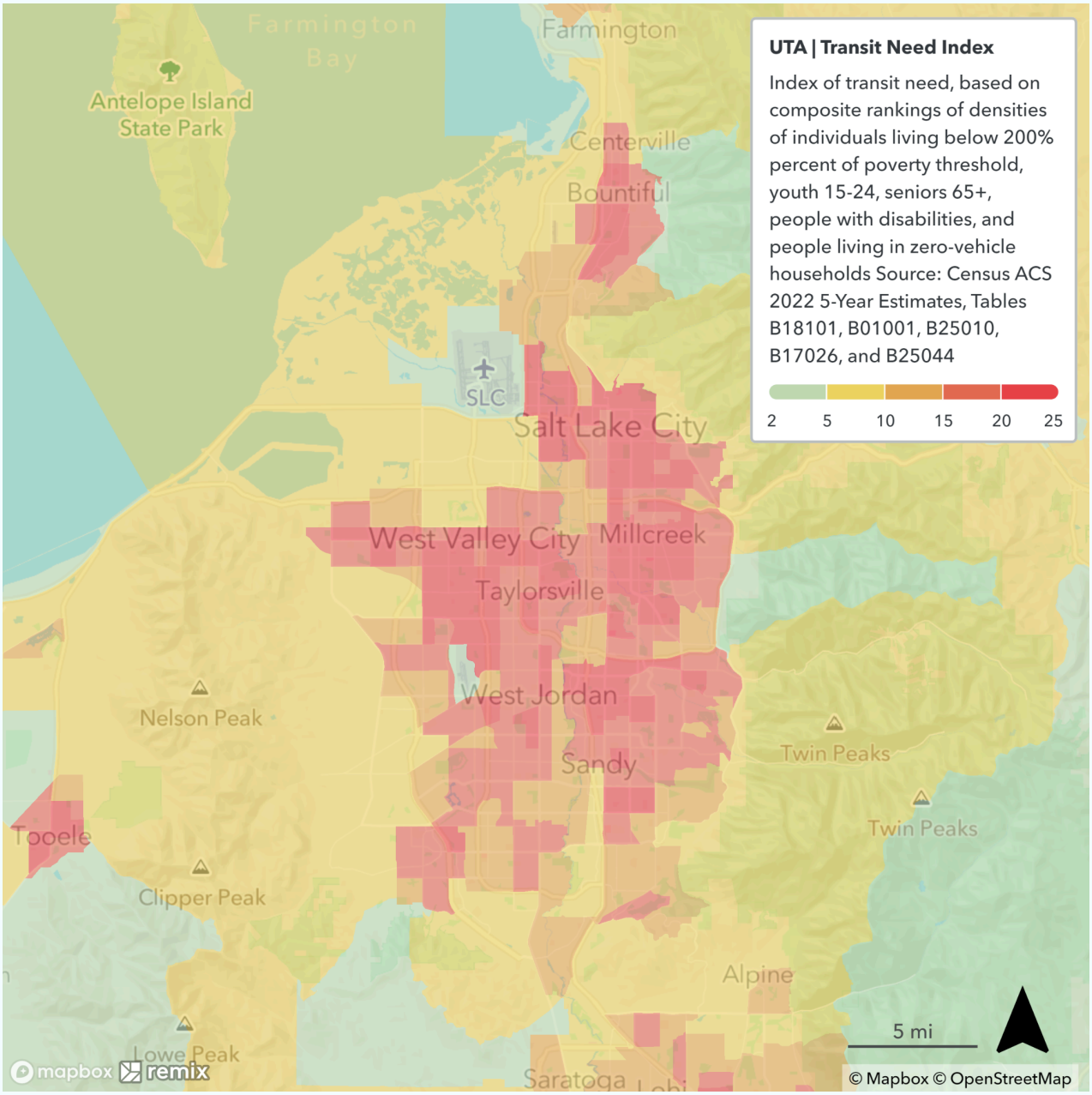


Figure 4. Transit Need Index in UTA Service Area (Center)

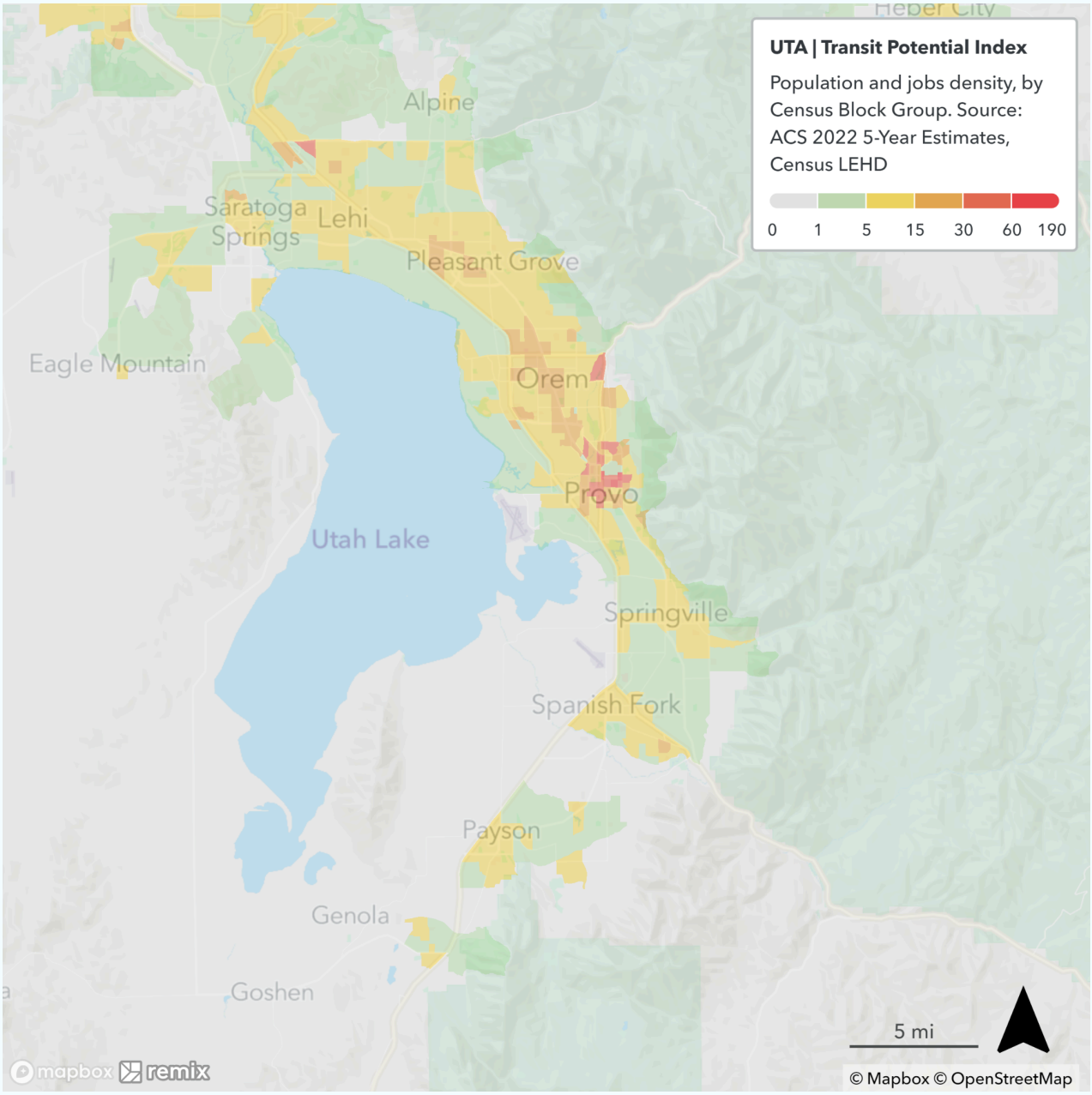


Figure 5. Transit Potential Index in UTA Service Area (South)

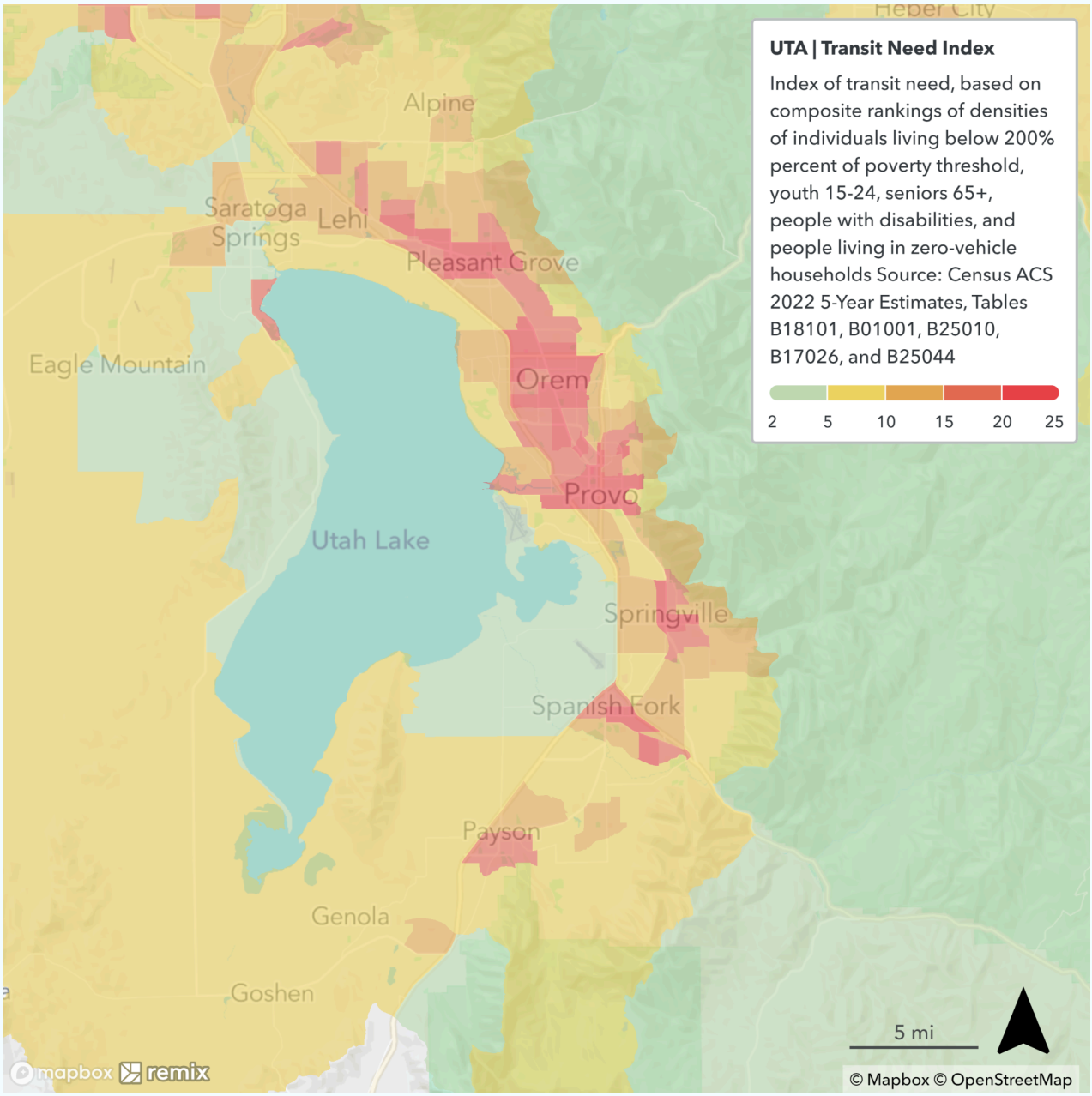
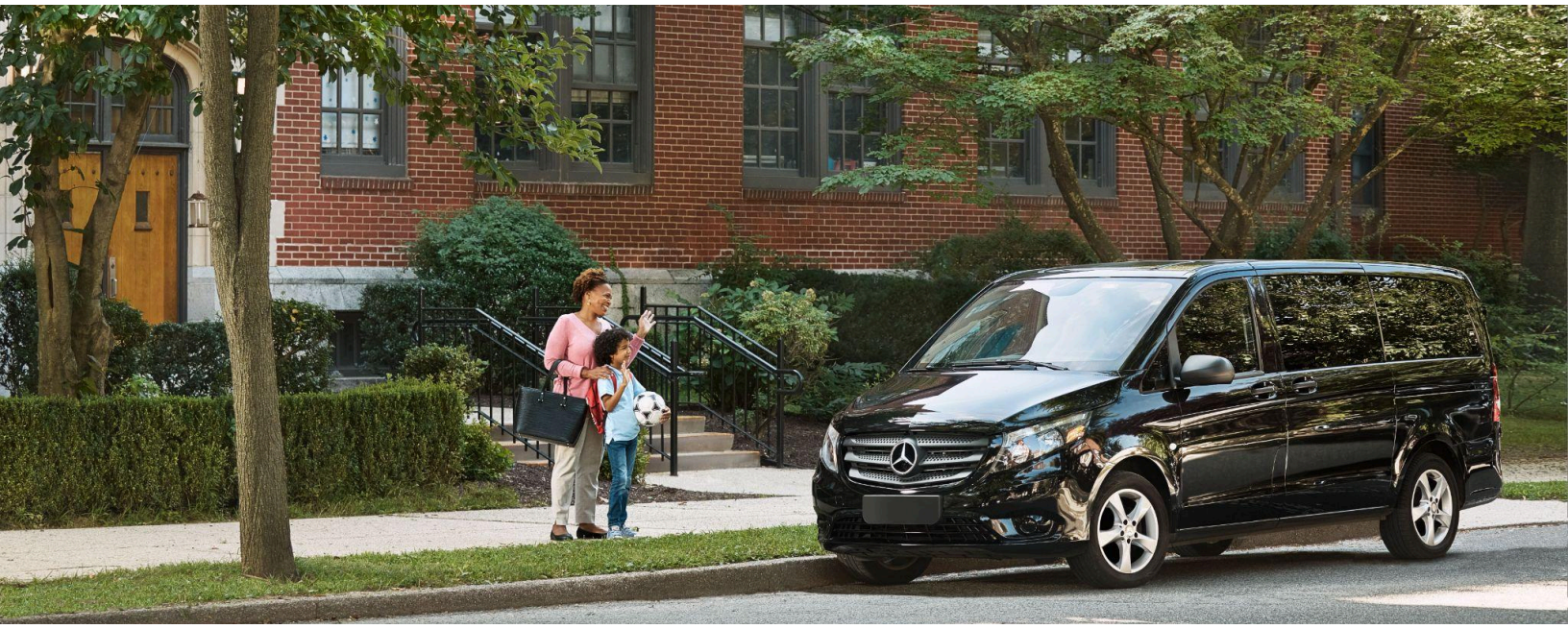


Figure 6. Transit Need Index in UTA Service Area (South)

Any part of the UTA service area with low Transit Potential, regardless of Transit Need, can be considered a candidate for IMZs, simply because fixed-route service is unlikely to be an effective option. However, high Transit Potential does not guarantee high transit-use if other key elements, such as a supportive pedestrian environment, are missing from an area. Thus, some parts of the UTA service area that do have the density to support fixed-route service (more than five people and/or jobs per acre) can also be good candidates for IMZs, especially if fixed route service in the area has failed to attract significant ridership.

To assess whether a Traffic Analysis Zone is effectively served by fixed route service, the study team placed a half-mile buffer around every rail station and high-ridership bus stop (10+ passengers per day). The half-mile buffer represents the maximum distance that most transit riders are willing to walk to access transit service, although this distance varies greatly depending on the quality of the pedestrian environment. Figures 7-9 offer an overview of the Transit Potential Index of Areas Poorly Served by Existing Fixed-route Transit. The highlighted areas in these maps are either unserved or poorly served by the current fixed-route transit network.



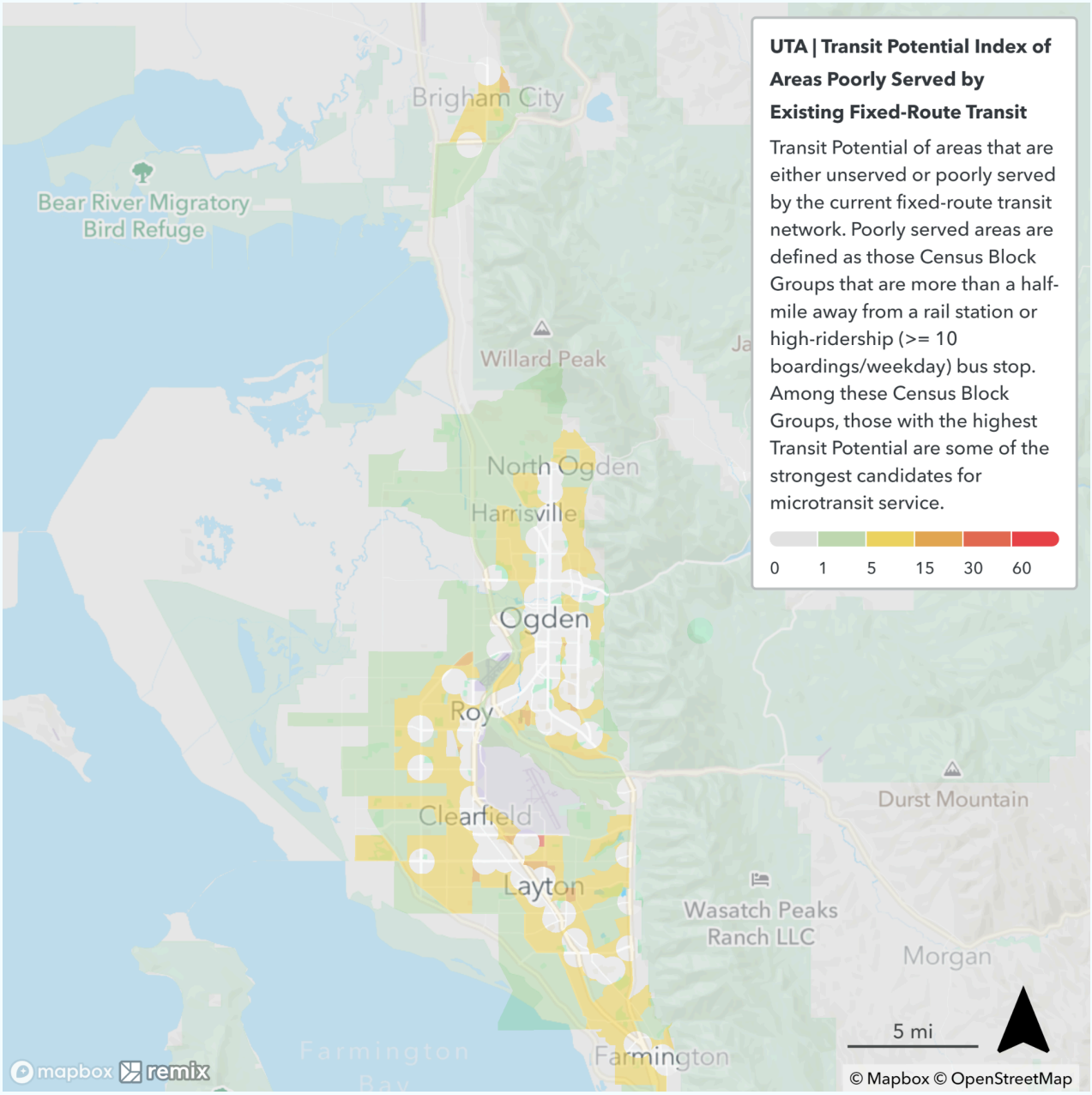


Figure 7. Transit Potential Index of Areas Poorly Served by Existing Fixed-Route Transit in UTA Service Area (North)

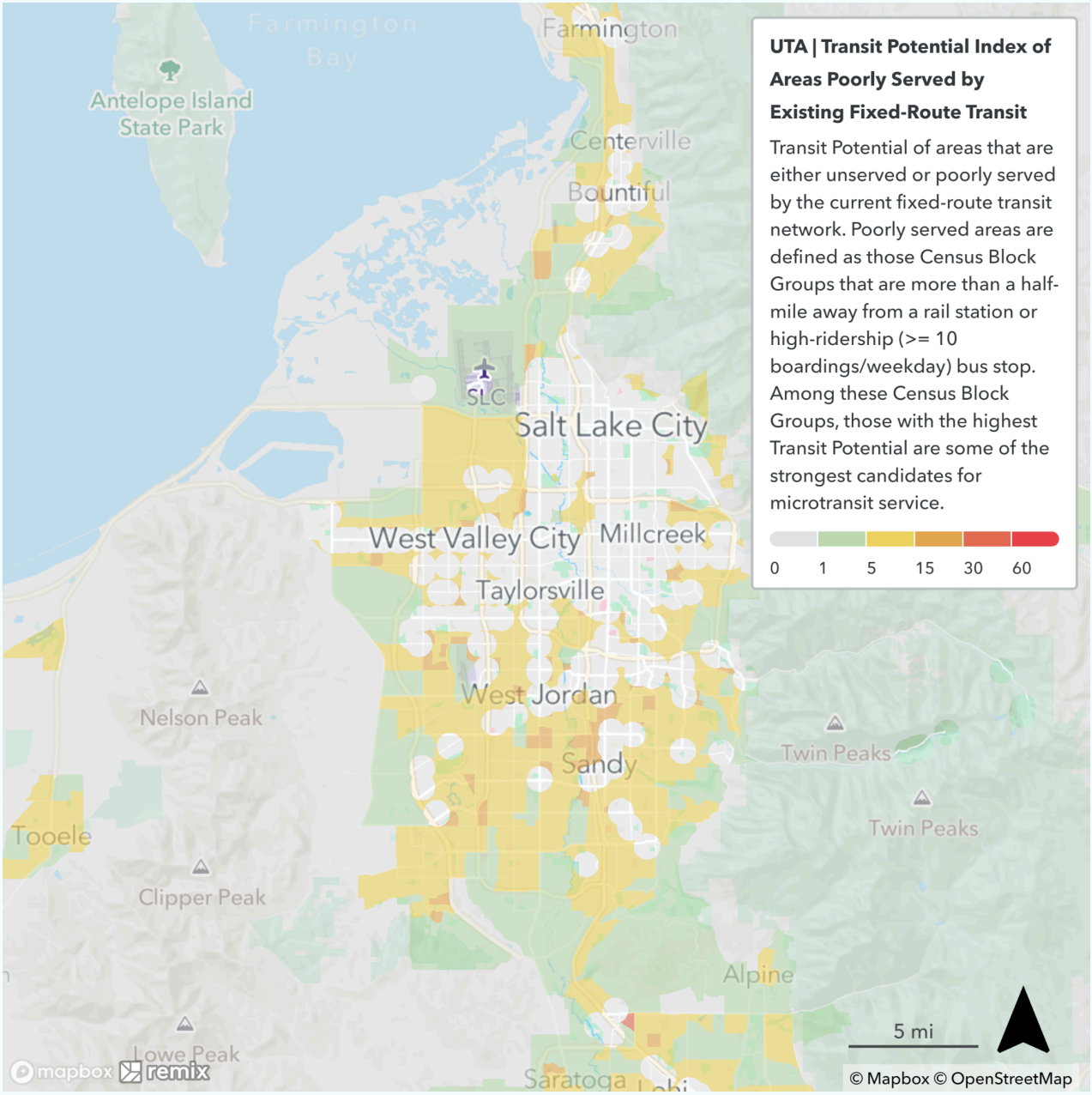


Figure 8. Transit Potential Index of Areas Poorly Served by Existing Fixed-Route Transit in UTA Service Area (Center)

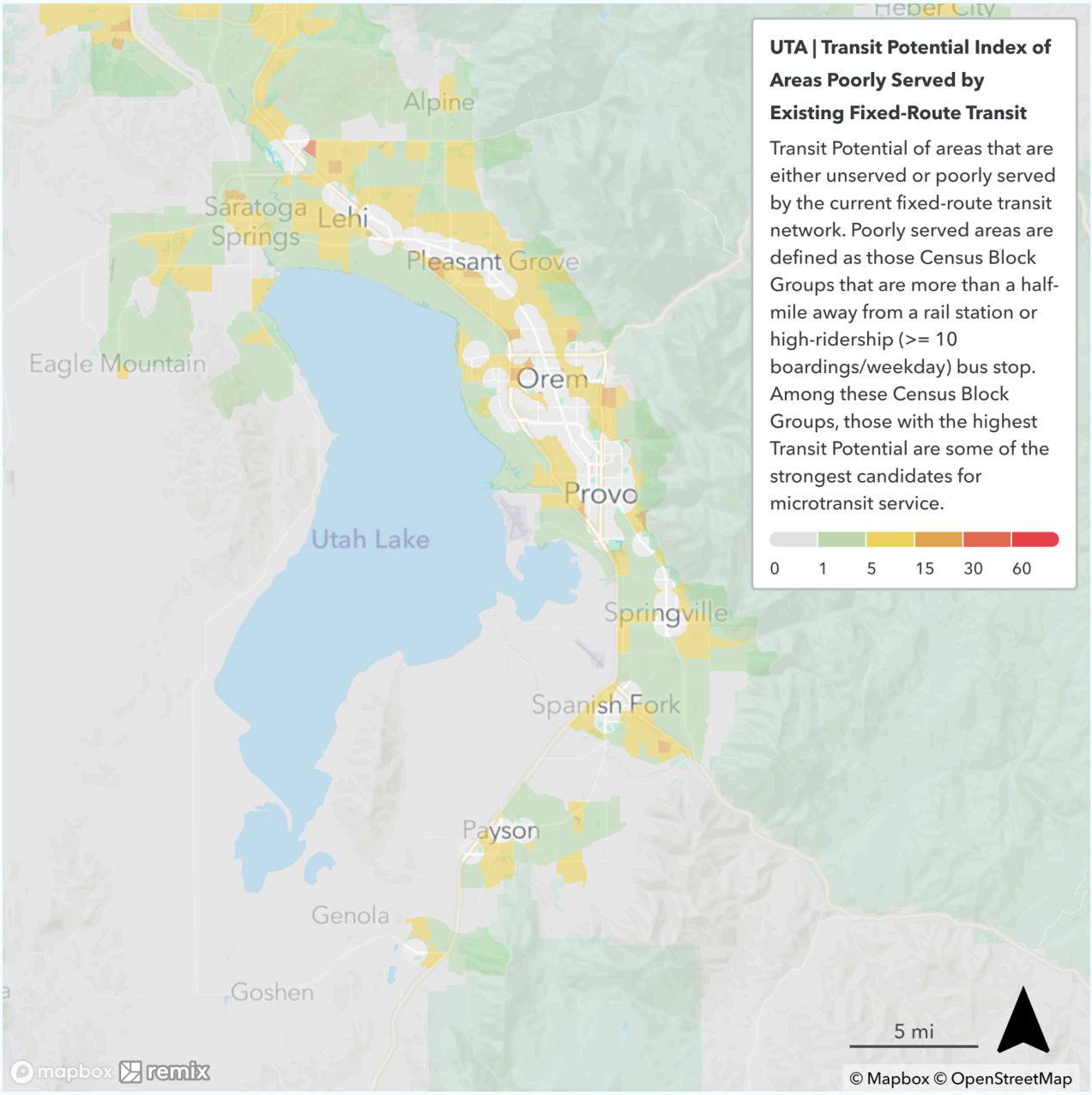


Figure 9. Transit Potential Index of Areas Poorly Served by Existing Fixed-Route Transit in UTA Service Area (South)

Zone refinement

After identifying the broad areas where IMZs would address UTA's goals and objectives, each zone was examined more closely to understand:

- **Use-cases:** This refers to the types of trips that passengers would use the IMZ for in each zone. One such use-case that IMZs are drawn to maximize is first/last-mile connections, in which riders use the service for short trips to reach nearby rail, light rail, or BRT stations. For example, FrontRunner is a commuter rail train with service from Ogden in central Weber County through Davis County, Salt Lake City, and Salt Lake County to Provo in central Utah County; thus, FrontRunner stations are included in potential zones where possible. Another use-case of the IMZs is providing more cost-effective "coverage" service in lower-density suburban areas. These zones have pockets with significant transit need but insufficient population/employment density (see Demand Estimation) to justify frequent fixed-route bus service.

- **Zone Boundaries:** This refers to the area that a trip must start and end within. Exact boundaries were determined based on factors such as major roads, bus routes, or geographic features. Zone boundaries were refined using updated satellite imagery to differentiate between residential and uninhabited areas. Feedback from UTA was used to determine boundaries in some zones that were not previously evaluated in the 2020 study.

- **2020 Zone Boundaries:** The zone boundaries used during the 2020 Microtransit Planning Study were reviewed and adjusted based on changes in development patterns, fixed-route service, and lessons learned since the study was completed. These changes are outlined below:
    - **Brigham City (Full Zone)**: This zone is the same as the 2020 Microtransit Planning Study.
    - **Brigham City (Short)**: This zone is an alternative to the original Brigham City zone, but has been truncated at the Brigham City border with Perry to reflect future planned high-frequency bus routes. The zone was also slightly expanded westward to accommodate additional residential neighborhoods.
    - **North Ogden (previously North Ogden (Smaller Zone))**: This zone was modified to better reflect residential and commercial neighborhoods.
    - **Ogden / Weber (previously North Ogden (Larger Zone))**: This zone was expanded to serve more residential areas.
    - **West Weber (previously West Weber County)**: This zone was adjusted to remove wildlife management areas and serve more residential and commercial areas.
    - **Syracuse / Layton (previously West Davis County):** This zone was modified to serve higher transit propensity areas given fixed-route referral capabilities.[1]

[1] Fixed-route referral is a programmatic feature of microtransit software that compares viable fixed-route and microtransit journeys for each ride request and offers a microtransit proposal only in cases where no suitable fixed-route journey is available. A comparable trip is defined as one

- **Kaysville / Farmington (new):** This new zone is based on the Transit Potential Index.
- **West Salt Lake City Industrial / Inland Port:** Expanded 2020 zone to extend west to Magna, to accommodate low-density residential areas, and east to incorporate Valley Fair Mall.
- **East Millcreek:** This zone is the same as 2020.
- **West SLCO:** This zone incorporates the previous South Valley and South Jordan zones and is expanded westward to incorporate Copperton. The zone boundary was provided by UTA.
- **East SLCO:** This zone incorporates the previous Sandy zone but has been adjusted, including a closer alignment on the west to the TRAX Blue Line and a slight truncation on the southern border. The zone boundary was provided by UTA.
- **Southern SLCO:** This zone is a modification of the existing Southern SLCO zone, with minor adjustments. The zone boundary was provided by UTA.
- **Lehi / Saratoga Springs:** This zone incorporates the previous Lehi zone with adjustments to capture some nearby areas previously in the 2020 Eagle Mountain / Saratoga Springs zone. It was provided by UTA.
- **Eagle Mountain / Saratoga Springs:** This zone includes the previous Eagle Mountain & Saratoga Springs zone. Its boundaries were provided by UTA.
- **East UTCO:** This zone includes the previous North Utah County zone. It was provided by UTA.
- **Lindon / Vineyard:** This zone was modified from the 2020 zone to terminate at the border of the West Provo zone.
- **West Provo:** This zone is the same as the 2020 Microtransit Planning Study.
- **Springville / Spanish Fork:** This zone was modified from the 2020 zone to better reflect areas of higher transit potential and residential density.
- **South Utah County:** This zone was expanded based on the expectation it will be operated as a TNC zone due to low microtransit utilization.

More detail on how the project team estimated demand within each zone is provided in the following section. The recommendations for each zone are presented in Zone-by-Zone Simulation Results.

with a walk of less than 0.3 miles to and from the bus stop, and a fixed-route trip with no transfer required. If these criteria are met, a fixed-route proposal will be offered instead of microtransit.

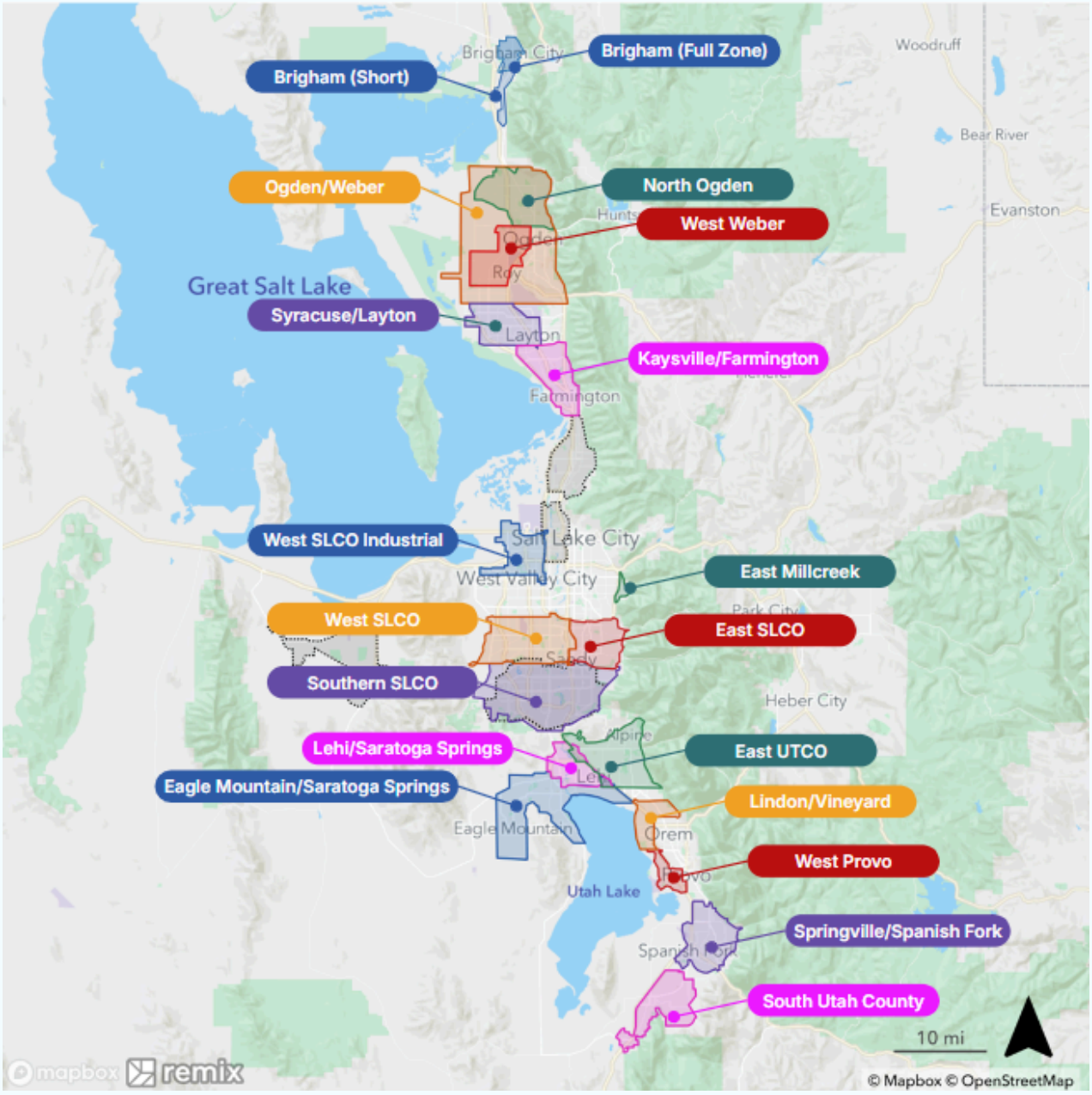


Figure 10. Overview of the 19 Innovative Mobility Zones (IMZs). Grey Areas Cover the Four Existing On-Demand Zones in the UTA Service Area (South Davis County, Salt Lake City Westside, Southern Salt Lake County and Tooele County)

Demand Estimation

Demand estimates inform important decisions such as the size of the fleet and level of funding required for each zone. They are also a useful measure of how many people will benefit from an IMZ[2].

Methodology

As described in Transit Needs Assessment, the Transit Potential Index was calculated for Census Block Groups of each of the following counties in the study area: Box Elder, Cache, Davis, Morgan, Salt Lake, Summit, Tooele, Utah, Wasatch, and Weber. Areas within ½ mile of either a rail station (FrontRunner or Trax) or a high-ridership bus stop, with at least 10 boardings on an average weekday[3], were excluded from the index. Ridership data was provided by UTA's Open Data Portal and updated in February 2024.

To understand how well each zone will perform, demand estimates were based upon the Transit Potential Index, derived from three factors:

1. The number of residents living in each zone.
2. The number of workers who have a place of employment within the zone.
3. Estimated IMZ mode share.

Some zones are likely to have a higher IMZ mode share than others. Mode share is the percentage of travelers using a particular type of transportation – IMZs with a higher mode share score are likely to capture a larger percentage of trips. To estimate demand, Via developed an overall mode share score for each zone based on Via's proprietary demand model. Via's proprietary demand model was then calibrated using the existing demand data from the four IMZs currently operated by UTA and Via. In general, demand in existing IMZs was ~20% lower than forecast in the 2020 UTA Microtransit Planning Study, resulting in lower forecasts for most zones in this updated model (except in cases where zones have been expanded or had population growth). Each zone varied as outlined below:

- South Davis County and Southern Salt Lake County: Lower demand than expected based on the 2020 UTA Microtransit Planning Study
- Salt Lake City Westside: Performing as predicted based on Via's model

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[2] Via defines demand as the number of passengers who requested a valid microtransit trip in the zone in a given time period. This includes all completed trips, as well as those who requested a trip but were not able to get a proposal due to high demand (seat unavailable). Invalid trips, such as those requesting to travel outside of service hours or zone boundaries are not considered part of the demand.

[3] 10 boardings per day was the threshold determined through workshops with UTA for the 2020 UTA Microtransit Planning Study and includes the best performing third of UTA bus stops. These stops are considered to be well used and many agencies view them as worthy of additional amenities like benches or shelters. Sources: https://www.arlingtonva.us/files/sharedassets/public/v/1/transportation/documents/2024-02-08-2024-update-arlington-bus-stop-guidelines-and-standards.pdf and https://nmcdn.io/e186d21f8c7946a19faed23c3da2f0da/8bfec28a290449a7b10eb1fee3a0e264/files/programs-studies/transit/wake-county-transit-plan/DocumentLibrary/Service_Guidelines_and_Performance_Measures.pdf

- Tooele: Significantly exceeding Via's model

Taken together, these findings resulted in the ~20% reduction in demand relative to the 2020 UTA Microtransit Planning Study.

The two factors that were decided to have the most significant impact upon the estimated IMZ mode share of each zone were:

1. **Transit Need Index (TNI):** Transit need focuses on socio-economic characteristics such as income, automobile availability, age, and disability status, which are indicative of a higher propensity to use transit[4]. The TNI is a composite ranking of densities of five demographic groups known to rely upon public transit at higher rates relative to the general population: individuals living below 200% percent of poverty threshold, youth 15-24, seniors 65+, people with disabilities, and people living in zero-vehicle households. In areas where existing transit ridership is high, individuals are more likely to leave their car at home and use transit. In areas with a higher TNI, there is likely to be a higher IMZ mode share.

2. **Service hours and days**: All zones were assumed to operate from 6 AM - 9 PM on weekdays, except the Southern Salt Lake County zone which already operates with more extensive hours. Only a small subset of zones (mainly within more urban Salt Lake County areas) were also assumed to operate on Saturdays from 6 AM - 9 PM. The specific operating hours assumed for each zone are shown in Zone-by-zone Simulation Results.

In practice, there are a wide variety of factors that can influence demand, such as the marketing budget and fare structure. For example, the Tooele IMZ has higher demand than was originally estimated using Via's demand model. This increased demand is likely due to the strong community buy-in, long history of demand-response service in the area, and strong community connections with the Tooele County team.

[4] TNI is calculated using data from the American Community Survey (ACS) 2018 - 2022 five year estimate census, including Tables B180101, B01001, B25010, B17026, and B25044. Densities of each demographic group were calculated for each Census Tract in the counties served by UTA: Box Elder, Cache, Davis, Morgan, Salt Lake, Summit, Tooele, Utah, Wasatch, and Weber. The density figures for each Census Tract were then ranked by quintile for each demographic category, with the highest-density quintile receiving a score of "5" and the least dense quintile receiving a score of "1." A handful of Census Tracts with zero individuals of the respective demographic category, where densities of zero, were assigned a score of zero in the index. The index aggregates the rank scores across the five demographic groups: a Census Tract with the highest-density quintiles of each demographic group would yield a maximum possible score of 25, while a Census Tract in the least-dense quintiles of every group would receive a score of 5 and a completely unpopulated Tract would receive a score of zero.

Demand Estimates by Zone

The following demand estimates by zone are annual figures based on the methodology outlined in the previous section.

- Low, medium, and high demand estimates were developed for each zone to account for the inherent variability in service performance.
- Estimates are based on the expected service performance after 1-2 years in operation. Beyond this period, ridership growth of 10-20% per year is expected (in line with UTA Service Design Guidelines).
- Demand estimates are expected to translate directly into ridership, assuming adequate vehicle supply to maintain seat availability rates of 95-100%. Therefore, if the medium demand estimate is 2,000 trips per year, the expected ridership should also be approximately 2,000 trips per year. If the service is launched with fewer vehicle hours or a smaller vehicle than recommended in this memo, it's possible ridership will not reach predicted levels due to higher-than-expected seat unavailable rates.
- Some zones have several fixed-route bus and/or rail services operating within the zone. Passengers who request a trip that is better served[5] by the transit routes will be directed to use them, as this demand has not been factored into the demand estimates below as it would not result in a trip.

Zone Name	Demand estimates (one-way trips per year)		
	Low	Medium	High
Brigham City (Full Zone)	8,300	12,000	16,000
Brigham City (Short)	7,000	9,800	14,000
North Ogden	29,000	41,000	57,000
Ogden / Weber	21,000	30,000	42,000
West Weber	26,000	36,000	51,000
Syracuse / Layton	50,000	70,000	97,000
Kaysville / Farmington	27,000	37,000	52,000
West Salt Lake City Industrial / Inland Port	42,000	59,000	83,000

[5] A trip that is better served by a fixed-route is one that has a comparable travel time to a microtransit trip, with short walks at both ends of the trips and no transfers between routes. A comparable trip is defined as one with a walk of less than 0.3 miles to and from the bus stop, and a fixed-route trip with no transfer required. If these criteria are met, a fixed-route proposal will be offered instead of microtransit.

East Millcreek	2,000	3,000	4,000
West SLCO	116,000	163,000	229,000
East SLCO	97,000	135,000	189,000
Southern SLCO ***(Adjusted from live IMZ[6])***	187,000	261,000	366,000
Lehi / Saratoga Springs	21,000	29,000	40,000
Eagle Mountain / Saratoga Springs	21,000	29,000	40,000
East UTCO	43,000	61,000	85,000
Lindon / Vineyard	19,000	27,000	38,000
West Provo	27,000	38,000	53,000
Springville / Spanish Fork	29,000	41,000	57,000
South Utah County	11,000	17,000	23,000

[6] Live service already exists in the Southern SLCO zone, but simulations are based on the adjusted zone.

Transportation Network Company (TNC)-Operated Zones

All IMZs were simulated to evaluate the expected performance of an on-demand microtransit service operated with a dedicated fleet, similar to UTA's existing on-demand service.

However, based on UTA's Service Design Guidelines, microtransit zones are only advisable for implementation if they achieve a utilization of 2.0 passengers per vehicle-hour or higher.[7] Four zones were determined to fall short of this threshold and were instead evaluated as Transportation Network Company (TNC) operated zones, such as Uber or Lyft. TNC's rely upon a network of independent-contractor drivers dispersed throughout the greater Salt Lake City metropolitan area in private vehicles. These services provide on-demand rides at market rates determined by the software platforms, which vary in relation to real-time demand. A TNC partnership in one of the zones specified in this section would involve UTA providing subsidies for riders who book trips within the service zone.

Per the UTA Service Design Guidelines, the four IMZs that could be candidates for TNC service are:

- Ogden / Weber
- East Millcreek
- Eagle Mountain / Saratoga Springs
- South Utah County

These TNC-operated zones are expected to work in the following way:

- Passengers pay a standard public transit fare (typically $2.50 for a one-way adult trip).
- Passengers can travel anywhere within the zone from 6 am to 9 pm (the same service hours as the on-demand microtransit zones).
- The trip will be charged at market rate pricing, and the remaining cost of the trip is subsidized by UTA.
- Trips will be operated by a range of TNC companies such as Uber, Lyft, or local taxi providers. At this stage, the panel of operators has not been finalized. To comply with FTA regulations (e.g., ADA, Title VI, drug/alcohol testing requirements), UTA must offer riders the choice to book with at least two potential vendors, one of which (typically a traditional taxi company) must be capable of complying with these requirements.
- Operating cost estimates were determined by using publicly available pricing data averaged across several providers.

[7] Utilization is calculated as the number of unlinked passenger trips per vehicle hour. Vehicle hours are determined based on the number of hours that a vehicle is operating, including empty time between trips and deadhead travel to and from the depot.

As the exact TNC contracting model and operators have not yet been determined, there are several important potential risks to note[8]:

- It is possible that some TNCs offer inconsistent service in lower-density areas when demand is typically low. This may result in long wait times for passengers or unsuccessful trip requests. During this study, Via was able to generate several trip proposals in all of the TNC zones identified without issue, but availability may vary based on time of day, weather conditions, and demand levels.

- According to UTA employees, TNCs in Utah have limited wheelchair-accessible vehicles in their fleets, which could result in challenges booking a trip for passengers who require these vehicles if the accessible vehicles from the participating taxi company are not available.

- FTA funding stipulates that in order for TNC trips to be reported to the National Transit Database (NTD), they must meet certain criteria as outlined here:
    - The service must be regular and continuing. Pilot programs may not be reported.
    - The service must be shared-ride surface transportation. Service that picks up just one user without any attempt to group trips together may not be reported.
    - The service must be open to the general public or a segment of the general public defined by age, disability, or low income. Service restricted to clients or patrons of a particular establishment may not be reported.
    - The service must let passengers traveling with dependents travel under the same terms as other shared ride passengers, even if the dependents use up all the available seats on the vehicle.

Vehicle Assumptions

Per guidance from UTA, all simulations were conducted with a fleet consisting of battery-electric, wheelchair accessible vehicles (WAV) such as Mercedes eSprinters. Each eSprinter was assumed to have a passenger capacity of 7 ambulatory seats and 2 wheelchair seats. We selected the Mercedes eSprinter to match UTA's plans to offer fully electric, WAV vehicles for microtransit service. However, these simulation results remain applicable for any similar-capacity ICE vehicle (e.g., Ford Transit).

Minimum Vehicle Capacity: In general, the capacity of a microtransit service is determined by the number of vehicles, rather than the number of seats in each vehicle. This is because vehicles with a capacity of more than six passengers rarely are fully occupied. Therefore, the simulation results presented in this report are applicable for any vehicle with more than six seats.

[8] Source: Risks were identified based on Via's industry experience, including services where trips are brokered to TNC providers.

Spare Vehicles: The fleet size recommendations in this report are based on the peak number of vehicles that are expected to be required to operate during the busiest periods. These fleet estimates do not include spare vehicles. The number of spare vehicles required can vary significantly depending on the vehicle type selected. In particular, many electric vehicle models may require a larger fleet of spare vehicles depending on when and where vehicles are able to be charged. For example, the current range for the Ford eTransits is 125 miles with an approximate 35 minute charge time, whereas Mercedes eSprinters are projected to have a 230 mile range but with a 58 minute charge time. In general, a minimum of one spare vehicle per zone or 25% of the fleet is recommended, whichever is larger. If a vehicle is damaged or out-of-service for a prolonged period, immediate steps should be taken to ensure adequate coverage through new or leases additional vehicles.

For the Transportation Network Company (TNC) operated zones, we are unable to confirm WAV availability and this should be a focus on contractual negotiations between UTA and the selected TNC and taxi providers.

Pickup and Drop Off Locations

All simulations assume corner-to-corner service, meaning riders are asked to walk to a nearby pickup point to meet their vehicle, typically a 1-3 minute walk[9] away to the nearest intersection. However, riders who indicate they have a disability — either in the mobile app or by notifying the dispatcher — will receive curb-to-curb service and are not asked to walk any distance. TNC operated zones assume curb-to-curb service as these rides are not shared and most TNC providers do not provide the option for passengers to walk.

Corner-to-corner services are typically more efficient as vehicles are not required to detour as much when picking up and dropping off passengers. However, these services are only feasible in areas with suitable pedestrian infrastructure such as sidewalks and safe crossings. If UTA opts for curb-to-curb service in any of the IMZs, the agency should expect a 5-20% decrease in utilization. Wait times are also typically longer in curb-to-curb services.

Fare Revenue

UTA currently offers a range of fares such as adult, senior/reduced, and student/youth. In addition, passengers can purchase daily or monthly passes. Therefore, the fare revenue generated from each zone will vary depending on the mix of passengers. For this reason, Via has not modeled fare revenue in this study. Operating costs are included for TNC-operated services and are total costs, excluding any fare revenue that will be collected. Operating costs for on-demand microtransit zones were not calculated as the hourly rate will vary depending on UTAs contractually-negotiated rates.

[9] Up to ¼ mile

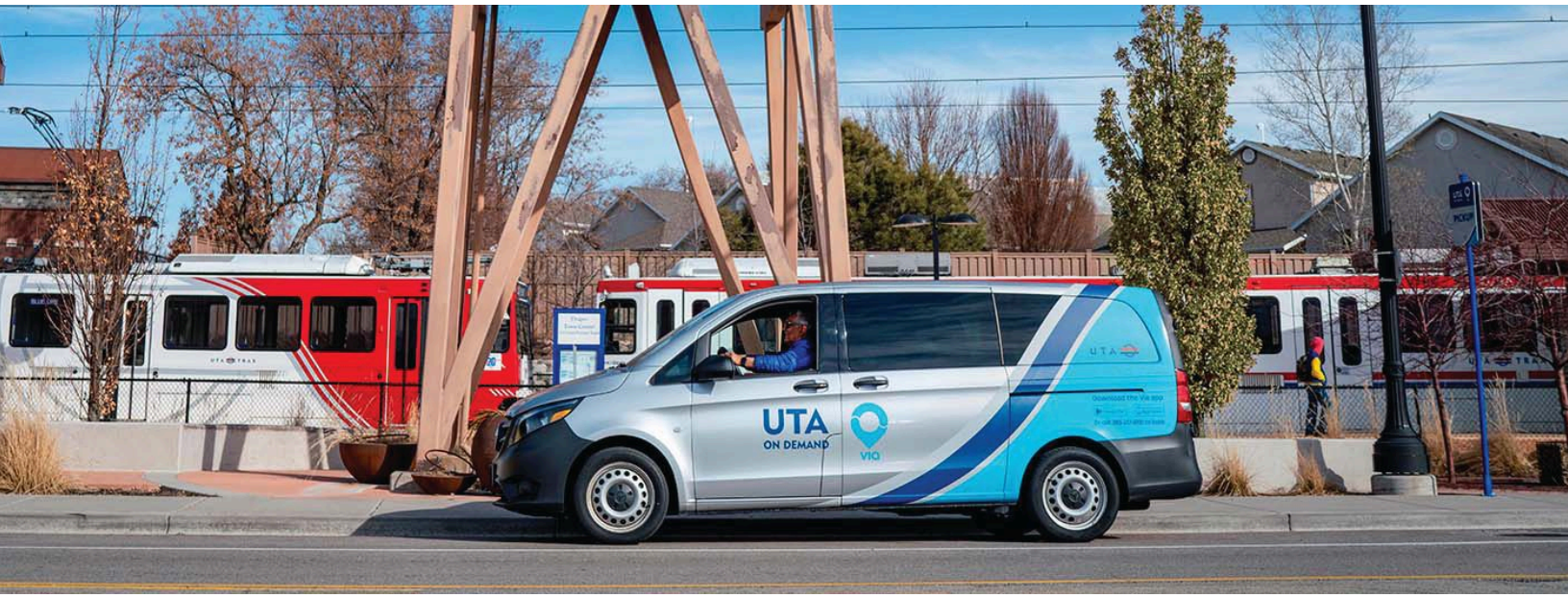
Summary Table and Prioritization

The table below summarizes the results across all zones.

Zone Name	IMZ Operating Model	Service Days	Medium Demand Scenario			Population & Jobs Served
			Annual Demand	Number of Vehicles	Utilization	
Brigham City (Full Zone)	Microtransit	Weekday	12,000	2	2.0 - 2.5	32,000
Brigham City (shortened)	Microtransit	Weekday	9,800	1	2.6 - 3.1	25,000
North Ogden	Microtransit	Weekday	41,000	6	2.1 - 2.6	113,000
Ogden / Weber	TNC	Weekday	30,000	N/A	N/A	96,000
West Weber	Microtransit	Weekday	36,000	5	2.2 - 2.7	93,000
Syracuse / Layton	Microtransit	Weekday	70,000	7	3.0 - 3.5	149,000
Kaysville / Farmington	Microtransit	Weekday	37,000	4	2.9 - 3.4	102,000
West SLCO Industrial / Inland Port	Microtransit	Weekday & Sat	59,000	6	3.3 - 3.8	106,000
East Millcreek	TNC	Weekday		N/A	N/A	8,000
West SLCO	Microtransit	Weekday & Sat	163,000	15	3.2 - 3.7	249,000
East SLCO	Microtransit	Weekday & Sat	135,000	11	3.6 - 4.1	181,000
Southern SLCO	Microtransit	Weekday & Sat	260,000	17	2.9 - 3.4	355,000
Lehi / Saratoga Springs	Microtransit	Weekday	29,000	4	2.2 - 2.7	79,000
Eagle Mountain / Saratoga Springs	TNC	Weekday	29,000	N/A	N/A	92,000
East UTCO	Microtransit	Weekday	61,000	9	2.3 - 2.8	167,000
Lindon / Vineyard	Microtransit	Weekday	27,000	4	2.1 - 2.6	63,000
West Provo	Microtransit	Weekday & Sat	38,000	3	3.0 - 3.5	38,000
Springville / Spanish Fork	Microtransit	Weekday	41,000	6	2.5 - 3.0	112,000
South Utah County	TNC	Weekday	17,000	N/A	N/A	54,000

The results of the simulations were then compiled into three categories based on their expected performance[10].

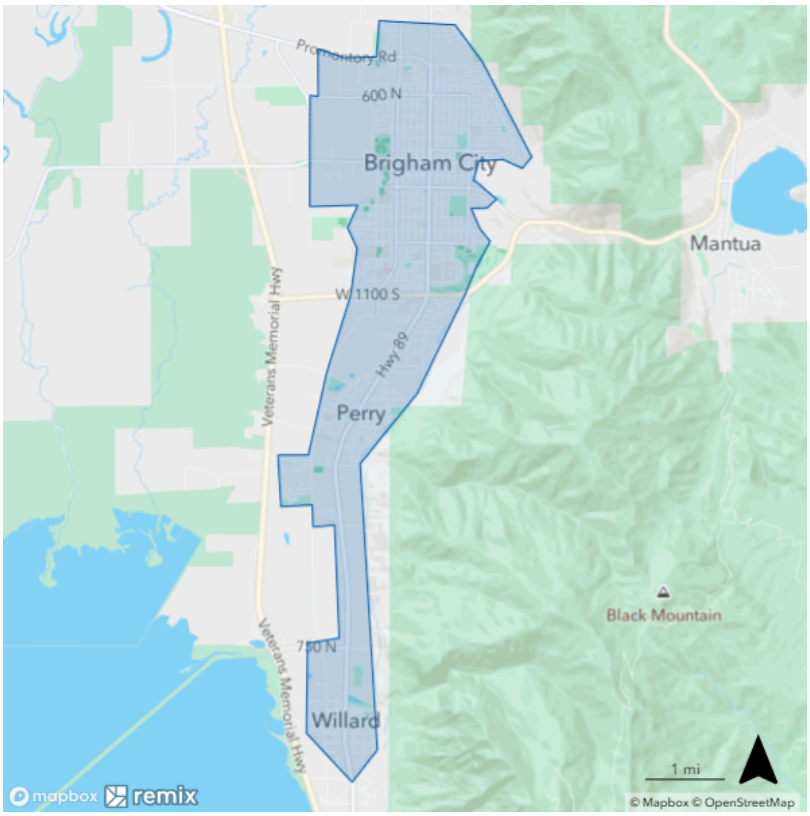
Highest-ranked IMZs:	East SLCO, West SLCO Industrial / Inland Port, West SLCO, Syracuse / Layton, West Provo, Kaysville / Farmington, Southern SLCO
Moderate-ranked IMZs:	Brigham City (Shortened), Springville / Spanish Fork, East UTCO, Lehi / Saratoga Springs, West Weber, Lindon / Vineyard, North Ogden
Lower-ranked IMZs:	Brigham City (Full Zone), TNC Zones (Ogden / Weber, East Millcreek, Eagle Mountain / Saratoga Springs, South Utah County)



[10] IMZs were ranked based on their expected utilization, as this is a measure of how efficiently the service can provide mobility for residents. UTA should consider other factors such as local funding sources, political and community buy-in, and existing transit service levels when determining the final zone prioritization.

Zone-by-zone simulation results

Brigham City (Full Zone)

Key Zone Statistics		
Zone Map		
Zone Size	12	Square miles
Population	25,000	People
Population Density	2,100	People per square mile
Employment	7,000	Jobs
Zone Design Rationale	The zone was selected for the following reasons: • Improves mobility throughout Brigham City, Perry, and Willard • Provides access to grocery stores, retail, and employers • Potential replacement for Flex Route F638	
Major Trip Generators	• Walmart • Brigham City Community Hospital	

	• Box Elder High School • Utah State University Brigham City
Bus Routes in Zone	• UTA Route 630 - Brigham City / Ogden Commuter • UTA Route F638 - Brigham City Flex
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

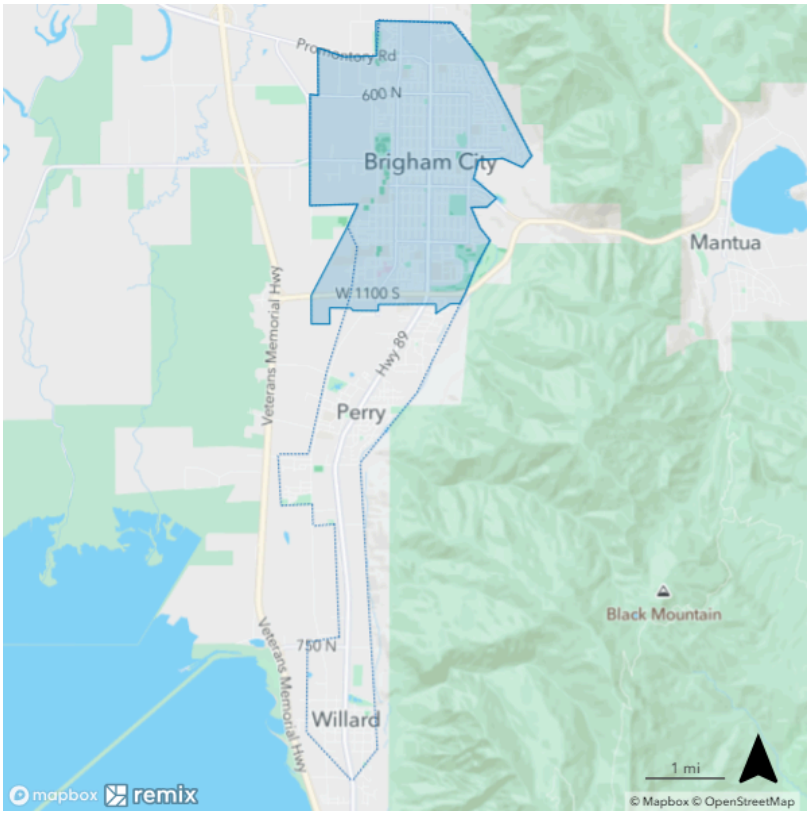
Demand Scenario	Low	Medium	High	Units
Daily Demand	30	40	60	Trips per day
Weekly Demand	160	220	310	Trips per week
Annual Demand	8,300	12,000	16,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	2	2	2	Peak vehicles (excluding spares)
Annual Vehicle Hours	5,000	5,700	6,100	Vehicle hours per year
Vehicle Utilization	1.6 - 2.1	2.0 - 2.5	2.6 - 3.1	Trips per vehicle hour
Average Ride Duration	15			Minutes

Brigham City (Shortened)

Key Zone Statistics		
Zone Map		
Zone Size	7	Square miles
Population	19,000	People
Population Density	2,600	People per square mile
Employment	6,000	Jobs
Zone Design Rationale	This is a revised version of the Brigham City zone from the 2020 UTA Microtransit Planning Study that has been shortened to account for potential higher frequency on Route 630 in the future. The zone was selected for the following reasons: • Improves mobility throughout Brigham City. • Provides access to grocery stores, retail, and employers • Potential replacement for Flex Route F638	
Major Trip Generators	• Walmart • Brigham City Community Hospital	

	• Box Elder High School • Utah State University Brigham City
Bus Routes in Zone	• UTA Route 630 - Brigham City / Ogden Commuter ○ Note: currently 60 min headway, planned to be 30 min headway in the future • UTA F638 - Brigham City Flex
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

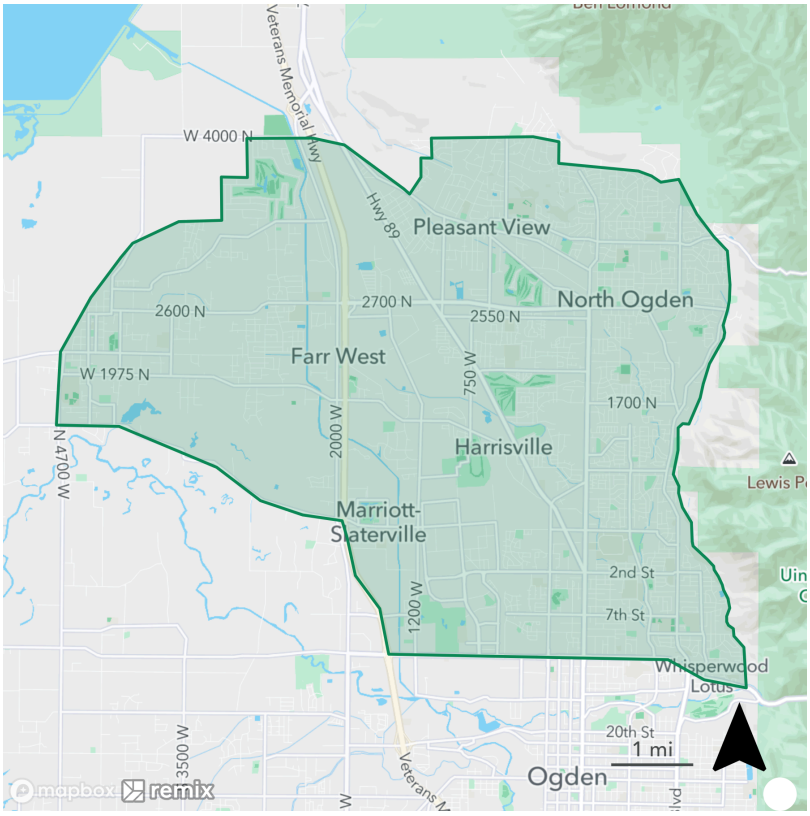
Demand Scenario	Low	Medium	High	Units
Daily Demand	30	40	50	Trips per day
Weekly Demand	140	190	260	Trips per week
Annual Demand	7,000	9,800	14,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	1	1	2	Peak vehicles (excluding spares)
Annual Vehicle Hours	3,800	3,800	5,400	Vehicle hours per year
Vehicle Utilization	1.8 - 2.3	2.6 - 3.1	2.6 - 3.1	Trips per vehicle hour
Average Ride Duration	10			Minutes

North Ogden

Key Zone Statistics		
Zone Map		
Zone Size	38	Square miles
Population	86,000	People
Population Density	2,300	People per square mile
Employment	27,000	Jobs
Zone Design Rationale	This zone is a revised zone from the 2020 UTA Microtransit Planning Study focused on North Ogden. It was selected for the following reasons: • Improve connections from neighborhoods east of US 15 to Ogden FrontRunner Station and nearby commercial areas. Unlike the larger zone, it does not extend west of US 15. It requires fewer vehicles and a smaller budget. • Complements the high ridership bus routes running along Washington Boulevard. Complements and provides a potential alternative to the low/moderate ridership Ogden / BDO Flex	

	Route F618.
Major Trip Generators	• Ogden FrontRunner Station (destination outside of the zone) • Business Depot Ogden • Ogden-Weber Technical College • Golden Spike Event Center • Walmart
Bus Routes in Zone	• UTA Route 612 - Washington Blvd • UTA Route 625 - ATC - Harrison Blvd - WSU • UTA Route 630 - Brigham City / Ogden Commuter • UTA Route 631 - Weber Industrial Park • UTA Route 645 - Monroe Blvd • UTA Route F618 - Ogden BDO Flex
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	110	160	220	Trips per day
Weekly Demand	560	790	1,100	Trips per week
Annual Demand	29,000	41,000	57,000	Trips per year

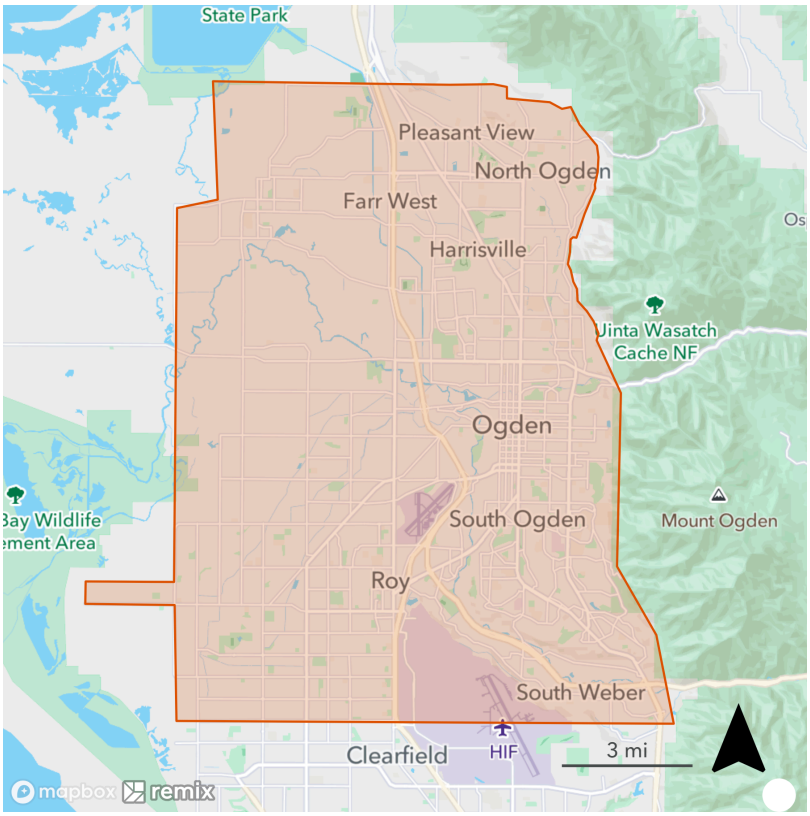
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	4	6	8	Peak vehicles (excluding spares)
Annual Vehicle Hours	15,000	19,000	26,000	Vehicle hours per year
Vehicle Utilization	1.9 - 2.4	2.1 - 2.6	2.2 - 2.7	Trips per vehicle hour
Average Ride Duration	20			Minutes

Ogden / Weber

NOTE: As this zone was determined to fall short of UTA Service Design Guidelines for on-demand microtransit[11], this zone was evaluated as a TNC-operated service. This zone was designed to provide basic mobility options to residents and employers located in Ogden and Weber, outside of the areas with sufficient density to support an on-demand microtransit service. The more dense areas have been modeled in the North Ogden and West Weber zones. If this larger Ogden/Weber zone was implemented, this should only occur after the North Ogden and Weber zones are already operating, as these zones have significantly higher demand forecasts and would be better served using a dedicated fleet.

Key Zone Statistics		
Zone Map		
Zone Size	148	Square miles
Population	64,000[12]	People
Population Density	400	People per square mile

[11] Medium demand simulation indicated utilization is expected to fall below 2.0 passengers per vehicle hour, which is below UTA Service Design Guidelines.

[12] Population and employment numbers are based only on the parts of the zone that would not be served by North Ogden or West Weber zones.

Employment	32,000	Jobs
Zone Design Rationale	This zone is expanded to cover Ogden and Weber outside of the core North Ogden and West Weber zones. It was selected for the following reasons: • Improves connections from neighborhoods east and west of US 15 to Ogden FrontRunner Station and nearby commercial areas. • Expands transit access to areas that currently have limited or no transit, including Farr West and Plain City. • Complements the high ridership bus routes running along Washington Boulevard. Complements and potentially provides an alternative to the low-moderate ridership Ogden / BDO Flex Route F618.	
Major Trip Generators	• Ogden FrontRunner Station • Business Depot Ogden • Ogden-Weber Technical College • Golden Spike Event Center • Two Walmart locations	
Bus Routes in Zone	• UTA Route 455 - UofU - Davis County - Weber State Univ • UTA Route 470 - Ogden - Salt Lake Intercity • UTA Route 472 - Riverdale - Salt Lake Express • UTA Route 473 - Ogden - Salt Lake Express via Highway 89 • UTA Route 603X - Ogden Express (OGX) • UTA Route 604 - West Ogden • UTA Route 612 - Washington Blvd • UTA Route 625 - ATC - Harrison Blvd - WSU • UTA Route 626 - West Roy / Clearfield Station • UTA Route 630 - Brigham City / Ogden Commuter • UTA Route 631 - Weber Industrial Park • UTA Route 640 - Layton Hills Mall - WSU Ogden Camp • UTA Route 645 - Monroe Blvd • UTA Route F618 - Ogden BDO Flex • UTA Route F620 - West Haven Flex	
TRAX/FrontRunner Stations in Zone	• Ogden Central Station • Roy Station	

Recommended Parameters	
Service Type	TNC Operated: Curb-to-curb
Maximum Walking Distance	No walk requirements
Maximum Wait Time	Variable wait times depending on TNC availability
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone. Only trips that start and end within the zone will be eligible for UTA subsidy, although passengers can use TNC services to travel at market rates to other locations outside of the zone.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	80	120	160	Trips per day
Weekly Demand	410	570	800	Trips per week
Annual Demand	21,000	30,000	42,000	Trips per year

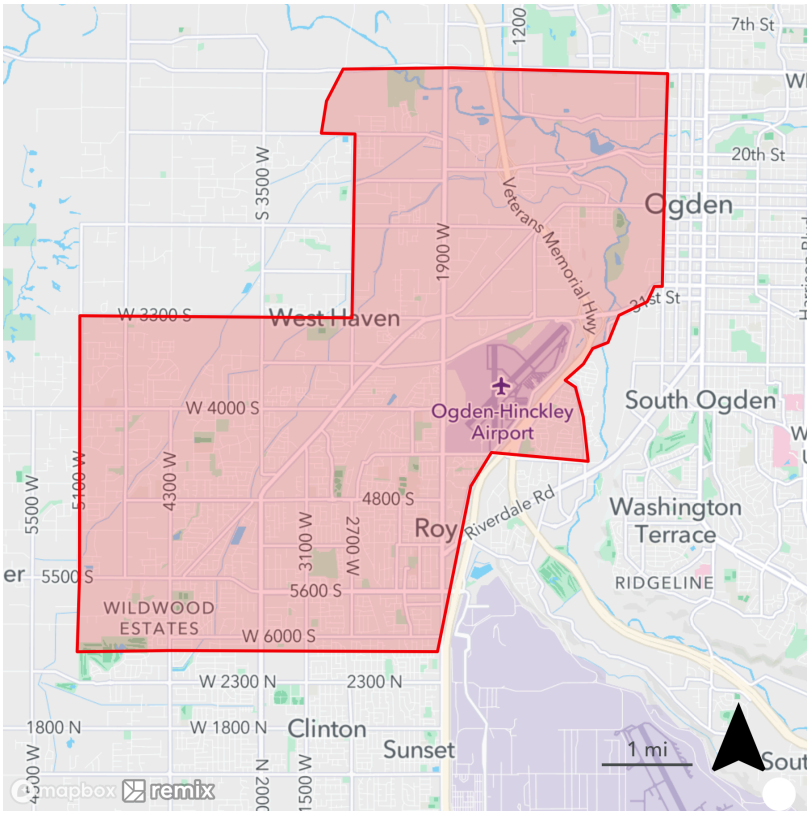
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	As this is a non-dedicated TNC fleet, the fleet size is not able to be estimated.			Peak vehicles (excluding spares)
Annual Vehicle Hours[13]	9,800	14,000	19,000	Vehicle hours per year
Vehicle Utilization	As this is a non-dedicated TNC fleet, the vehicle utilization is not able to be estimated.			Trips per vehicle hour
Average Ride Duration	20			Minutes
Average Ride Distance	9			Miles
Estimated Annual TNC Cost	$480,000	$670,000	$940,000	$ per year

[13] For TNC services, annual vehicle hours only include the time with a passenger onboard the vehicle. Travel time to pickup a passenger is not included.

West Weber

Key Zone Statistics		
Zone Map		
Zone Size	27	Square miles
Population	63,000	People
Population Density	2,000	People per square mile
Employment	30,000	Jobs
Zone Design Rationale	This zone was selected for the following reasons: • Improves connections from neighborhoods west of US 15 to Ogden and Roy FrontRunner stations and Roy Park & Ride. • Provides connections between low-density suburban neighborhoods in western areas of the zone and retail and commercial destinations in Roy.	
Major Trip Generators	• Ogden Central and Roy FrontRunner stations • Roy Park & Ride • Harmons Grocery Roy	

Bus Routes in Zone	• UTA Route 470 - Ogden - Salt Lake Intercity • UTA Route 604 - West Ogden • UTA Route 626 - West Roy / Clearfield Station • UTA Route 640 - Layton Hills Mall - WSU Ogden Camp • UTA Route F620 - West Haven Flex
TRAX/FrontRunner Stations in Zone	• Ogden Central and Roy FrontRunner stations

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

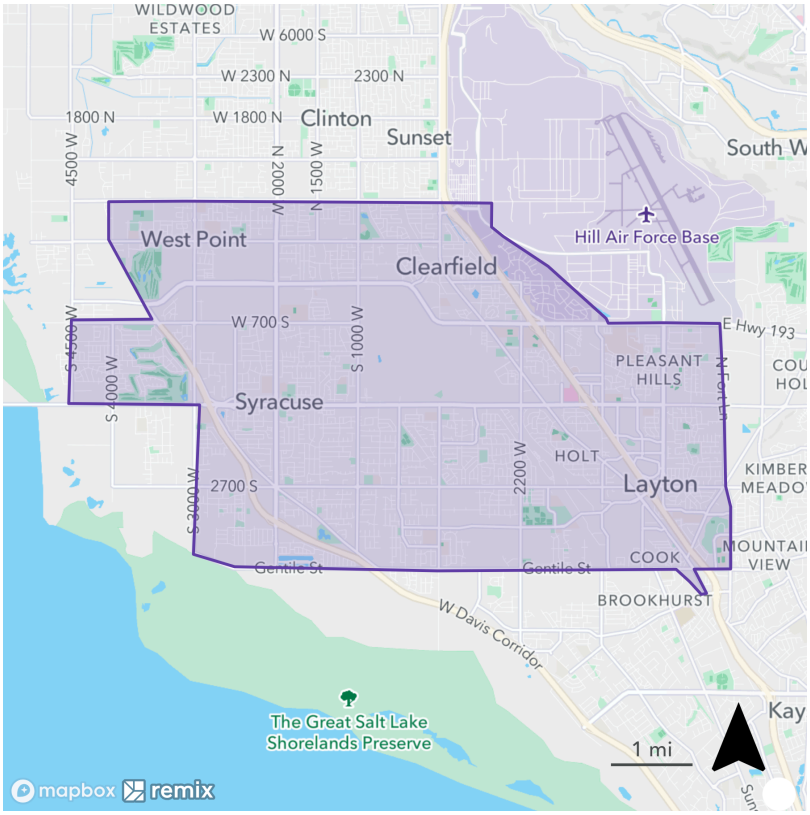
Demand Scenario	Low	Medium	High	Units
Daily Demand	100	140	200	Trips per day
Weekly Demand	500	700	1,000	Trips per week
Annual Demand	26,000	36,000	51,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	4	5	6	Peak vehicles (excluding spares)
Annual Vehicle Hours	13,000	16,000	19,000	Vehicle hours per year
Vehicle Utilization	2.0 - 2.5	2.2 - 2.7	2.6 - 3.1	Trips per vehicle hour
Average Ride Duration	20			Minutes

Syracuse / Layton

Key Zone Statistics		
Zone Map		
Zone Size	29	Square miles
Population	106,000	People
Population Density	3,700	People per square mile
Employment	43,000	Jobs
Zone Design Rationale	This zone is a modified version of the 2020 UTA Microtransit Planning Study West Davis County zone and was selected for the following reasons: • Improves connections from underserved neighborhoods west of US 15 to Layton and Clearfield Stations (excluding areas served by Route 626). • Provides access to grocery stores, retail, and major employers in Layton.	
Major Trip Generators	• Layton and Clearfield FrontRunner Stations • Two Walmart locations in Layton	

	• Layton Village Shopping Center
Bus Routes in Zone	• UTA Route 470 - Ogden - Salt Lake Intercity • UTA Route 472 - Riverdale - Salt Lake Express • UTA Route 626 - West Roy / Clearfield Station • UTA Route 627 - WSU Davis - DTC • UTA Route 628 - Midtown Trolley • UTA Route 640 - Layton Hills Mall - WSU Ogden Camp
TRAX/FrontRunner Stations in Zone	• Layton and Clearfield FrontRunner Stations

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

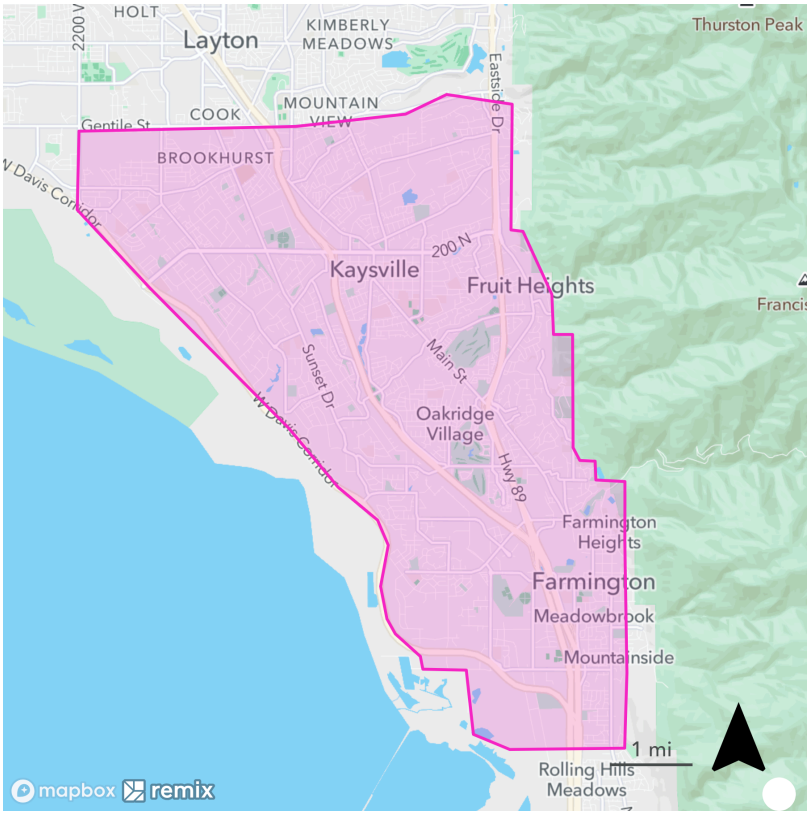
Demand Scenario	Low	Medium	High	Units
Daily Demand	190	270	380	Trips per day
Weekly Demand	1,000	1,300	1,900	Trips per week
Annual Demand	50,000	70,000	97,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	6	7	10	Peak vehicles (excluding spares)
Annual Vehicle Hours	20,000	23,000	31,000	Vehicle hours per year
Vehicle Utilization	2.5 - 3.0	3.0 - 3.5	3.1 - 3.6	Trips per vehicle hour
Average Ride Duration	20			Minutes

Kaysville / Farmington

Key Zone Statistics		
Zone Map		
Zone Size	28	Square miles
Population	79,000	People
Population Density	2,800	People per square mile
Employment	23,000	Jobs
Zone Design Rationale	This zone was selected for investigation for the following reasons: • Improving transit connections to communities with high transit need east and west of US 15, especially to Layton and Farmington FrontRunner stations. • Provide access to grocery stores, retail, and major employers in Kaysville and Farmington.	
Major Trip Generators	• Layton and Farmington FrontRunner Stations • Lagoon Amusement Park • Layton Hospital	

	• Station Park Shopping Mall
Bus Routes in Zone	• UTA Route 455 - UofU - Davis County - Weber State Univ • UTA Route 470 - Ogden - Salt Lake Intercity • UTA Route 473 - Ogden - Salt Lake Express via Highway 89 • UTA Route 472 - Riverdale - Salt Lake Express • UTA Route 627 - WSU Davis - DTC • UTA Route 628 - Midtown Trolley
TRAX/FrontRunner Stations in Zone	• Layton Station • Farmington Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

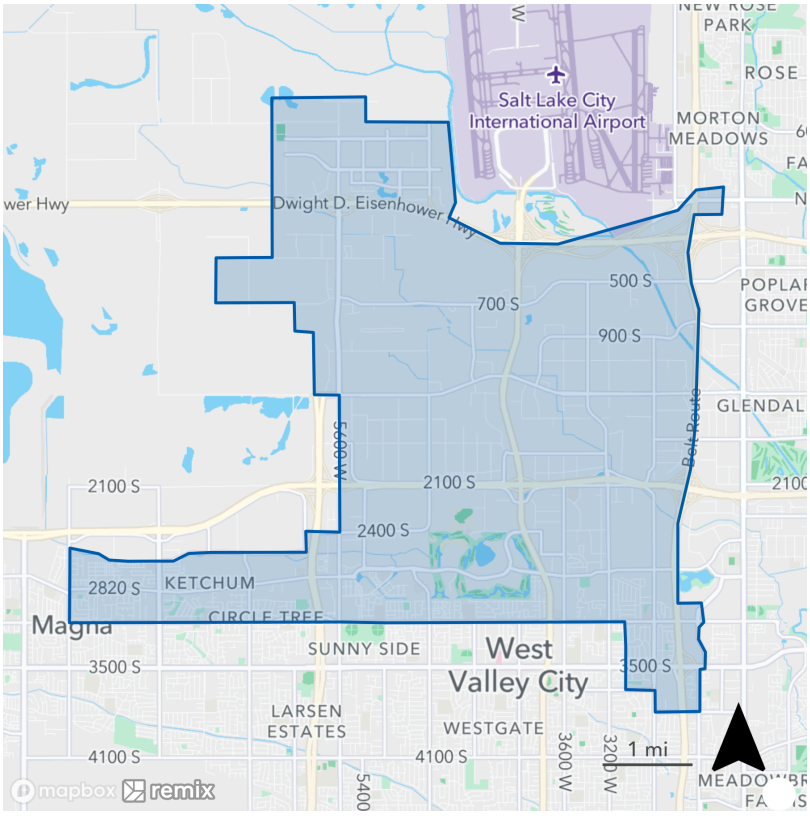
Demand Scenario	Low	Medium	High	Units
Daily Demand	100	140	200	Trips per day
Weekly Demand	510	710	1,000	Trips per week
Annual Demand	27,000	37,000	52,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	3	4	5	Peak vehicles (excluding spares)
Annual Vehicle Hours	9,800	13,000	16,000	Vehicle hours per year
Vehicle Utilization	2.7 - 3.2	2.9 - 3.4	3.2 - 3.7	Trips per vehicle hour
Average Ride Duration	20			Minutes

West SLCO Industrial / Inland Port

Key Zone Statistics		
Zone Map		
Zone Size	24	Square miles
Population	30,000	People
Population Density	1,300	People per square mile
Employment	76,000	Jobs
Zone Design Rationale	This zone was selected for investigation for the following reasons: • Improves connections from industrial areas in western Salt Lake City and the Inland Port area to three Green Line TRAX stations. • Expands transit coverage to areas with limited or no existing fixed route bus service, including west to communities of high transit need near Magna.	
Major Trip Generators	• Three TRAX Green Line stations • Westlake Business Park • Amazon Fulfillment Center	

	• Maverik Center
Bus Routes in Zone	• UTA Route 35 - 3500 South • UTA Route 39 - 3900 South • UTA Route 451 - Tooele Fast Bus • UTA Route 509 - 900 W Shuttle • UTA Route 513 - Industrial Business Park Shuttle • UTA Route 551 - International Center • UTA Route F453 - Tooele SLC Flex • UTA Route F556 - 5600 West Flex
TRAX/FrontRunner Stations in Zone	• TRAX Green Line - 1940 W. North Temple Station • TRAX Green Line - Decker Lake Station • TRAX Green Line - West Valley Central Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday + Saturday Service Hours: • Weekday 6 AM - 9 PM • Saturday 6 AM - 9 PM • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	140	190	270	Trips per day
Weekly Demand	820	1,100	1,600	Trips per week
Annual Demand	42,000	59,000	83,000	Trips per year

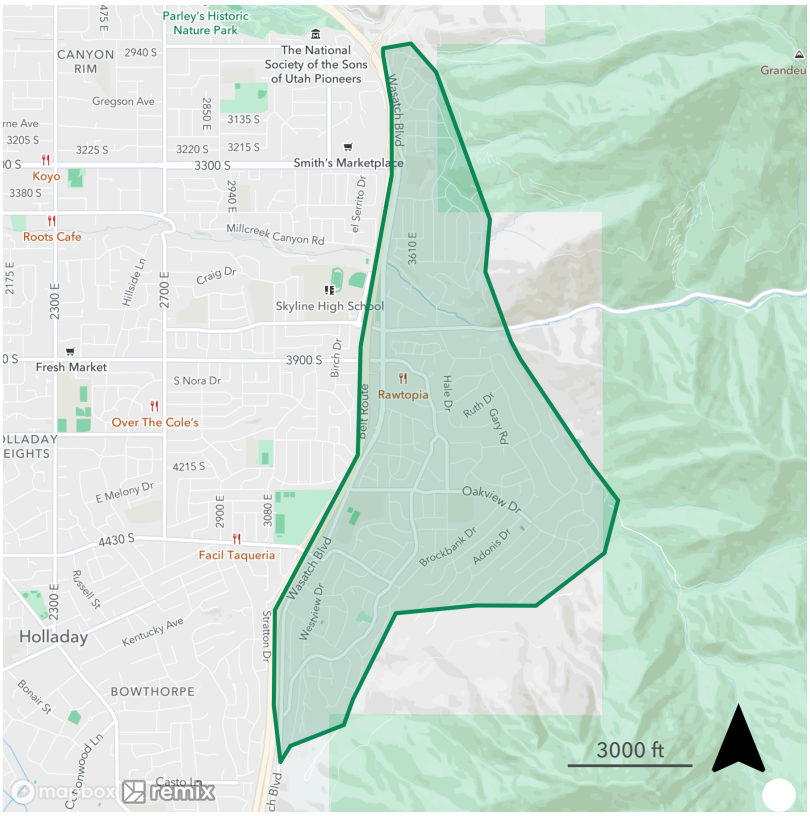
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	5	6	7	Peak vehicles (excluding spares)
Annual Vehicle Hours	16,000	18,000	23,000	Vehicle hours per year
Vehicle Utilization	2.6 - 3.1	3.3 - 3.8	3.6 - 4.1	Trips per vehicle hour
Average Ride Duration	20			Minutes

East Millcreek

NOTE: As this zone was determined to fall short of UTA Service Design Guidelines for on-demand microtransit[14], this zone was evaluated as a TNC-operated service.

Key Zone Statistics		
Zone Map		
Zone Size	2	Square miles
Population	6,500	People
Population Density	3,000	People per square mile
Employment	1,000	Jobs
Zone Design Rationale	The zone was selected for investigation for the following reasons: • Provides connections from residential, steep areas of East Millcreek to Olympus Park and Ride, allowing connections to Routes 4, 33, 39, and 45. • Expands transit coverage to areas not currently	

[14] Medium demand simulation indicated utilization is expected to fall below 2.0 passengers per vehicle hour, which is below UTA Service Design Guidelines.

	served by fixed route buses.
Major Trip Generators	• Olympus Cove Park and Ride • Olympus Hills Shopping Center • Churchill Junior High
Bus Routes in Zone	• UTA Route 4 - 400 South • UTA Route 33 - 3300 South • UTA Route 39 - 3900 South • UTA Route 45 - 4500 South
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	TNC Operated: Curb-to-curb
Maximum Walking Distance	No walk requirements
Maximum Wait Time	• Variable wait times depending on TNC availability
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	8	10	15	Trips per day
Weekly Demand	40	50	70	Trips per week
Annual Demand	2,000	2,700	3,800	Trips per year

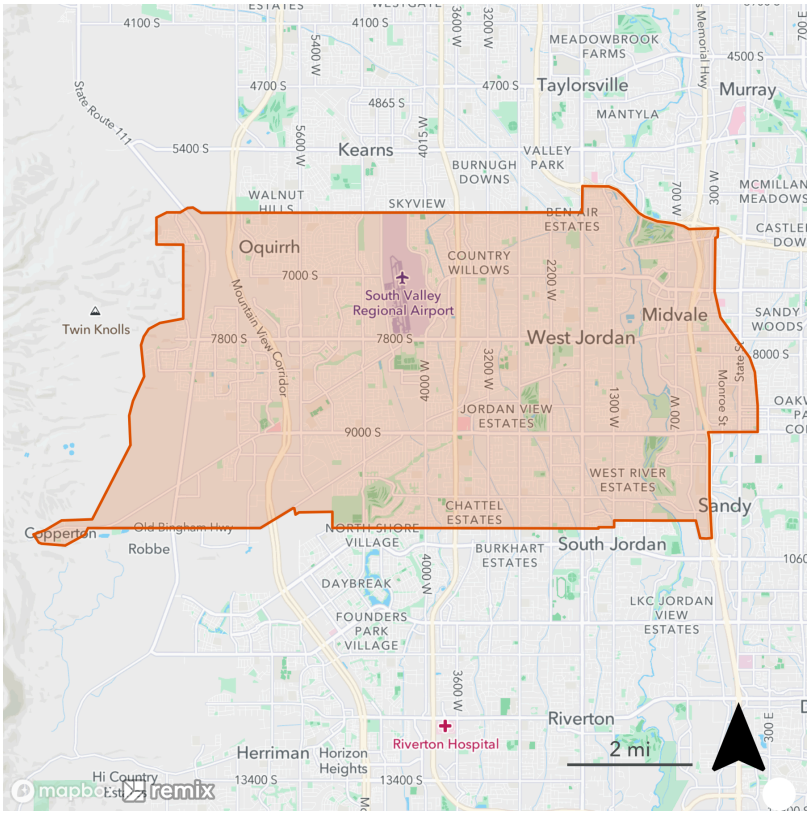
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	As this is a non-dedicated TNC fleet, the fleet size is not able to be estimated.			Peak vehicles (excluding spares)
Annual Vehicle Hours[15]	250	350	490	Vehicle hours per year
Vehicle Utilization	As this is a non-dedicated TNC fleet, the vehicle utilization is not able to be estimated.			Trips per vehicle hour
Average Ride Duration	8			Minutes
Average Ride Distance	2			Miles
Estimated Annual TNC Cost	$20,000	$26,000	$36,000	$ per year

[15] For TNC services, annual vehicle hours only include the time with a passenger onboard the vehicle. Travel time to pickup a passenger is not included.

West SLCO

Key Zone Statistics		
Zone Map		
Zone Size	47	Square miles
Population	182,000	People
Population Density	3,900	People per square mile
Employment	68,000	Jobs
Zone Design Rationale	This updated zone incorporates the 2020 UTA Microtransit Planning Study South Valley and South Jordan zones and is expanded westward to incorporate Copperton. The zone was selected for investigation for the following reasons: • Improves connections from neighborhoods west of US 15 to South Jordan FrontRunner Station. • Improves connections to four Blue Line TRAX Stations • Provides transit coverage in areas with limited service.	

Major Trip Generators	• Four Blue Line TRAX stations • Jordan Valley Surgical Center and CommonSpirit Holy Cross Hospital - Jordan Valley • Salt Lake Community College: Jordan Campus
Bus Routes in Zone	• UTA Route 54 - 5400 South • UTA Route 62 - 6200 South • UTA Route 201 - State Street South • UTA Route 209 - 900 East / 9th Ave • UTA Route 217 - Redwood Road • UTA Route 218 - South Jordan • UTA Route 227 - 2700 West • UTA Route 240 - 4000 West - Dixie Valley • UTA Route 248 - 4800 West • UTA Route F202 - Sandy Parkway Flex • UTA Route F232 - 3200 West Flex • UTA Route F525 - Midvale Flex • UTA Route F556 - 5600 West Flex • UTA Route F570 - 7000 South Flex • UTA Route F578 - 7800 South Flex • UTA Route F590 - 9000 South Flex
TRAX/FrontRunner Stations in Zone	• South Jordan FrontRunner Station • TRAX Blue Line - Fashion Place West Station • TRAX Blue Line - Midvale Fort Union Station • TRAX Blue Line - Midvale Center Station • TRAX Blue Line - Historic Sandy Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday + Saturday Service Hours: • Weekday 6 AM - 9 PM • Saturday 6 AM - 9 PM • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

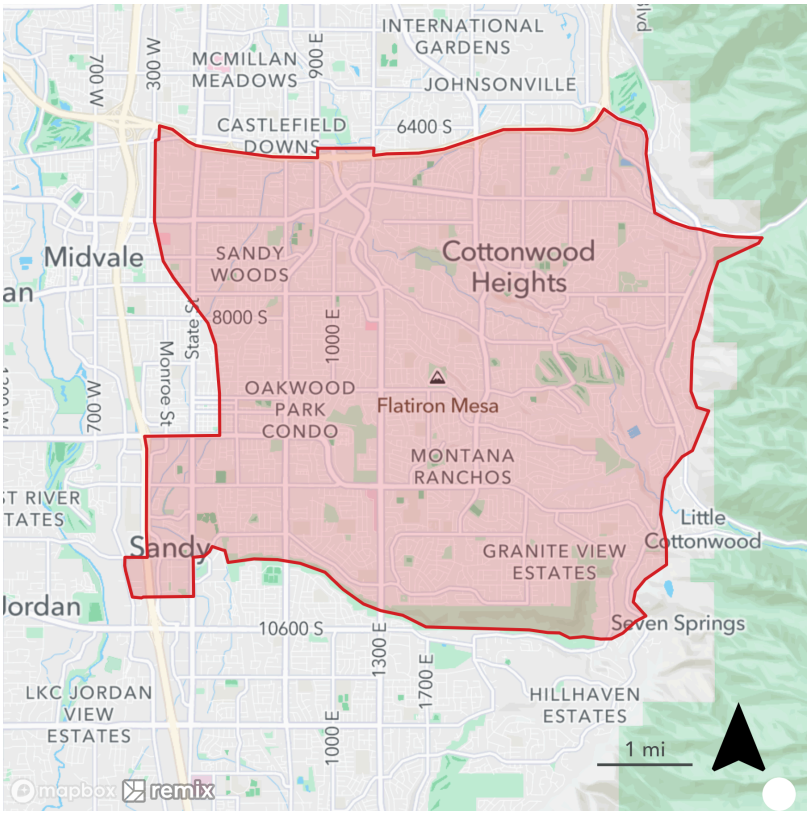
Demand Scenario	Low	Medium	High	Units
Daily Demand	370	520	730	Trips per day
Weekly Demand	2,200	3,100	4,400	Trips per week
Annual Demand	116,000	163,000	229,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	12	15	17	Peak vehicles (excluding spares)
Annual Vehicle Hours	44,000	51,000	63,000	Vehicle hours per year
Vehicle Utilization	2.6 - 3.1	3.2 - 3.7	3.6 - 4.1	Trips per vehicle hour
Average Ride Duration	20			Minutes

East SLCO

Key Zone Statistics		
Zone Map		
Zone Size	26	Square miles
Population	120,000	People
Population Density	4,600	People per square mile
Employment	61,000	Jobs
Zone Design Rationale	This zone incorporates the 2020 UTA Microtransit Planning Study Sandy zone but has been adjusted, including a closer alignment on the west to the TRAX Blue Line and a slight truncation on the southern border. The zone was selected for investigation for the following reasons: • Improves connections to six Blue Line TRAX stations along the western border of the zone. • Provides transit coverage in areas with limited service, including foothill neighborhoods with hard to serve, circuitous road networks.	

Major Trip Generators	• Six Blue Line TRAX stations • Alta View Hospital • The Shops at Fort Union Shopping Mall • Walmart
Bus Routes in Zone	• UTA Route 72 - 7200 South • UTA Route 201 - State Street South • UTA Route 209 - 900 East / 9th Ave • UTA Route 213 - 1300 East / 1100 East • UTA Route 220 - Highland Drive / 1300 East • UTA Route 994 - Historic Sandy Station to Snowbird Alta • UTA Route F94 - 9400 South Flex • UTA Route F525 - Midvale Flex
TRAX/FrontRunner Stations in Zone	• TRAX Blue Line - Fashion Place West Station • TRAX Blue Line - Midvale Fort Union Station • TRAX Blue Line - Midvale Center Station • TRAX Blue Line - Historic Sandy Station • TRAX Blue Line - Sandy Expo Zone Station • TRAX Blue Line - Sandy Civic Center Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday + Saturday Service Hours: • Weekday 6 AM - 9 PM • Saturday 6 AM - 9 PM • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

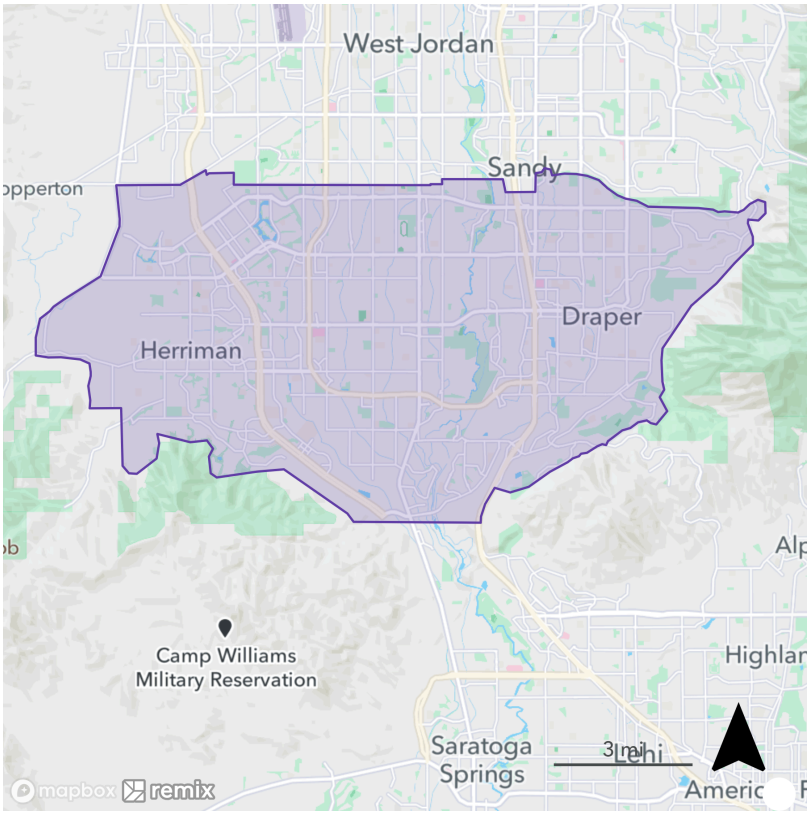
Demand Scenario	Low	Medium	High	Units
Daily Demand	310	430	610	Trips per day
Weekly Demand	1,900	2,600	3,600	Trips per week
Annual Demand	97,000	135,000	189,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	9	11	13	Peak vehicles (excluding spares)
Annual Vehicle Hours	35,000	38,000	51,000	Vehicle hours per year
Vehicle Utilization	2.8 - 3.3	3.6 - 4.1	3.8 - 4.3	Trips per vehicle hour
Average Ride Duration	20			Minutes

Southern SLCO

Key Zone Statistics		
Zone Map		
Zone Size	82	Square miles
Population	252k	People
Population Density	3.1k	People per square mile
Employment	103k	Jobs
Zone Design Rationale	This zone is a modification of the existing Southern SLCO zone with minor adjustments.	
Major Trip Generators	• Daybreak Parkway Trax Station • Draper FrontRunner Station • Crescent View Trax Station • Draper Town Center Trax Station • Walmart Jordan Gateway	
Bus Routes in Zone	• UTA Route 218 - South Jordan • UTA Route 871 - Tech Corridor Rail Connector • UTA Route F514 - Jordan Gateway Flex	

TRAX/FrontRunner Stations in Zone	• TRAX Red Line: 5600 W Old Bingham Hwy Station • TRAX Red Line: South Jordan Parkway Station • TRAX Red Line: Daybreak Parkway Station • TRAX Blue Line: Sandy Civic Center Station • TRAX Blue Line: Crescent View Station • TRAX Blue Line: Kimballs Lane Station • TRAX Blue Line: Draper Town Center Station • FrontRunner: South Jordan Station • FrontRunner: Draper Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday + Saturday Service Hours: • Weekday 4 AM - 12:15 AM • Saturday 6 AM - 1:15 AM • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

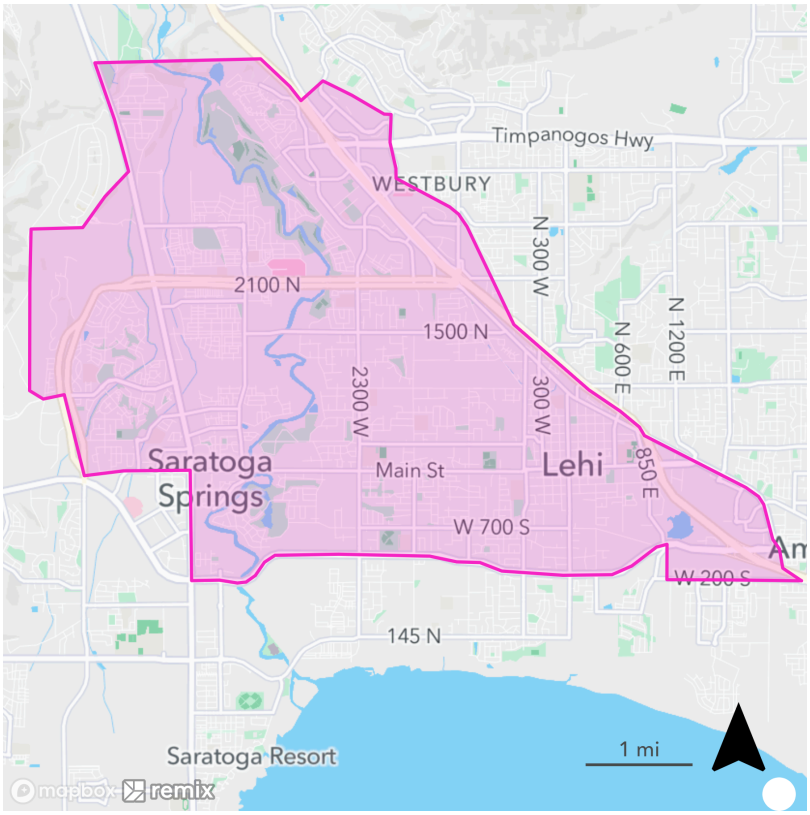
Demand Scenario	Low	Medium	High	Units
Daily Demand	600	840	1,200	Trips per day
Weekly Demand	3,600	5,000	7,000	Trips per week
Annual Demand	187,000	261,000	366,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	15	17	21	Peak vehicles (excluding spares)
Annual Vehicle Hours	81,000	93,000	114,000	Vehicle hours per year
Vehicle Utilization	2.3 - 2.8	2.8 - 3.4	3.3 - 3.8	Trips per vehicle hour
Average Ride Duration	25			Minutes

Lehi / Saratoga Springs

Key Zone Statistics		
Zone Map		
Zone Size	20	Square miles
Population	49,000	People
Population Density	2,500	People per square mile
Employment	31,000	Jobs
Zone Design Rationale	This zone incorporates the 2020 UTA Microtransit Planning Study Lehi zone with adjustments to capture nearby areas previously in the 2020 Eagle Mountain / Saratoga Springs zone. This zone was selected for investigation for the following reasons: • Improves connections to Lehi and American Fork FrontRunner stations. • Provides a high quality connection to "Silicon Slopes" employers. • Improves connections to major retail, medical, and other destinations such as the Outlets at Traverse Mountain and Thanksgiving Point.	

Major Trip Generators	• Lehi and American Fork FrontRunner stations • Thanksgiving Point • Common Spirit Holy Cross Hospital - Mountain Point • Outlets at Traverse Mountain • Adobe • Two Walmart locations
Bus Routes in Zone	• UTA Route 806 - Eagle MTN - Saratoga Springs - Lehi Station - UVU • UTA Route 807 - North County - Lehi Station - UVU • UTA Route 850 - State Street • UTA Route 871 - Tech Corridor Rail Connector
TRAX/FrontRunner Stations in Zone	• FrontRunner: Lehi Station • FrontRunner: American Fork Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	80	110	160	Trips per day
Weekly Demand	400	550	780	Trips per week
Annual Demand	21,000	29,000	40,000	Trips per year

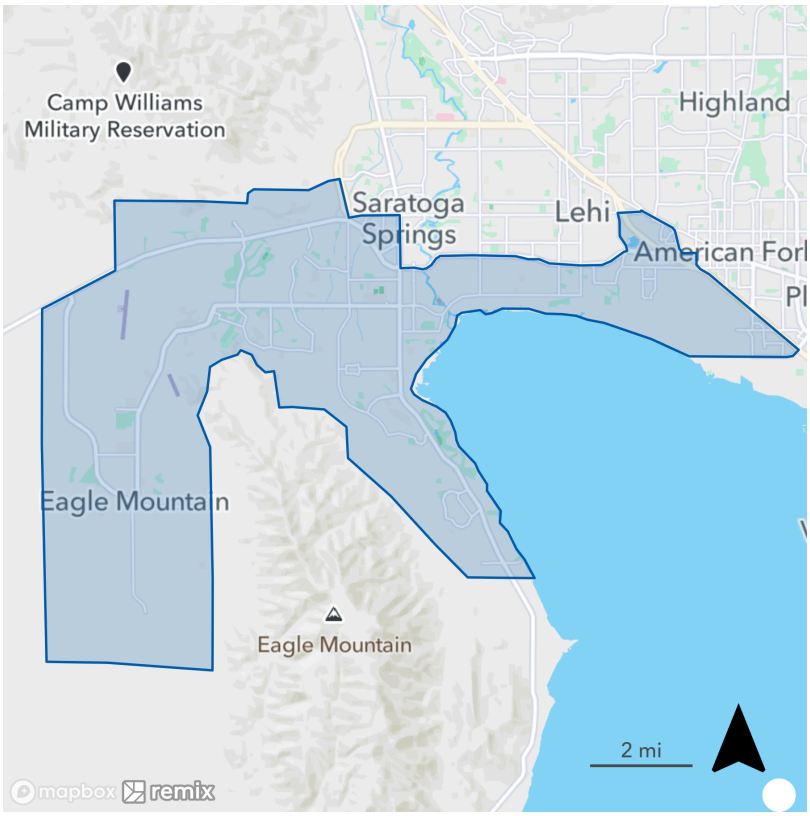
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	3	4	5	Peak vehicles (excluding spares)
Annual Vehicle Hours	9,800	13,000	15,000	Vehicle hours per year
Vehicle Utilization	2.1 - 2.6	2.2 - 2.7	2.8 - 3.3	Trips per vehicle hour
Average Ride Duration	20			Minutes

Eagle Mountain / Saratoga Springs

NOTE: As this zone was determined to fall short of UTA Service Design Guidelines for on-demand microtransit[16], this zone was evaluated as a TNC-operated service.

Key Zone Statistics		
Zone Map		
Zone Size	58	Square miles
Population	78,000	People
Population Density	1,300	People per square mile
Employment	14,000	Jobs
Zone Design Rationale	This zone includes the 2020 UTA Microtransit Planning Study Eagle Mountain & Saratoga Springs zones. The zone was selected for investigation for the following reasons: • Provides transit coverage in low density neighborhoods of Eagle Mountain and Saratoga	

[16] Medium demand simulation indicated utilization is expected to fall below 2.0 passengers per vehicle hour, which is below UTA Service Design Guidelines.

	Springs. • Improves connections to American Fork FrontRunner station. • Provides connection to Lehi Main Street Historic District.
Major Trip Generators	• American Fork FrontRunner station • Lehi Main Street Historic District • Walmart
Bus Routes in Zone	• UTA Route 806 - Eagle MTN - Saratoga Springs - Lehi Station - UVU
TRAX/FrontRunner Stations in Zone	• FrontRunner: American Fork Station

Recommended Parameters	
Service Type	TNC Operated: Curb-to-curb
Maximum Walking Distance	No walk requirements
Maximum Wait Time	• Variable wait times depending on TNC availability
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	80	110	150	Trips per day
Weekly Demand	400	550	770	Trips per week
Annual Demand	21,000	29,000	40,000	Trips per year

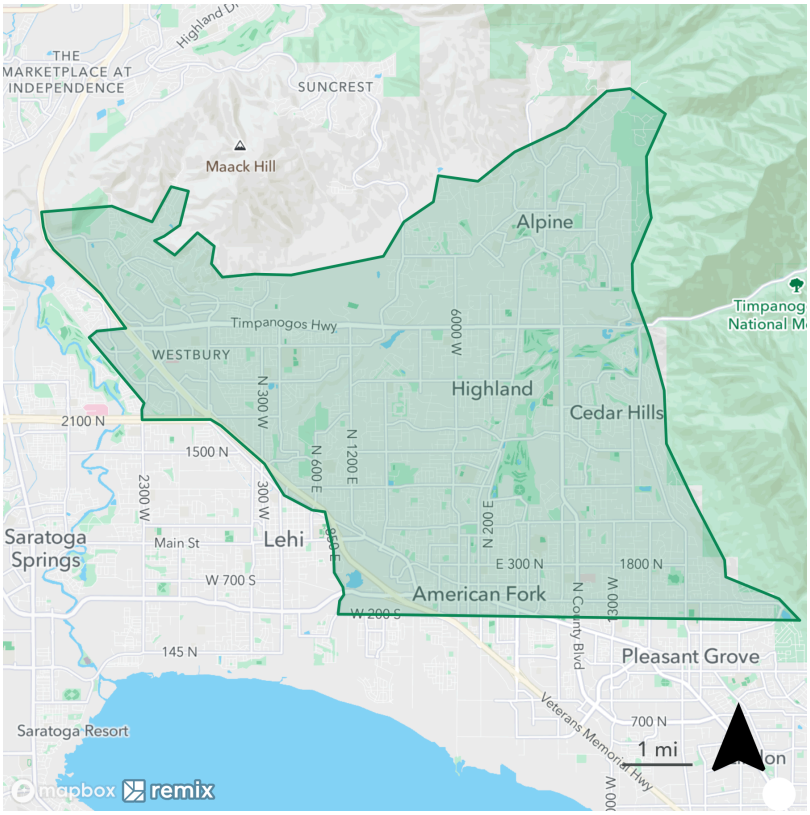
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	As this is a non-dedicated TNC fleet, the fleet size is not able to be estimated.			Peak vehicles (excluding spares)
Annual Vehicle Hours[17]	12,000	16,000	23,000	Vehicle hours per year
Vehicle Utilization	As this is a non-dedicated TNC fleet, the vehicle utilization is not able to be estimated.			Trips per vehicle hour
Average Ride Duration	25			Minutes
Average Ride Distance	8			Miles
Estimated Annual TNC Cost	$490,000	$690,000	$960,000	$ per year

[17] For TNC services, annual vehicle hours only include the time with a passenger onboard the vehicle. Travel time to pickup a passenger is not included.

East UTCO

Key Zone Statistics		
Zone Map		
Zone Size	41	Square miles
Population	112,000	People
Population Density	2,800	People per square mile
Employment	55,000	Jobs
Zone Design Rationale	This zone includes the 2020 UTA Microtransit Planning Study North Utah County zone. This zone was selected for investigation for the following reasons: • Improves connections to the American Fork FrontRunner station • Expands transit coverage to areas with limited or no existing bus services, such as areas of Highland, Cedar Hills, and Alpine • Improves connections to major retail, medical, employer, and other destinations such as American Fork Hospital, The Meadows Shopping Center, and Walmart.	

Major Trip Generators	• American Fork FrontRunner station • American Fork Hospital • The Meadows Shopping Center • Walmart • Xactware
Bus Routes in Zone	• UTA Route 806 - Eagle MTN - Saratoga Springs - Lehi Station - UVU • UTA Route 807 - North County - Lehi Station - UVU • UTA Route 850 - State Street • UTA Route 871 - Tech Corridor Rail Connector
TRAX/FrontRunner Stations in Zone	• FrontRunner: American Fork Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

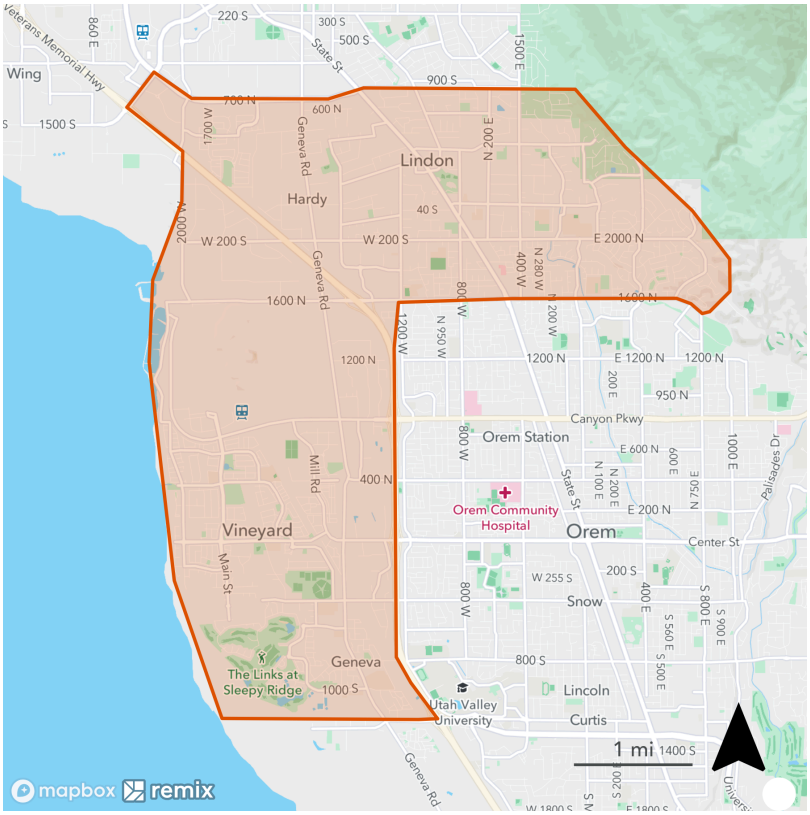
Demand Scenario	Low	Medium	High	Units
Daily Demand	170	230	330	Trips per day
Weekly Demand	830	1,200	1,600	Trips per week
Annual Demand	43,000	61,000	85,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	7	9	11	Peak vehicles (excluding spares)
Annual Vehicle Hours	21,000	27,000	34,000	Vehicle hours per year
Vehicle Utilization	2.1 - 2.6	2.3 - 2.8	2.5 - 3.0	Trips per vehicle hour
Average Ride Duration	20			Minutes

Lindon / Vineyard

Key Zone Statistics		
Zone Map		
Zone Size	14	Square miles
Population	38,000	People
Population Density	2,700	People per square mile
Employment	25,000	Jobs
Zone Design Rationale	This zone was modified from the 2020 UTA Microtransit Planning Study zone to terminate at the border of the adjusted West Provo zone. This zone was selected for investigation for the following reasons: • Improves connections to Orem and Vineyard FrontRunner stations and the Utah Valley Express bus route. • Provides a connection to the southwestern entrance to Utah Valley University. • Expands transit coverage to areas with limited or no existing bus services, including fast growing areas of Vineyard and suburban areas of Lindon.	

Major Trip Generators	• Orem and Vineyard FrontRunner Stations • Utah Valley University (southwestern entrance) • Retail and residential developments at Geneva
Bus Routes in Zone	• UTA Route 806 - Eagle MTN - Saratoga Springs - Lehi Station - UVU • UTA Route 807 - North County - Lehi Station - UVU • UTA Route 830X - Utah Valley Express • UTA Route 831 - Provo Grandview • UTA Route 850 - State Street • UTA Route 862 - Orem East/West
TRAX/FrontRunner Stations in Zone	• FrontRunner: Vineyard Station • FrontRunner: Orem Central Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

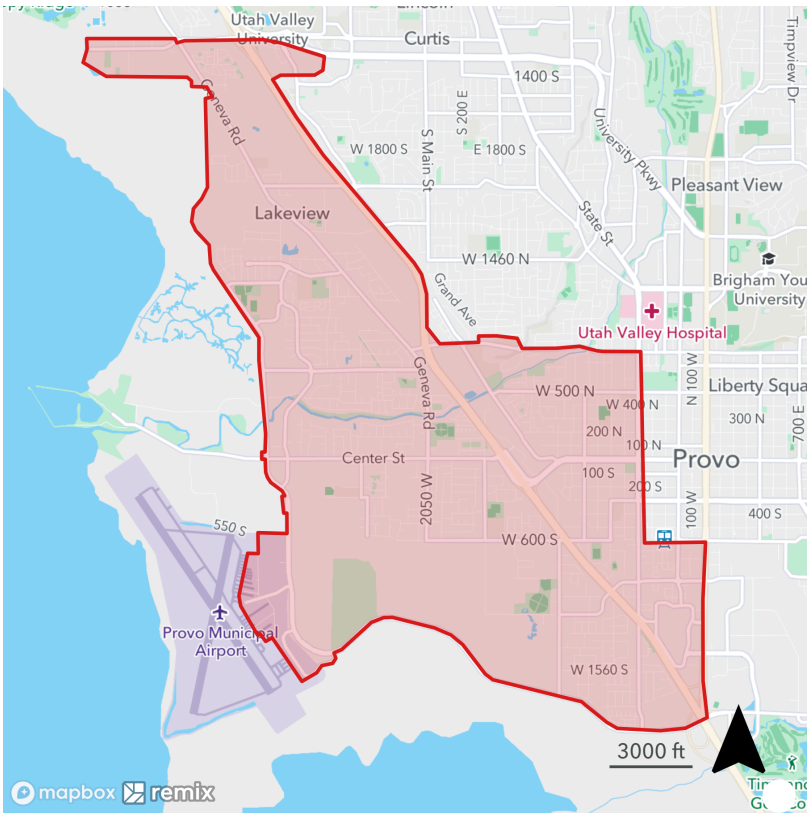
Demand Scenario	Low	Medium	High	Units
Daily Demand	75	100	150	Trips per day
Weekly Demand	370	520	730	Trips per week
Annual Demand	19,000	27,000	38,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	3	4	5	Peak vehicles (excluding spares)
Annual Vehicle Hours	11,000	13,000	16,000	Vehicle hours per year
Vehicle Utilization	1.9 - 2.4	2.1 - 2.6	2.4 - 2.9	Trips per vehicle hour
Average Ride Duration	20			Minutes

West Provo

Key Zone Statistics		
Zone Map		
Zone Size	9	Square miles
Population	31,000	People
Population Density	3,600	People per square mile
Employment	7,000	Jobs
Zone Design Rationale	This zone has been adjusted slightly from the 2020 UTA Microtransit Planning Study. It was selected for investigation for the following reasons: • Improves connections to the Provo FrontRunner station. • Expands transit coverage to areas with limited or no existing bus services, such as Provo Airport and areas in Lake View, Fort Utah, and Sunset • Improves connections to Provo Town Center and nearby retailers	
Major Trip Generators	• Provo FrontRunner station	

	• Provo Airport • Utah Valley Hospital • Walmart
Bus Routes in Zone	• UTA Route 805 - Santaquin / Payson / Sf / Provo Stn / UVU • UTA Route 821 - 821 South County / Provo Station • UTA Route 830X - Utah Valley Express • UTA Route 831 - Provo Grandview • UTA Route 833 - Airport / Provo Station • UTA Route 834 - Vineyard / Riverwoods / Provo Station • UTA Route 850 - State Street
TRAX/FrontRunner Stations in Zone	• FrontRunner: Provo Central Station

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday + Saturday Service Hours: • Weekday 6 AM - 9 PM • Saturday - 6 AM - 9 PM • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

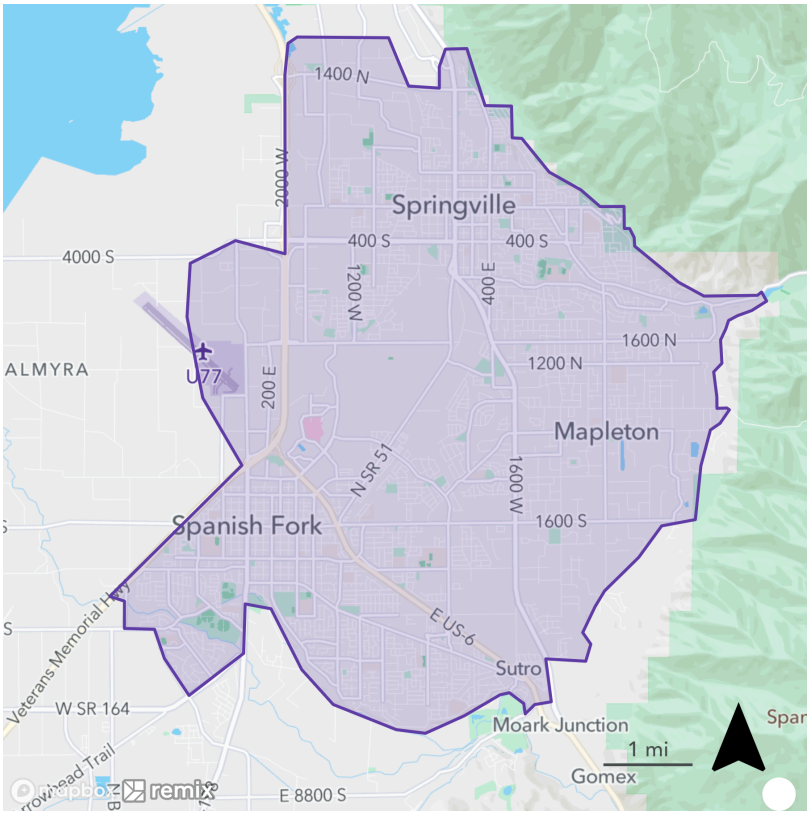
Demand Scenario	Low	Medium	High	Units
Daily Demand	90	120	170	Trips per day
Weekly Demand	520	720	1,000	Trips per week
Annual Demand	27,000	38,000	53,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	2	3	4	Peak vehicles (excluding spares)
Annual Vehicle Hours	11,000	12,000	15,000	Vehicle hours per year
Vehicle Utilization	2.5 - 3.0	3.0 - 3.5	3.4 - 3.9	Trips per vehicle hour
Average Ride Duration	15			Minutes

Springville / Spanish Fork

Key Zone Statistics		
Zone Map		
Zone Size	33	Square miles
Population	88,000	People
Population Density	2,600	People per square mile
Employment	25,000	Jobs
Zone Design Rationale	This zone was modified from the 2020 UTA Microtransit Planning Study zone to better reflect areas of higher transit potential and residential density. The zone was selected for investigation for the following reasons: • Expands transit coverage to areas with limited or no existing bus services, such as parts of Springville, Spanish Fork, and Mapleton.	
Major Trip Generators	• Spanish Fork Hospital • Two Walmart locations • Costco	

Bus Routes in Zone	• UTA Route 805 - Santaquin / Payson / Sf / Provo Stn / UVU • UTA Route 821 - South County / Provo Station • UTA Route 822 - South Utah County BYU / UVU Limited
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	Corner-to-corner
Maximum Walking Distance	Standard (up to ¼ mile)
Maximum Wait Time	Standard wait time targets: • Average 10 - 20 minute wait • Maximum 30 minute wait
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	110	160	220	Trips per day
Weekly Demand	560	780	1,100	Trips per week
Annual Demand	29,000	41,000	57,000	Trips per year

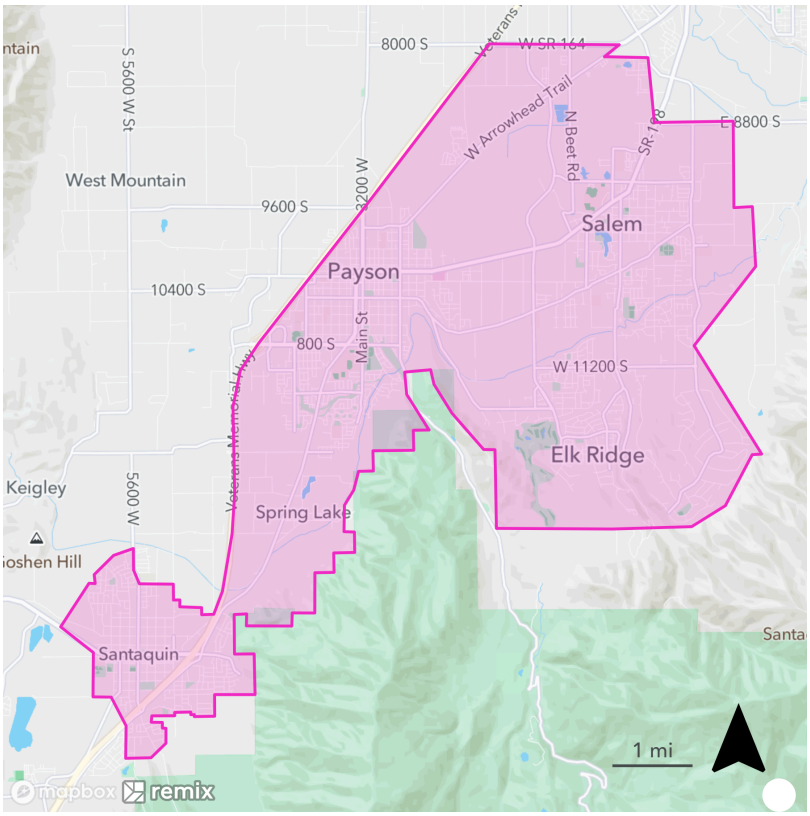
Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	4	6	8	Peak vehicles (excluding spares)
Annual Vehicle Hours	13,000	17,000	23,000	Vehicle hours per year
Vehicle Utilization	2.2 - 2.7	2.5 - 3.0	2.5 - 3.0	Trips per vehicle hour
Average Ride Duration	20			Minutes

South Utah County

NOTE: As this zone was determined to fall short of UTA Service Design Guidelines for on-demand microtransit[18], this zone was evaluated as a TNC-operated service.

Key Zone Statistics		
Zone Map		
Zone Size	32	Square miles
Population	46,000	People
Population Density	1,400	People per square mile
Employment	8,000	Jobs
Zone Design Rationale	This zone was expanded from the 2020 UTA Microtransit Planning Study zone based on the expectation that it will be better suited as a TNC zone. The zone was selected for investigation for the following reasons: • Expands transit coverage to areas with limited or no existing bus services, such as part of Santaqui,	

[18] Medium demand simulation indicated utilization is expected to fall below 2.0 passengers per vehicle hour, which is below UTA Service Design Guidelines.

	Spring Lake, Payson, and Salem.
Major Trip Generators	• Mountain View Hospital • Walmart • Payson Utah Temple
Bus Routes in Zone	• UTA Route 805 - Santaquin / Payson / Sf / Provo Stn / UVU • UTA Route 821 - South County / Provo Station • UTA Route 822 - South Utah County BYU / UVU Limited
TRAX/FrontRunner Stations in Zone	None

Recommended Parameters	
Service Type	TNC Operated: Curb-to-curb
Maximum Walking Distance	No walk requirements
Maximum Wait Time	• Variable wait times depending on TNC availability
Service Hours	Weekday Service Hours: • Weekday 6 AM - 9 PM • Saturday - No Service • Sunday - No Service

Eligible trips:

All trips are allowed within the zone, except those that are best served by the existing fixed-route lines in the zone. These trips should be automatically redirected to these routes.

Demand Estimates

Demand Scenario	Low	Medium	High	Units
Daily Demand	45	60	90	Trips per day
Weekly Demand	230	320	450	Trips per week
Annual Demand	12,000	17,000	23,000	Trips per year

Estimating fleet requirements and quality of service:

Using the demand estimates, Via simulates the quality of service at peak hours, when demand is highest, in order to recommend the optimal fleet size. During off-peak hours, the full fleet would not be required.

Demand Scenario	Low	Medium	High	Units
Fleet Size	As this is a non-dedicated TNC fleet, the fleet size is not able to be estimated.			Peak vehicles (excluding spares)
Annual Vehicle Hours[19]	4,800	6,600	9,300	Vehicle hours per year
Vehicle Utilization	As this is a non-dedicated TNC fleet, the vehicle utilization is not able to be estimated.			Trips per vehicle hour
Average Ride Duration	22			Minutes
Average Ride Distance	6			Miles
Estimated Annual TNC Cost	$220,000	$310,000	$430,000	$ per year

[19] For TNC services, annual vehicle hours only include the time with a passenger onboard the vehicle. Travel time to pickup a passenger is not included.