



# Short Range Transit Plan

MARCH 2025 | Morongo Basin Transit Authority

Prepared by

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# 1

# Introduction

# Study Background

Basin Transit is the designated transit service provider for the Morongo Basin area that includes most communities in the Twentynine Palms – Morongo Valley Census County Division (CCD), in the southeast area of San Bernardino County.

Basin Transit's service area includes the cities of Yucca Valley and Twentynine Palms, and the census-designated places (CDP) of Morongo Valley, Joshua Tree, and Homestead Valley. This is a vast area that encompasses more than 400 square miles that, to provide some perspective, it is similar in size to the City of Los Angeles. Basin Transit's service area is delimited in the north by the Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC), and in the south by Joshua Tree National Park.

To provide service to most communities in the

Morongo Basin, Basin Transit operates three types of transit services:

- Fixed-Route transit service, serving the main cities in the Morongo Basin;
- Commuter Service, providing regional connectivity with Palm Springs; and
- Demand response service called Ready Ride, that provides coverage to communities spread out through the basin.

## Why Does Basin Transit Need a Short Range Transit Plan?

A Short-Range Transit Plan (SRTP) is an action plan that guides the provision and improvement of transit services for a transit agency over the next five (5) years.

This SRTP for Basin Transit is an opportunity to evaluate the agency's progress towards its long-term goals and vision for transit. It will guide service adjustments based on an evaluation of the overall system structure, including bus routes, types of service, and the availability and frequency of service, and it will respond to changes in demand, travel patterns and behavior that have been generated by recent growth and development in the Basin, as well as general economic trends like the post COVID-19 pandemic recovery.

The SRTP is also an opportunity for Basin Transit to evaluate the productivity and cost-efficiency of its services against changes in the cost of operation, fare revenue and funding sources, and general financial trends that are forecasted for the next five years.

## Goals for this Planning Process

This SRTP fulfills goals for Basin Transit's planning and service delivery, including to:

- Evaluate the current operation of local neighborhood shuttles and intercity and commuter bus services to identify opportunities to improve service integration and synergy between modes, to provide a network of services that matches the needs of the community.
- Improve cost-efficiency and productivity of services by reviewing service hours, route alignment and geographic coverage, and the scheduling of services, to increase frequency and grow ridership.
- Improve transit connections, reduce travel time, and increase access to opportunities in the service area and for long-distance connections to Palm Springs and San Bernardino.

- Review the Ready Ride on-demand service operations and performance and evaluate whether a conversion to microtransit will be able to improve cost-efficiency and productivity of service, and coverage of remote communities.
- Review the cost and revenue structure of the system, including a review of the organization's staffing positions and functions, and financial projection for the next five years, to identify availability of funds to reduce, maintain, or increase service.
- Develop a Short-Term Transit Plan that is financially sound and includes implementation actions for the immediate, short- and long-term.

This SRTP has been developed along those lines.

## How Have Service and Demand Changed in the Last 10 Years?

Chapters 3 and 4 of this SRTP provide a comprehensive evaluation of Basin Transit's existing services.

This chapter provides a summary of existing demand for service and cost of service. It also reviews key performance indicators over the last 10 years, to show pre- and post-pandemic trends, and to identify the major issues affecting Basin Transit's service today. The summary has been prepared with FTA's National Transit Database (NTD) information and reports for the 10-year period 2014-2024.

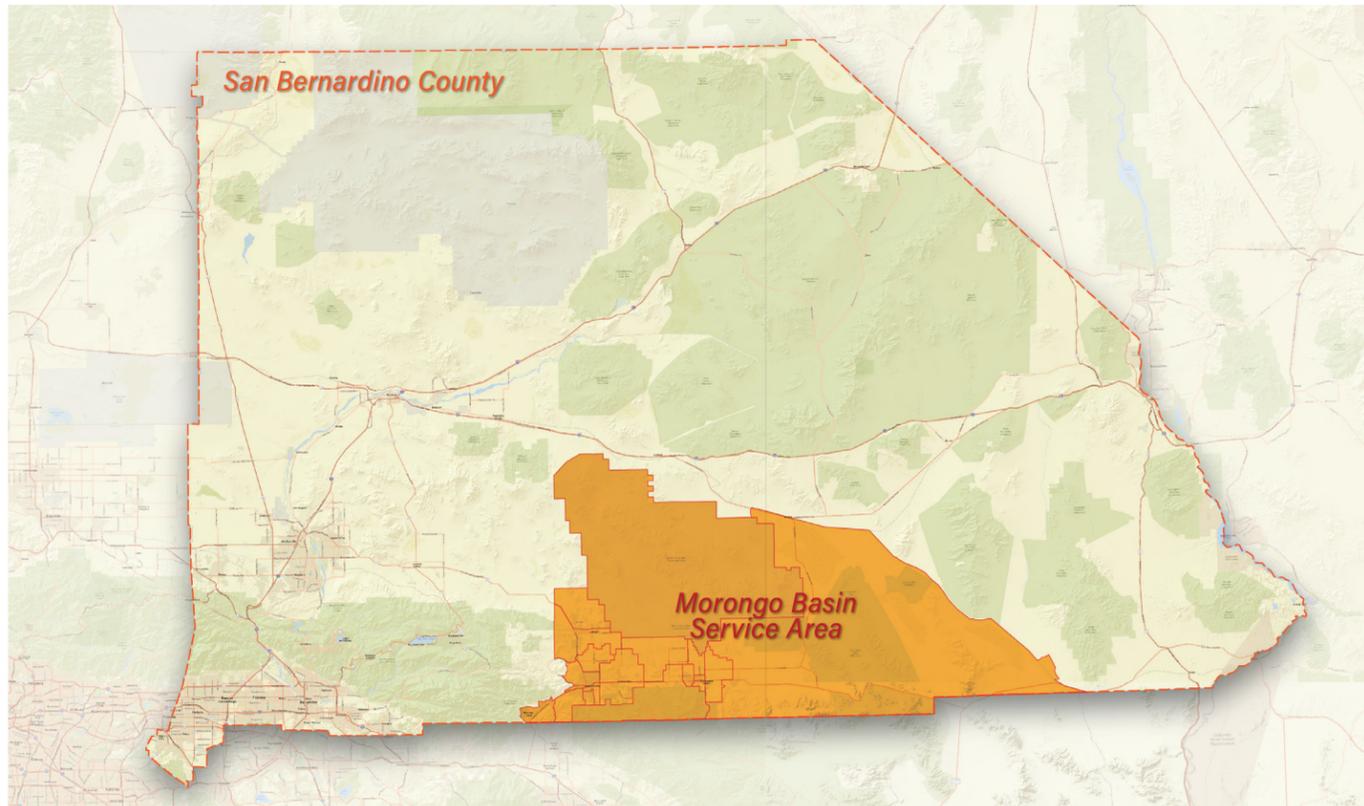


Figure 1: Morongo Basin Transit Service Area Census Tract Boundary

# Systemwide Productivity Trends

## Ridership and Productivity

The charts in Figure 2 and table in Figure 4 show that between 2014 and 2024 Basin Transit experienced a 49% decrease in transit boardings, from close to 367,000 per year to 186,000.

This is not just a result of the COVID-19 pandemic. During the 5-year period before the pandemic (2014-2019) boardings decreased by 24%. Since the start of the pandemic an additional 33% decrease has happened. The system was already losing ridership in the five years before the pandemic, though the losses accelerated during the pandemic.

During the same period, the amount of service offered was reduced slightly, with a 4% decline in the years before the pandemic and a 0.4% increase in the years after the pandemic. Over the 10-year period the total decrease in service amounts to approximately 3%.

These trends were similar for the fixed route service, with a loss in ridership of 51% and a reduction in service of 2%, and slightly less pronounced for the Ready Ride service, with a loss in ridership of 38% and a reduction in service of 11%.

Overall, the charts in Figure 2 illustrate that, while Basin Transit has maintained its service levels, ridership has continued its trend of decline, despite the recent recovery from the lows of 2021 at the “height” of the pandemic.

Service levels are described in terms of “vehicle revenue hours” or “revenue hours.” These describe the number of hours a transit vehicle and driver are out on the road, available to passengers. In addition to describing how much service was offered, revenue hours are a good approximation of operating cost.

There is a natural relationship between revenue hours and boardings: the more revenue hours

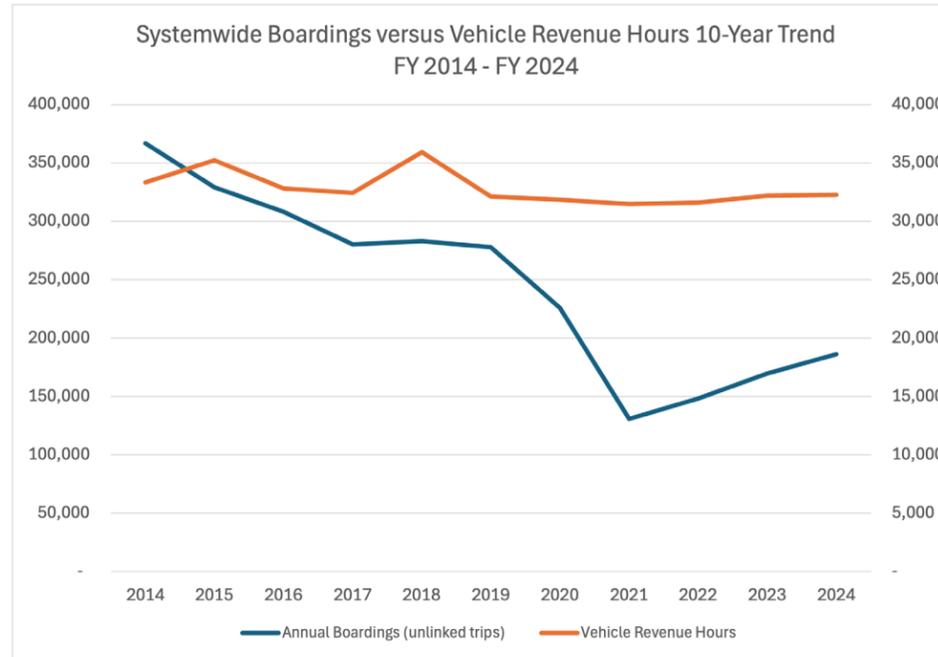


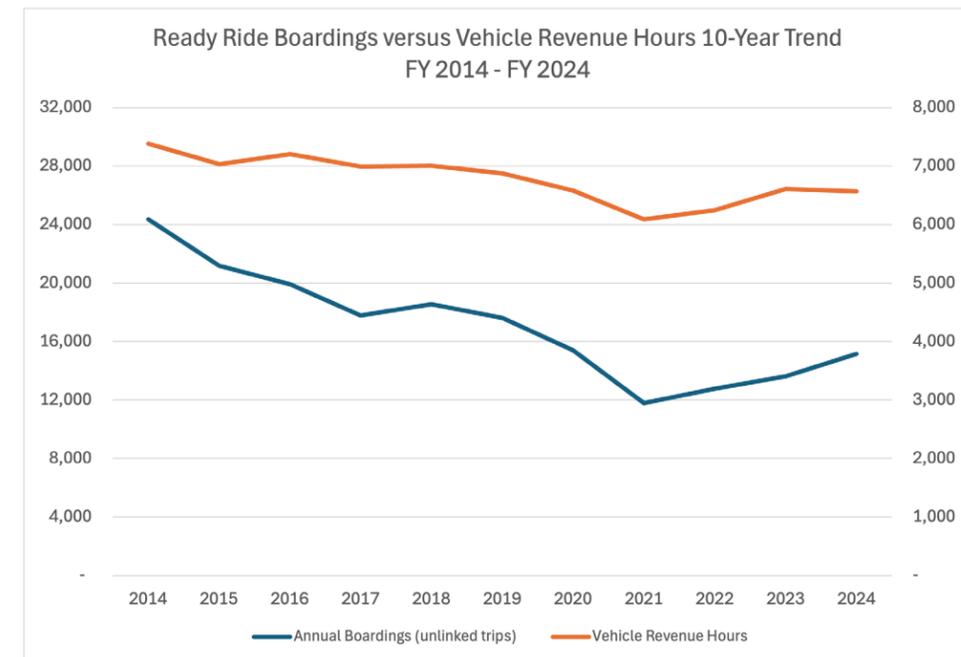
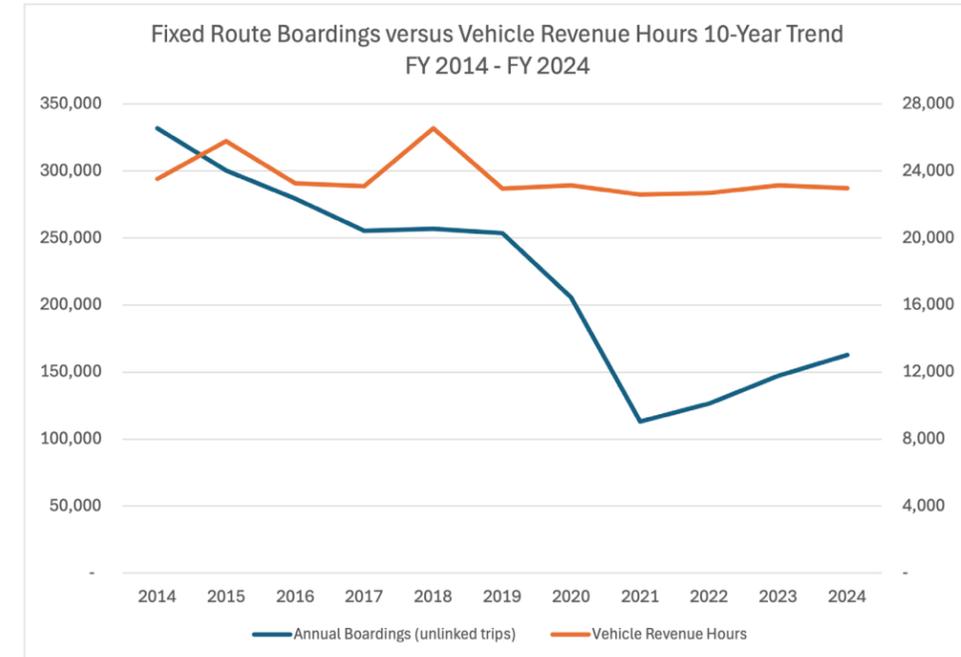
Figure 2: Systemwide service productivity trends (annual total boardings versus vehicle revenue hours), and Fixed-Route and Ready Ride trends for 10-year period 2014-2024.

of service an agency offers, the more boardings it tends to attract. After all, people can only ride a bus that’s there!

But ridership is also generated by other factors that the agency controls, such as the cost of transit fares, the design of routes, or the reliability of service.

However, sometimes ridership goes up and down out of sync with the revenue hours of service provided. This can happen because of many factors outside of a transit agency’s control: changes in the economy, in development, in the costs of owning and driving cars, etc.

In the case of 2014-2024, nearly every transit agency in the U.S. has seen a major decline in ridership unrelated to the quantity of service provided. Basin Transit is not alone or unique in this trend.



By dividing the number of boardings into the amount of service provided, we get an indicator of “Productivity” that measures how many boardings are served by each vehicle and driver for each hour that they are providing service.

Basin Transit’s systemwide productivity has declined by 47.5% in the 10-year period 2014-2024, as ridership has fallen despite service levels having been held constant. This is shown in Figure 4, on the next page.

The loss of ridership and productivity has triggered hard questions and major concerns about existing services and the future.

***For today and the future, can Basin Transit be made more productive?***

***Can transit service be made more relevant to the life of the community?***

**Operating Costs and Cost Efficiency**

In the past section we explained that vehicle revenue hours are a good approximation of the operating cost of a service. However, over many years, the actual cost to operate each vehicle per hour can change – and it did change for Basin Transit over the past decade.

From 2014 to 2024, Basin Transit’s operating cost per vehicle revenue hour increased by 81%. The charts in Figure 3 show the growth in operating cost for the system and for the fixed-route and Ready Ride services, against the vehicle revenue hours or the level of service.

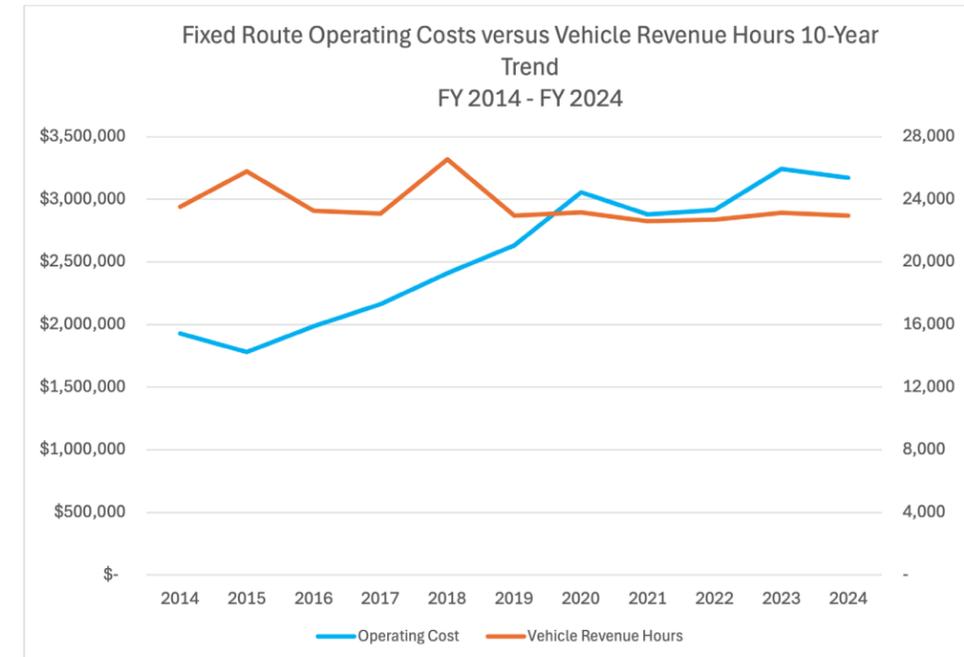
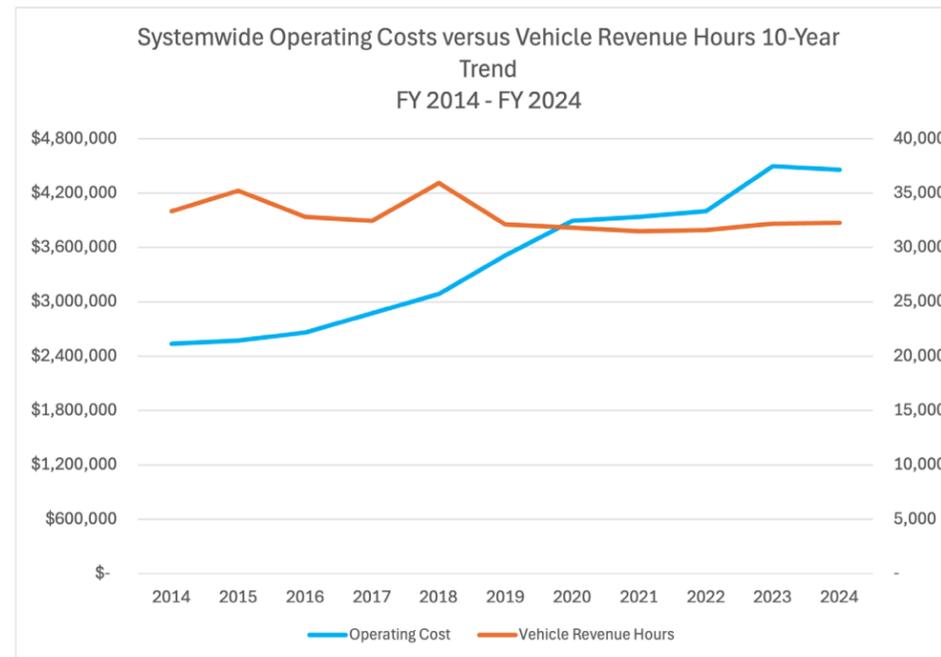
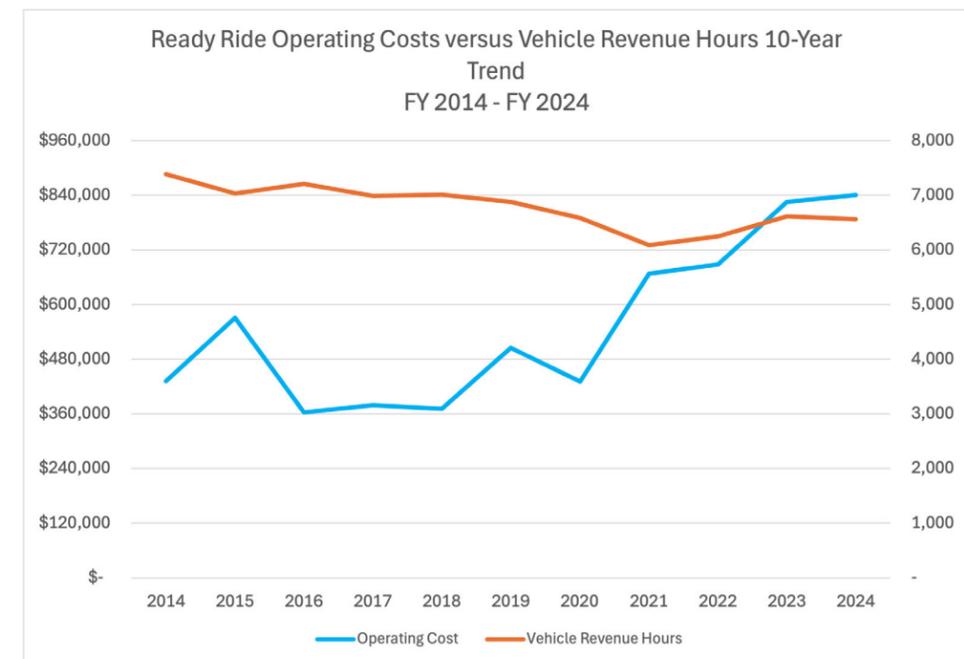


Figure 3: Systemwide operating costs and vehicle revenue hours offered, and Fixed-Route and Ready Ride service trends, for the 10-year period between 2014 and 2024.

The charts show that Basin Transit has made a remarkable financial effort to maintain service throughout its service area.

Since Vehicle Revenue Hours have decreased by 3%, over the past decade, the total operating cost has increased by 75%, less than the per-vehicle-revenue-hour increase of 81%. However, the rate of growth in costs has slowed in recent years. The post-pandemic period (2019-2024) has seen an increase in operating cost of 27% which is less than the 38% increase of the five-year period before the pandemic. This is shown in Figure 4, on the next page.



# Systemwide Cost-Efficiency Trends

With the major increase in operating costs and the decline in ridership over the past decade, the cost to serve each individual transit trip has risen a great deal. This measure, the cost per boarding (known as “cost efficiency”) has increased by about 250% since 2014. This means that Basin Transit is spending 2.5 times more per transported passenger today than in 2014.

## Covering Costs with Fares

A small proportion of a transit agency’s operating costs is typically covered by passengers through the fares they pay. This is called “farebox recovery.” In the U.S., the typical farebox recovery ratio for small and rural agencies is around 10% of operating costs, while big cities might manage to cover as much as 30% of their costs from passenger fares.

Figure 4 shows that the increase in Operating Cost has also impacted the Fare Recovery Ratio of the system which went down by almost 44%, from 14% in 2014 to 8% in 2024. The decline has been larger in the period after the pandemic (32%) than before the pandemic (18%).

Nevertheless, the Fare Revenue of the system went through a period of 14% growth before the pandemic (2014-2019), and a period of 13% decline after the pandemic (2019-2024), which amounts to an overall decline just over 1% in the 2014-2024 period. The result is that the level of Fare Revenue today is the same than in year 2014.

Figure 5 on the next page, shows the changes in Fare Revenue against Operating Cost in the 10-year period. The chart illustrates the trajectory of Fare Revenue before and after the COVID-19 pandemic, with a significant dip in revenue in year 2021 and a marked recovery since then.

### Systemwide

Fiscal Year	Annual Boardings (unlinked trips)	Vehicle Revenue Hours	Vehicle Revenue Miles	Boardings per Vehicle Revenue Hour	Boardings per Vehicle Revenue Miles	Operating Cost	Cost per Vehicle Revenue Hour	Cost per Vehicle Revenue Mile	Cost per Boarding	Fare Revenue	Farebox Recovery Ratio	Average Fare per Boarding
2014	366,700	33,343	684,367	11.0	0.54	\$ 2,539,396	\$ 76.2	\$ 3.71	\$ 6.92	\$ 358,711	14.1%	\$ 0.98
2015	329,218	35,239	757,666	9.3	0.43	\$ 2,574,474	\$ 73.1	\$ 3.40	\$ 7.82	\$ 427,885	16.6%	\$ 1.30
2016	308,046	32,824	655,623	9.4	0.47	\$ 2,662,445	\$ 81.1	\$ 4.06	\$ 8.64	\$ 410,637	15.4%	\$ 1.33
2017	280,163	32,446	644,084	8.6	0.43	\$ 2,876,325	\$ 88.6	\$ 4.47	\$ 10.27	\$ 405,199	14.1%	\$ 1.45
2018	283,007	35,922	718,199	7.9	0.39	\$ 3,089,083	\$ 86.0	\$ 4.30	\$ 10.92	\$ 382,646	12.4%	\$ 1.35
2019	277,809	32,126	635,236	8.6	0.44	\$ 3,512,496	\$ 109.3	\$ 5.53	\$ 12.64	\$ 407,925	11.6%	\$ 1.47
2020	225,788	31,833	626,850	7.1	0.36	\$ 3,896,361	\$ 122.4	\$ 6.22	\$ 17.26	\$ 288,146	7.4%	\$ 1.28
2021	130,574	31,481	624,558	4.1	0.21	\$ 3,938,966	\$ 125.1	\$ 6.31	\$ 30.17	\$ 195,646	5.0%	\$ 1.50
2022	148,240	31,618	624,318	4.7	0.24	\$ 3,998,736	\$ 126.5	\$ 6.40	\$ 26.97	\$ 284,583	7.1%	\$ 1.92
2023	169,714	32,204	632,789	5.3	0.27	\$ 4,498,220	\$ 139.7	\$ 7.11	\$ 26.50	\$ 305,646	6.8%	\$ 1.80
2024	186,234	32,251	636,416	5.8	0.29	\$ 4,456,627	\$ 138.2	\$ 7.00	\$ 23.93	\$ 354,110	7.9%	\$ 1.90
Pre-COVID-19 Change (FY 2014 - FY)	-24.2%	-3.6%	-7.2%	-21.4%	-18.4%	38.3%	43.6%	49.0%	82.6%	13.7%	-17.8%	50.1%
Post COVID-19 Change (FY 2019 - FY)	-33.0%	0.4%	0.2%	-33.2%	-33.1%	26.9%	26.4%	26.6%	89.3%	-13.2%	-31.6%	29.5%
<b>Overall Change</b>	<b>-49.2%</b>	<b>-3.3%</b>	<b>-7.0%</b>	<b>-47.5%</b>	<b>-45.4%</b>	<b>75.5%</b>	<b>81.4%</b>	<b>88.7%</b>	<b>245.6%</b>	<b>-1.3%</b>	<b>-43.8%</b>	<b>94.4%</b>

Figure 4: Systemwide Boardings, Costs, and Fare Data for the 10-Year Period 2014-2024

Fare revenue on the fixed-route service follows a slightly declining pattern in the years before the pandemic, followed by a big dip in 2021 and a sharp recovery in the years since.

Fare revenue on Ready Ride services, on the other hand, shows an increasing pattern before the pandemic and a zig-zagging but declining pattern since then.

On aggregate, ridership losses between 2014 and 2024 have had an impact on Fare Revenue. However, Fare Revenue in 2024 is almost identical to the 2014 level, and that is because the Average Fare per Boarding has almost doubled, increasing by about 95%, from \$0.98 in 2014 to \$1.90 in 2024.

The factors explaining the changes in Fare Revenue were not analyzed in depth in this study, but one can speculate that the increase in Average Fare per Boarding is related to

changes in fare policy before the pandemic, enforcement of fares after the pandemic, changes in fare products such as daily and monthly passes, and changes in demand for the various transit services. A detailed discussion of fares and fare structure is provided in Chapter 5 Fare Structure Review.

Given the high Average Fare per Boarding and the low Annual Boardings that the system registered in 2024, Basin Transit has great potential to increase its fare revenue and fare recovery ratio, if it captures and attracts a higher number of riders to the system.

The system does not need to increase its fares to improve its financial performance. Fare increases tend to discourage ridership over time. What the system needs is more riders.

**Despite the fall in ridership and increase in operating costs, today Basin Transit passengers actually cover a growing share of operating costs.**

**But, can Basin Transit use its existing operating budget to serve a larger number of riders and increase its revenue?**

In summary, the major issues and trends impacting the system today are:

- A continuous decline in ridership over the last 10 years that signals a service that is not meeting the needs of residents of the Morongo Basin, despite significant efforts to maintain coverage to most areas.
- A continuous increase in operating costs that constraints the amount of service that can be provided and that results in spreading resources very thinly to all areas.
- A continuous decline in farebox recovery due to ridership losses, despite increases in fare revenue per boarding.

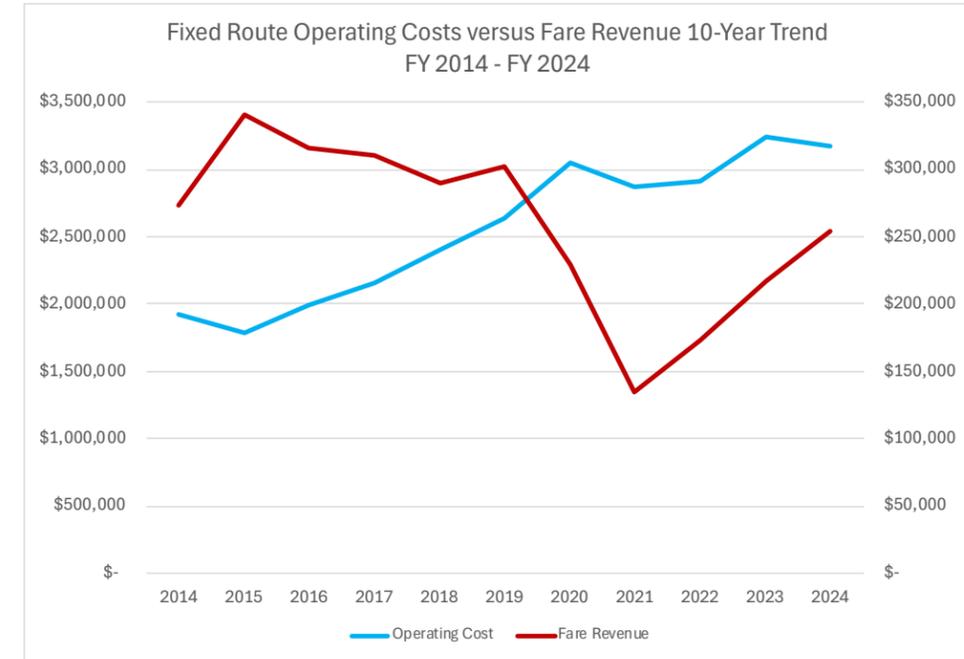
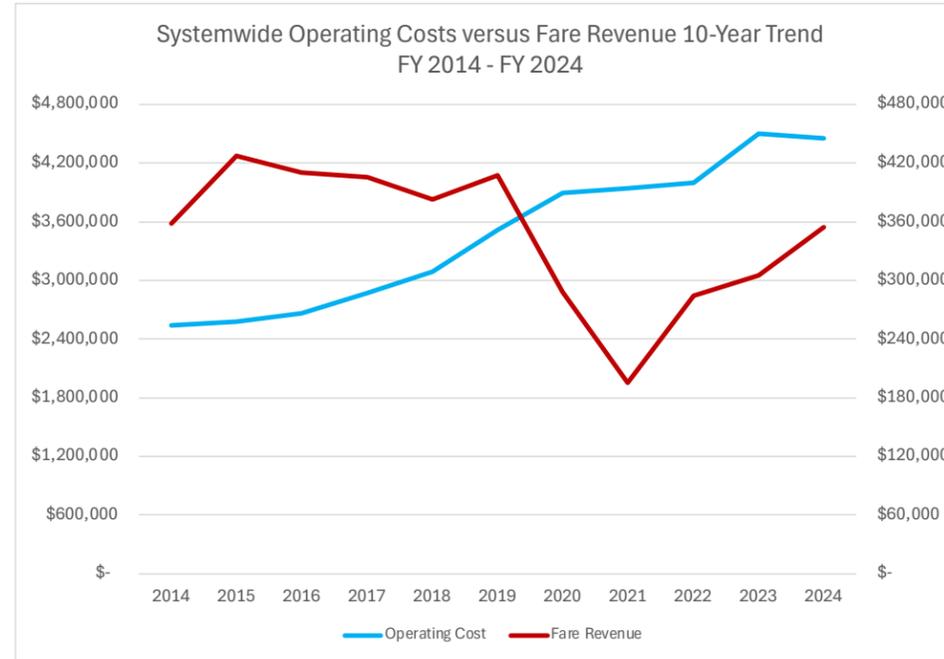
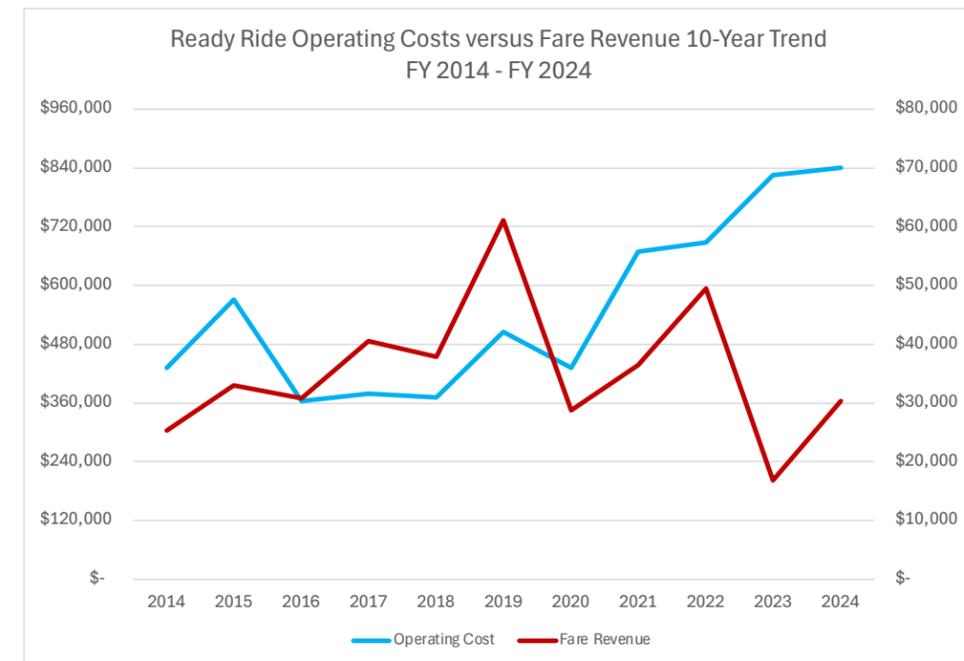


Figure 5: Systemwide Operating Costs and Fare Revenue, and Fixed Route and Ready Ride trend for 10-Year period between 2014 and 2024.



The trends of the past decade, along with expected development and changes in the coming years, present Basin Transit with difficult choices for the bus system.

In simple terms, the big move that Basin Transit needs to make in the next 5 years is to increase ridership across the system, on all its services.

The system needs additional riders to revert declining productivity and cost efficiency trends. To do this, Basin Transit needs to make the service more convenient and useful for a larger number of residents of the Morongo Basin.

This involves deciding on a handful of key trade-offs or policy choices. This Plan, prepared with stakeholder input, represents those choices, with specific recommendations to reorganize the system and take the transit network in the direction of higher ridership.

# Choices and Changes in this Plan

The key policy choices in this Plan involve changes to:

- **Geographic Coverage of Service.** Basin Transit provides coverage service to a large part of the service area with very low density and scattered development, that takes service away from areas with higher residential and job density. Reducing the extent of the service area that is provided with coverage service and investing those resources on more frequent service will help making the system more usable and convenient for more people and destinations.
- **Time of Day Coverage of Service.** Most services provided by Basin Transit operate Monday to Friday and for a limited number of hours, generally from 7:00 am to 5:00 pm. This means that most services are not available during weekday evenings and on Saturday and Sunday. This reduces the usefulness of service, because it is not available at times when people want to travel such as weekends. Providing service later in the day on weekdays and on weekends would make the service more convenient to use for more people.
- **Connectivity of Services.** Basin Transit's local and intercity routes have timed connections at transit centers. However, commuter services to Palm Springs and Ready Ride services providing coverage to remote areas do not. Making all services connect at key centralized locations would extend the reach of the transit network and provide everyone with access to all services and destinations, even if available trip times are limited. Improving the ability of residents to more seamlessly travel across the basin and the region.

- **Regional Connectivity.** Basin Transit has always operated a regional connection to Palm Springs. However, the performance of this route has been declining which has led to reductions in service. BT needs to decide whether it wants to invest with higher intent on this connection. Regional travel patterns signal that there is latent demand for better service between the basin and Palm Springs.
- **Overlap and Customization of Services.** Basin Transit operates some services that appear highly customized to specific groups such as Ready Ride which provides curb-to-curb service to communities away from major towns, or Route 15 which operates direct express service between the Twentynine Palms MCAGCC and Palm Springs. Reorganizing these services to reduce duplication with regular services such as neighborhood, intercity and commuter routes can help making all service more attractive and useful for a larger number of residents.

The following sections provide a discussion of proven transit planning principles that we are using to guide policy decisions on how to improve service and making it more useful for a larger number of riders.

# What Makes Transit Useful?

This section explains how the key elements of a transit network work together to create a service that many people find useful.

## Why Access Matters

**Many factors affect people's decision to use transit, but the most fundamental is time.**

Most potential riders are working, studying, or raising children (or all three!) and have a limited amount of time in their day that they can devote to traveling. Even people who don't have the option to drive won't use public transit if it takes more time than they can spare. Long travel times required are one of the most universally cited reasons not to use transit, even among people who would otherwise be open to it.

To assess the existing network, and evaluate possible improvements to it, we need to describe the travel times it provides.

Some planning approaches do this by studying the patterns of trips that people are making now. For example, it is common to collect data about people's travel based on how their mobile phones move around the region.

However, the trips that people are making aren't necessarily the trips people would make if they had better options. People without cars often don't make all the trips they would like, because transportation is a barrier. This means **there is value in serving not just current trips, but connections to any places that are likely to be useful or attractive to many people.**

For this reason, this report focuses on Basin Transit's current route coverage within the service area. To do this, we talk about the **access to destinations** from each location in the city.

## The Wall Around Your Life

Wherever you are, there is a limited number of places you could reach in a given amount of time. These places can be viewed on a map as a blob around your location, as shown in the illustration at right.

You can think of the edges of this blob as a "wall around your life." Beyond this area are things you can't do on most days because it simply takes too long to get there. The jobs, education, shopping, and any other resources outside this area are less likely to be available to you.

## Access and Ridership

Access to destinations describes the usefulness of the transit network. It also describes how the design of the network contributes to high ridership.

When access is high, it means that when someone looks up a trip they want to make, they are more likely to find that the travel time is reasonable, and they are more likely to ride.

Access to opportunity is a good thing separate from the ridership that it generates.

- In real estate, access contributes to the value of a location because it means more customers, residents and workers can reach it.
- Access to jobs and education is a critical need for people with low incomes, who are more likely to rely on transit.
- Access is a measure of how many options we have in our lives. In this sense, it is a measure of freedom, which needs no other justification.

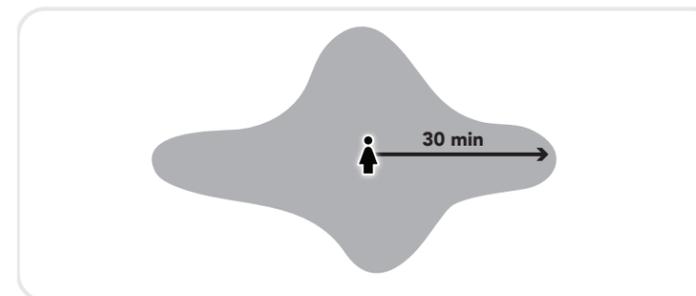
## WHAT IS ACCESS?



Here is a person...



... in a region full of possible destinations.



In **30 minutes**, this person can get to anywhere in the shaded area.



Her **access to opportunity** is the **number of destinations in that area**. To estimate her access, count the **jobs** or **schools** or **shopping** in that area.

# Elements of a Transit Trip

## Walking, Waiting, and Riding

When we think about travel time, we have to think about the entire trip. A typical transit trip contains three types of time:

- **Walking**, or traveling to and from the stop by some other means. Although people do cycle, and sometimes drive and park to use transit, the vast majority of transit trips begin and end with a walk, either on foot or with the assistance of a wheelchair or personal mobility device.
- **Waiting**. Waiting is time spent outside the transit vehicle, and not in motion, as part of your trip. It can also be described as the difference between when you ideally want to travel and the time you can travel.
- **Riding**. Riding is all the time spent inside the transit vehicle.

When we refer to travel time in this report, we mean the sum of all three of these kinds of time.

## Measuring Walking Time

**This report measures walking times based on an average speed of 3 miles per hour, about 20 minutes to walk one mile.**

This is, unavoidably, just an average among diverse human walking speeds, including wheelchair speeds. Some people walk (or roll) more slowly, and some walk faster. Walking can also be affected by delays and barriers such as street crossings or curbs that are difficult to account for precisely.

People who walk especially slowly may experience less access than others. People who walk faster may experience more. There is no way to incorporate everyone's diverse walking speeds when creating a high-level image of overall transit access across the basin.

## What is Waiting?

**Waiting is not just the time you spent at the bus stop;** it includes any time between the moment you want to travel and the next opportunity to get on the bus.

Many jobs have rigid hours. You may be penalized if you start late but you are not paid more for arriving early. In these jobs, if you have to be at work at 8:00, but your hourly bus arrives at 7:05 or 8:05, you will have to take the earlier bus and effectively wait 55 minutes at your destination.

If you have real time information about when the bus is expected, you can show up at the stop just a few minutes earlier. But if the bus comes only once an hour, you've still experienced a substantial loss of access, because you couldn't travel at the time that would have served you best.

You may be fortunate enough to have a job that lets you make use of your waiting time, but waiting time is still time spent not where you want to be, doing what you really want to do there.

To represent the average rider's experience, **"waiting time" in this report is estimated as half of the time between consecutive buses on a route.** For example, an hourly route is calculated to have a wait time of thirty minutes. This illustrates how frequency and waiting time are two of the largest elements of travel time, especially for shorter trips like those made on Basin Transit's neighborhood routes.

## Calculating Travel Times

Every transit trip is made up of walking, waiting, and riding.

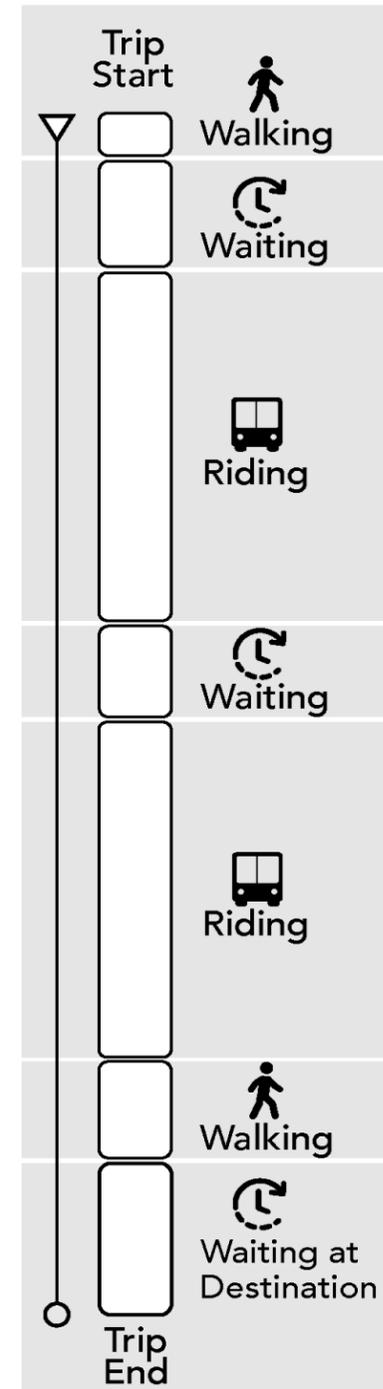


Figure 6: Elements of travel time in a typical transit trip, including a transfer

# Access Depends on the Built Environment

Creating a high-access transit network isn't just about faster or more frequent service. Many factors outside the control of Basin Transit – such as land use, development, urban design, street networks – affect transit's usefulness. This is why **planning and infrastructure decisions made by the cities, the County, the military base and other agencies have a big effect on transit's success.**

The built environment factors shown in Figure 7 affect the usefulness of transit:

- **Density.** Where there are many residents, jobs and activities in an area, there are many potential transit users, and many places people might want to go.
- **Walkability.** People near transit can only reach it if they can walk to the stops safely and comfortably.
- **Linearity.** Direct paths between many destinations are faster and cheaper for Basin Transit to operate than circuitous, deviating routes. Linear routes are also more appealing to riders.
- **Proximity.** The longer the distance between two places Basin Transit wants to serve, the more expensive it is to connect them. Roads with proximate development tend to generate more ridership relative to cost.
- **Mix of Uses.** When there is a mix of land-uses along a direct path, transit can be useful for many types of trips, and people ride in *both* directions at many times of the day.

These five elements determine where transit can be useful for many people, at a relatively low cost. Where there is dense, walkable, proximate development with a mix of activities, arranged along a linear road, high ridership at a low operating cost is possible.

**DENSITY** *How many people, jobs, and activities are near each potential transit stop?*

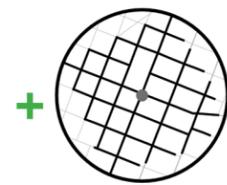


+ Many people and jobs are within walking distance of transit.

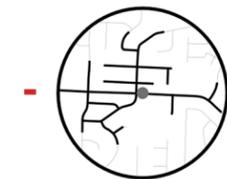


- Fewer people and jobs are within walking distance of transit.

**WALKABILITY** *Is it possible to walk between the stop and the activities around it?*



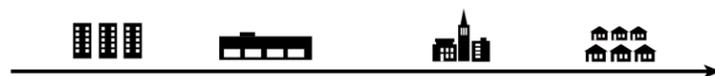
The dot at the center of these circles is a transit stop, while the circle is a 1/4 mile radius.



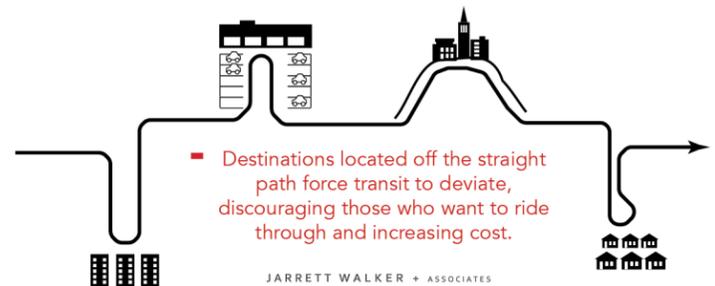
The whole area is within 1/4 mile, but only the black-shaded streets are within a 1/4 mile walk.

+ It must also be safe to cross the street at a stop. You need stops on both sides for two-way travel!

**LINEARITY** *Can transit run in reasonably straight lines?*



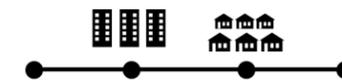
+ A logical transit line is a direct path between any two destinations on it.



- Destinations located off the straight path force transit to deviate, discouraging those who want to ride through and increasing cost.

JARRETT WALKER + ASSOCIATES

**PROXIMITY** *Does transit have to traverse long gaps?*

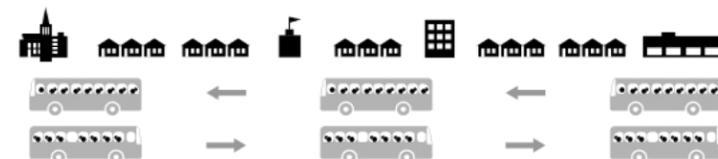


+ Short distances between many destinations are faster and cheaper to serve.



- Long distances between destinations means a higher cost per passenger. (Distance-based fares can compensate in part.)

**MIX OF USES** *Do people travel in both directions, all day?*



+ A mix of land uses means buses are ridden in both directions, more times of the day and week.



- Transit serving purely residential areas tends to be full in one direction, but empty in the other.

Figure 7: Five key built environment factors that determine how useful a transit network can be

# What are the Goals of Transit?

## Transit Purposes

Transit is asked to serve many different purposes by different members of the public, stakeholders or elected officials.

**A Social Safety Net.** Transit can help meet the needs of people in situations of disadvantage, providing access to essential services and jobs, or alleviating social isolation by offering a basic affordable transportation option.



**Economic Opportunity.** Transit can give workers access to more jobs; businesses access to more workers; and students more access to education and training.



**Climate & Environmental Benefits.** By reducing car trips, transit use can reduce air pollution and greenhouse gas emissions. Frequent transit can also support compact development and help conserve land.



**Congestion Mitigation.** Because buses carry more people than cars, transit use can mitigate traffic congestion by reducing Vehicle Miles Traveled (VMT). This is especially important in communities with significant jobs-housing imbalances and preponderance of long commutes.



**Personal Liberty.** By providing people the ability to reach more places than they otherwise would, a transit system can be a tool for personal liberty, empowering people to make choices.



**Transportation Equity.** Transit can be designed to enhance the mobility minority and lower-income communities who have been denied access to highly useful transit service in the past.



**Support for New Development.** Transit can be an important asset for new residential or employment areas. Frequent transit can also support compact development and help conserve land.



Some of these purposes are only served if many people use transit. For example, transit can only mitigate congestion and reduce greenhouse gas emissions if many people ride the bus rather than drive. We call such goals “ridership goals” because they are achieved through high ridership.

Goals related to economic opportunity and equitable mobility are also related to the ridership goal, because for the positive outcomes that affordable, useful public transportation can provide to be widespread in the community, many members of the community must actively use the service.

Other goals are served by the simple presence of transit. A bus route through a neighborhood provides residents insurance against isolation, regardless of whether or not they are able to drive, walk or cycle a long distance.

A route may also fulfill political or social goals, for example by getting service close to new development areas. We call these types of goals “coverage goals” because they are achieved in large part by covering geographic areas with service and ensuring that transit is widely available, rather than by high ridership.

## High Ridership is Not Transit’s Only Goal

If Basin Transit wanted to maximize transit ridership, it would focus service only in those places where and when it would be used by the most people. This would mean thinking like a business, focusing on places where its service is competitive for a large number of riders.

Businesses are under no obligation to operate where they would spend a lot of money to reach few customers. For example, McDonald’s is under no obligation to provide a store within two miles of everyone in the basin. If it were, the company would add hundreds of additional locations, some serving just a handful of people, and most would operate at a steep loss because of the few customers nearby.

People understand that sparsely-populated areas will naturally have fewer McDonald’s locations than urban areas. We don’t describe this as McDonald’s being *unfair* to rural areas; they are just acting like a private business.

**Transit agencies are not private businesses,** and most agencies decide that they have an obligation to cover most of their service area. The elected and appointed officials who make transit decisions hear their constituents say things like “We pay taxes too” and “If you cut this service, I will be stranded” and they decide that coverage, even in low-ridership places, is an important transit outcome.

Transit agencies are sometimes accused of failing to maximize ridership, as if that were their only goal. In fact, they are intentionally operating “coverage services” that are not expected to generate high ridership. Such coverage services are sometimes visible to the public as mostly-empty buses or trains, and they are visible to planners as routes or services with low productivity or high costs per boarding.

Agencies must balance the competing goals of high ridership and coverage. The smaller an agency’s budget relative to its service area, the harder the trade-off between those competing goals. This is the challenge that Basin Transit faces.



Figure 8: Is an empty bus a problem? That depends on why you’re running it in the first place.

# The Ridership-Coverage Trade Off

High ridership and coverage goals conflict with one another, due to simple geometry and geography. In the illustration to the right, two very different transit networks could be offered in a fictional area.

In this imaginary region, the little grey dots indicate the presence of people and jobs. The grey lines indicate roads. Most of the activity is concentrated around a few roads. The agency has a budget that allows for the operation of only seven buses in a typical day.

A transit agency pursuing only a ridership goal would focus service on the roads where there are large numbers of people and destinations. When service is concentrated onto fewer routes, frequency is high and hours of service can be long. People have many opportunities to travel throughout the day, which means transit is more likely to work for their trips.

If the agency were pursuing only a coverage goal, on the other hand, it would spread out services so that every road had a bus route or a demand response service. But spreading transit widely means spreading it thin. Wait times are long, there are few opportunities to travel each day, and people rarely find the service useful for their trips.

While an agency can pursue ridership and provide coverage within the same budget, it cannot do both with the same dollar. The more it does of one, the less it does of the other.

This question is relevant for planning local and regional services. At the local level:

- Should Basin Transit focus its resources on its busiest corridor, between Yucca Valley and Twentynine Palms?
- Or continue to spread service out across all of the Basin?

At the regional level, when Basin Transit looks to create better regional connections to Palm Springs:

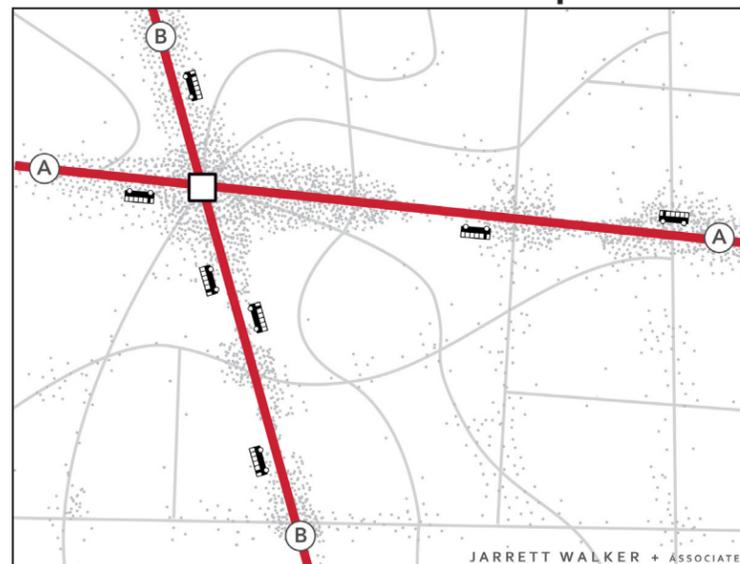
- Should regional service be concentrated into one highly-useful route that runs to Palm Springs all day?
- Or should it be spread across multiple routes that each offer just a few trips per day?

Reasonable people will naturally disagree about the right service planning choices in those two cases. Different people put different amounts of value on the goals of high ridership and wide coverage, and how they feel about those goals in the abstract will likely inform how they feel about specific plans for local and regional services.

*In the process of developing this SRTP, Basin Transit heard from both the community and the Board of Directors, a desire to maintain a balance between ridership and coverage but with a slight emphasis on services that focus on generating higher ridership.*



**Maximum Ridership**



All 7 buses are focused on the roads and towns with the most activity. Many residents and workers have a good bus route nearby. Frequency and ridership are high, but some places have no service.

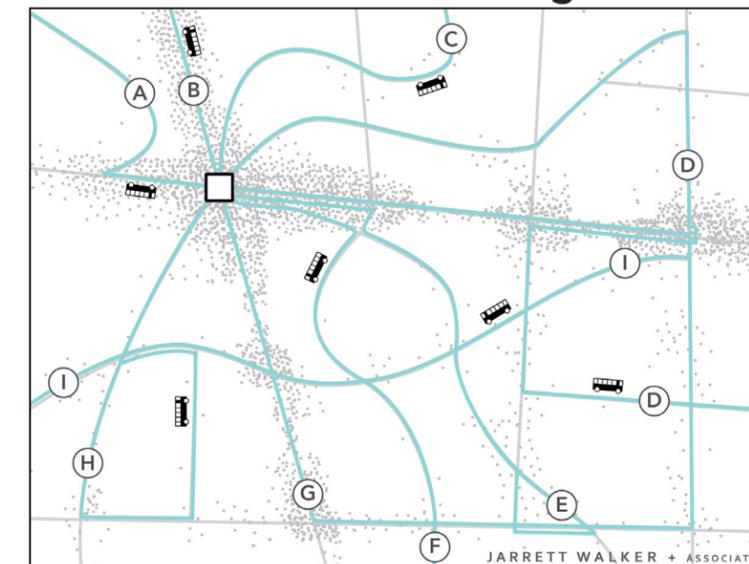
Imagine you are the transit planner working in this fictional area.

The dots scattered around the map are people and jobs.

The 7 buses are the resources the region has to run transit.

Before you can plan transit routes, you must decide: What is the purpose of your transit system?

**Maximum Coverage**



The 7 buses are spread around so that there is a route on every road. Everyone lives near a stop, but frequency on all routes is poor, so waits for service are long. Only a few people can bear to wait so long, so ridership is low.

Maximum Ridership

Maximum Coverage

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



## 2

# Market Analysis

# Residential and Employment Density

## Study Area

The study area for this SRTP includes most communities in the Twentynine Palms – Morongo Valley Census County Division (CCD), in the southeast area of San Bernardino County. Basin Transit’s service area includes the cities of Yucca Valley and Twentynine Palms, and the census-designated places (CDP) of Morongo Valley, Joshua Tree, and Homestead Valley (Landers). Additionally, BT offers service to residents in Sunfair Heights and Wonder Valley (east of Twentynine Palms).

The Twentynine Palms Marine Corps Air Combat Ground Center (MCAGCC) delimits the service area in the north. The property is approximately 1,100 square miles and has facilities for military tests, combat training, and recruit education. There are temporary residences for trainees and permanent residences for active Marines, their family members, and base employees. All of these facilities and other infrastructure that support the military population are contained in a small area of approximately 10 square miles, just north of Twentynine Palms.

Joshua Tree National Park delimits the service area in the south. It is protected from development and not included in the service area.

## Residential Density

Figure 9 is a map of residential density, showing residents per square mile throughout the Morongo Basin. The highest residential densities are in the major urban centers of Yucca Valley and Twentynine Palms, and close to Highway 62.

There are pockets of residential density in Joshua Tree close to Highway 62 and Yucca Valley, but mostly low density residential

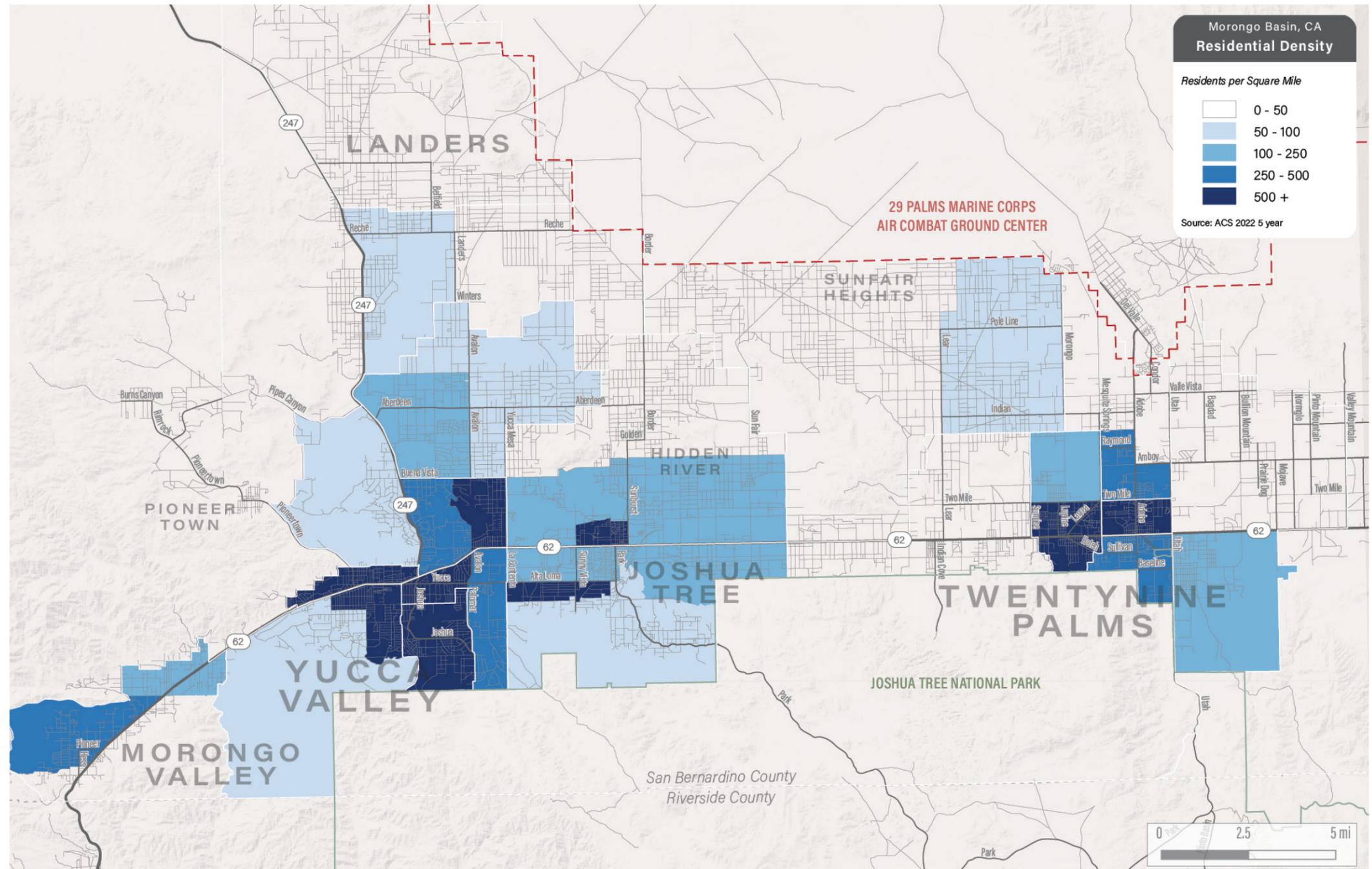


Figure 9: Residential Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

beyond 0.25 mile from it. And there is some residential density in Morongo Valley just west of Highway 62. North of Yucca Valley, going into Landers, development is scattered and of very low density.

Population in the Basin sprawls away from urban centers, with many sparsely populated areas that have single homes on large parcels, and some communities that are separated from each other by long distances.

Communities like Landers and Sunfair Heights have very low densities, with single family houses that may be down long dirt roads, making them difficult to reach by any travel mode.

The National Park and Marine Base boundaries restrict growth to the north and south. The corollary of this is that as the Basin's population grows, there is an opportunity to encourage denser development along Highway 62 that is easier to serve with transit.

### Job Density

The map in Figure 10 shows the density of jobs across the Basin. The map shows distinct areas of high job densities in Yucca Valley, Joshua Tree, Twentynine Palms, and the Marine Corps Air Combat Ground Center (MCAGCC).

Job opportunities are most abundant along the Highway 62 corridor. Between Yucca Valley and Twentynine Palms is the Hi-Desert Medical Center and Courthouse complex **A** which provides a variety of jobs and services for the surrounding Basin communities.

Military employment **B** is available to the Marine Base active duty residents and civilian residents in Twentynine Palms. The Tortoise Rock Casino and Joshua Tree National Park Visitor Center are located in the center of

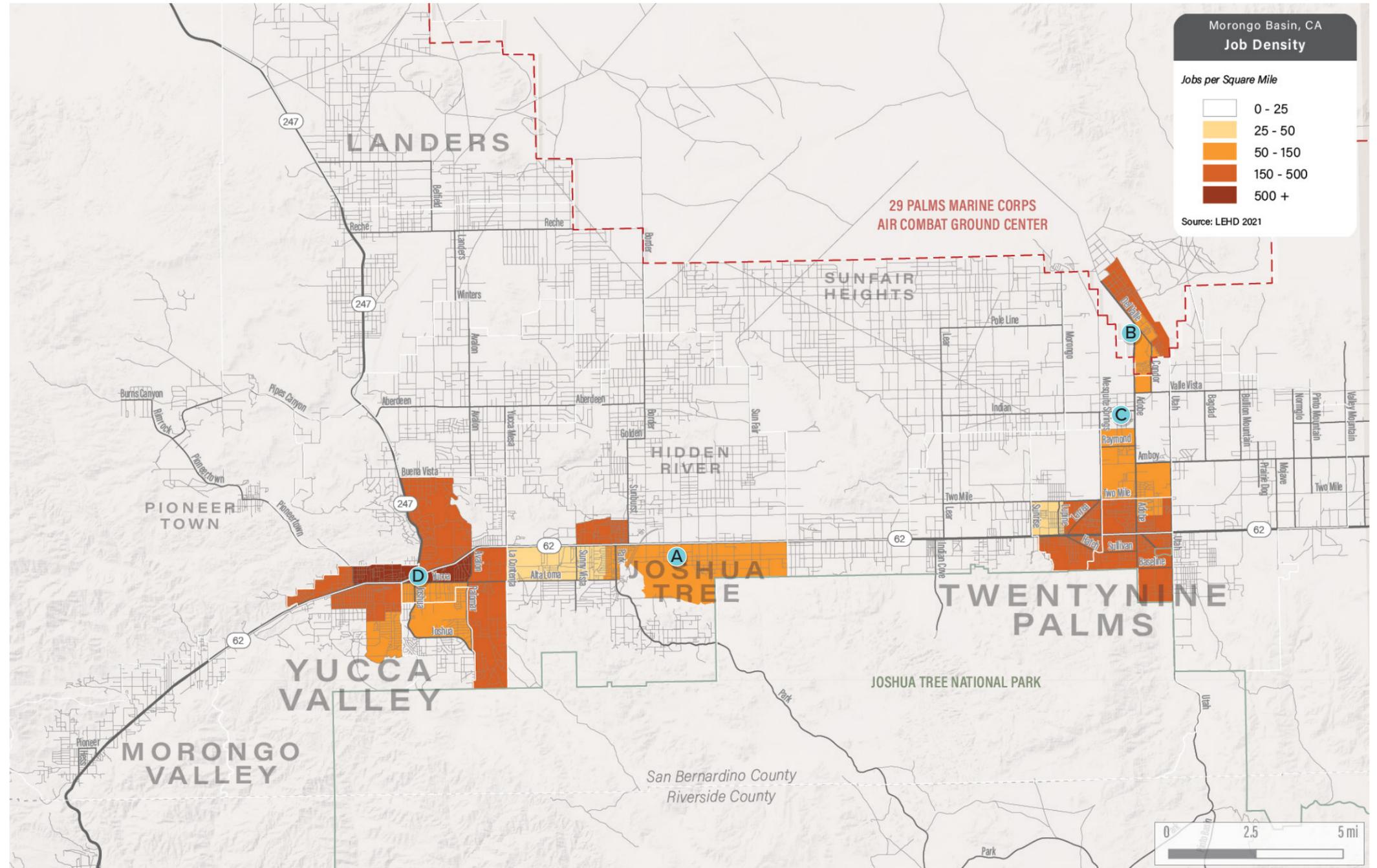


Figure 10: Job Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

Twentynine Palms, along with grocery stores, restaurants, banks, barbershops (that cater to the Marines), hotels and schools.

On Adobe Road, south of the Base, there is a stretch of homes and commercial businesses including the Himalaya Center DMV .

Yucca Valley has the highest job density in the Basin and is located directly on the Highway 62 corridor. Here you can find the Home Depot Center and Walmart, the regional airport, Firestation, Town Center Mall, restaurants, grocery stores, banks, retail shops and medical service providers .

Job density represents not only where people might be going to work, but also destinations people travel to for services and shopping. Healthcare and higher education destinations like hospitals and universities also appear on job density maps due to a high number of employees.

### Activity Density

Activity Density combines the population and employment density data using a three-color scale: residential density is shown in shades of blue, job density in shades of yellow, and places where both jobs and residents are present are shown in shades of red. The darker the color, the greater the number of jobs or residents in the area.

This type of mapping, seen in Figure 11 shows not only high density, but also the mix of activities in an area, which contributes to the ridership potential of transit.

Transit lines serving purely residential neighborhoods tend to be predominantly used in one direction and run different service hours than lines on major corridors like Highway 62.

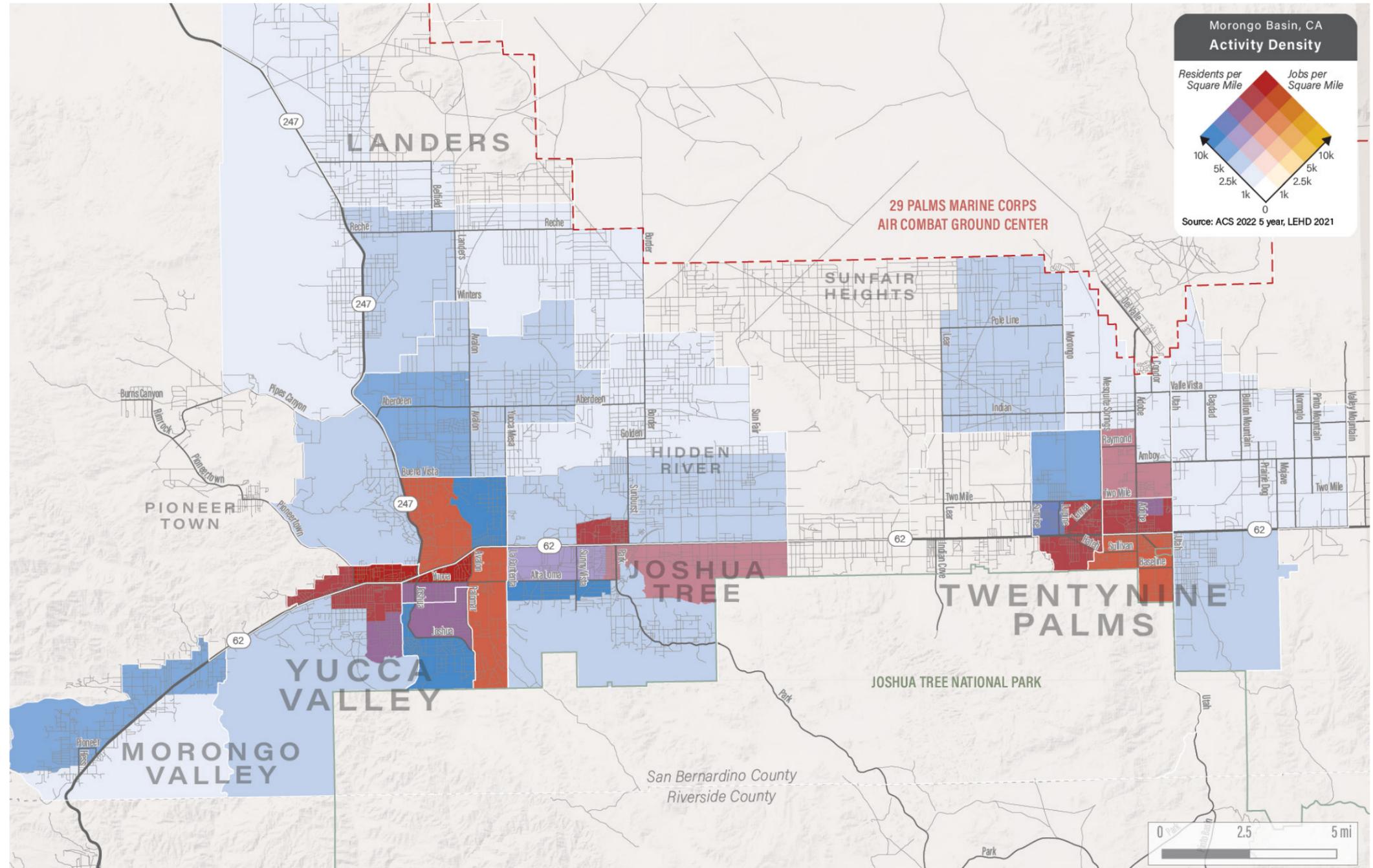


Figure 11: Activity Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

# Demographics

On corridors, where residential, commercial and other uses are mixed, people are traveling in both directions throughout the day.

Note that some busy places like malls and hospitals are underrepresented on these maps because only the employees are counted, and not the visitors. In addition, data from schools and universities count only employment, not students, even though students commute every day.

Many of the dense residential and employment areas noted on the previous maps stand out here, but this map also shows areas of substantial mixture, where different types of demand are more likely to sustain an all-day travel market. And these are found mostly in Yucca Valley, Joshua Tree and Twentynine Palms.

## Senior Density

The Morongo Basin’s senior population density (those age 65 and older) is represented in Figure 12. Seniors constitute 15% of the total population (about 1 in 7 residents). The map shows a pattern similar to the residential density, where there are higher concentrations of seniors in the central parts of Yucca Valley and Twentynine Palms, and lower density in Joshua Tree, Morongo Valley and beyond.

There are a number of assisted living facilities, like the Dumosa Senior Village, that house many seniors in Yucca Valley. Both Twentynine Palms and Yucca Valley have popular senior centers that provide services, like meals and other valuable social activities that encourage travel.

People over 65 generate demand for transit, especially when they reach an age when it is no longer safe for them to drive (typically over 75). Yet, the current cohort of seniors belongs

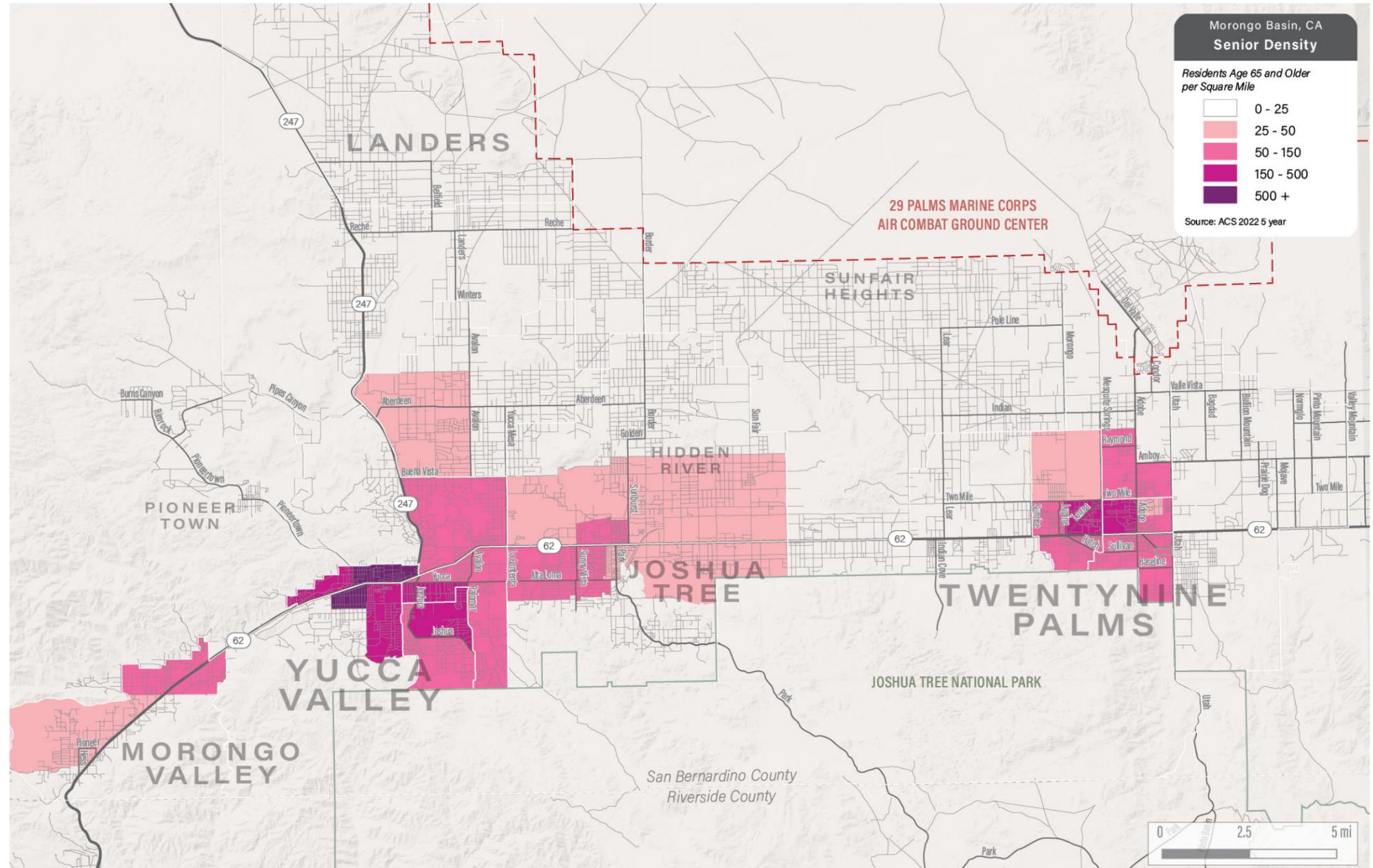


Figure 12: Senior Population Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

to the “baby boomer” generation, who grew up driving and has a high proportion of car ownership. According to recent non-driver studies in Washington and Wisconsin, seniors have a higher rate of car ownership than young adults.

However, compared to the population as a whole, seniors are more likely to experience mobility limitations. As a result, they are also more likely to use a service like Ready Ride, which provides an additional mobility option for seniors with physical impairments. Nevertheless, while some people may prefer the door-to-door service provided by paratransit, many others prefer the independence of taking a regularly scheduled bus rather than having to reserve a ride a day in advance.

Seniors’ needs and preferences are, on average, different from those of younger people. Seniors tend to be more sensitive to walking distance, because of limits on their physical ability. Also, seniors tend to be less sensitive to long waits, because many are retired and have a relatively flexible schedule. For the same reason, seniors are, on average, less likely to be discouraged by slow or indirect routes that take them out of their way.

For these reasons, the amount of focus that transit agencies place on meeting the needs of seniors should be carefully balanced with the needs and desires of the broader community.

### Youth Density

The map in Figure 13 shows youth population density in the Morongo Basin (those age 17 and younger). This group represents a population of people who are too young to drive and benefit from access to transit. They constitute 23% of the population or about 1 in 4 residents of the basin.

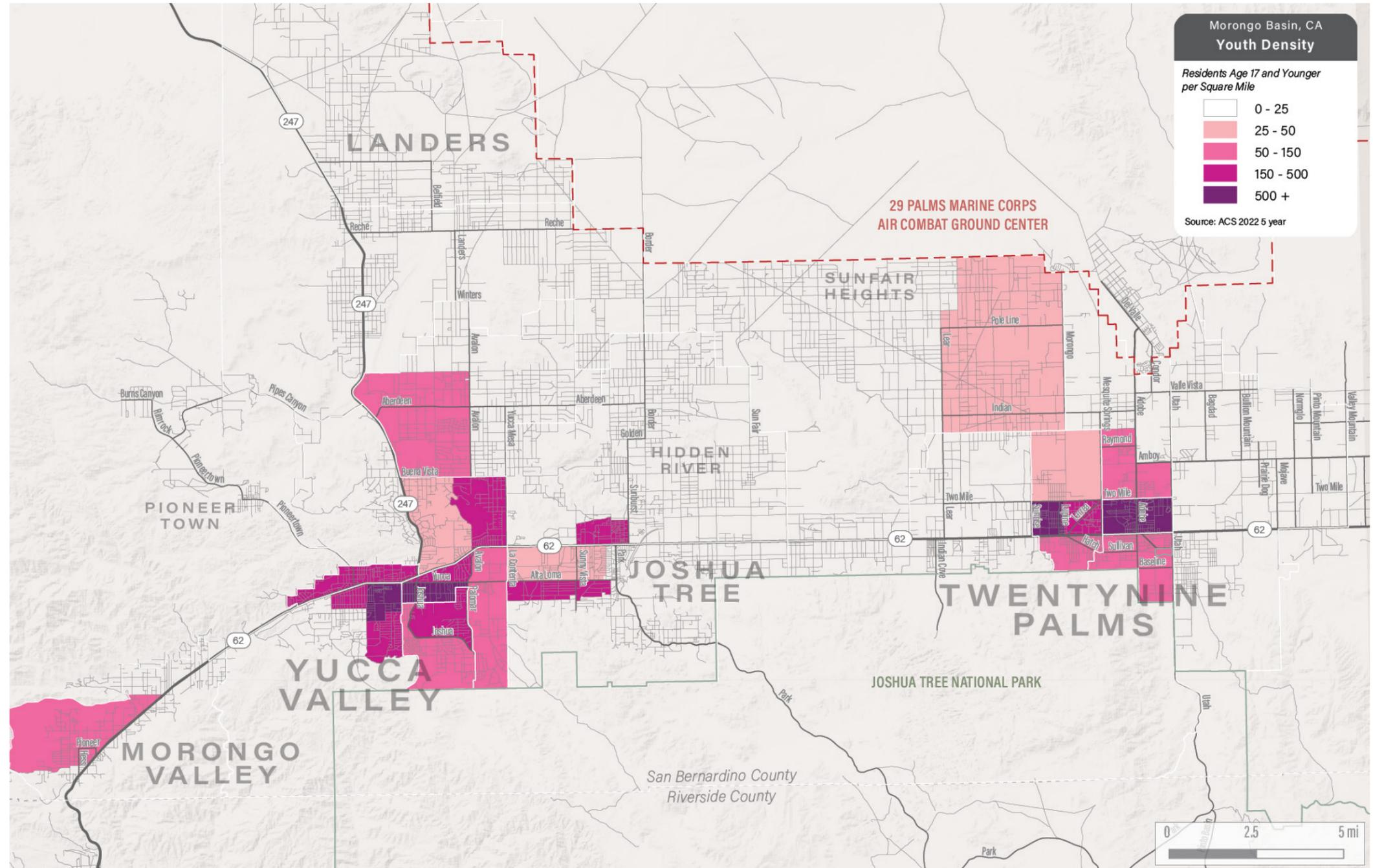


Figure 13: Youth Population Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

Without the ability to drive, the youth population is reliant on other people, primarily their parents, to get them to or from any destination, whether it be for school, employment, social activity or daily errands.

High densities of people under 17 also tend to reflect high densities of adults with high demands on their time. Parents are sometimes perceived as a relatively weak market for transit, because their needs are so specific in time and pull them in many directions. However, a transit system that can allow children (who are old enough to travel on their own) not to depend on their parents for rides, can also be a significant factor in saving parents time, and making transit a more viable option for them as well.

Just as transit coverage can meet the needs of seniors who cannot or choose not to drive, transit coverage can also meet the needs of children and teenagers who are too young to drive, therefore, making transit convenient and safe for young people greatly expands their opportunities within the community.

### Race & Ethnicity

Information about ethnicity or race does not alone tell us how likely someone is to use transit. However, avoiding placing disproportionate burdens on minority people, through transportation decisions, is essential to the transit planning process.

The map in Figure 14 shows where people of different races and ethnicities live in the Morongo Basin, according to the 2022 U.S. Census. Each dot represents 50 residents. Where many dots are very close together, the overall density of residents is higher. Where dots of a single color predominate, people of a particular race or ethnicity make most of that area's residents.

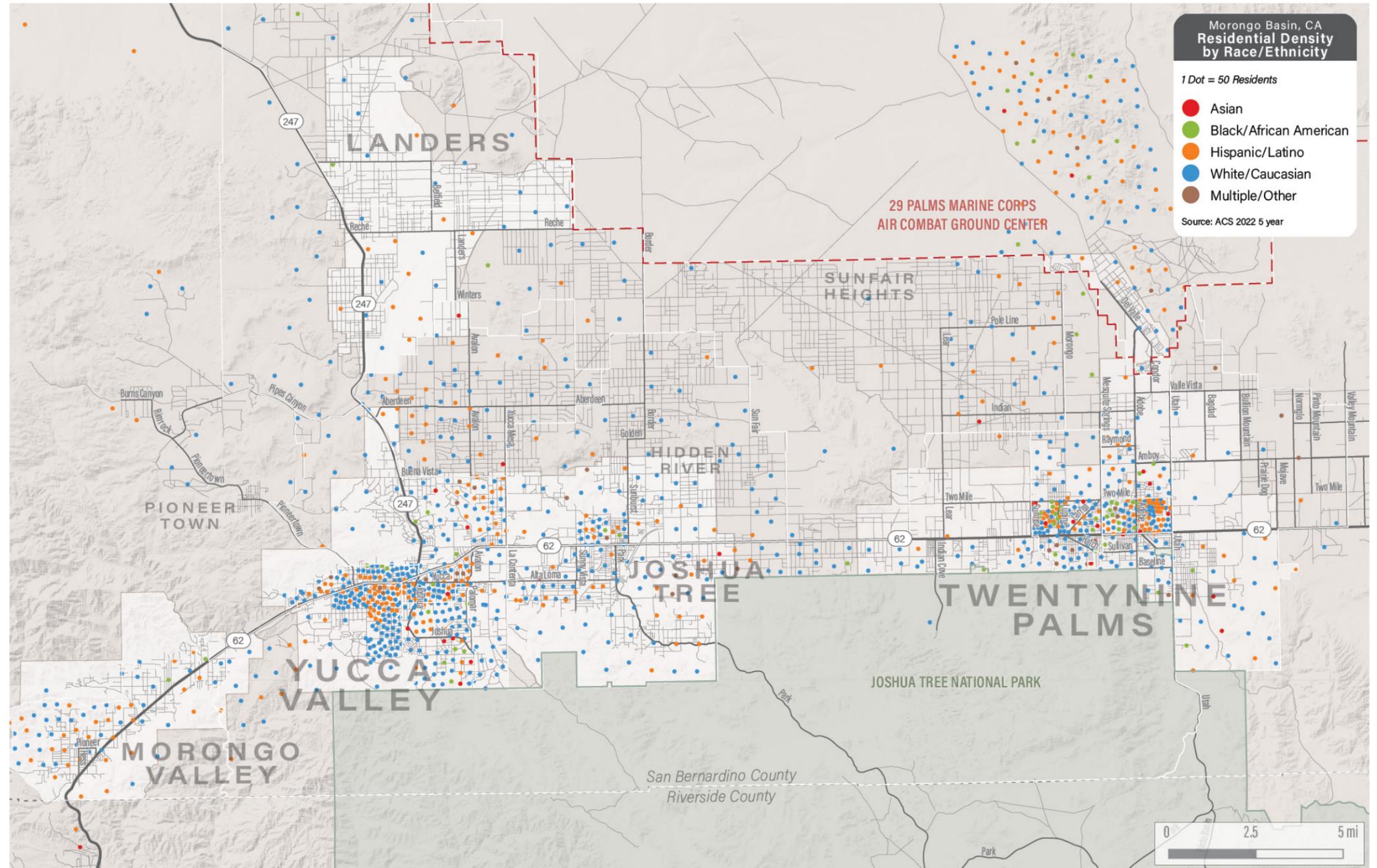


Figure 14: Race and Ethnicity in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

# Socioeconomics

The location of a dot does not indicate an actual address because the data has been aggregated to the census block level, therefore the dot placement is randomized within each block to show densities. No information is available about the locations of each group within a zone, and hard boundaries between one zone and the next likely do not reflect such hard edges in reality.

The map shows that Hispanic residents make up the largest nonwhite community in the Basin. Their residential pattern is consistent with other communities, where the most density is found in Yucca Valley and Twentynine Palms and much less density as the distance increases from the Highway 62 corridor. The MCAGCC's population is much more variable because the military academic programs run from a couple of months to a year and new people are constantly arriving and leaving the Base.

## Poverty Density

Figure 15 shows the highest density of those living under 150% of the Federal Poverty Line are located closest to Highway 62 and the central areas of Yucca Valley, Joshua Tree, and Twentynine Palms.

However, the map also shows a sprawling pattern of people in poverty living away from the urban centers. Like other high desert areas in the county, many people have moved to the Morongo Basin to find property that is more affordable on a low income, and live scattered throughout the basin in communities such as Morongo Valley, Landers, Sunfair Heights, and Wonder Valley.

For those living close to Highway 62 and the urban centers, and that do not have access to a vehicle, there is the possibility of walking to some destinations and parts of the city.

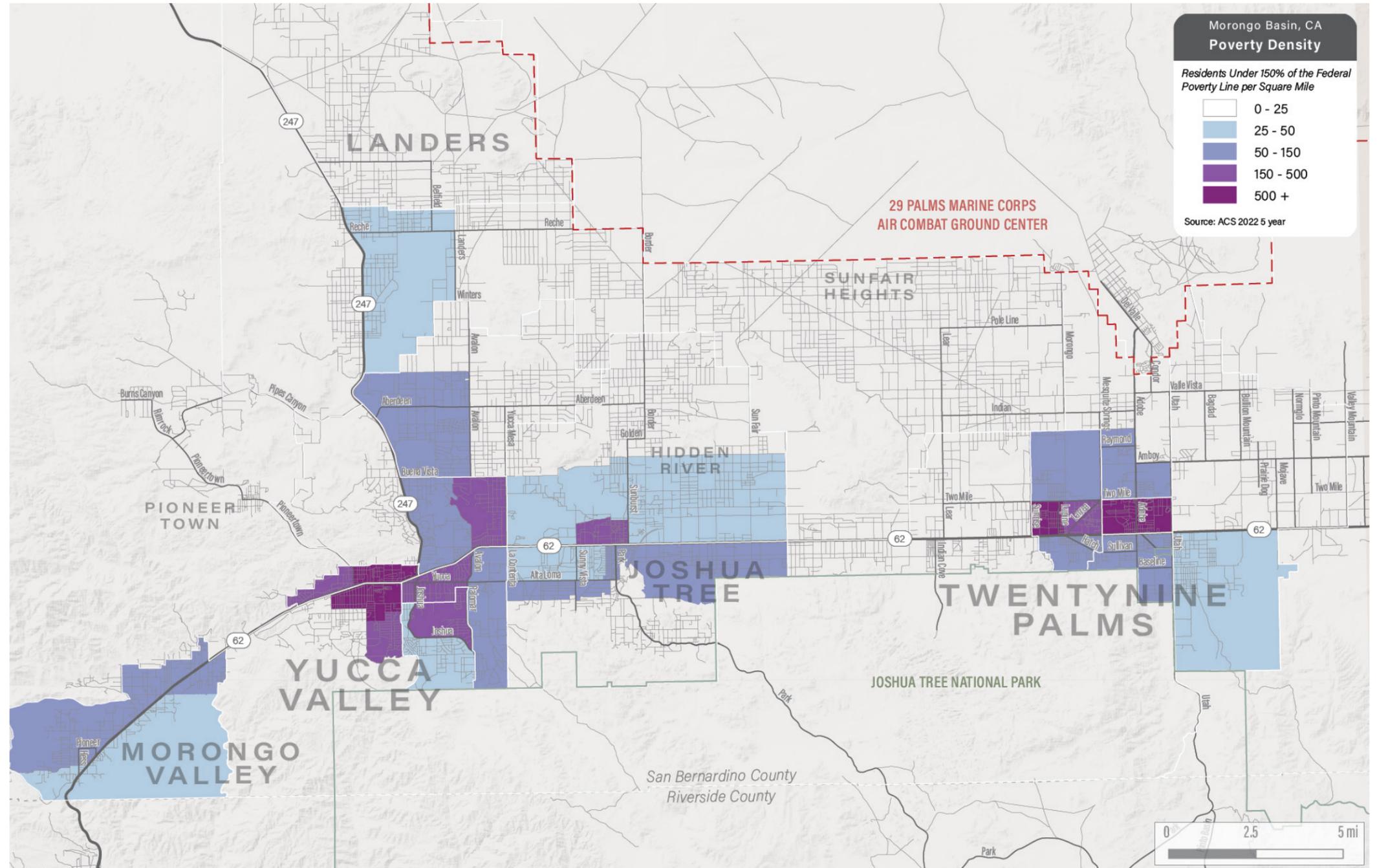


Figure 15: Poverty Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

However, there are long distances and the pedestrian and bicycle infrastructure is not always complete or safe, with many streets missing sidewalks. Also, wind and high temperatures during the summer can make walking and biking an unpleasant activity. For those living away from the urban centers, and that do not have access to a vehicle, transit can provide a degree of mobility and be a great benefit.

Many people living on low incomes in a given area, can suggest a strong market for transit or a significant need for coverage service, or both. But people with lower incomes do not automatically choose transit because it is the cheapest option. Transit service must also be useful and reliable for the kinds of trips they need to make.

For a long time the transit industry has made the distinction between “dependent” riders who earn low incomes, and “choice” riders, who fall into higher income brackets. But if transit doesn’t allow people to make the trips they need in a reasonable amount of time, even people with lower incomes will find alternatives that are more dependable for them, like buying an inexpensive car or getting a ride.

### Zero Vehicle Density

Figure 16 shows a map of zero-vehicle households density. Although households without a vehicle are an obvious market for public transit, there are reasons to be careful with this measure.

The census defines a household as “all of the people who occupy a housing unit,” but this can be one person or it can be five or more. Many students living alone thus constitute a zero-vehicle household, and will appear more prominent on this map than a family of five living without a car, even though the family generates far more potential transit demand.

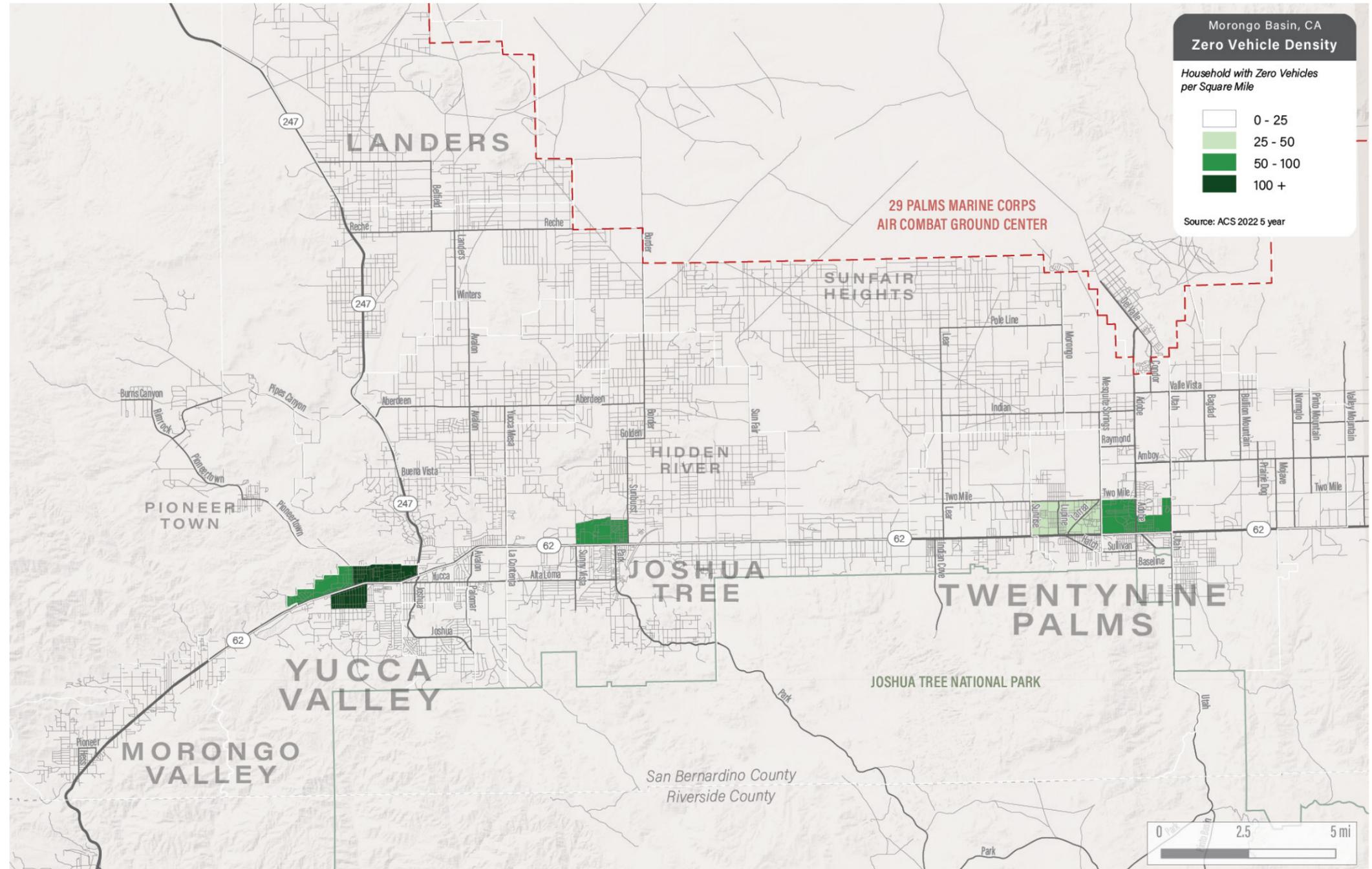


Figure 16: Zero Vehicle Density in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

The family of five would likely generate more transit demand than a one-person household, even if it owned one or two cars.

One thing the maps based on this measure do show is that people are more likely to live without cars in places where that's relatively easy to do. There are many zero-vehicle households nearest to Highway 62 in the central parts of Yucca Valley, Twentynine Palms and Joshua Tree, partly because those are places where many of the basic needs of life can be met within walking, and supplemented by public transit.

The residential density map showed a pattern of suburban sprawl in the Morongo Basin, and this map confirms that few to no residents in those low density areas are without vehicles. The long distances, landscape of unpaved roads and harsh climate all contribute to a high dependency on cars to travel around the Basin.

### Access to Vehicles

Figure 17 is a variation of the zero-vehicle household measure that rather than showing density of households, it compares the number of people of driving age against the number of vehicles available.

This map provides a more nuanced picture about vehicle dependency in the Basin. Areas like Morongo Valley, Landers and especially Sunfair Heights show that there are more drivers than cars available in the household, therefore someone may not have access to a vehicle when they need it. Therefore, there is a need for transit in these low density areas.

A unique situation occurs on the MCAGCC because military students stationed there are not permitted to have cars on base. This explains the high density of drivers per vehicle

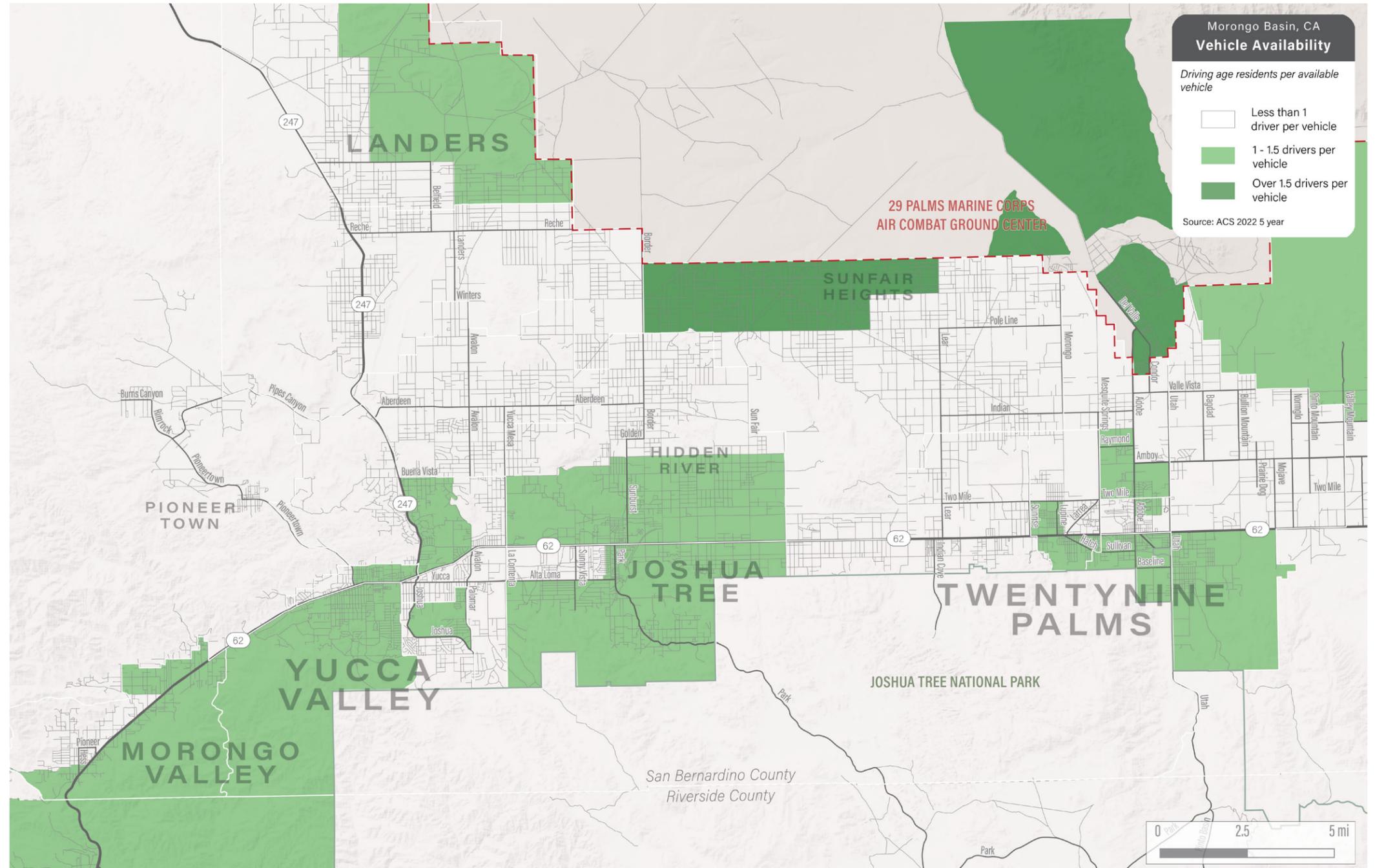


Figure 17: Vehicle Availability in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

# Morongo Basin Commute Travel Patterns

there. Without public transit options, much of the active military population cannot leave the base during their free time.

## Home Locations of Workers

Similar to the Residential Density map, Figure 18 reveals the residential pattern of employed individuals. The dots in the map show locations and relative concentrations of workers that commute to work locations within and outside of the Morongo Basin area.

The largest concentrations of workers are found in the central parts of Yucca Valley and Twentynine Palms. However, the map also shows concentrations of workers along major roads leading out of urban centers going to Landers, north of Yucca Valley, north of Joshua Tree, and in the Morongo Valley. Outlying areas like Sunfair Heights and Wonder Valley show very few workers scattered through a large territory.

The information for this map was extracted from the U.S. Census Longitudinal Employment Household Dynamics (LEHD) data for 2022. LEHD data shows that there were 30,310 commuters living in the Morongo Basin area; 24,461 of them (81%) commute to work locations outside the basin, and only 5,849 commuters (19%) live and work in the Morongo Basin.

Remarkably, 4 of 5 employed individuals living in the basin commute to a work location that is outside the Morongo Basin. But, perhaps more eye opening is the fact that 19,497 commuters living in the basin (64%) travel more than 50 miles to their job, to urban areas in Riverside, San Bernardino, Orange, and Los Angeles Counties.

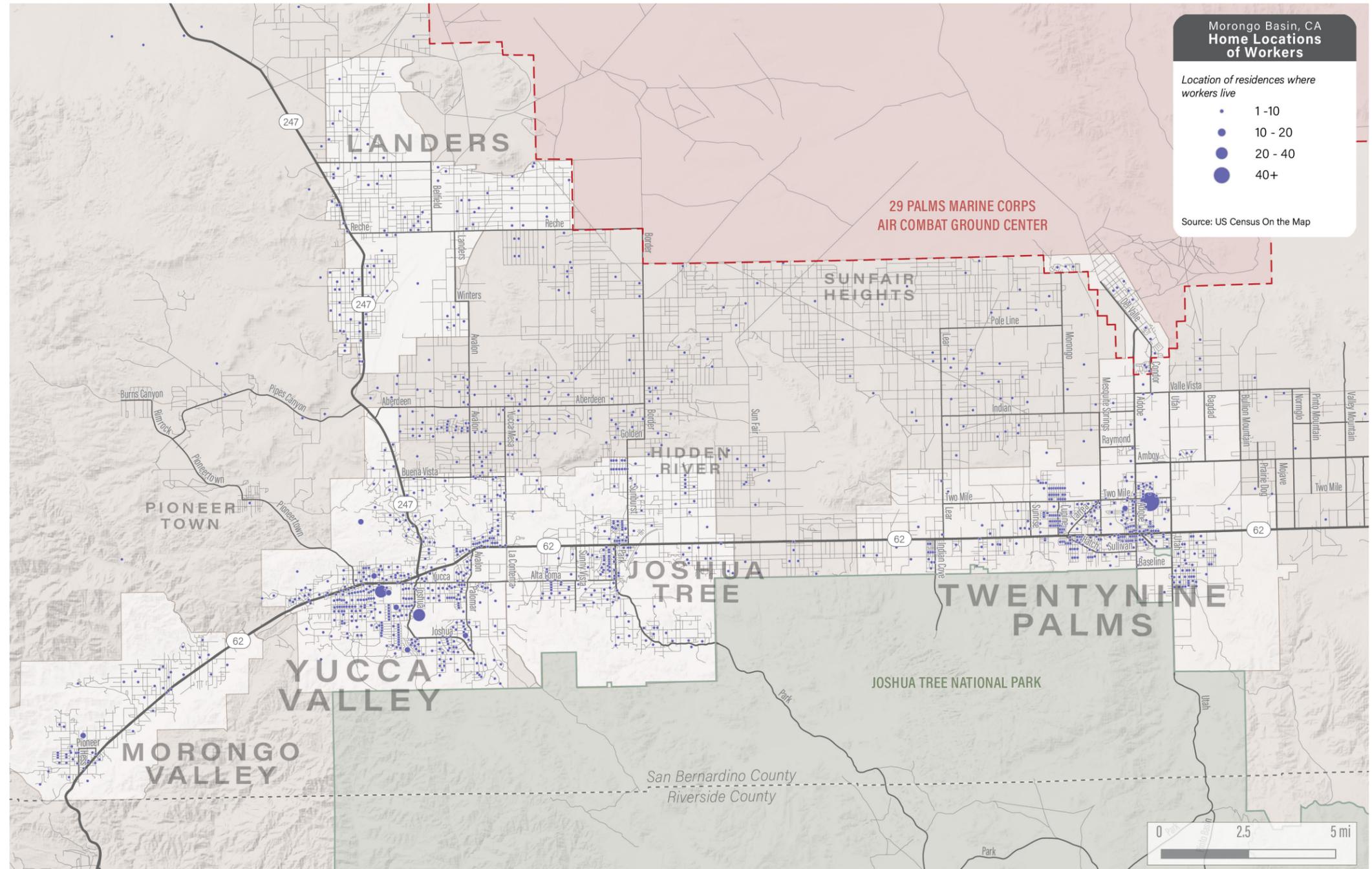


Figure 18: Residences of the employed population in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

### Job Locations of Workers

Figure 19 illustrates the other side of the coin, showing the locations of jobs in the Morongo Basin.

Not surprisingly, the highest concentrations of jobs are found in the city centers of Yucca Valley and Twentynine Palms, but also in Joshua Tree, and at key locations between the two cities close to Highway 62. The Hi-Desert Medical Center, Courthouse, and Copper Mountain College, which concentrate a large number of jobs, are all located along this corridor approximately mid-way between Yucca Valley and Twentynine Palms.

The MCAGCC also shows a significant concentration of jobs. While most of these employees live on the Base, there are some civilian jobs there that make it necessary for people who live throughout the Basin to commute there for work.

The LEHD data shows that there were 10,206 jobs in the Morongo Basin area in 2022, and that 5,849 of those jobs (57%) were held by people living in the basin (as shown in Figure 18). The other 4,357 jobs (43%) were held by people that commute into the basin from other parts of the region.

More than 4,000 employed individuals (40% of commuters to basin jobs) travel a distance of more than 25 miles. Many of them from Desert Hot Springs and the Coachella Valley. This is shown in the next two maps.

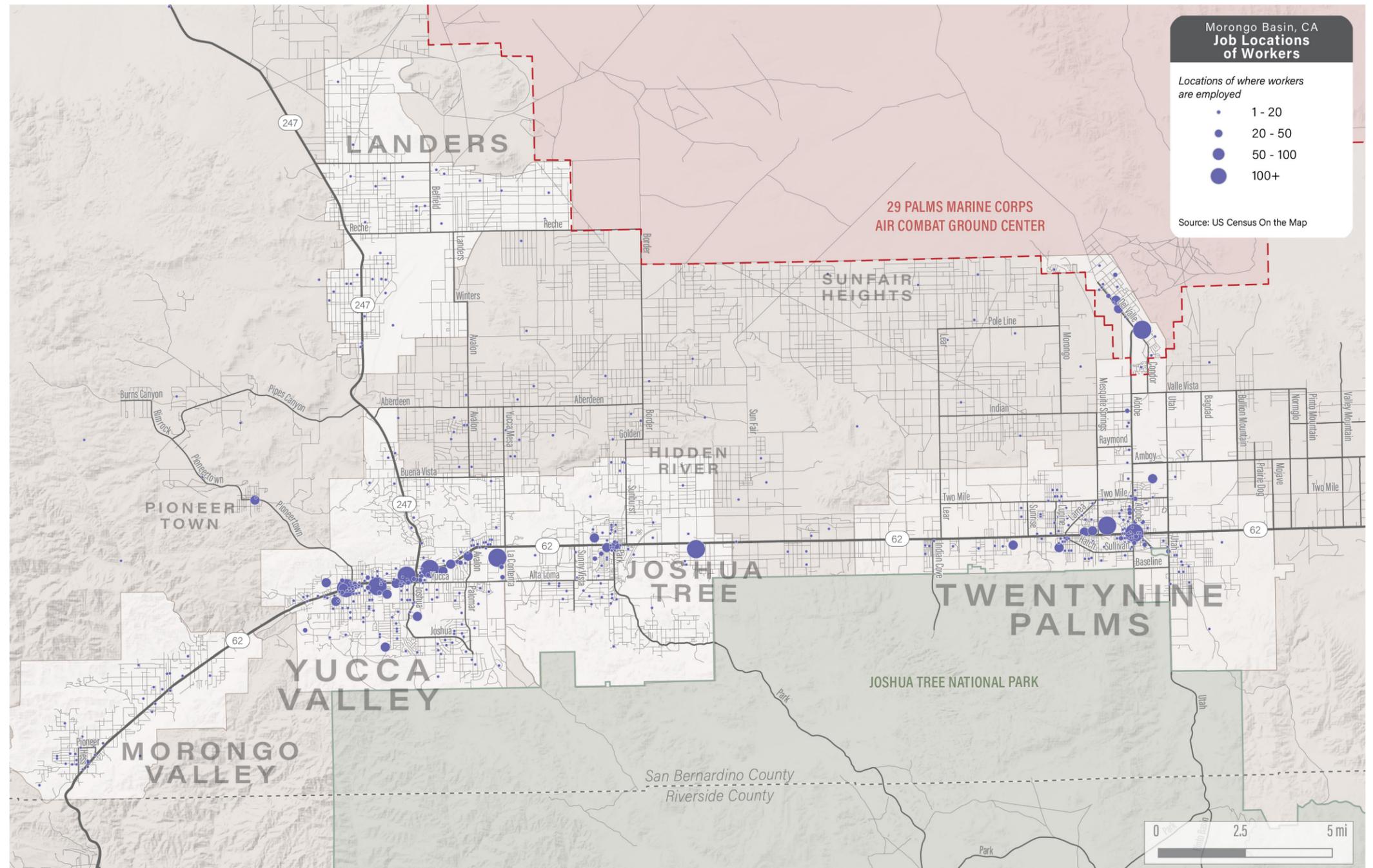


Figure 19: Work locations of the employed population in the Morongo Basin including Morongo Valley, Yucca Valley, Joshua Tree and Twentynine Palms

# Regional Commute Travel Patterns

The following two maps show the same residential and job density data, but on a larger scale to include the “down the hill” area, and to illustrate the commute patterns that exist between Palm Springs and the Morongo Basin.

## Home Locations of Workers

Figure 20 shows the residential locations of all workers commuting in and out of the Morongo Basin. In 2022, there were 30,310 commuters, but only 10,206 jobs in the Morongo Basin area.

The map shows that most of the 4,327 individuals that are employed in the basin, but live outside of it, commute from residential locations in Desert Hot Springs and the Coachella Valley, with many commuting from the City of Indio and environs.

These workers regularly commute “up the hill” to their places of employment, with many (2,754 workers or 27%) traveling more than 50 miles to their job location in the Morongo Basin.

The table below, shows the main places of origin for all commuters that work in the Morongo Basin area.

City or Place	# of Workers	Percent
Yucca Valley, CA	2,300	22.5%
Twentynine Palms, CA	1,850	18.1%
Joshua Tree, CA	592	5.8%
Morongo Valley, CA	223	2.2%
Indio, CA	198	1.9%
Homestead Valley, CA	189	1.9%
Desert Hot Springs, CA	158	1.5%
Cathedral City, CA	144	1.4%
Palm Desert, CA	135	1.3%
Los Angeles, CA	127	1.2%
All Other Locations	4,290	42.0%
<b>Total</b>	<b>10,206</b>	<b>100.0%</b>

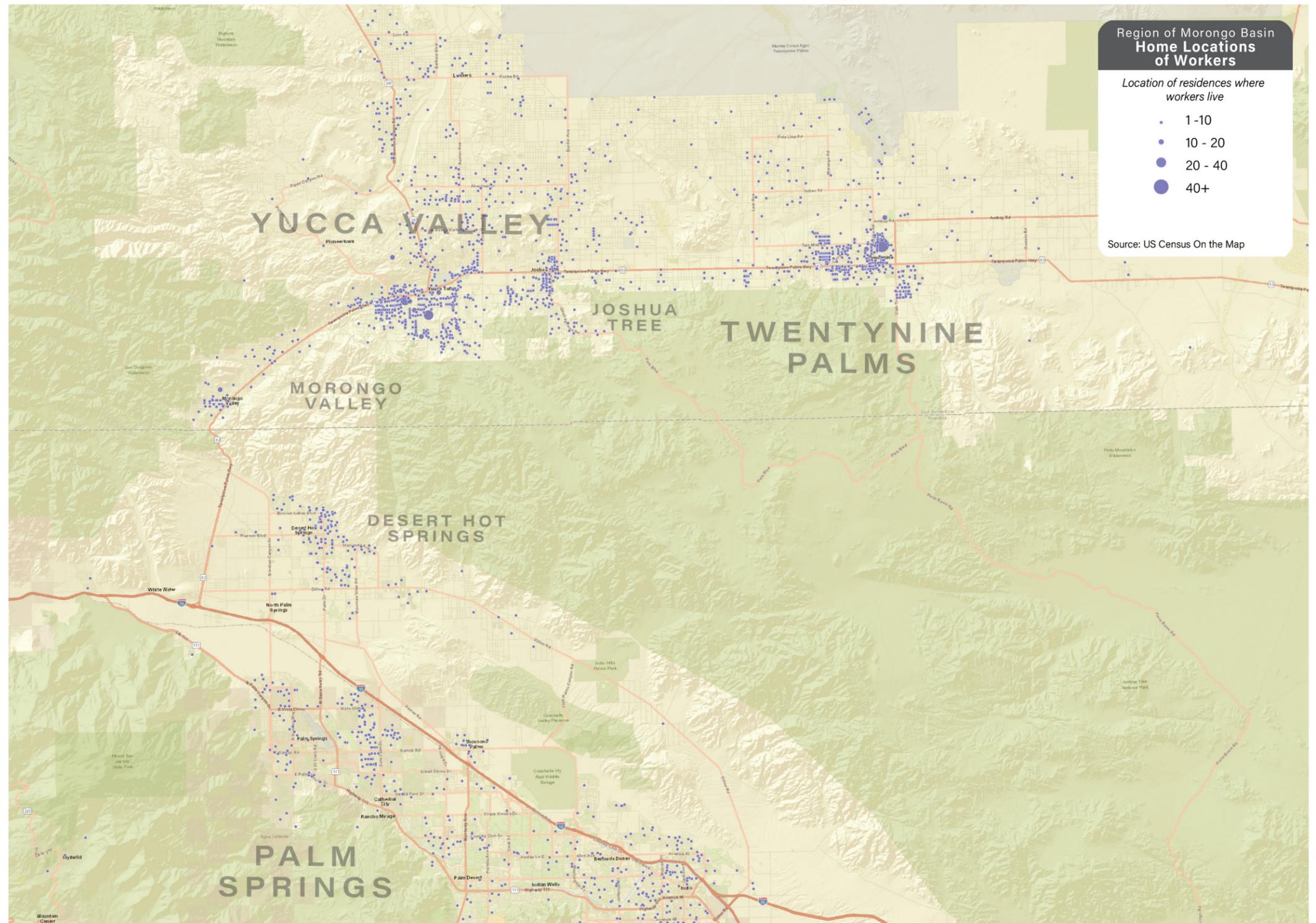


Figure 20: Residences of the employed population in the region

## Job Locations of Workers

Figure 21 shows the work locations of all commuters living in the Morongo Basin area. In 2022, there were 30,310 commuters living in the basin and commuting to jobs inside and outside the basin. Most workers living in the basin (64%) travel over 50 miles to their job location. Many of them go to places farther west in Riverside, San Bernardino, Orange, and Los Angeles Counties.

However, about 20% of workers commute to jobs “down the hill” in the Coachella Valley. Many of them going to job locations in downtown Palm Springs, like the Desert Regional Medical Center, the Convention Center and the Airport (PSP). **F**

Palm Springs also offers many employment opportunities in the hospitality industry and higher education. Academic institutions like the College of the Desert in Palm Desert, and nearby Cal State San Bernardino are also large employers that have a need for a reliable transit connection for students to/from Copper Mountain College.

The table below shows the main workplace destinations of commuters living in the Morongo Basin area.

City or Place	# of Jobs	Percent
Yucca Valley, CA	2,395	7.9%
Los Angeles, CA	2,305	7.6%
Twentynine Palms, CA	1,915	6.3%
Palm Springs, CA	1,149	3.8%
Joshua Tree, CA	751	2.5%
San Bernardino, CA	701	2.3%
Riverside, CA	629	2.1%
Palm Desert, CA	622	2.1%
San Diego, CA	584	1.9%
Irvine, CA	373	1.2%
All Other Locations	18,886	62.3%
<b>Total</b>	<b>30,310</b>	<b>100.0%</b>

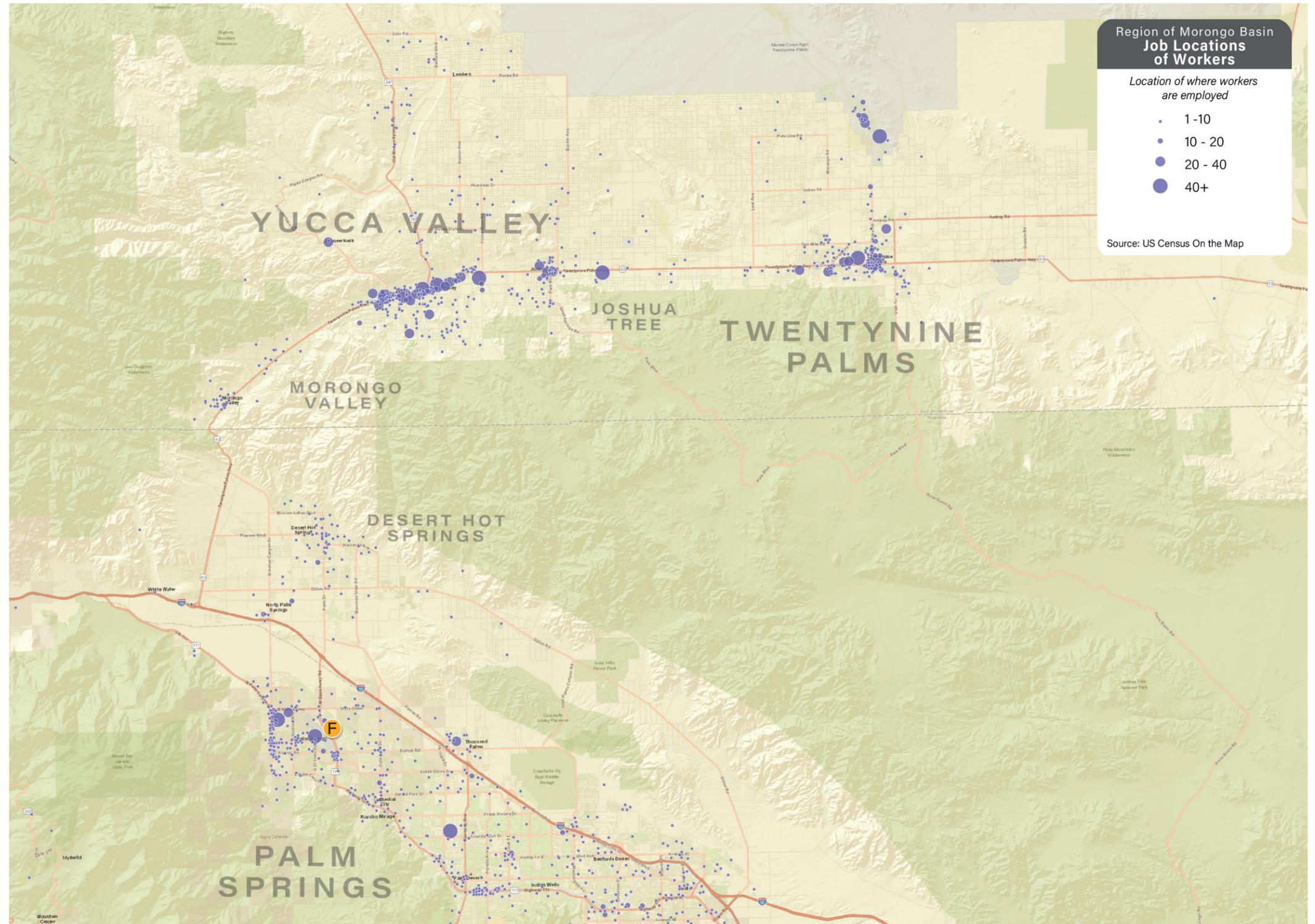


Figure 21: Work locations of the employed population in the region

# Summary of Market Analysis

## Key Takeaways

The previous maps and analyses show that Yucca Valley and Twentynine Palms are the major urban centers, concentrating most population and jobs in the Morongo Basin.

Both urban centers generate all-day demand in both directions of travel, especially Yucca Valley which concentrates the larger shopping and government destinations in the basin (i.e., Walmart, Home Depot, and Yucca Valley TAD).

Joshua Tree is an important urban center but at smaller scale. However, its closeness to Yucca Valley and the presence of important regional destinations east of town - County Courthouse and Hi-Desert Medical Center, generate demand for travel between the two areas.

The Copper Mountain College, located in between Joshua Tree and Twentynine Palms, generates additional infill demand for the Highway 62 corridor that connects the three urban centers.

Adobe Road in Twentynine Palms, continues the travel corridor towards the Twentynine Palms MCAGCC, connecting with another destination of regional significance.

The population living in these urban centers is ethnically diverse, and includes people of all ages, but skewing younger with about 53% of residents under 35 years old.

Most people living in poverty and without access to vehicles also concentrate in the major urban centers of Yucca Valley and Twentynine Palms. They constitute a primary market for transit use.

Commute patterns show that a large proportion of workers living in the Morongo Basin commute very long distances to their jobs, to locations throughout Southern California

that are more than 50 miles away from the basin. These are “super commuters” that have chosen to live in the Morongo Basin in search of affordability.

They are also an indication of travel demand patterns that exist between the Morongo Basin and Palm Springs, and the Coachella Valley, where Highway 62 is the main connection.

Although there are many people in the basin living away from Highway 62, for instance, in the Homestead Valley, Sunfair Heights, and Wonder Valley, the majority of residents and jobs are close to Highway 62.

***Highway 62 is the main corridor connecting all major urban centers and destinations in the basin, and it is also the primary connection with the region.***

***This means that any transit service strategy in the Morongo Basin should emphasize service to Highway 62 and along the Highway 62 corridor, because it generates all-day demand in both directions of travel and access to most opportunities, especially for low income residents that do not have regular access to their own vehicle.***



# 3

## Fixed-Route Service Analysis

# Fixed-Route Service Analysis

## Weekday Network

Basin Transit Existing Network is shown in Figure 22. This map shows each route color-coded by how frequently it runs during the middle of the day on weekdays. Currently, most routes run hourly through the day.

Basin Transit's current fixed route services are comprised of three modes:

- **Intercity Highway** service runs hourly between Yucca Valley and Twentynine Palms and makes stops in the community of Joshua Tree.
- Local services, also called **Neighborhood Shuttles**, are one-way looped routes that depart hourly to serve Yucca Valley and Twentynine Palms neighborhoods.
- **Commuter** services provide direct round-trip service from Yucca Valley to the Palm Springs Airport and from the Marine Base to the Palm Springs Airport.

Transit centers in Yucca Valley **A** and Twentynine Palms **B** anchor the services. Other significant destinations are:

- Yucca Valley's Kickapoo Park and Ride **C**, Walmart and Home Depot **D**
- Twentynine Palms Marine Corps Air Ground Combat Center (MCAGCC) **E**
- Palm Springs Airport (not shown in this map)

Routes that serve the MCAGCC must stop at the Base gate, and only riders with Military ID can remain on the vehicle. Non-military riders must alight from the bus and re-board after it loops around the Base's primary commercial and residential area. While the Base property is extremely vast, all facilities that support its personnel are located within about a 10 square-mile area from the front gate.

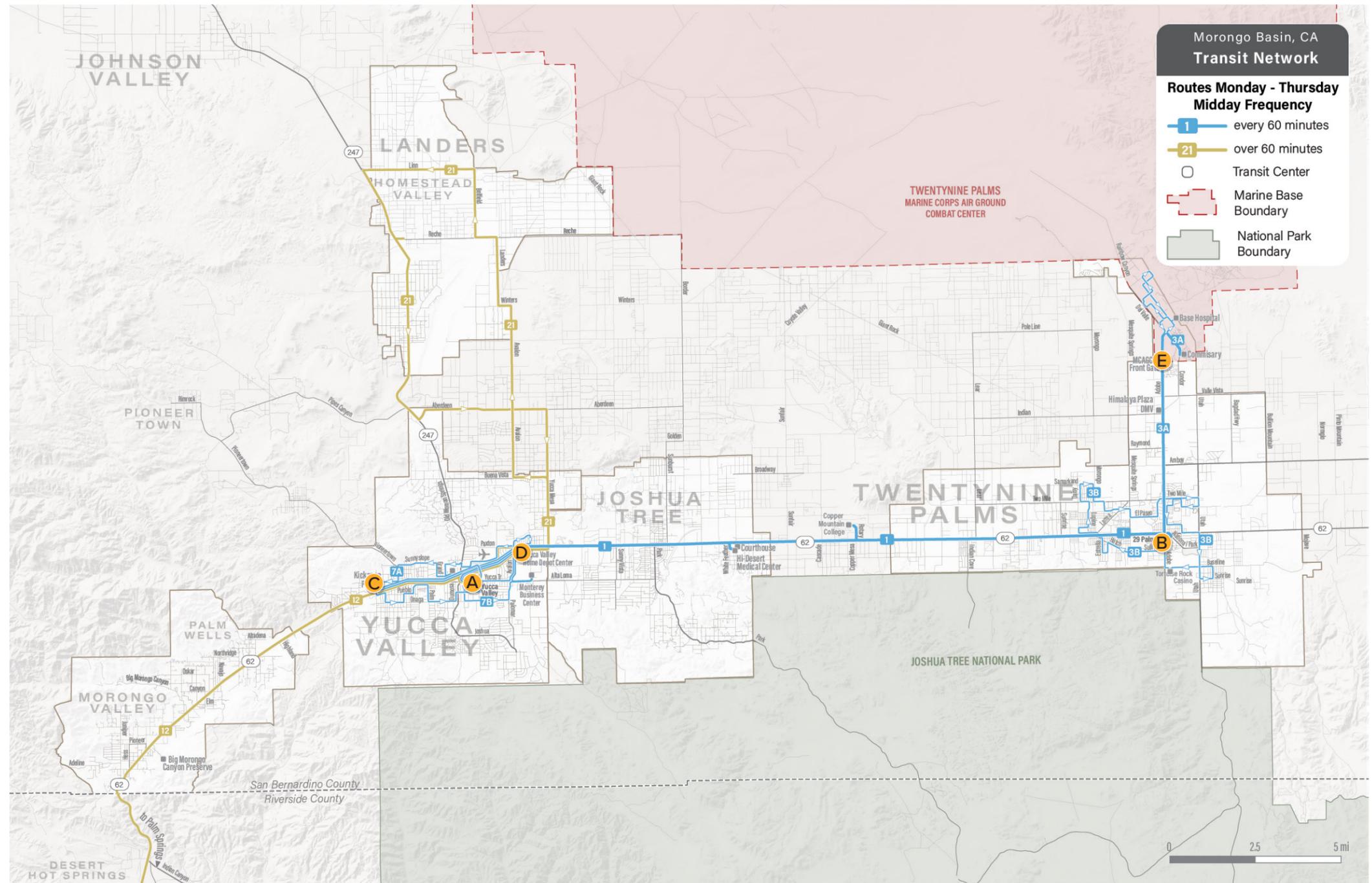


Figure 22: Weekday Basin Transit Bus Network

In this map and all frequency maps on this report:

**Light blue** lines runs every hour.

**Brown** lines offer more limited service.

## Saturday & Sunday Network

Figure 23 on the right shows a snapshot of Basin Transit Existing Network on Saturday. The weekend service does not run neighborhood shuttles and is catered towards **Intercity** and **Commuter** type trips, connecting the base with Yucca Valley and Palm Springs.

- **Intercity Highway** service runs mostly every hour between Yucca Valley and Twentynine Palms but extended to reach the Kickapoo Park and Ride **C** and the MCAGCC **E**. This service is intermittent on Saturday between the hours of 7:00 am and 10:00 pm. On Sunday, there are only two full round trips, one in the morning and one in the evening.
- **Neighborhood Shuttle** services are not provided on the weekends.
- The **Commuter** services are more active on the weekends to meet demand for travel “down the hill” to downtown Palm Springs and the Palm Springs Airport from the Marine Base **E**. There are 2 round trips on Saturday and Sunday, and one late evening trip on Friday.

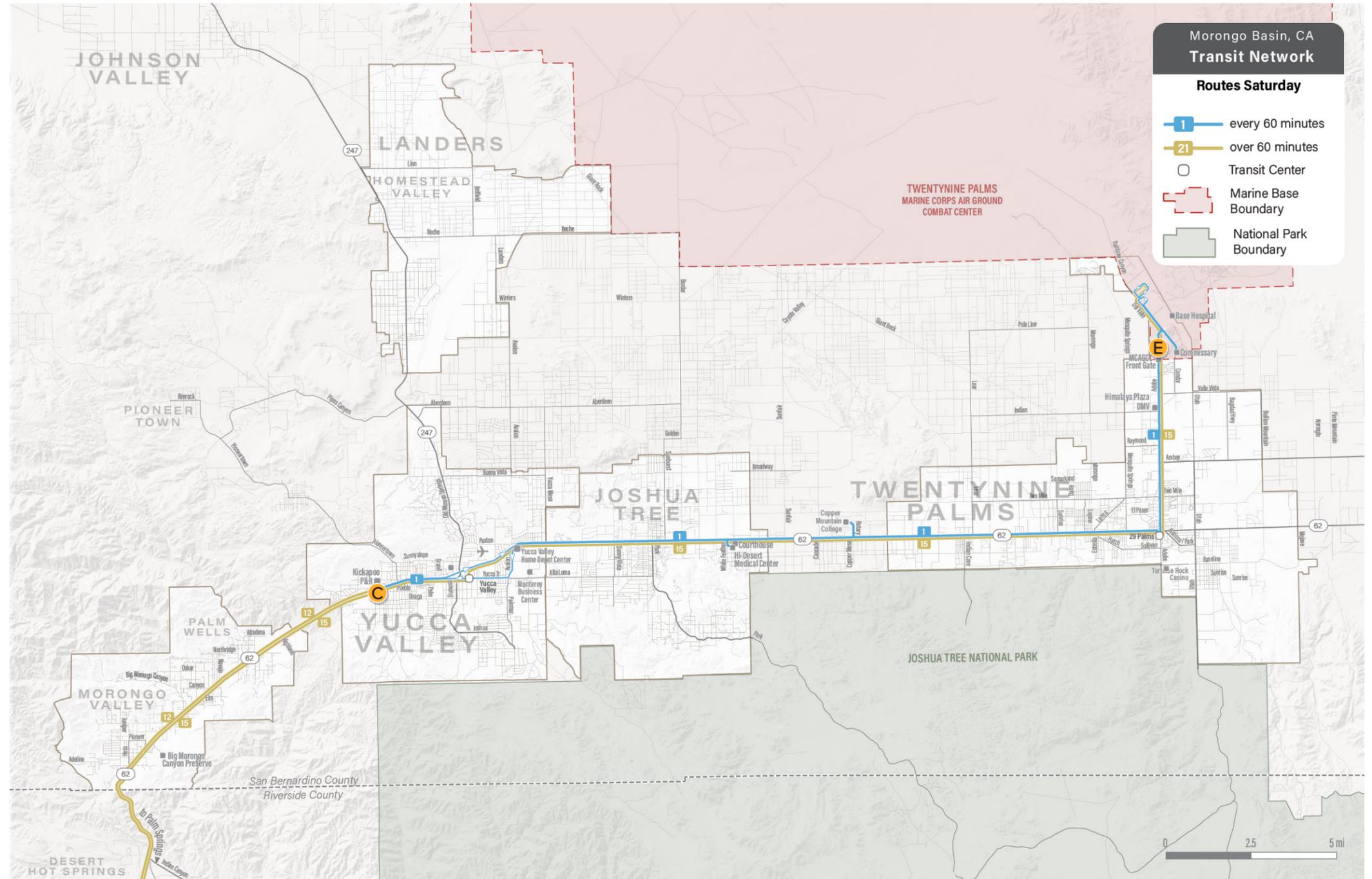


Figure 23: Saturday Basin Transit Bus Network

In this map and all frequency maps on this report:

**Light blue** lines runs every hour.

**Brown** lines offer more limited service.

# Route Descriptions

## Intercity Route 1 /1X

Route 1 operates daily service between Yucca Valley TC and Twentynine Palms TC, providing a direct connection across the Morongo Basin along Highway 62, but making a couple of deviations off of Highway 62 to reach Copper Mountain College and the Hi-Desert Medical Center (including the nearby Courthouse).

The two city centers that anchor Route 1 offer the highest density of employment opportunities, and retail, institutional and non-residential destinations.

- **Monday-Friday** service is hourly from 6:00 am until 10:00 pm with 15 trips in each direction. Three evening trips extend the route by continuing from the Twentynine Palms TC north on Adobe Road to the Marine Base Commissary, and from the Yucca Valley TC east to the Kickapoo Park and Ride. Also, the first trip of the day starts at the Kickapoo Park and Ride.
- **Saturday** service runs alternating hourly and two-hourly trips from the Kickapoo Park and Ride to the MCAGCC from 7:15 am until 10:00 pm.
- **Sunday** service is comprised of one morning trip and one afternoon trip operating between MCAGCC and the Kickapoo Park and Ride.

## Neighborhood Route 3A

Route 3A connects the Twentynine Palms TC and MCAGCC. It travels on Adobe Road, serves the Himalaya Plaza DMV and continues past the gate onto the base. It operates hourly, Monday through Friday, with 11 round trips between 7:00 am and 5:50 pm.

## Neighborhood Route 3B

Route 3B is a one-way (clockwise) loop that circulates an approximately 8 square-mile area of neighborhoods bounded by Two Mile Road on the north, Utah Trail on the east, Baseline Road on the south, and Encelia Drive on the west. It operates 11 loop trips departing hourly from the Twentynine Palms TC, Monday through Friday, between 7:00 am and 5:55 pm. Key destinations on this loop are the Tortoise Rock Casino, Joshua Tree National Park Visitor Center, and the Twentynine Palms High School.

## Neighborhood Route 7A

Route 7A provides weekday-only service on a one-way (counter-clockwise) loop circulating through Yucca Valley neighborhoods situated within an approximately 7 square-mile area north of Highway 62, between Indio Avenue and Kickapoo Trail. This route operates one-way eastbound on Highway 62 and one-way westbound primarily along Paxton Road and Sunnyslope Drive. The schedule includes 11 loops with hourly departures from the Yucca Valley TC, between 7:00 am until 5:50 pm.

## Neighborhood Route 7B

Route 7B provides weekday-only service also on a one-way (counter-clockwise) loop, circulating through Yucca Valley neighborhoods situated within an approximately 6 square-mile area south of Highway 62, between Kickapoo Trail on the west and La Contenta on the east. This route operates one-way westbound on Highway 62 and eastbound primarily along Onaga Trail and Palomar Avenue. Special school-day service deviations can be requested for Joshua Springs School, La Contenta Middle School, and Blackrock High School, at bell times only.

The schedule includes 11 loops with hourly departures from the Yucca Valley TC, between 7:00 am until 5:50 pm.

## Commuter Route 12

Route 12 provides weekday-only service with three round trips departing from the Yucca Valley TC at 7:00 am, 9:40 am, and 4:40 pm; and departing the Palm Springs Airport **F** at 7:55 am, 10:45 am, and 5:45 pm. The schedule allows 50 minutes for the 31 mile one-way trip via Highway 62 and Indian Canyon Rd.

## Commuter Route 15

A companion to Route 12, Route 15 provides limited service on Friday, Saturday and Sunday between the MCAGCC and the Palm Springs Airport. **F** Friday service consists of one round trip that departs the Base at 5:00 pm, and departs Palm Springs Airport at 7:00 pm. Saturday service consists of two trips that depart the Base at 10:00 am and 4:00 pm, and two trips that depart the Palm Springs Airport at noon and 6:00 pm. Sunday service consists of one round-trip departing the Twentynine Palms TC at 4:40 pm and departing from the Palm Springs Airport at 6:00 pm.

## Neighborhood Route 21

Route 21 provides weekday-only route deviation service along a one-way ‘figure 8’ loop covering approximately 40 square-miles of very low density neighborhoods in Homestead Valley. Bounding streets are Linn Road on the north, Yucca Road Mesa on the east, Buena Vista Drive on the south and Old Woman Springs Road (Hwy 247) on the west. There are six departures from the YVTC between 6:45 am and 6:16 pm.

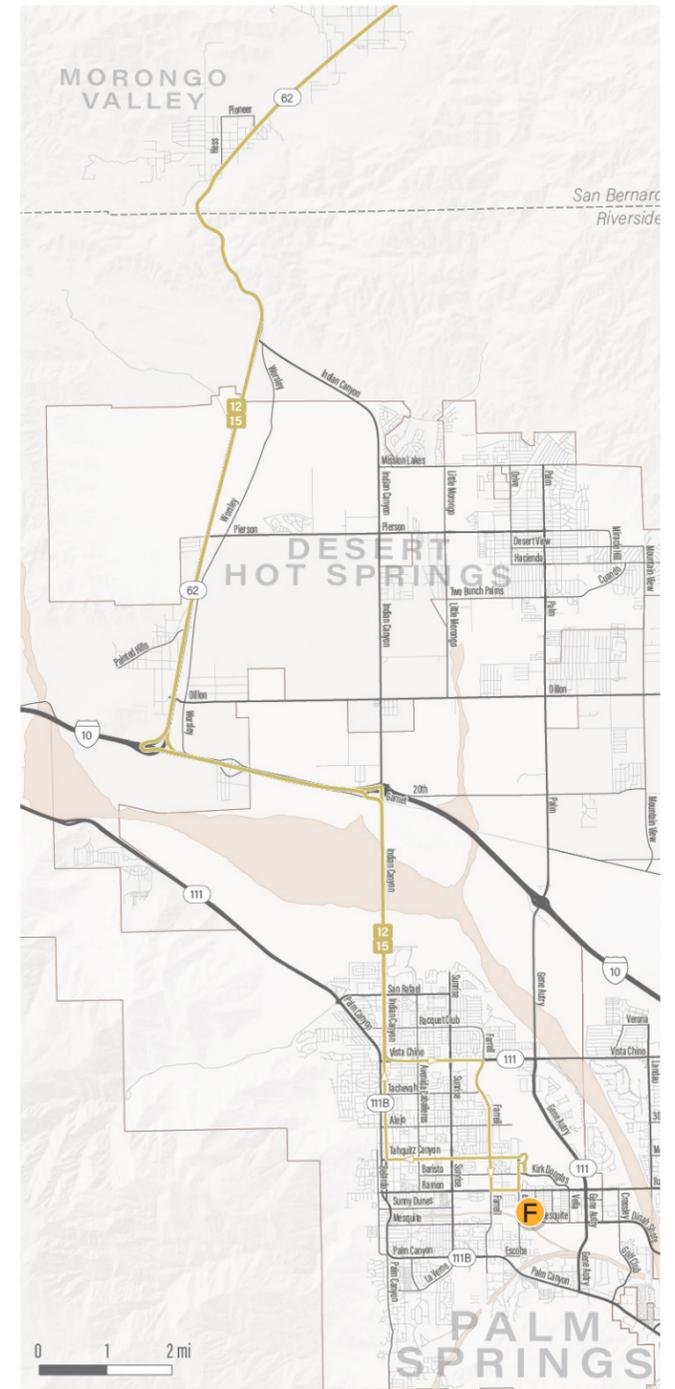


Figure 24: Commuter-type Routes 12 and 15 in Palm Springs

# Service Frequency and Hours of Service

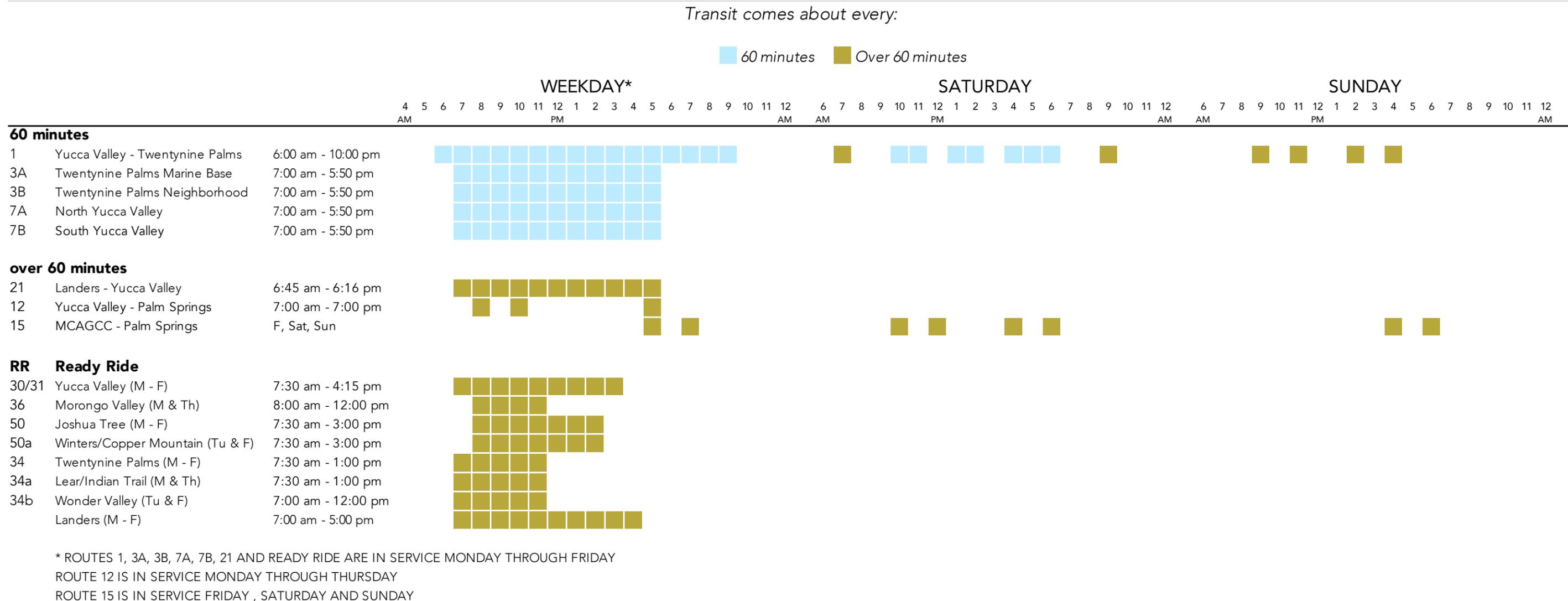


Figure 25: Frequency and Hours of Service Chart for Spring 2024 Basin Transit network

## Daily Frequencies and Hours of Service

The graphic in Figure 25, above, shows the frequency and availability of service, throughout each day of the week, for each route in the system, including Ready Ride services.

This graphic reveals that weekday fixed route service is continuous through the day, with Intercity and Neighborhood Routes providing

consistent service every hour, while commuter services are discontinuous, operating trips at selected times of day only.

In general, services that run once an hour limit the usefulness of transit, because they lengthen how long a rider will have to wait for the next bus. While services that run a few times in the day only, make transit an inflexible travel option that forces riders to plan their trip and day ahead.

**Weekend service** is sparse and designed to keep service along the Highway 62 corridor, and provide access to jobs, appointments and shopping opportunities to residents in the main urban centers of Yucca Valley, Joshua Tree and Twentynine Palms.

On weekend days, commuter service is extended to provide a direct trip between Palm Springs and the MCAGCC, with limited stops along the way, and at limited times.

**Ready Ride** services, which will be discussed in more detail in Chapter 4, provide an additional layer of service that is designed to serve ADA certified individuals and seniors with mobility impairments.

Ready Ride operates Monday to Friday only and with severe time limitations. Service is generally available from 7:00 am to 3:00 pm in Yucca Valley and Joshua Tree, and from 7:00 am to 1:00 pm in other areas.

# Coverage and Proximity Analysis

## Fixed Route Coverage

The Morongo Basin is home to more than 75,000 people (American Community Census 2018-2022). About 65,000 people live within Basin Transit’s service area and about 10,000 live in the Twentynine Palms MCAGCC. About 50,000 of Morongo Basin residents live in the cities of Yucca Valley and Twentynine Palms, and another 10,000 residents live in the census-designated places of Morongo Valley and Joshua Tree. The rest, about 5,000 residents, live in very-low density desert communities spread out through the basin and away from its major urban centers.

Basin Transit’s service area is a vast area that encompasses more than 400 square miles, in the Mojave Desert, squeezed between the 29 Palms MCAGCC and Joshua Tree National Park. To provide some perspective on the challenge that is providing service to such a large area, the City of Los Angeles is close to 500 square miles in size, the home to more than 3.8 million residents, and Los Angeles Metro is the second largest transit system in the country.

The comparison against a metropolitan area like Los Angeles, illustrates that providing transit service in such a large area requires significant operational resources. Basin Transit bus routes and demand response services must travel long distances to cover the service area. For example, Route 1 travels 23 miles to connect Yucca Valley Transit Center with Twentynine Palms Transit Center, Route 21 travels 20 miles to provide service coverage to Landers and the Homestead Valley, and Route 12 travels 34 miles to reach Palm Springs.

Figure 26 on the right measures the coverage and proximity that is provided by Basin Transit’s fixed-route services, on an average weekday. Coverage is defined as the area within one-half

of a mile (0.5 mile) of all fixed-route services. Proximity is defined as the number of residents and jobs that would have walking access to service within a 10-minute walk, which is the time it takes to walk up to 0.5 miles at an average speed of 3 miles per hour (the average walking speed for an abled adult).

The coverage and proximity analysis shows that BT fixed-route services provide coverage to just over 40% of residents but 57% of jobs in the Morongo Basin. BT can provide better coverage of jobs because these are more concentrated in the urban centers, and along Highway 62, while residents are spread out over a vast area.

However, BT fixed-route services are providing better coverage of low-income residents, with almost 50% of them living within a 10-minute walk of a fixed-route. As shown in the Market Analysis chapter, low-income residents are also more concentrated in the urban centers and BT can provide better service to them.

Finally, when looking at the non-white population (People of Color), BT fixed-route services provide coverage to 45% of them, which means that they are also proportionally more concentrated in the urban centers than the overall population but less concentrated than low-income residents.

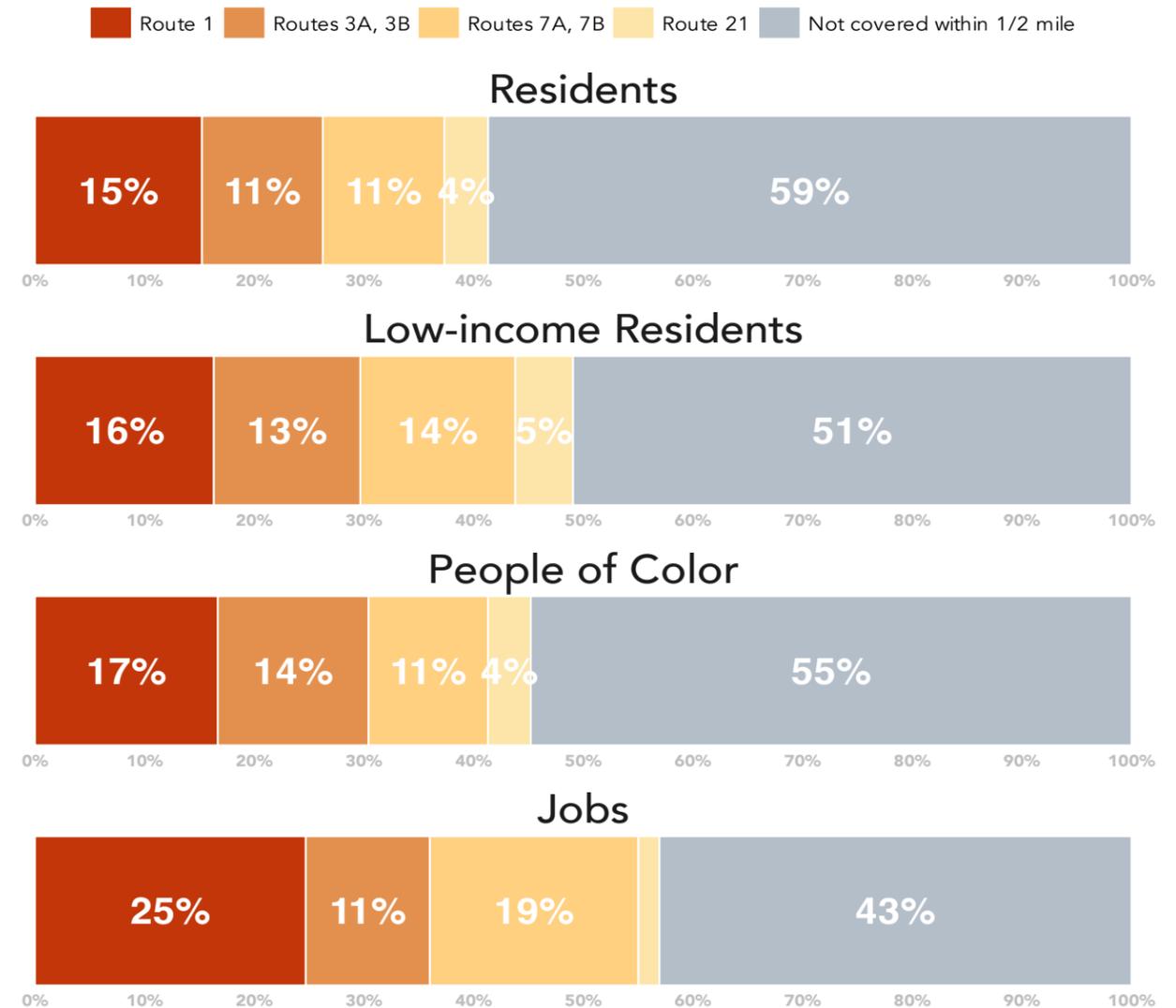
## Productivity Metrics

The following charts summarize the performance of BT services across productivity and cost-efficiency metrics.

Figure 27 and Figure 28 chart the productivity metrics for each service route in the system, by the frequency of service and by the type of service, respectively, including fixed-route (Intercity and Neighborhood Shuttle), commuter, and demand response (Ready Ride) services.

## Route Coverage

What percentage of people and jobs are covered by:



Note: Proximity is measured as being located 1/2 from the route

Figure 26: Proximity of residents and jobs to transit, by route number.

# Productivity Metrics

## Route Frequency and Productivity (Fiscal Year 2024)

Average Weekday Ridership and Service Level

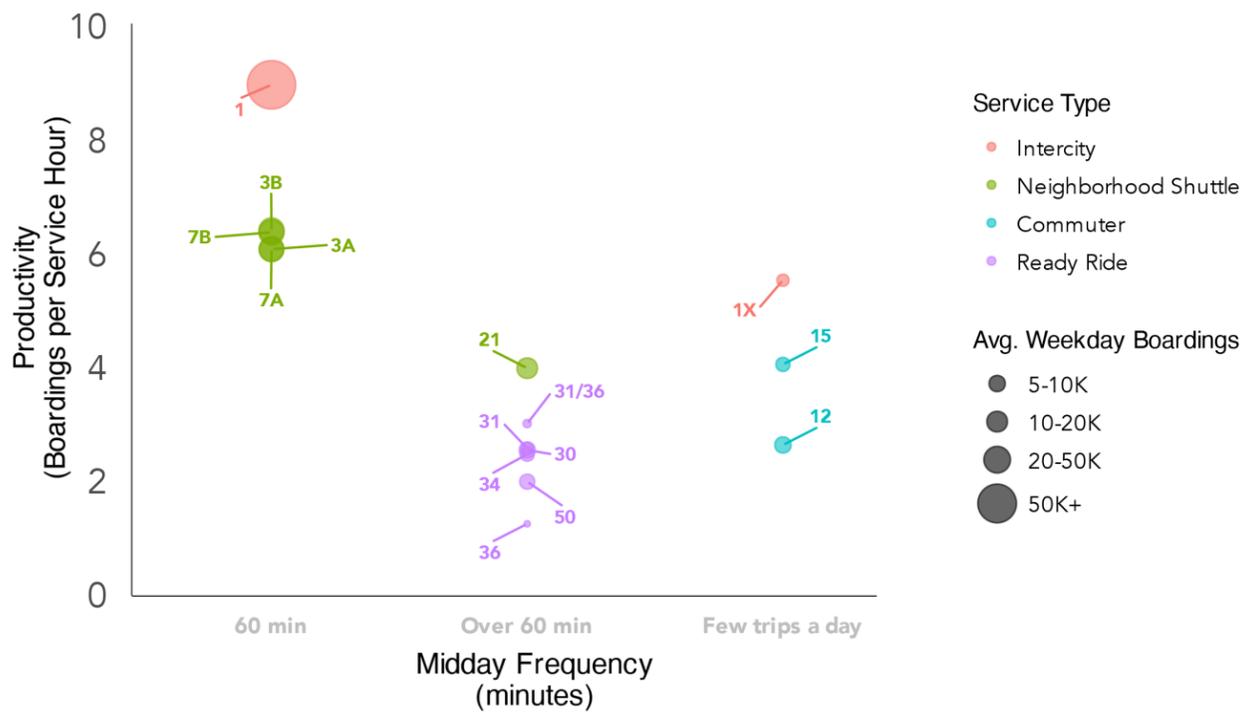


Figure 27: Route Productivity chart for Basin Transit network

The charts show that fixed-route services that operate more frequently such as Routes 1, 3A, 3B, 7A, and 7B attract a higher number of passenger-boardings per hour of service, because they provide service, consistently through the day, to areas of higher residential and employment density. These routes focus on generating ridership.

In contrast, services that operate less frequently such as Route 21 and Ready Ride services (30, 31, 34, 36, and 50) attract significantly lower passenger boardings per hour of service, because they provide sporadic service to large areas of very low density. These routes focus on providing coverage.

Commuter services like Route 12 and 15 focus on providing connectivity with major regional centers. Express bus services, in general, achieve lower levels of productivity (boardings per hour) than ridership services, because they have fewer stops and spend more time traveling between stops. The productivity of BT Routes 12 and 15 is very low, because they are only providing just a few trip times per day, which could be suppressing demand.

In contrast, Route 1 is an Intercity service that connects Yucca Valley, Joshua Tree, and Twentynine Palms, with a limited number of stops in between. It effectively functions as a commuter service, but because the service

## Service Type and Productivity (Fiscal Year 2024)

Average Weekday Ridership and Service Type

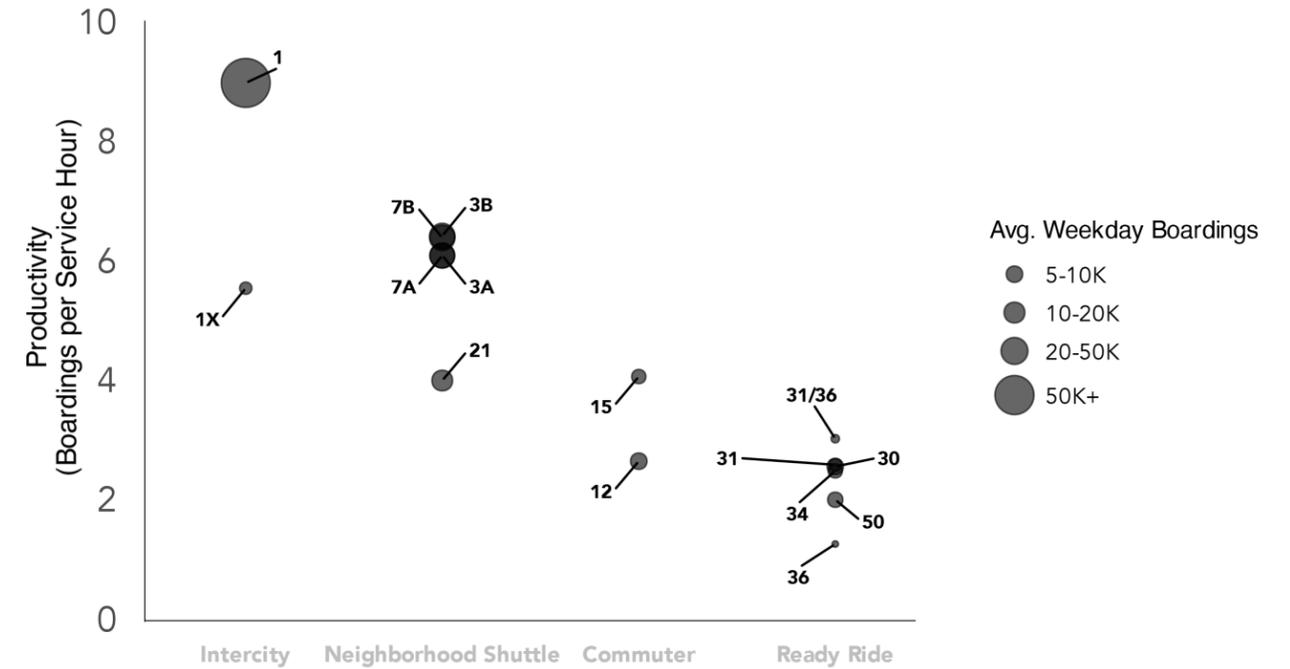


Figure 28: Service Type Productivity chart for Basin Transit network

is provided once an hour from early morning to late night, it provides consistent service throughout the day and many trip times, which make it more dependable for riders. This is why Route 1 is the highest performing route in the system.

Route 1 also provides a direct trip in both directions of travel which helps it achieve a higher level of productivity than Neighborhood Shuttle routes, which operate lengthy one-way loops and indirect travel paths for most potential riders. For instance, Routes 7A and 7B in Yucca Valley, provide a convenient trip away from Walmart and towards Walmart, respectively, but only for the neighborhoods that are closest to

it. Neighborhoods that are farther away, north or south of Highway 62, get a much longer and indirect trip that is not attractive for riders.

In fact, the majority of boardings along Routes 7A and 7B seem to occur along Highway 62, between Kickapoo Trail and Walmart. This segment of Highway 62 is not served by Route 1, and contains most retail, medical and service destinations in Yucca Valley.

Route 3B is a long 19-mile one-way loop that circles around Twentynine Palms, going through all neighborhoods in the city but providing a lengthy and indirect connection with the commercial area along Highway 62, which impacts its performance.

# Cost-Efficiency Metrics

### Cost per Boarding (Fiscal Year 2024)

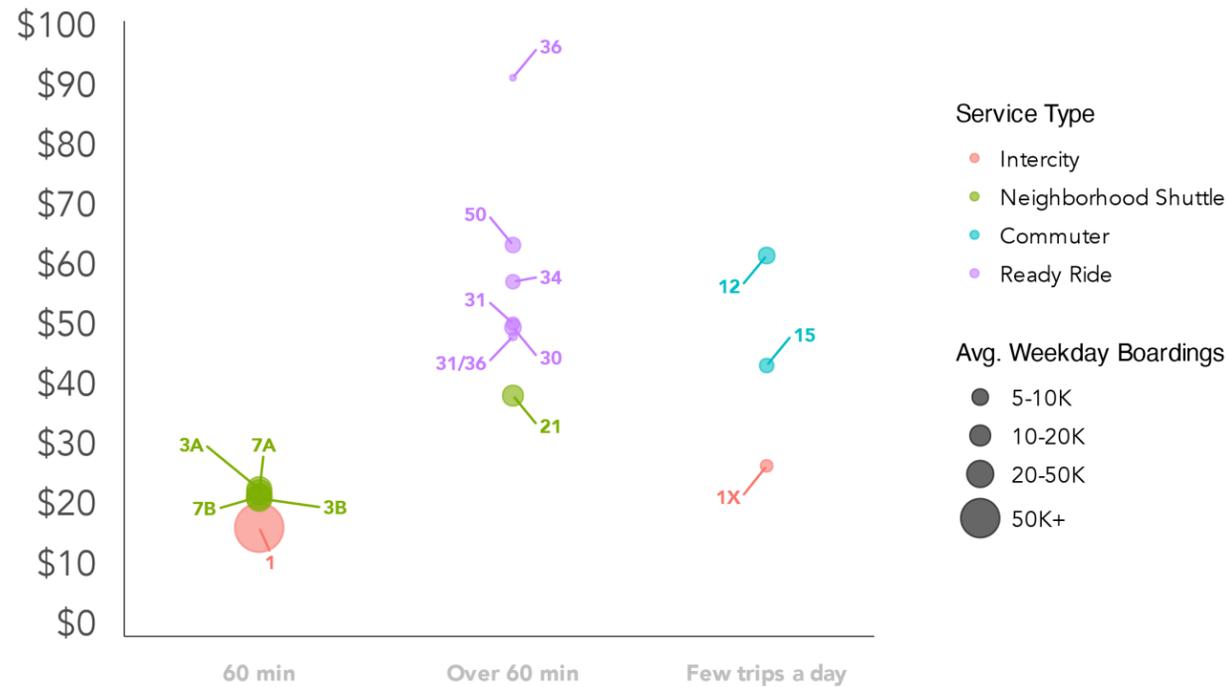


Figure 29: Cost per Boarding by Route and Service Type

Riders in neighborhoods north of Highway 62 have to travel around the full loop to get to Stater Bros. Riders coming off Route 1 wishing to go to Utah Trail or the Tortoise Rock Casino, also have to travel around the full loop.

Route 3A is different. It provides a direct connection between the base and Twentynine Palms TC, along Adobe Road, and a timed connection with Route 1 that allows riders to continue their trip in both directions. However, the circulation inside the base follows the pattern of a one-way loop that makes the trip inconvenient for recruits going to the Commissary. That and the low level of demand to and from the base in the midday, impact the

performance of the service.

## Cost-Efficiency Metrics

Figure 29 and Figure 30 show cost per boarding and cost per revenue hour of BT services. The charts show that a higher number of boardings not only translates into higher productivity metrics (boardings per revenue hour) but also on higher levels of cost-efficiency and effectiveness.

Higher ridership routes such as Route 1 and the Neighborhood Shuttles achieve a lower cost per boarding than commuter services and Ready Ride services, because at a comparable

### Cost per Revenue Hour (Fiscal Year 2024)

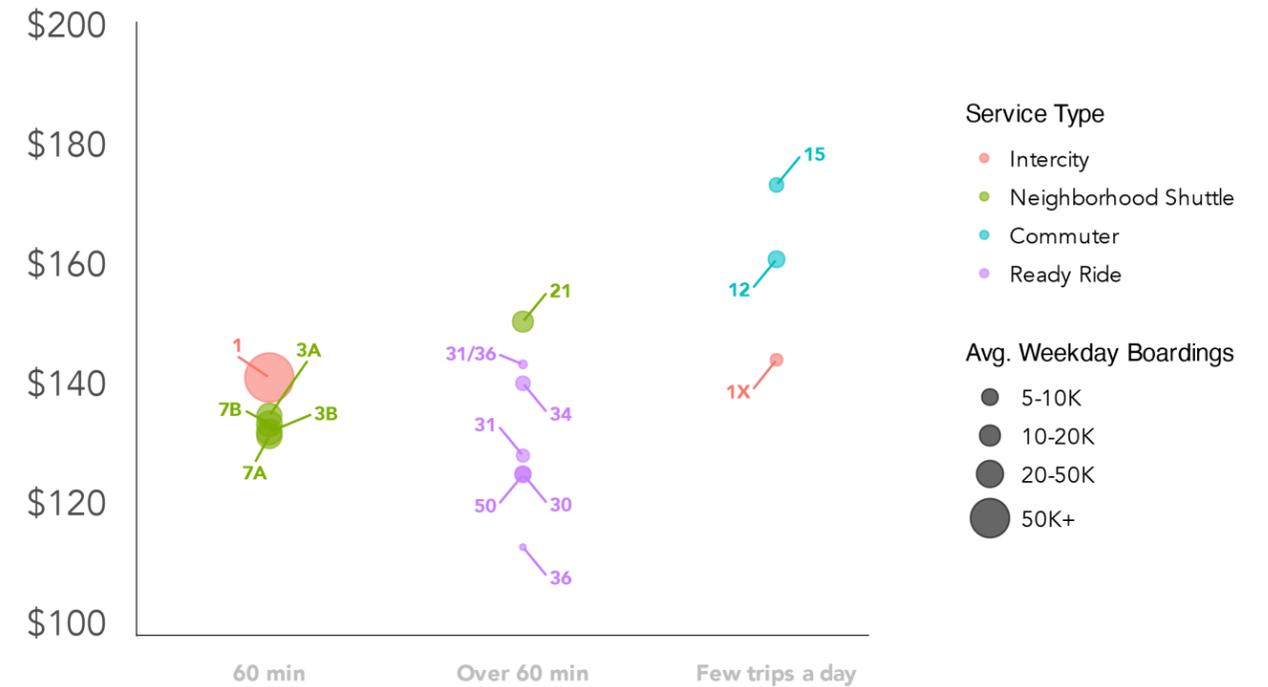


Figure 30: Cost per Revenue Hour by Route and Service Type

cost per revenue hour they attract many more riders.

Commuter services have a higher cost per boarding, because they are attracting a low level of ridership and are more expensive to operate, traveling dozens of miles to reach their destination and spending many hours on the road for each revenue service trip.

Ready Ride services achieve a cost per boarding that is comparable to commuter services. Boardings per revenue hour are lower but the cost per revenue hour is lower as well, because it is operated with smaller, cheaper and more fuel-efficient vehicles, and because it operates fewer revenue hours and miles.

Figure 31 on the next page shows the productivity and cost-efficiency metrics of Basin Transit on a route-by-route basis and for each service type - Intercity, Commuter, Neighborhood Shuttle and Ready Ride.

**Annual Boardings:** Basin Transit had over 186,200 boardings in FY 2024 (an average of about 620 boardings per day). Most annual boardings were on fixed route services (171,00 or 92%) with Ready Ride services carrying close to 15,200 passengers (8% of boardings). Within fixed route services, 87% of boardings were on Intercity Route 1 (86,226; 46%) and Neighborhood Shuttle Routes 3A, 3B, 7A, 7B, and 21 (76,592; 41%).

On average, Route 1 carried about 300 passengers per day, and Routes 3A, 3B, 7A, and 7B carried about 70 passengers each. Route 21 serving Landers carried about 40 passengers per day, while the commuter Routes 12 and 15 together carried about 30 passengers per day. Ready Ride services (Routes 30, 31, 34, 36, and 50 together) carried about 60 passengers per day, on average.

**Vehicle Revenue Hours:** Vehicle revenue hours show the level of investment in each service by Basin Transit. 80% of revenue hours were dedicated to fixed-route services and 20% of

hours to Ready Ride services. Within fixed route services, 30% of revenue hours were invested on Intercity Route 1, 41% on Neighborhood Shuttle Routes 3A, 3B, 7A, 7B, and 21, and 8% on Commuter services 12 and 15.

**Boardings per Revenue Hour:** Systemwide, BT services achieved an average of 5.8 boardings per revenue hour in FY 2024. Fixed route services were higher at 6.7 on average, and Ready Ride services were much lower at 2.3. Within fixed route services, Intercity Route 1 scored the highest productivity at 8.8 passengers per revenue hour, Neighborhood Shuttles achieved

5.8, the same average as the system, and Commuter routes achieved 3.0 boardings per revenue hour.

**Operating Cost:** The annual operating cost of BT service was \$4.45 million in FY 2024. Fixed route services account for 81% (\$3.61 million) and Ready Ride services account for 19% (\$0.84 million) of annual costs. Within fixed route, Neighborhood Shuttle accounted for 40% (\$1.79 million), Intercity for 31% (\$1.38 million) and Commuter for 10% (\$0.45 million) of annual operating costs. Operating costs largely follow the amount of investment in vehicle revenue

hours. Labor is the biggest expense of transit agencies, ranging from 50-60% of cost. For that reason, transit agencies track most of their cost centers (admin and operations) against the amount of revenue hours and to a lesser extent against the revenue miles (typically vehicle maintenance costs).

Services that operate many revenue miles because of high frequency and/or very long routes, such as Route 1 and the Commuter Routes 12 and 15, have slightly higher operating costs. For instance, the Intercity Route 1 service received 30% of revenue hours and

**Fiscal Year 2024 (July 2023 - June 2024)**

Route #	Service Type	Annual Boardings	Vehicle Revenue Hours	Vehicle Revenue Miles	Boardings per Vehicle Revenue Hour	Boardings per Vehicle Revenue Mile	Operating Cost	Cost per Vehicle Revenue Hour	Cost per Vehicle Revenue Mile	Cost per Boarding	Farebox Recovery Ratio	Fare Revenue	Average Fare per Boarding
1	Intercity	84,277	9,411	218,397	9.0	0.39	\$ 1,325,187	\$ 140.8	\$ 6.1	\$ 15.7	11.6%	\$ 153,380	\$ 1.82
1X	Intercity	1,949	353	7,429	5.5	0.26	\$ 50,777	\$ 143.8	\$ 6.8	\$ 26.1	2.9%	\$ 1,493	\$ 0.77
12	Commuter	5,047	1,924	53,911	2.6	0.09	\$ 308,945	\$ 160.6	\$ 5.7	\$ 61.2	18.1%	\$ 55,837	\$ 11.06
15	Commuter	3,204	793	25,788	4.0	0.12	\$ 137,217	\$ 173.0	\$ 5.3	\$ 42.8	10.1%	\$ 13,919	\$ 4.34
3A	Neighborhood Shuttle	16,048	2,646	52,174	6.1	0.31	\$ 355,684	\$ 134.4	\$ 6.8	\$ 22.2	3.5%	\$ 12,295	\$ 0.77
3B	Neighborhood Shuttle	17,246	2,698	49,667	6.4	0.35	\$ 355,286	\$ 131.7	\$ 7.2	\$ 20.6	6.9%	\$ 24,575	\$ 1.42
7A	Neighborhood Shuttle	16,457	2,714	41,540	6.1	0.40	\$ 355,633	\$ 131.0	\$ 8.6	\$ 21.6	7.6%	\$ 26,980	\$ 1.64
7B	Neighborhood Shuttle	17,009	2,673	43,047	6.4	0.40	\$ 355,816	\$ 133.1	\$ 8.3	\$ 20.9	5.4%	\$ 19,375	\$ 1.14
21	Neighborhood Shuttle	9,832	2,474	60,948	4.0	0.16	\$ 371,583	\$ 150.2	\$ 6.1	\$ 37.8	4.3%	\$ 15,937	\$ 1.62
30	Ready Ride	4,864	1,920	22,184	2.5	0.22	\$ 239,385	\$ 124.7	\$ 10.8	\$ 49.2	4.1%	\$ 9,704	\$ 2.00
31	Ready Ride	2,259	881	9,196	2.6	0.25	\$ 112,611	\$ 127.8	\$ 12.2	\$ 49.9	3.8%	\$ 4,317	\$ 1.91
31/36	Ready Ride	529	176	2,492	3.0	0.21	\$ 25,226	\$ 143.0	\$ 10.1	\$ 47.7	4.2%	\$ 1,056	\$ 2.00
34	Ready Ride	3,187	1,295	19,468	2.5	0.16	\$ 181,134	\$ 139.9	\$ 9.3	\$ 56.8	3.6%	\$ 6,521	\$ 2.05
36	Ready Ride	349	282	1,530	1.2	0.23	\$ 31,737	\$ 112.5	\$ 20.7	\$ 90.9	2.4%	\$ 746	\$ 2.14
50	Ready Ride	3,977	2,010	28,645	2.0	0.14	\$ 250,405	\$ 124.6	\$ 8.7	\$ 63.0	3.2%	\$ 7,977	\$ 2.01
	Intercity	86,226	9,764	225,826	8.8	0.38	\$ 1,375,964	\$ 140.9	\$ 6.1	\$ 16.0	11.3%	\$ 154,873	\$ 1.80
	Commuter	8,251	2,717	79,699	3.0	0.10	\$ 446,161	\$ 164.2	\$ 5.6	\$ 54.1	15.6%	\$ 69,756	\$ 8.45
	Neighborhood Shuttle	76,592	13,205	247,376	5.8	0.31	\$ 1,794,002	\$ 135.9	\$ 7.3	\$ 23.4	5.5%	\$ 99,162	\$ 1.29
	<b>Ready Ride</b>	<b>15,165</b>	<b>6,565</b>	<b>83,515</b>	<b>2.3</b>	<b>0.18</b>	<b>\$ 840,499</b>	<b>\$ 128.0</b>	<b>\$ 10.1</b>	<b>\$ 55.4</b>	<b>3.6%</b>	<b>\$ 30,321</b>	<b>\$ 2.00</b>
	<b>Total Fixed Route</b>	<b>171,069</b>	<b>25,686</b>	<b>552,901</b>	<b>6.7</b>	<b>0.31</b>	<b>\$ 3,616,128</b>	<b>\$ 140.8</b>	<b>\$ 6.5</b>	<b>\$ 21.1</b>	<b>9.0%</b>	<b>\$ 323,791</b>	<b>\$ 1.89</b>
	<b>Total System</b>	<b>186,234</b>	<b>32,251</b>	<b>636,416</b>	<b>5.8</b>	<b>0.29</b>	<b>\$ 4,456,627</b>	<b>\$ 138.2</b>	<b>\$ 7.0</b>	<b>\$ 23.9</b>	<b>7.9%</b>	<b>\$ 354,112</b>	<b>\$ 1.90</b>

Figure 31: Service performance by route

# Summary of Performance Analysis

delivered 35% of revenue miles, resulting in 31% of annual operating costs. Similarly, Commuter services received 8% of revenue hours but delivered 12% of revenue miles, resulting in 10% of annual operating costs.

**Cost per Boarding:** In FY 2024, the average cost per boarding across the system was \$23.9 per boarding. The average for fixed route services was \$21.1 per boarding, below the system average, and \$55.4 per boarding for Ready Ride services, 2.3 times higher than the system average. Within fixed route services, Intercity Route 1 cost per boarding was \$16.0, Neighborhood Shuttles were on average \$23.4, same as the average for the system, and Commuter services were \$54.1 per boarding, also 2.3 times the system average.

The average cost per vehicle revenue hour in the system was \$138.2, ranging from a low of \$128.0 for Ready Ride services and a high of \$164.2 for Commuter services. Low ridership is impacting the cost-efficiency performance across the entire system. Although the cost of operation of Ready Ride is lower than other services, it carries fewer passengers, which results in the highest cost per boarding. Commuter services are the most expensive to operate, but their ridership is low which also results in a high cost per boarding, like Ready Ride services.

Route 1 achieved the lowest cost per boarding (\$16 per passenger; 30% below the system average), because it carried the most passengers. In contrast, Neighborhood Shuttles attracted lower ridership at similar cost per revenue hour (\$136 vs \$141), but investing 30% more vehicle revenue hours (13,205 vs 9,764) and operating cost (\$1.79 million vs \$1.38 million), which resulted in a cost per boarding (\$23.4 vs \$16.0) that was 45% higher than Route 1.

**Fare Revenue:** Basin Transit recovered almost 8% of operating costs through fares in FY 2024. The farebox recovery ratio was 2.5 times higher on fixed route services (9%) than on Ready Ride services (3.6%), mostly because Ready Ride services carried a very low number of passengers. Within fixed route services, Commuter services had the highest fare recovery ratio at 15.6%, followed by Intercity service (11.3%) and Neighborhood Shuttles (5.5%).

The farebox recovery ratio of neighborhood shuttles was lower than the system average because of low ridership, but also because this service charges a lower fare per trip, with an average fare per boarding of \$1.29, the lowest in the system. On the other hand, the farebox recovery of Commuter services was the highest, because despite low ridership this service charges a much higher fare per trip, with an average fare per boarding of \$8.45.

In terms of fare revenue, Route 1 contributed with 43% of the total because of its higher ridership. Neighborhood Shuttles contributed only 28% despite having 41% of annual boardings, and Commuter services contributed with 20% despite having 4% of boardings only.

## Key Observations

***The productivity and cost-efficiency performance metrics show that services that provide more hours of service, consistent frequency of service, and direct travel paths, generate higher ridership.***

Route 1 is the primary route in the system, attracting almost 50% of Basin Transit's annual boardings. Route 1 provides a direct route that connects the major residential and employment centers in the Morongo Basin, for extended hours of service each day, and with a consistent level of frequency. This makes the route a dependable option to access opportunities in the region, for most riders of the system.

But despite its mobility benefits, Route 1 lacks continuity across Yucca Valley during weekdays, requiring riders to transfer to/from Routes 7A and 7B to continue travel between Yucca Valley and Joshua Tree and Twentynine Palms. However, on weekend days, Route 1 is extended to provide continuous service and direct trips between the Kickapoo Park and Ride, on the western edge of Yucca Valley, and the Twentynine Palms MCAGCC.

Stop level boarding and alighting information, collected during the last Comprehensive Operational Analysis in 2018, shows that about 70% of Route 7A and 7B ridership occurred along Highway 62, between the Kickapoo Park and Ride and Walmart, the segment of Route 1 that is only served on weekday evenings and weekend days, when Routes 7A and 7B are not in service.

The key question then is why Route 1 is not serving this segment through the day every day, if ridership patterns (see Fare Structure Review on page 54) show riders having to transfer at Walmart or at the Yucca Valley TC to continue their trip in either direction.

The performance trends show that the system has been in a continuous decline and losing ridership. The best interpretation possible is that the system is not providing a viable travel option for most potential users, therefore, the most important action that the system can take is to increase its convenience.

This means making changes to the system to provide a more competitive travel option for more residents of the basin. For instance by:

- Increasing the directness of service, providing direct travel paths and reducing barriers to access service,
- Increasing hours of service on weekday evenings and weekend days,
- Increasing the frequency of service, and
- Improving timed connections across all services to travel seamlessly through the basin and the region.

Commute patterns show a high-degree of travel between the Morongo Basin and Palm Springs. Increasing service options to the Coachella Valley and ensuring connections with SunLine Transit Agency services will extend the reach of both systems and increase the convenience of transit service to move around the region.

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# 4

## Ready Ride Service Analysis

# Ready Ride Service Analysis

## Program Structure

Ready Ride service is a dial-a-ride demand response system that is available to all residents of the Morongo Basin. Ready Ride is provided in 7 different service areas with different levels of service throughout the week – Monday to Friday.

Three (3) urban areas receive consistent service Monday to Friday from roughly 7:00 am to 3:00 pm – Yucca Valley, Joshua Tree, and Twentynine Palms, and four (4) rural areas receive service two days a week and for limited hours only – Morongo Valley, north of Joshua Tree up to Winters Road and Sunfair Road, north of Twentynine Palms up to Pole Line Road and Lear Avenue, and Wonder Valley.

Ready Ride service areas have not been defined with specific boundaries. There are no maps documenting their extent or limits. Figure 32 shows the approximate boundaries for each of these service areas that were derived from an analysis of all Ready Ride trips taken in Fiscal Year 2024.

Ready Ride was designed to provide service to neighborhoods away from Highway 62 that were not covered by intercity service and neighborhood shuttles. It was designed to cover all urban communities of Yucca Valley, Joshua Tree and Twentynine Palms, but because boundaries were not strictly defined, overtime the service has been extended to serve residents in outlying rural areas such as Wonder Valley that are more than 10 miles away.

The Landers service area is technically not part of Ready Ride service. Transit service to Landers is provided as an on-demand deviation of Route 21. However, Route 21 shows an alternative option to provide on-demand service to a large service area not covered by fixed-route services.

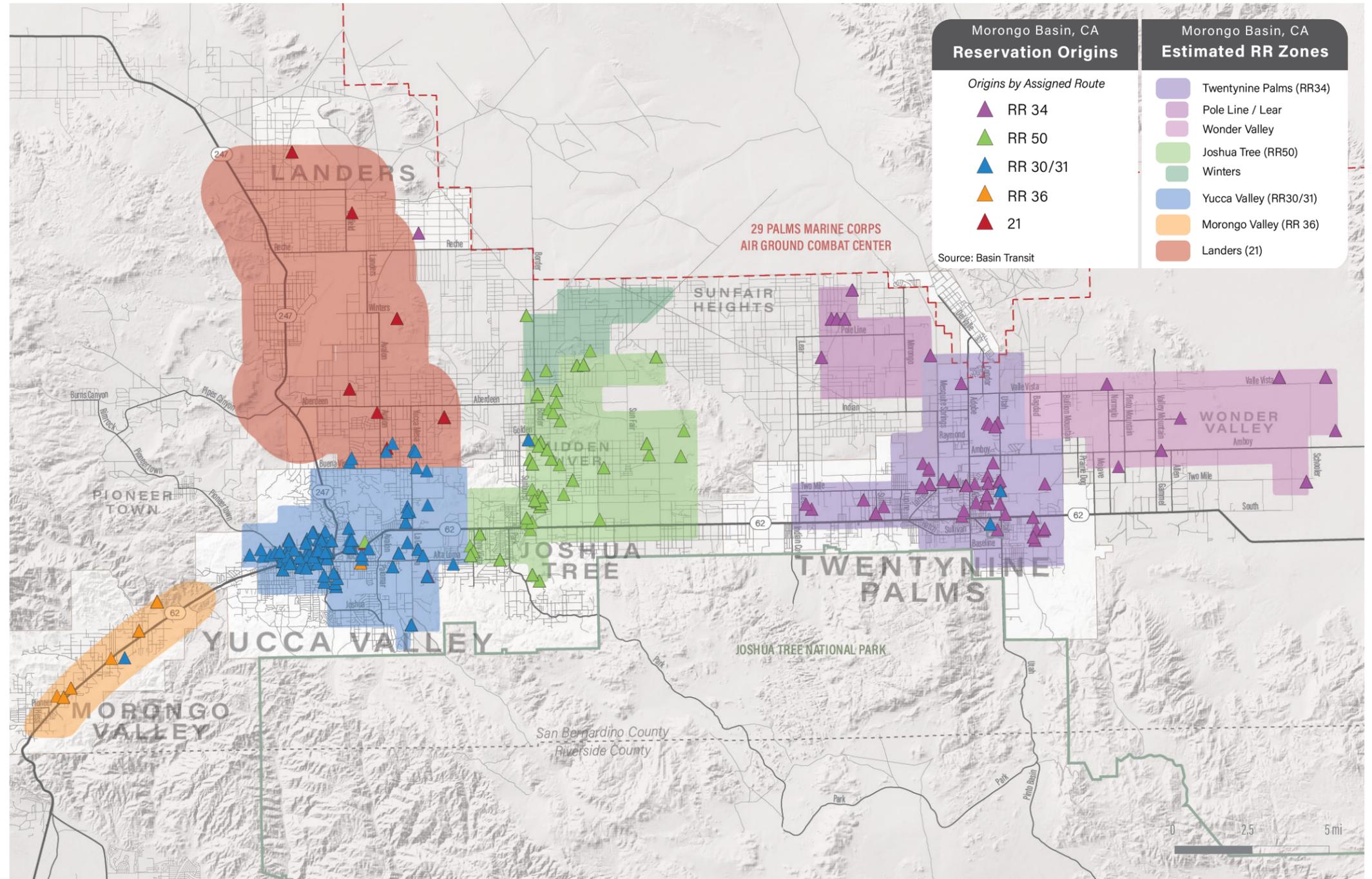


Figure 32: Estimated Ready Ride zone boundaries

## Service Operations

Ready Ride service is provided with 4 vehicles during maximum service each weekday. Service trips are captured in 5 routes – RR30 and RR31 Yucca Valley, RR36 Morongo Valley, RR 34 Twentynine Palms, Lear/Pole Line, and Wonder Valley, and RR 50 Joshua Tree and Winters/Sunfair. But in practice this translates into Ready Ride providing service on 7 different routes or service areas throughout the work week, and because only 4 vehicles provide this service, hours of service are limited for all service areas, including the densest parts of Yuca Valley, Joshua Tree and Twentynine Palms.

Ready Ride riders are only allowed to travel within two zones – Yucca Valley/Joshua Tree and Twentynine Palms. This is more of a service policy than a strict rule because there are exceptions for ADA certified passengers. But in practice this results in RR30 and 31 Yucca Valley, RR36 Morongo Valley, and RR50 Joshua Tree riders traveling to Yucca Valley, and RR34 Twentynine Palms, Pole Line/Lear, and Wonder Valley riders traveling to Twentynine Palms only.

The frequency and availability of service is higher in Yucca Valley than in other communities because Ready Ride operates two vehicles and routes (RR30 and RR31). RR36 Morongo Valley is only available Monday and Thursday, and only at 8:00 am and 12:00 pm. RR34 Twentynine Palms service is provided with only 1 vehicle, which results in uneven service within city limits, because RR34 also provides service to Pole Line/Lear Monday and Thursday, and to Wonder Valley Tuesday and Friday. Wednesday is the only day where RR34 provides consistent service to Twentynine Palms.

RR50 service to Joshua Tree is also provided with 1 vehicle. This also constrains the frequency and availability of service because

Fiscal Year	Annual Boardings (unlinked trips)	Vehicle Revenue Hours	Vehicle Revenue Miles	Boardings per Vehicle Revenue Hour	Boardings per Vehicle Revenue Miles	Operating Cost	Cost per Vehicle Revenue Hour	Cost per Vehicle Revenue Mile	Cost per Boarding	Fare Revenue	Farebox Recovery Ratio	Average Fare per Boarding
2014	24,369	7,382	106,542	3.3	0.23	\$ 431,697	\$ 58.5	\$ 4.05	\$ 17.72	\$ 25,322	5.9%	\$ 1.04
2015	21,189	7,034	100,642	3.0	0.21	\$ 570,713	\$ 81.1	\$ 5.67	\$ 26.93	\$ 33,006	5.8%	\$ 1.56
2016	19,925	7,207	88,893	2.8	0.22	\$ 363,690	\$ 50.5	\$ 4.09	\$ 18.25	\$ 30,867	8.5%	\$ 1.55
2017	17,789	6,989	84,902	2.5	0.21	\$ 379,152	\$ 54.2	\$ 4.47	\$ 21.31	\$ 40,482	10.7%	\$ 2.28
2018	18,543	7,008	84,508	2.6	0.22	\$ 370,690	\$ 52.9	\$ 4.39	\$ 19.99	\$ 37,845	10.2%	\$ 2.04
2019	17,607	6,875	85,088	2.6	0.21	\$ 505,004	\$ 73.5	\$ 5.94	\$ 28.68	\$ 61,011	12.1%	\$ 3.47
2020	15,413	6,583	80,100	2.3	0.19	\$ 431,119	\$ 65.5	\$ 5.38	\$ 27.97	\$ 28,788	6.7%	\$ 1.87
2021	11,798	6,090	69,516	1.9	0.17	\$ 668,179	\$ 109.7	\$ 9.61	\$ 56.63	\$ 36,383	5.4%	\$ 3.08
2022	12,783	6,245	72,204	2.0	0.18	\$ 688,474	\$ 110.2	\$ 9.54	\$ 53.86	\$ 49,427	7.2%	\$ 3.87
2023	13,636	6,611	74,109	2.1	0.18	\$ 825,726	\$ 124.9	\$ 11.14	\$ 60.55	\$ 16,878	2.0%	\$ 1.24
2024	15,165	6,565	83,515	2.3	0.18	\$ 840,499	\$ 128.0	\$ 10.06	\$ 55.42	\$ 30,319	3.6%	\$ 2.00
Pre-COVID-19 Change (FY 2014 - FY 2019)	-27.7%	-6.9%	-20.1%	-22.4%	-9.5%	17.0%	25.6%	46.5%	61.9%	140.9%	106.0%	233.5%
Post COVID-19 Change (FY 2019 - FY 2024)	-13.9%	-4.5%	-1.8%	-9.8%	-12.2%	66.4%	74.3%	69.6%	93.2%	-50.3%	-70.1%	-42.3%
<b>Overall Change</b>	<b>-37.8%</b>	<b>-11.1%</b>	<b>-21.6%</b>	<b>-30.0%</b>	<b>-20.6%</b>	<b>94.7%</b>	<b>118.9%</b>	<b>148.4%</b>	<b>212.9%</b>	<b>19.7%</b>	<b>-38.5%</b>	<b>92.4%</b>

Figure 33: Ready Ride Performance Trends 2014-2024. National Transit Database.

Joshua Tree and Winters Road riders are allowed to travel to Yucca Valley, which on average is a longer distance than riders within Yucca Valley and Twentynine Palms. This results in more frequent time slots for service in Yucca Valley, roughly every 45 minutes, than in Joshua Tree, roughly every 75-120 minutes.

## Performance Trends 2014-2024

Figure 33 shows the performance trends of Ready Ride service in the 10-year period 2014-2024. Ready Ride has experienced a decline of 38% in ridership in the last 10 years, yet the decline in vehicle revenue hours was only 11%. There is an outside impact on ridership from reduced vehicle hours. As a result, boardings per vehicle revenue hours is also down 30% for the 2014-2024 period. Revenue miles declined more than 21% which suggests that the system reduced the number of very long trips, perhaps through reductions in service across the basin or from outlying areas.

The operating cost of Ready Ride service grew by 95% and almost doubled. Showing a major effort from BT to maintain service levels over time, despite losses in ridership. Overall the cost per vehicle revenue hour more than doubled with a marked increase in cost after the COVID 19 pandemic.

Not surprisingly the cost per boarding also increased, but the combination of significant ridership losses and huge increases in cost, made this metric grow more than 3 times in the 10-year period, from \$17.72 per boarding in 2014 to \$55.42 in 2024.

On the positive side, fare revenue has increased by 20%. This appears driven by an increase in the average fare per boarding, which suggests an intentional effort from BT to charge a full fare for trips from outlying areas and control costs of operation. Part of the reduction in ridership may be explained by a reduction in trips from outlying areas. This was not analyzed during the SRTP.

In general, declines in ridership and productivity measures (boardings per revenue hour) were higher in the five years preceding COVID 19, while operating costs and cost-efficiency measures (cost per boarding) have increased significantly after COVID 19.

The major takeaway from this is that while Basin Transit has strived for maintaining levels of service over the 10-year period, ridership losses were occurring well before the COVID 19 pandemic, and while system ridership has somewhat recovered, the trend is a continuous decline that needs correction.

In just a few words, the performance trends suggest that riders have been abandoning the system, and most likely that is due to structural issues such as the design of the route network, the connections that are possible, and how much access the system is able to provide.

# Service Coverage and Utilization

## Route Coverage

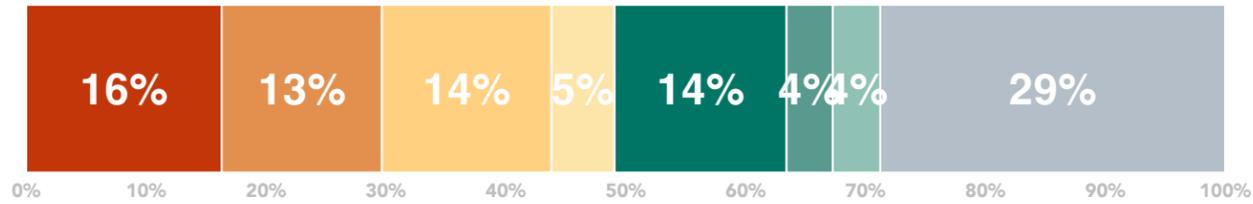
What percentage of people and jobs are covered by:



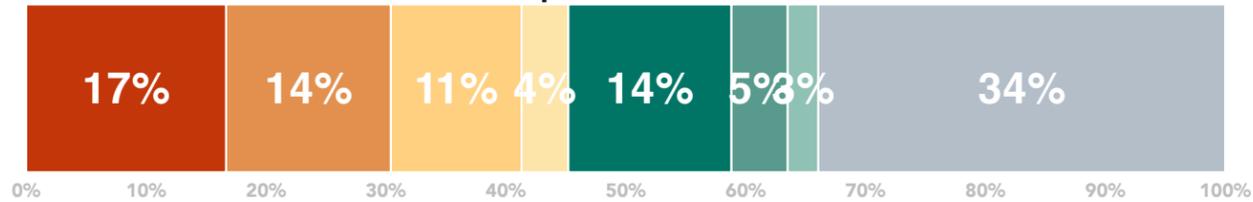
### Residents



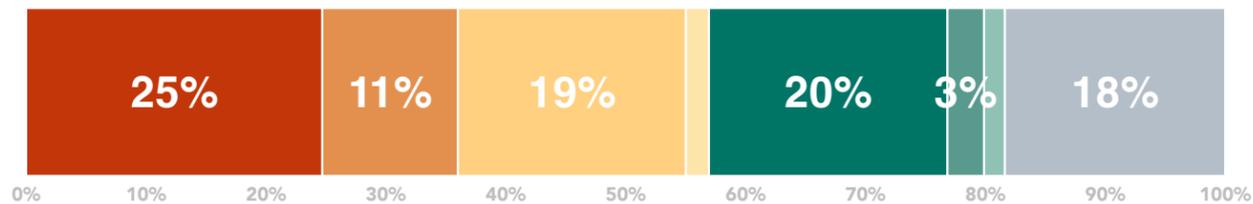
### Low-income Residents



### People of Color



### Jobs



Note: Proximity is measured as being located 1/2 from the route

Figure 34: Proximity chart for ALL Basin Transit services, including Ready Ride reservations.

## Ready Ride Coverage

Despite the large areas covered, Ready Ride provides service to only about 25% additional residents of the Morongo Basin, and that includes Ready Ride service areas where service is provided twice a week only, such as Morongo Valley, Winters Road, Pole Line/Lear, and Wonder Valley. Ready Ride service areas in Yucca Valley, Joshua Tree and Twentynine Palms that have Monday to Friday service, provide access to an additional 17% of residents only. That is because they overlap with areas already covered by Route 1 and the Neighborhood Shuttles.

The additional coverage of Ready Ride service provides service to additional low-income residents and minority groups, but in lower proportion because there are fewer persons of low income and minority groups living outside of the main communities of Yucca Valley, Joshua Tree and Twentynine Palms.

Despite the large areas covered by all Basin Transit services, one-third (34%) of residents in the Morongo Basin do not get any service. This shows how difficult it is to provide service in such a vast area where many people live scattered away from urban centers.

However, low-income residents get proportionally more service coverage (71%) than the total population because low-income residents are proportionally more concentrated in the urban centers.

Jobs are also significantly more concentrated in the urban centers and along Highway 62, and thus Ready Ride service provides access to 25% additional jobs in the service area for a total coverage of 82% of all jobs. At least 4 in 5 jobs are covered by the current BT service offering. However, the 25% covered by Ready Ride gets infrequent and sporadic service.

Ready Ride is an effective strategy to provide service coverage to a large portion of the Morongo Basin where development is scattered and of very low density. However, in the current system, Ready Ride provides highly duplicative service in Yucca Valley, Joshua Tree, and Twentynine Palms, and also low frequency and limited hours service.

## Ready Ride Utilization Profile

Basin Transit has 1,266 customers in its database that are registered for Ready Ride service. They live in all parts of the Morongo Basin, from Morongo Valley to Wonder Valley to Johnson Valley. Many customers in the database live far away from current Ready Ride service areas.

- In fiscal year 2024, Ready Ride provided at least one service trip to 293 unique customers, which amounts to only 23% of registered customers.
- Of this group, 150 customers booked at least 10 rides in the year or about 1 per month which amounts to only 12% of registered customers.
- 75 customers booked at least 40 rides in the year or about 3-4 per month, which amounts to only 6% of registered customers, and
- 35 customers booked at least 100 rides in the year or about 2 per week. This group are the frequent users of Ready Ride service, they represent less than 3% of all registered customers.

What these numbers show is that Ready Ride service is in theory providing access to a large customer base, but in practice it is providing service to a very small number of users. Part of the reason explaining its reduced customer base is that Ready Ride service is very constrained by the number of vehicles and hours

of service that are provided across 7 different areas. The limited number of service hours has effectively capped the availability of service and number of rides that it can provide each day.

### Ready Ride Ridership

The Ready Ride service provided a total of 15,165 rides in fiscal year 2024. This amounts to about 1,300 rides per month (1,264 rides on average), and about 60 rides per day (59 rides on average). Most notably, about one third (32%) of rides take place in the midday, largely a product of Basin Transit’s Nutrition Program that transports seniors to the Yucca Valley and Twentynine Palms Senior Centers for a free lunch and back home.

Although Ready Ride was conceived as a demand response service option open to all, it has become a specialized service for seniors and individual with disabilities. During fiscal year 2024, 78% of passengers were seniors and 20% were persons with disabilities. Only 2% of riders were adults and youth.

Of the 15,165 rides provided in fiscal year 2024:

- 57% were on Routes 30 & 31, Yucca Valley
- 39% on Routes 34 & 50, Twentynine Palms and Joshua Tree
- 2% on Route 36, Morongo Valley, and
- 2% were deviations of Route 21, Landers

### Trip Origins

The map in Figure 35 was created using the trip origin location of Ready Ride users. The size of the dot indicates the frequency of trips that originated from a particular Ready Ride pick-up location during fiscal year 2024.

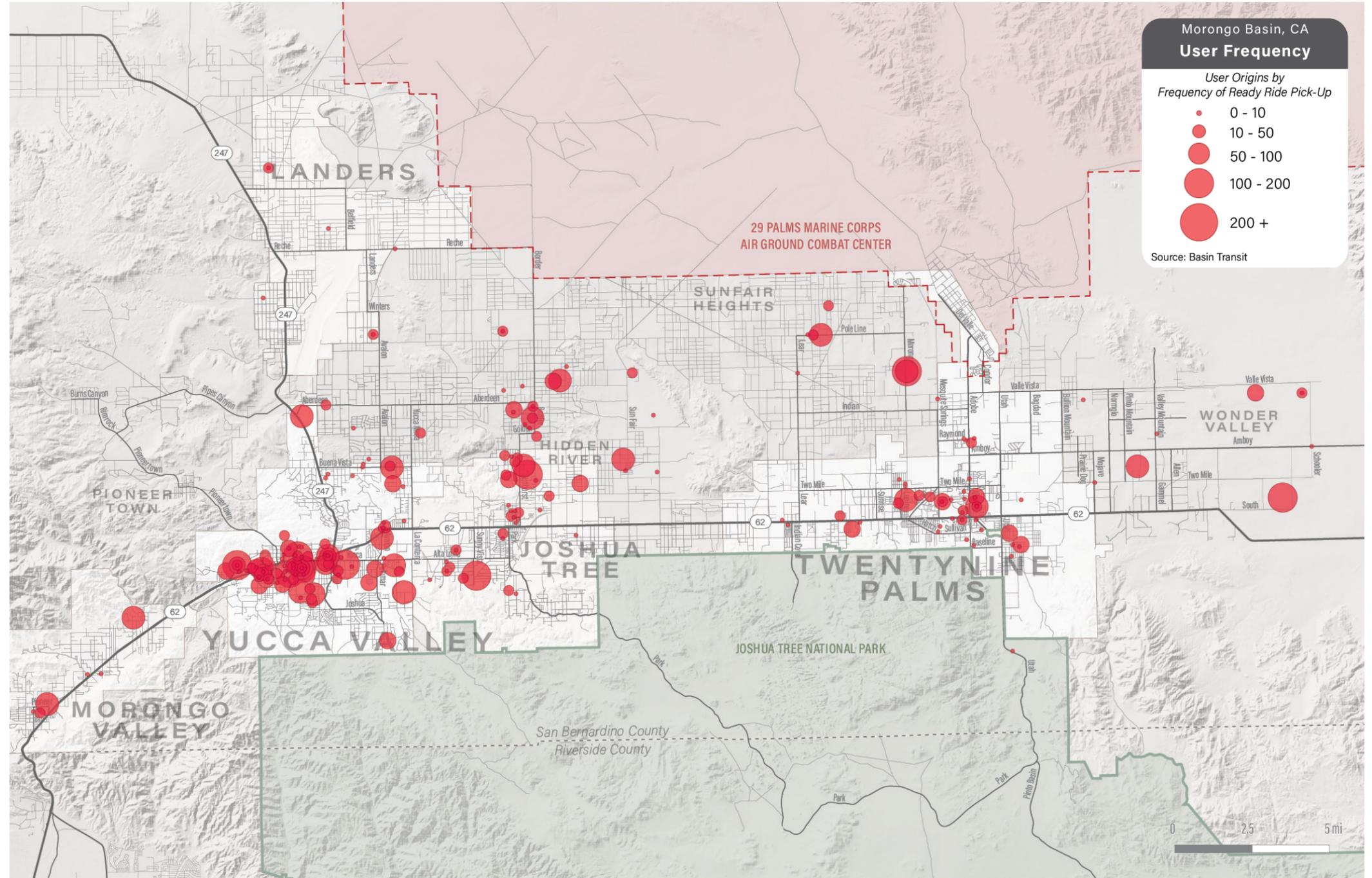


Figure 35: Ready Ride customer home origins and frequency of use

Locations with the highest frequency of use are, for the most part, dense housing units like apartments and mobile home parks where multiple people are using the service.

However, some of the high frequency dots are individuals (“super users”) that rely heavily on the program. For instance, in Wonder Valley and Sunfair Heights, outside of Twentynine Palms.

The largest clusters of trips origins are found within the urban neighborhoods of Yucca Valley and Twentynine Palms (which are served by neighborhood shuttles), followed by Joshua Tree and the community of Hidden River, just north of Joshua Tree.

### Trip Destinations

The map in Figure 36 shows the destinations of all Ready Ride trips in fiscal year 2024. The data was pulled from the Ready Ride driver manifests. Similarly to the previous map, the size of the dot indicates how often someone requested to go to a particular location.

The map shows that most trip destinations were concentrated on and near Highway 62, along the commercial corridor segments of Yucca Valley and Twentynine Palms (which are also served by neighborhood shuttles).

Joshua Tree had somewhat frequent trips to destinations on the Highway 62 corridor, and to the Hi-Desert Medical Center campus.

There are also a few destinations in Twentynine Palms, near Adobe Road, and near Utah Trail that had somewhat frequent requests, that are also covered by the neighborhood shuttles.

A community center in Sunfair Heights is an outlier but still a significant destination for some Ready Ride users.

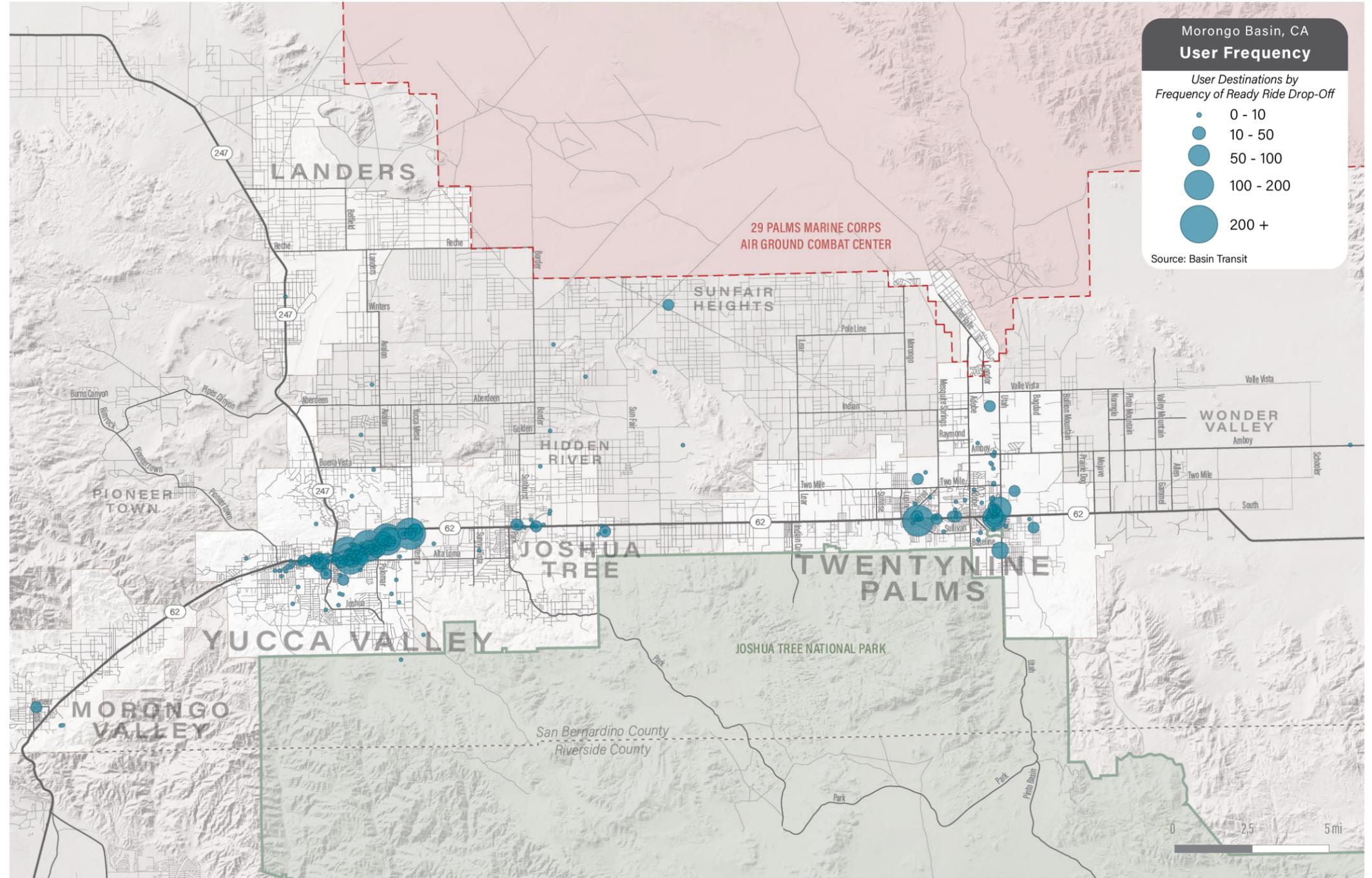


Figure 36: Ready Ride customer destinations and frequency of use

### Regional Trip Flows

Using the trip origin and destination location of the previous two maps, Figure 37 plots the linear flow of those trips between origin and destination points.

The heavier and thicker lines show the more consistent travel patterns, where there were repeated trips during the year, and which destinations were in highest demand.

The majority of the trips, shown by the thickest lines, tend to stay within two large regions, either:

- Trips to and from Yucca Valley, Joshua Tree - Yucca Valley, and Morongo Valley - Yucca Valley, or
- Trips to and from Twentynine Palms, Pole Line-Twentynine Palms, and Wonder Valley-Twentynine Palms

The lighter and thinner lines show the less consistent patterns, where there were more sporadic trips during the year, and which destinations were in lowest demand.

The majority of these trips collect residents from outlying areas of the basin to bring them into the city centers. These trips also stay within the two large regions, especially trips between Landers and Yucca Valley.

However, there were many trips that traveled across regions, from Twentynine Palms to Yucca Valley and vice-versa. Presumably, these were trips for ADA certified individuals that could not be accommodated in the Intercity route (Route 1). These trips account for about 5% of all Ready Ride trips.

overall, the majority of trips were within the Yucca Valley region, about 75%. The remaining 20% of trips occurred within the Twentynine Palms region.

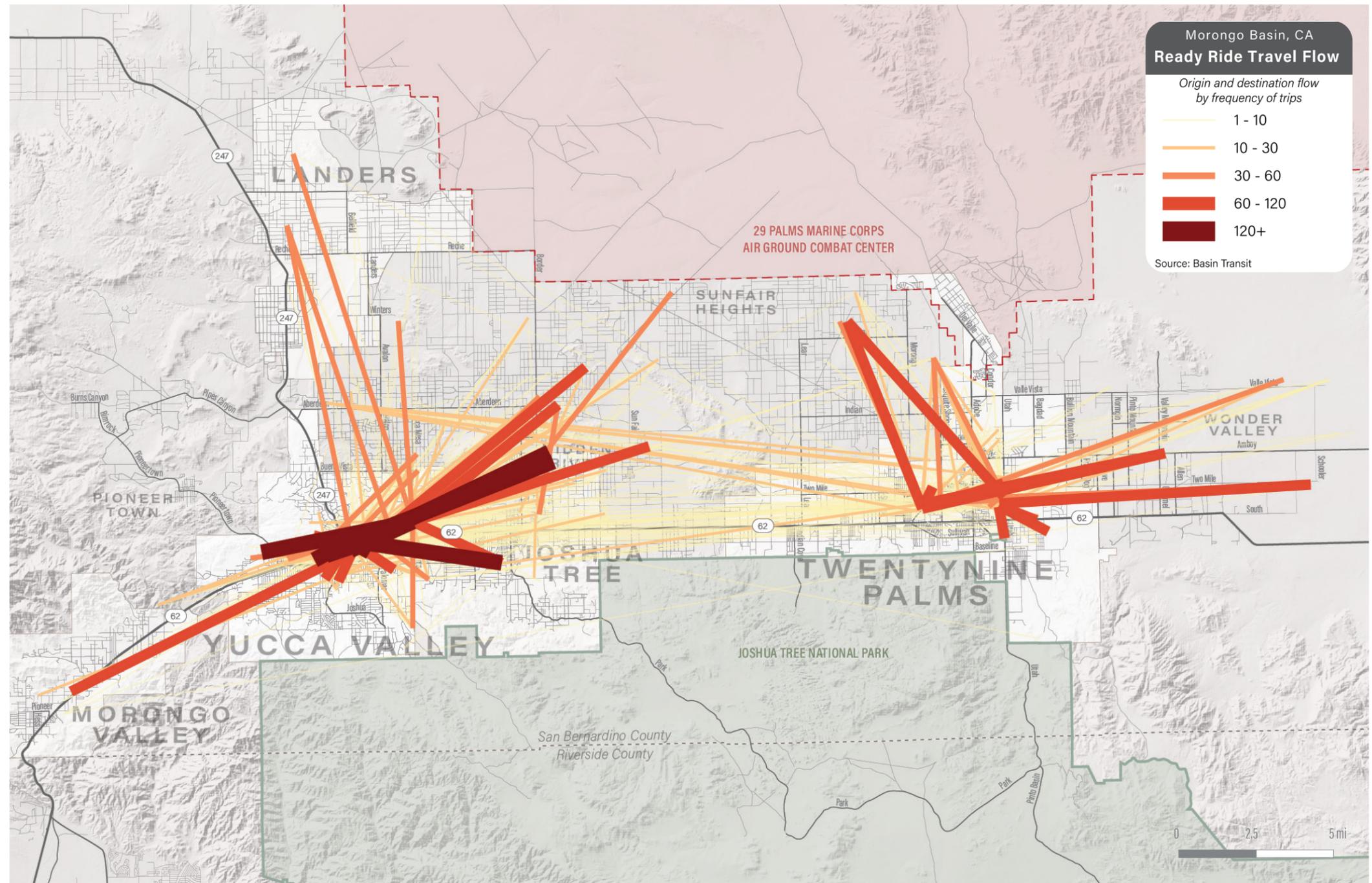


Figure 37: Regional travel lines between origins and destinations by frequency

## On Time Performance

The chart in Figure 38 provides a sample analysis of on-time performance of the Ready Ride service. The information is based on one week of data (September 9-13, 2024) tracking pick-up scheduled times against actual pick-up times.

Using an industry standard pickup window of 30 minutes around the scheduled pickup time, we estimate that 60% of trips were on time and 40% were either late (17%) or early (23%). The importance of this analysis is that it shows the strain on the current system during peak demand times, in particular at 7:30 am, around midday, and also at 9:30 am and 3:00 pm.

There were close to 300 trips reserved in the week, about 60 reservations per day. About 245 trips were scheduled in advanced, and 13 were a same-day will call or return trip, for a total of 258 completed trips. An additional 43 trips that were scheduled were not completed, because of “no shows” or last minute cancellations. All in all, about 52 trips were completed each day across all Ready Ride routes.

The chart in Figure 39 provides a breakdown of the trip reservations by route, and how many trips were completed, whether scheduled or will call, and how many were missed, whether no show or canceled. About 80% of trips were provided on Routes 30, 31, and 50, primarily serving Yucca Valley and Joshua Tree, with the remaining 20% of trips provided by Route 34 in Twentynine Palms.

The main takeaway from this analysis is that the Ready Ride system appears to be running at capacity, and it seems constrained by an insufficient number of vehicles and revenue hours to cover very large service areas, especially in Twentynine Palms and surrounding communities.

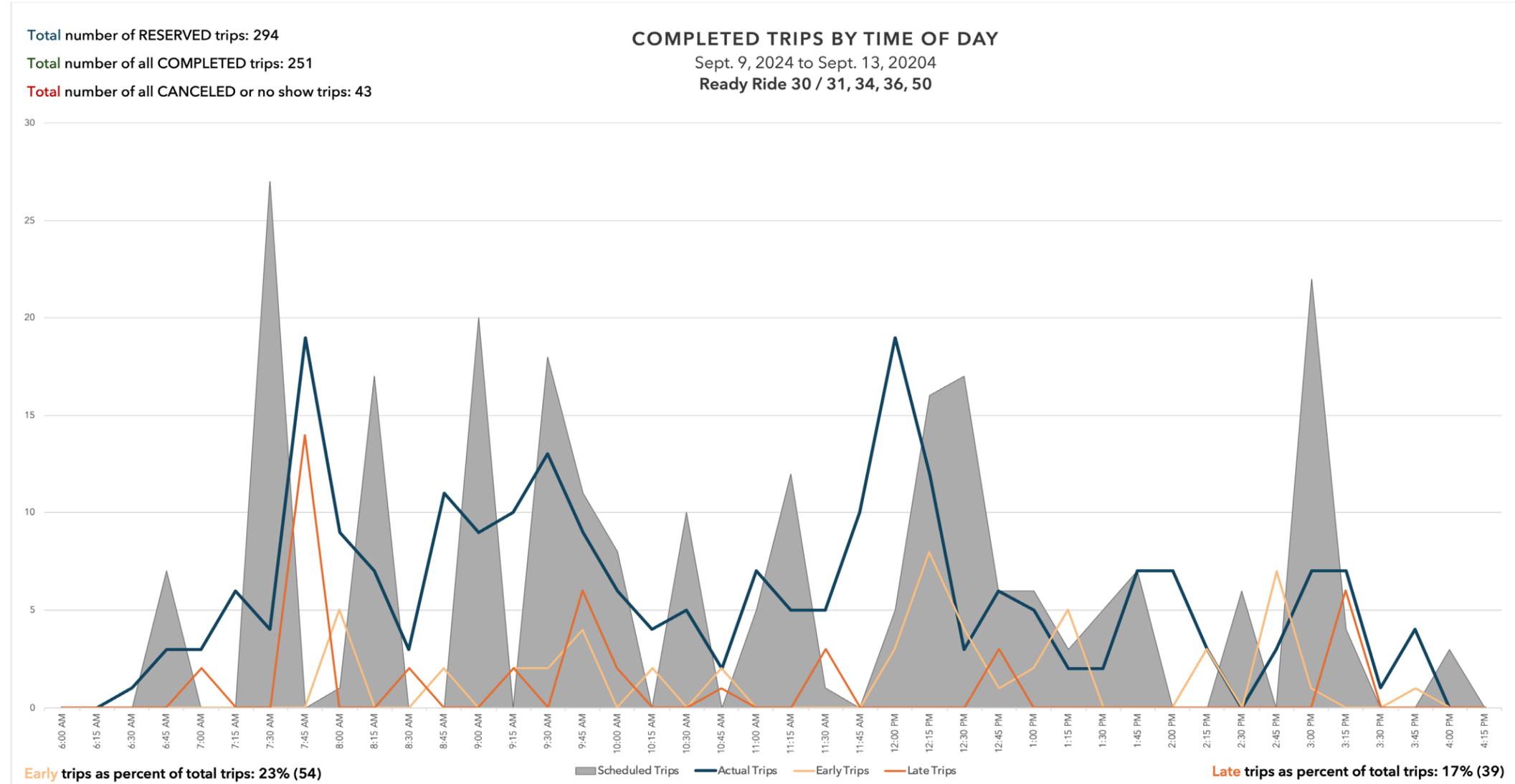


Figure 38: Ready Ride completed and on-time trip comparison

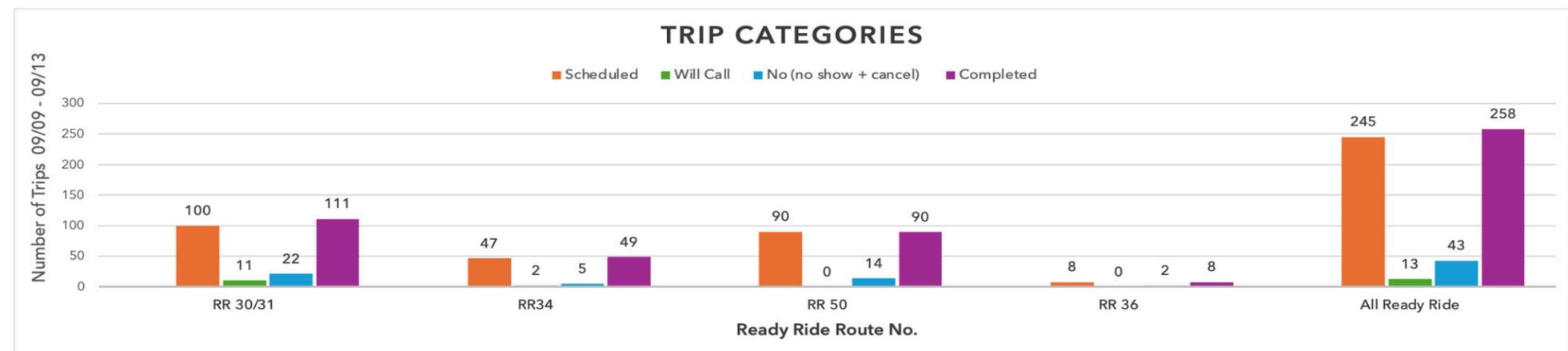


Figure 39: Ready Ride trip type chart

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# 5

# Public & Stakeholder Engagement

# What We Heard from the Community?

In addition to the technical analyses of market and latent demand, fixed-route services, and Ready Ride services, the SRTP process sought to also include the opinion of the community and key stakeholder groups. This information was collected through an online community wide survey, and in-person and online meetings with key stakeholders.

## Community Survey

The survey asked the community about level of awareness of BT transit services, frequency of use, mode of access to bus stops, use of specific services (such as Routes 12 and 15 to Palm Springs), demographics, and a couple of questions that tested the community's values and preferences around transit service. The survey was opened for 2 weeks in September of 2024 and received 50 complete responses.

The following is a summary of what we heard through the survey.

**1. Frequency of Use:** Close to 40% of respondents did not ride Basin Transit services last year. Of the respondents that did ride it, they split about equally in three groups: those that used it a few times last year, used it about once per month, and used it at least once per week. Given the high-level of selection bias from those taking the survey, it is striking the low frequency of use of BT services.

**2. Rider Loyalty:** About 1 in 4 respondents (27%) said that they have never been riders of BT. Most respondents (53%) indicated that they are still riders of the system, while another 20% said that they stopped riding.

Of the people who stopped riding or were never regular riders, the typical reason was already having access to a personal vehicle. A few people didn't find the BT schedule useful

for their work hours, or didn't have stops by their house, and one respondent indicated confusion with the fare system and location of stops.

**3. Mode of Access to Stops:** Of respondents that used the service last year, the majority (66%) walked to their bus stops, followed by a group of users (23%) who were picked up by Ready Ride, and 11% who drove and parked at the Kickapoo Trail Park and Ride. Survey respondents included a large number of seniors and disabled individuals that rely on Ready Ride service for their mobility.

**4. BT Services Used:** Of respondents that used the service last year, 60% used the fixed-route services (splitting equally between Intercity Route 1 and the Neighborhood Shuttles), 25% used the Commuter Routes 12 and 15, and 15% used Ready Ride services. Despite having more than 40% of respondents being over 60, the majority of services used were fixed-route and commuter services.

**5. Commuter Service Use:** Of respondents that mentioned using Routes 12 and 15, the majority (62%) traveled between Yucca Valley and Palm Springs. The other 38% of responses were split equally between those that traveled to/from Joshua Tree and Twentynine Palms. This result is in line with the commute patterns analysis that shows Yucca Valley as a key origin and destination of trips to/from Palm Springs.

**6. Age Groups:** The largest proportion of survey respondents (46%) were over 60 years of age. Adults aged 30-60 were 36%, and young adults aged 18-30 were 19%.

Compared to the population of the Morongo Basin, these responses over represent seniors (about 20% of the population), and under represent young adults (about 40% of the population).

**7. Gender:** 42% of respondents identified as male and 58% of respondents identified as female. Women are 48% of the population in the Morongo Basin, and thus over represented in the survey responses. Women are generally more willing to answer surveys, but most importantly they tend to use transit in larger proportion than men.

**8. Travel Modes Used:** Survey respondents were asked about modes of travel used within the last two weeks, to learn about their reliance on transit for mobility needs. Most respondents (68%) mentioned driving a car or getting a ride from a friend or family member. 44% mentioned using transit, 28% walked and 14% paid for a ride.

The results are revealing of the hardships that many potential transit riders have for their mobility around the Morongo Basin. Transit is not their default option but an option when driving or getting a ride is not possible. And walking is an option used by many, by choice or when no other options are available.

**9. Proximity to Transit Service:** Survey respondents were asked whether a fixed-route bus stop was available within walking distance of their home. A slight majority of respondents (53%) do have a nearby stop and 47% do not. The results suggest that existing fixed-route services do not provide sufficient coverage, or do not have sufficient stops, or clearly marked stops.

**10. Route 21 Landers Use:** The survey asked transit users and Landers residents whether Route 21 meets their needs. 13 out of 14 respondents (93%) flatly said No or that they would like access to the northern end of Yucca Valley, around Buena Vista & Highway 247. The latter is an area that currently is not well served by Ready Ride 30/31 service, because of resource constraints, but also because many roads are

unpaved and present a challenge for Ready Ride vehicles.

**11. Ready Ride Service Use:** The survey asked respondents whether they are Ready Ride clients and if service meets their needs. The majority (60% of respondents) said that the service does not meet their needs, because the service hours are too limited, the service is restricted to specific jurisdictions (Yucca Valley, Joshua Tree, and Twentynine Palms), or other reasons. This feedback supports the findings of the Ready Ride analysis which concludes that the service is operating with significant scheduling constraints and limited hours of service.

**12. How to Spend Additional Resources:** Survey respondents were offered the opportunity to influence Basin Transit service priorities to invest additional resources. Respondents were asked to select three out of nine prompts, they are listed in order of popularity below:

- Covering places that currently don't have service (67%).
- Longer hours of service each day - earlier morning and later evening (43%).
- Adding more service on Sundays (35%).
- More regional service for long trips to other cities (30%).
- Better frequencies on weekdays - transit coming more often so less waiting is required (28%).
- Better frequencies on Saturdays - transit coming more often so less waiting is required (28%).
- More local service for short trips within the city limits (24%).
- More rush-hour service - around 7-9 am and 4-6 pm on weekdays (9%).
- More middle of the day service - around 9 am to 4 pm on weekdays (9%).

# What We Heard from Stakeholders?

## 13. Where to Focus Limited Resources:

Survey respondents were asked a complementary question that looked for their policy guidance on where to focus investment of limited budget resources (vehicle revenue hours and cost). Respondents had to make a hard choice between focusing on faster and more frequent service to areas with higher density of residents and jobs (focus on ridership), or focusing on providing service to everyone in all communities, regardless of density, even if that means less frequent and slower service (focus on coverage).

Out of 50 responses, only 33 respondents picked an option, which means that 17 respondents (34%) were not sure or did not want to respond. But, from those that responded and picked an option, **58% preferred focusing on ridership** and supporting the local economy by providing fast and frequent service in the areas where many people could use it to get to work, school, shopping and other everyday needs.

While **42% preferred focusing on coverage** and the benefits of fairness to all by providing at least some service to everyone in all communities large and small even if the service is slow and the bus doesn't come very often.

The responses to the last two questions suggest that transit users in the Morongo Basin would like to strike a balance between providing coverage to as many areas as possible, while also increasing the service hours on weekday evenings and on weekend days, and improving regional connections between cities across the basin and the Coachella Valley.

## Stakeholder Engagement

### In-person and Online Public Meetings

The SRTP process held a public meeting on September 25, 2024, at the Yucca Valley Community Center, to provide the community with an opportunity for input regarding desired priorities for the network design.

A second virtual community meeting was held on November 19, 2024, that presented initial findings from the market and service analysis, and encouraged more input on the key choices and policy trade-offs facing the current system.

### Senior Centers

The SRTP team hosted two in-person events at Senior Centers in Yucca Valley and Twentynine Palms on September 25 and 26, 2024. Senior residents were generally positive about their experiences with Basin Transit, especially Ready Ride. Comments received requested additional stops in Wonder Valley and Landers, and more weekend service. One rider pointed out that Route 12, which takes people from Yucca Valley to the Palm Springs Airport, should be better synced to Amtrak's and the Flix Bus's schedules. Another rider made the point that the Tortoise Rock Casino, in Twentynine Palms, is a desirable destination for residents and workers but served at the end of a long loop (Route 3B.)

### Twentynine Palms MCAGCC

The SRTP team also met with representatives from the Marine Corps Air Ground Combat Center (MCAGCC), who provided a better understanding of the people living and working on Base. The types of active duty jobs range from employees who are also permanent residents, to new students who are only on base for an academic term, to people who live

nearby in Twentynine Palms and commute daily to the Base. The students in particular were described to have the greatest need for transit as they are not allowed their own cars while in training. They also tend to be much younger adults between the ages of 17 and 21. Because the students are in classes all day, their transit needs are restricted to Friday evening and weekends when they are permitted to leave the Base. Weekend trips are important for them to run errands and socialize during a limited amount of time. A creative suggestion for making riding Basin Transit more accessible to active duty members was to create brochures that use military time for the route schedules.

Base members already rely on Routes 12 and 15 to help shuttle them to and from Palm Springs. Routes 3A and 1 are useful for commuting employees but not for students who end their school days at 6:00 pm.

### CSUSB Palm Desert

The SRTP team also met virtually with Cal State University, San Bernardino's (CSUSB) transportation analyst and Sunline's transit planning manager, to discuss opportunities for expanding transit access for students traveling between Copper Mountain College in Joshua Tree, and the CSUSB Palm Desert Campus (which also includes UC Riverside-Palm Desert).

There are existing transit connections that could be strengthened so that riders can transfer from Basin Transit Route 12 to SunLine in Palm Springs but currently, the service schedules aren't aligned enough to make them convenient to use. The service hours on BT's Route 12 are also not especially useful to students or employees. There was also a suggestion to create an on-demand shuttle that can connect riders from one system to the other on I-10 where it is difficult for buses to make stops off the highway.

And there was another suggestion to explore a connection with SunLine services in Desert Hot Springs, where Basin Transit could connect with SunLine routes going to downtown Palm Springs and going to the CSUSB Palm Desert Campus with one transfer only.

### Basin Transit Board Meeting

The SRTP team presented in-person to the Basin Transit Board of Directors on September 26, 2024. The presentation included preliminary findings from the market and service analysis, and introduced the ridership versus coverage dilemma to initiate discussion on the challenges currently faced by Basin Transit.

Board members mentioned that the Morongo Basin's rural type development has historically necessitated a coverage strategy, but recognized that the system incurred in a great expense providing service to remote areas and that needed to shift the balance towards ridership. Highway 62 was identified as a primary corridor with destinations like Copper Mountain College and the Hi-Desert Medical Center.

Board members also emphasized the need to maintain a good relationship with city planning to inform how transit can adapt and encourage growth. The board also directed the SRTP to examine the increased demand of visitors renting vacation homes, as part of Morongo Basin's future development.

Finally, the SRTP team had a second virtual presentation with the board on November 21, 2024. The team provided an update on the progress and preliminary findings of the SRTP, including alternative network design concepts.



# 6

# Fare Structure Review

# Fare Structure Review

Figure 40 shows the current fare structure of Basin Transit services. Basin Transit operates four types of service: Commuter Highway, Intercity Highway, Neighborhood Shuttle, and Ready Ride.

## Commuter Highway Fare

Commuter Highway is the most expensive fare because it travels a long distance to provide a regional connection between the Morongo Basin and Palm Springs. It is also an express service with a limited number of stops. The fare that adult passengers pay depends on the distance traveled.

Commuter Highway services include Route 12 which operates on weekdays, and Route 15 which operates on Friday evening, Saturday and Sunday. Route 12 travels a shorter route between Yucca Valley Transit Center and Palm Springs (34 miles), while Route 15 operates a route that is about twice as long between the Marine Base and Palm Springs (62 miles). That explains the difference in fare between the two services, where Route 15 is an additional \$10 from any location. However, the application of a flat \$10 surcharge on Route 15 ends up costing more than twice as much for adult passengers traveling from Yucca Valley and Morongo Valley to Palm Springs (\$15 vs \$5).

Senior and disabled passengers get a different rate structure that is flat at \$4.5 for Route 12 regardless of distance, and \$14.5 for Route 15 with the surcharge. This structure also ends up penalizing senior and disabled passengers traveling from Yucca Valley and Morongo Valley to Palm Springs, which end up paying about the same fare than adult passengers and a higher rate per mile than those traveling from Twentynine Palms (\$14.5 vs \$4.5).

Basin Transit offers a discount when buying a round-trip to Palm Springs on Route 12, which

Route	Name	Fare Types (Token)														
		Adults (and CMC Student)					Senior (60+)					Disabled (ADA Eligibility)				
		1-Way	Day	31 Day	10 Punch	20 Punch	1-Way	Day	31 Day	10 Punch	20 Punch	1-Way	Day	31 Day	10 Punch	20 Punch
<i>Intercity Highway</i>																
1A/B/X	Yucca Valley // Marine Base	2.5	3.75	40			1.25	3	25			1.25	3	25		
<i>MBTA/Neighborhood Shuttles</i>																
3A	Twentynine Palms // Marine Base	1.25	3.75	40			1	3	25			1	3	25		
3B	Twentynine Palms	1.25	3.75	40			1	3	25			1	3	25		
7A	Yucca Valley North	1.25	3.75	40			1	3	25			1	3	25		
7B	Yucca Valley South	1.25	3.75	40			1	3	25			1	3	25		
21	Landers Loop	1.25	3.75	40			1	3	25			1	3	25		
<i>Ready Ride</i>																
RR		5			n/a	n/a	2			12.5	25	2			12.5	25
<i>Commuter Highway</i>																
		1-Way	Round Trip				1-Way	Round Trip				1-Way	Round Trip			
12	Yucca Valley // Palm Springs															
	from 29 Palms	10	15		42	n/a	4.5	9			42	n/a	4.5	9		
	from Joshua Tree and YV	7	11		42	n/a	4.5	9			42	n/a	4.5	9		
	from Morongo Valley	5	9		42	n/a	4.5	9			42	n/a	4.5	9		
15	Palm Springs // MCAGCC (Route 12 +\$10)															
	from 29 Palms	20	25				14.5	19					14.5	19		
	from Joshua Tree and YV	17	21				14.5	19					14.5	19		
	from Morongo Valley	15	19				14.5	19					14.5	19		

\*CMC Students Copper Mountain College - fares paid by foundation, students with ID do not pay

Figure 40: Fare Structure Matrix

is about 1.5 times the cost of a one-way fare for adults traveling from Twentynine Palms, and about 2 times the cost for adults traveling from Morongo Valley. The round-trip for seniors is simply double regardless of location, on both Routes 12 and 15. The round-trip fare acts as a day pass. Basin Transit does not offer a monthly pass for Commuter services, but it does offer a 10-Ride Punch Card on Route 12 which is only \$4.2 per trip regardless of location.

## Intercity Highway

Intercity Highway service is Route 1 and its different variants. Route 1 travels between Yucca Valley Transit Center and Twentynine Palms Transit Center during the day on weekday (23 miles), and between the Kickapoo Park & Ride

and the Marine Base on weekday evening, Saturday and Sunday (35 miles).

Route 1 is a local bus service that makes multiple stops. The fare for a single trip is \$2.5 for an adult passenger and 50% of that for senior and disabled passengers. The difference in fare cost compared with Routes 12 and 15 is striking, given the distance covered, especially on weekday evening, Saturday, and Sunday when service is provided on the longer route variant. Route 1's fare is a much better value for passengers based on the distance traveled.

## Ready Ride

The one-way fare for Ready Ride is \$5.00 for adult passengers (double the fare of Route 1) and \$2.00 for seniors and disabled passengers.

In Fiscal Year 2024, 95% of Ready Ride riders were senior or disabled riders. This reflects that Ready Ride has become a specialized service for disabled and senior riders.

Ready Ride does not offer a day pass or monthly pass product. Instead, Basin Transit offers a 10-ride and 20-ride punch card that is priced at \$1.25 per trip, which is the same cost of a one-way fare on Route 1, and comparable to the cost of a Day and 31-Day pass.

Ready Ride also has multiple service areas. Three communities – Yucca Valley, Joshua Tree and Twentynine Palms concentrate most of the service that is provided with Ready Ride. However, Basin Transit has not defined specific service boundaries in these communities and over time the service has been extended to

serve Morongo Valley, areas north of Joshua Tree and Twentynine Palms, near Sunfair Heights, and locations east of Twentynine Palms in Wonder Valley.

Although service to these faraway areas is provided sporadically, the one-way fare is \$5.00 for adults, seniors and disabled passengers. However, if 10- and 20-ride punch cards are accepted for seniors and disabled riders, the fare would be significantly underpriced for the cost of providing this service and the opportunity cost of providing better service in Yucca Valley, Joshua Tree and Twentynine Palms.

### Transfer Policy

Basin Transit fares do not include transfers between services. There are no transfers between neighborhood shuttles and Route 1, and nominally no transfers between Route 1 and Route 12, nonetheless passengers getting on Route 1 in Twentynine Palms and Joshua Tree can buy a trip to Palm Springs (at the listed fare price for Route 12) and transfer to Route 12 when they get to Yucca Valley TC. They can also buy a return trip from Palm Springs. However, only three out of six trips on Route 12 are pulsed with Route 1, which means that a trip to/from Palm Springs often involves a long wait at the Yucca Valley Transit Center.

One exception to the transfer policy is Ready Ride service. Ready Ride passengers can transfer to Route 1 for the cost of Ready Ride.

### General Observations

Pricing of one-way trips at the regular adult fare is largely set by type of service and distance traveled, from Neighborhood Shuttles (\$1.25) that provide short trips of up to 7 miles, to Intercity Highway (\$2.50) that provides mid-range trips of up to 20 miles, to Commuter

Highway (\$5 - \$10) that provides long-range trips of up to 60 miles. Within this structure, the fare cost for a service such as Route 21 which is classified as a Neighborhood Shuttle, that in practice covers a large area and provides trips of up to 20 miles, is underpriced at \$1.25 for a one-way trip.

Generally the pricing of passes unifies the pricing structure of Intercity Highway and Neighborhood Shuttle services, and effectively aligns short- and mid-range trips into a single pricing category. And although the cost of a one-way fare is one-third of the cost of a day pass for Neighborhood Shuttle users, it appears that most riders are looking to transfer to Route 1 and travel across the basin, based on the fares paid in Fiscal Year 2024 (see Figure 43, on the next page).

Seniors and disabled riders receive a 20% discount for a one-way fare on Neighborhood Shuttles, but a 50% discount on Intercity Highway service. This reduces the difference in cost for a one-way fare between Intercity Highway and Neighborhood Shuttles, and also tends to unify their pricing.

Seniors and disabled get a 60% discount for a one-way fare on Ready Ride, and a 75% discount when buying a 10-Punch Card, which brings the price of Ready Ride to the same level of Intercity Highway service. The low cost of Ready Ride for seniors and disabled riders is an incentive for their use in detriment of fixed-route services.

## Fare Revenue Analysis

Figure 41 shows all passenger boardings in Fiscal Year 2024 classified by their corresponding fare type.

### Cash, Passes and Mobile Sales

Cash fares represent 20% of all transactions when accounting for payments on local, intercity, and regional services. It is assumed that most of these transactions are for a one-way ticket.

Token Transit transactions, mostly paid with a credit or debit card, represent 17% of all transactions. A sample of Token Transit data for October 2024 shows that about 90% of transactions are for buying daily or monthly passes, and about 10% for buying one-way and round-trip tickets.

Pre-paid passes represent 57% of all transactions. However, if we added the approximately 90% of Token Transit transactions that are passes, pre-paid passes represent about 72% of all boardings in Fiscal Year 2024.

Finally, close to 6% of boardings were free fares that included mostly children under 5 years of age and attendant persons traveling with seniors and disabled individuals.

### Pre-paid Passes

Pre-paid passes are the most popular fare product. Figure 42 shows the breakdown of pass products used by riders in FY 2024.

- The 31-Day Go Pass represents 55% of pass users whether adults, seniors or students,
- The Day Pass represents 28% of pass users,
- And 10- and 20-Ride Punch Cards represent 17% of pass users.

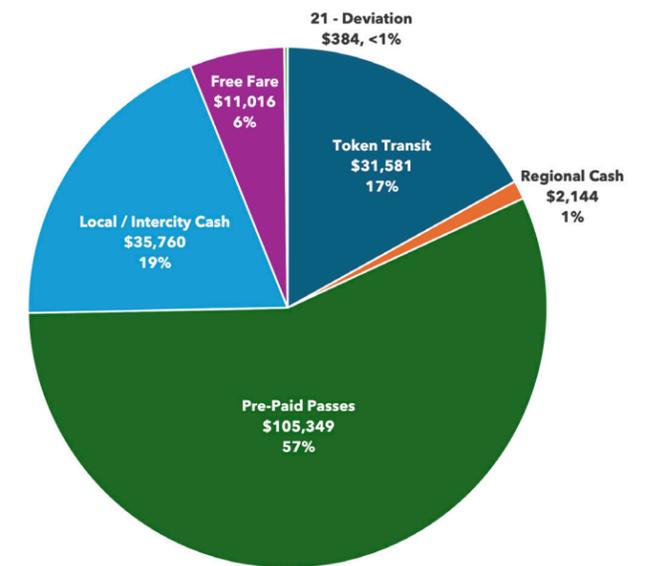


Figure 41: Total Sales by Fare Type

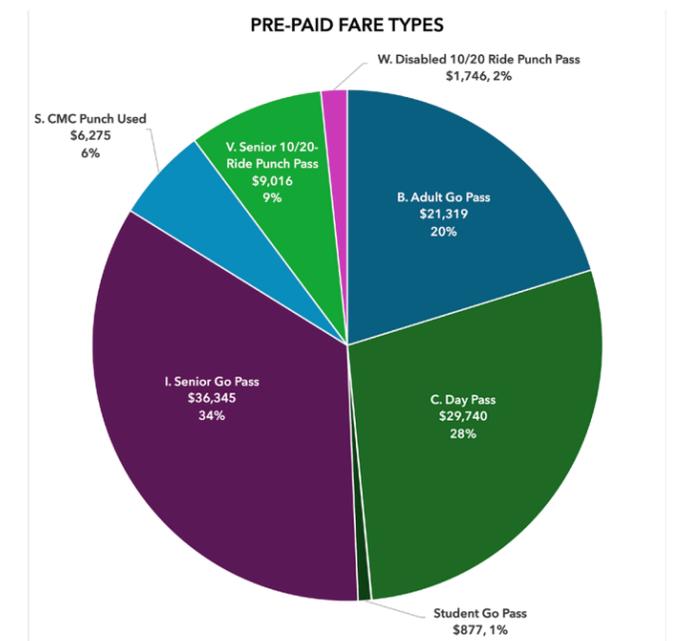


Figure 42: Total Sales by Pre-Paid Fare Type

# Fare Revenue Analysis

## Additional Observations

Since this study did not collect ridership information at the stop and trip level, the fare type matrix in Figure 43 is a proxy for how different Basin Transit riders are using the system.

- Students:** CMC students with a valid Student ID do not pay when getting on board. The CMC Foundation pays for their fare at the regular adult price (monthly or annually) based on use. Only 7% of pass users were recorded as students whether using the CMC Punch Card or Go Pass. It is possible that many student boardings are counted as an adult pass and underrepresented in the data.
- Seniors and disabled passengers:** Figure 42 provides details on the fare types used by seniors and disabled passengers. About 35% of passengers in Fiscal Year 2024 were seniors or disabled. Over 70% of seniors and disabled passengers used a pass or punch card, and over 20% paid cash. Seniors used passes to pay for intercity service and neighborhood shuttles and cash and punch cards to pay for Ready Ride. Disabled passengers used cash to pay for intercity service and neighborhood shuttles and also Ready Ride, and punch cards to pay for Ready Ride service only.
- Neighborhood shuttles:** Close to 36% of boardings in Fiscal Year 2024 were on Routes 3A, 3B, 7A, and 7B (neighborhood shuttles). About 20% of them paid cash, presumably for a local one-way trip, while the other 80% of riders used a pass to travel locally and across the basin via Route 1. This suggests that about 80% of neighborhood shuttle riders look to transfer to Route 1.

Route	Intercity				Neighborhood Shuttle				Commuter				Landers	Ready Ride						System Total 2024	Percent				
	1	1	1	1X	Twentynine Palms		Yucca Valley		12	15	15	15		21	Yucca Valley			29Palms	MV			JT			
					3A	3B	7A	7B							RR30	RR31	RR31/36						RR34	RR36	RR50
					Weekday	Saturday	Sunday	Weekday							Weekday	Weekday	Weekday						Weekday	Friday	Saturday
Passenger Type																									
Token Transit App Sakes (All Routes)																									
TK. Token Transit	14,494	2,540	44	472	4,965	2,544	1,083	1,217	1,437	221	2,095	208	161	67	3	1	21	8	31,581	17.0%					
Regional Cash Fares (Routes 12 & 15)																									
BB. PS-29 Palms One Way	24			1	5	1			102	19	79	37	1						133	0.1%					
BBB. One Way to 29																			136	0.1%					
CC. PS-29 Palms Round Trip	10				1				20	18	108								31	0.0%					
CCC. Round Trip to 29																			126	0.1%					
FF. PS-Joshua Tree-Yucca Valley One Way	10						3	1	611				1						626	0.3%					
FFF. One way YV									5	5	20	17							47	0.0%					
GG. PS Round Trip YV									13				1						14	0.0%					
GGG. PS-Joshua Tree-Yucca Valley Round Trip	2			1					147		7	4							161	0.1%					
HHH. Sen/Dis Round Trip YV										5	17	5							27	0.0%					
II. Round Trip Senior/Disabled	4				1			1	112										118	0.1%					
III. Sen/Dis Round Trip YV										2	9	1							12	0.0%					
K. Round Trip to MV	42				1	1	3	2	12										61	0.0%					
KK. PS-Morongo Round Trip												4							4	0.0%					
PP. PS-29-RTR Adult	32								371	5	98	28	1						535	0.3%					
RR. One Way to MV									99				1						100	0.1%					
TT. One Way MV	1										7	2							13	0.0%					
Subtotal, Regional Cash	125	0	0	2	8	2	6	4	1,492	54	349	94	5	3	0	0	0	0	2,144	1.2%					
Pre-Paid Passes (All Routes)																									
B. Adult Go Pass	11,310	1,112	12	254	1,891	1,805	2,427	2,024	11				445	15	11			2	21,319	11.4%					
C. Day Pass	15,524	1,385	7	193	2,387	2,719	2,625	3,210	535		7	1	1,147						29,740	16.0%					
CP. Centennial Pass															1				1	0.0%					
E. Student Go Pass	2				3		7	15					3						30	0.0%					
EE. PS Day Pass	1								861	2	12		1						877	0.5%					
I. Senior Go Pass	13,999	1,598	24	384	2,849	4,860	5,040	4,434	23				3,134						36,345	19.5%					
S. CMC Punch Used	4,097	98		11	175	551	669	294	8				372						6,275	3.4%					
V. Senior 10/20-Ride Punch Pass													1	3,077	694	160	2,259	199	2,626	9,016	4.8%				
W. Disabled 10/20-Ride Punch Pass													1	293	173	19	242	16	1,002	1,746	0.9%				
Subtotal, Pre-Paid Passes	44,933	4,193	43	842	7,305	9,935	10,768	9,977	1,438	2	19	1	5,104	3,385	879	179	2,501	217	3,628	105,349	56.6%				
Local / Intercity																									
A. Adult Cash	4,519	984	13	274	2,259	1,600	1,653	1,062	47	7	20	15	1,237	11	4	28	18		23	13,774	7.4%				
H. Senior Cash	8				3				355					673	132	4	142	9	79	1,405	0.8%				
HH. Senior					1															1	0.0%				
J. Disabled Cash	290	36	1	8	14	43	204	103					148	72	22	1	87		11	1,040	0.6%				
NT. Nutrition														34	1,055	305		118		1,512	0.8%				
PK. Pool Kids									4											4	0.0%				
SS. Senior	3,022	422	10	104	566	544	1,264	1,453	100				1,751							9,236	5.0%				
ZZ. K-12 Students	3,617	528	11	100	286	873	572	2,298	38			4	461							8,788	4.7%				
Subtotal, Local / Intercity Cash	11,456	1,970	35	486	3,129	3,060	3,693	4,916	544	7	20	19	3,597	790	1,213	338	247	127	113	35,760	19.2%				
Free Fare																									
EEE. Employee	24	1																		26	0.0%				
F1. Free Fares - Adult	281	190		48	59	37	29	23	19			11	13	13		2				817	0.4%				
F2. Free Fares - CMC	39	2				1	1	3					1							47	0.0%				
F3. Free Fares - Senior	83	16			4	16	25	8					15			9				184	0.1%				
F4. Free Fares - Disabled	4	2					2	7								2				21	0.0%				
L. Attendant-Free	1,191	169	2	45	176	730	440	350	49	4	2	5	158	557	132	7	401		182	4,600	2.5%				
M. Children < 5 Years	1,223	151		21	234	719	269	341	12				311	5	2			1	5	3,294	1.8%				
N. PS Transfer	400	1			17	10	6	2					17							453	0.2%				
SP. Special	3	1											2							6	0.0%				
SPP. Promo	661			33	151	192	135	161	56				64	44	30		8	4	29	1,568	0.8%				
Subtotal, Free Fare	3,909	533	2	147	641	1,705	907	895	136	4	95	16	581	619	164	11	418	5	228	11,016	5.9%				
Landers Deviations																									
LL. 21-GP Deviation													24							24	0.0%				
MM. 21-Sr/Dis Deviation													140							140	0.1%				
NN. 21-GP Pass Deviation													9							9	0.0%				
OO. 21-Sr/Dis Pass Deviation													211							211	0.1%				
Subtotal, Landers Deviations													384							384	0.2%				
<b>TOTAL</b>	<b>74,917</b>	<b>9,236</b>	<b>124</b>	<b>1,949</b>	<b>16,048</b>	<b>17,246</b>	<b>16,457</b>	<b>17,009</b>	<b>5,047</b>	<b>288</b>	<b>2,578</b>	<b>338</b>	<b>9,832</b>	<b>4,864</b>	<b>2,259</b>	<b>529</b>	<b>3,187</b>	<b>349</b>	<b>3,977</b>	<b>186,234</b>	<b>100%</b>				

Figure 43: Fare Type Sales Matrix for Fiscal Year 2024

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# 7

## Capital & Financial Analysis

# Funding Analysis

Basin Transit is funded through a variety of federal, state, and local revenue sources. This chapter describes existing funding sources and presents future funding needs through Fiscal Year (FY) 2029. A detailed operating and capital plan is included “5-Year Operating and Capital Financial Plan” on page 60 at the end of this chapter.

## Funding Sources

The following section provides a brief description of each funding source utilized by Basin Transit for operating and capital expenditures.

### Federal Revenues

The Federal Transit Administration (FTA) provides financial assistance to transit systems that provide public transportation as authorized by the Bipartisan Infrastructure Law of 2021, as enacted in the Infrastructure Investment and Jobs Act. The legislation reauthorizes surface transportation programs for FY 2022 through FY 2026. FTA provides annual formula grants to transit agencies nationwide, as well as discretionary funding in competitive processes with varying purposes and eligibility.

#### **FTA 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities**

The 5310 program provides discretionary funding to transportation providers through a competitive process that serves older adults and people with disabilities. The goal of the 5310 program is to improve mobility by removing barriers to transportation services and expanding the transportation mobility options available.

The 5310 program provides capital funding for vehicles and vehicle related equipment, and operating funds for vehicle operations, travel

training, mobility management, mileage reimbursement, and voucher programs. For the rural and small urban areas in California, the program is administered by Caltrans.

Basin Transit’s Transportation Reimbursement and Escort Program (TREP) is funded through a 5310 grant on a two-year funding cycle. Basin Transit plans to reapply for continued funding in the next Caltrans call-for-projects anticipated for release at the end of FY 2024 with an increase in requested funding to meet a higher mileage reimbursement rate to program participants.

#### **FTA 5311 – Formula Grants for Rural Areas**

The 5311 program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations less than 50,000. Most rural formula funds (83.15%) are apportioned based on land area and population factors. The remaining rural formula funds (16.85%) are apportioned based on land area, vehicle revenue miles, and low-income individual factors. Rural 5311 funding supports Basin Transit’s operating budget estimated at just over a half million dollars annually based on SBCTA’s projections, representing approximately 8% of Basin Transit’s operating revenue.

#### **Congestion Mitigation and Air Quality – CMAQ**

The CMAQ program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter. Basin Transit uses CMAQ funds to replace aging vehicles in its fleet.

## State Funding

### **Transportation Development ACT (TDA)**

The Mills-Alquist-Deddeh Act (SB 325) was enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination. Commonly known as the Transportation Development Act (TDA) of 1971, this law presents statutes for regulation of state funding for public transit and non-transit related purposes. The TDA established the Local Transportation Fund (LTF) and the State Transit Assistance (STA) programs to fund transit services in California. In some cases, areas with a population less than 500,000 may use LTF funding for repairs to local streets and roads through an unmet needs process. Basin Transit now allocates all of its available LTF funds to transit, reserving all funds for the provision of transit services.

### **Local Transportation Fund - LTF**

LTF funds are derived from 0.25 cent of every dollar collected by the general sales tax statewide and are returned by the California Department of Tax and Fee Administration (CDTFA). All revenues are considered local funds and returned to the originating county for the designated Regional Transportation Planning Agency (SBCTA in San Bernardino County) to administer, within the general guidelines and priorities of the program.

Because funds are based on sales tax, revenues vary from year-to-year depending on the economy. LTF funds can be utilized for operations and capital under TDA Article 4. Article 4 funds are the primary source of operating support for Basin Transit, representing approximately 73% of operating revenue each year.

When LTF funds are not used for operating expenses, Basin Transit can use LTF to fund

capital projects for facilities, low or no zero emissions projects and retirement and pension trust funding.

### **LTF Article 3**

The TDA provides that 2% of the LTF be made available to counties and cities for facilities for the exclusive use of pedestrians and bicyclists, known as the TDA Article 3 Program.

In San Bernardino County, Article 3 funds are awarded through a competitive process administered by SBCTA on a biennial cycle. Basin Transit can use Article 3 funds to conduct bus stop improvements, including new shelters, benches, lighting and ADA accessibility enhancements.

### **State Transit Assistance - STA**

STA funds are collected from diesel fuel excise taxes, with 50% of funds distributed based on county population size and 50% of funds distributed based on transit operator revenues from the prior fiscal year.

In 2017, Senate Bill 1 (SB 1) augmented the STA program by nearly doubling the amount of STA funds provided to each county. STA funds can be utilized for capital and operations; however, Basin Transit typically prioritizes STA funds for capital projects, including vehicle replacements, bus stop improvements and operational support equipment.

### **Low Carbon Transit Operations Program – LCTOP**

LCTOP receives funding from the cap-and-trade Greenhouse Gas Reduction Fund appropriated by the State legislature. The LCTOP fund estimates are provided from the State Controller’s Office (SCO) and are apportioned based on the county’s population and transit operator revenues.

Senate Bill 942 allows for transit operators to continue free and reduced fare transit programs, while other uses for LCTOP funds must be in accordance with the approved Caltrans guidance. This includes expenditures that directly enhance or expand transit service by supporting new or expanded transit services for operating or capital programs. In recent years, Basin Transit has used a combination of LCTOP and STA funds for improvements to bus stops.

#### ***State of Good Repair (Senate Bill 1) - SGR/SB 1***

In 2017, Senate Bill 1, known as the Road Repair and Accountability Act (RRAA) created a new funding program for transit operators to upgrade, improve and maintain equipment in a State of Good Repair. This includes the maintenance and rehabilitation of existing vehicles, transit facilities, and the purchase of new, energy efficient transit vehicles.

The program's funding is derived from a Transportation Improvement Fee on vehicle registrations. These funds are allocated in the same manner as STA funds and have an annual program of projects requirement, resolution for funding, and require annual reporting to Caltrans. Basin Transit has recently used SGR funds to support new Intelligent Transit System (ITS) improvements.

#### ***Senate Bill (SB) 125 – Transit and Intercity Rail (TIRCP) and Zero Emissions Capital (ZETCP) Programs***

The Transit and Intercity Rail (TIRCP) and Zero Emissions Capital (ZETCP) programs are derived through a population-based formula, distributed to SBCTA by the California State Transportation Agency (CalSTA). All TIRCP projects must both increase ridership and reduce greenhouse gas emissions while ZETCP funds must be used to support the purchase of zero emission vehicles or refueling infrastructure.

SBCTA has secured SB125 funding on Basin Transit's behalf to pay for expected zero emission vehicle implementation in FY 2024. Future apportionments are dependent on continued appropriations by the State Legislature and can be used for operations if shown to prevent service reduction or elimination. Basin Transit plans to use these funds for operating purposes instead of LTF during FY 2024.

### **Local Funding**

#### ***Measure I – Local Sales Tax Measure***

San Bernardino County's Measure I is a 0.50 cent sales tax to fund for transportation improvements, first passed in 1989 and extended in 2004 to run through 2040. Funds are allocated based on the Measure I Ordinance and Expenditure Plan and Strategic Plan, with a 10-year Delivery Plan that outlines near-term strategies to fund programs and projects.

Current Basin Transit Measure I allocations are based on SBCTA Board approved amounts and are used primarily to support Ready Ride services to seniors and persons with disabilities.

#### ***Assembly Bill (AB) 2766 – Subvention Fund Program***

The Subvention Fund Program provides funding to cities and counties to develop clean transportation programs and reduce vehicle emissions based on the criteria, guidelines and mission of the South Coast Air Quality Management District and the California Air Resource Board (CARB).

An amount of \$40,000 per year was included in Basin Transit previous SRTP, its FY 2024 budget, and through the forecast years of this SRTP.

#### ***Vehicle Purchasing Cooperative Procurement***

Through a partnership with the California Association for Coordinated Transportation (CalACT), Basin Transit administers a joint procurement program for the purchase of transit vehicles. Agencies that are eligible to participate in the joint procurement are either subrecipients of Caltrans or members of CalACT.

Basin Transit generates revenue through its administration of the vehicle procurement process that covers the programs expense of staff and materials.

#### ***CNG Sales***

Basin Transit owns two CNG fueling facilities, located at the Authority's main facility in Joshua Tree, CA, and the other is at a satellite location in Twentynine Palms, CA. These facilities are open to the general public and generate revenue on sales that support Basin Transit's overall budget.

# Operational Expense and Revenue

The operating plan outlines an expenditure strategy given the expected revenues from Federal, State and local funding available to Basin Transit, presenting a path to improved financial performance through FY 2029. However, it is crucial to closely monitor key assumptions, expenses, and revenue trends to ensure the plan's success.

## Operating Expenditure

Basin Transit's operating expense is categorized by three primary functions: administration, maintenance and operations. Each expense category is inclusive of staff wages, benefits and taxes, and other necessary expenses to support an in-house transit operation, such as fuel, telecommunications, and maintenance consumables. The two additional expense categories are for the TREP mileage reimbursement program and the vehicle purchasing cooperative procurement activity.

The recommendations of this SRTP include some significant restructuring of service, replacing local fixed-route service with expanded Ready Ride service, and expansions of intercity service on Route 1 along Highway 62. However, these recommendations are designed to be accomplished within the existing number of service hours and resources, with the expectation that operating expenses will continue at current levels.

Adjustments made to transit services that expand the recommended plan will likely increase the overall operating budget and should be reassessed prior to implementation.

In FY 2024, Basin Transit approved an operating budget of approximately \$5.4 million, which is an increase of 17% over actual expenses incurred in FY 2023. The five-year forecast includes 3% and 4% increases in inflation for expenses such as wages, benefits, fuel and

other consumables that are expected to escalate over time.

The TREP program is expected to increase slightly due to Basin Transit's desire to increase the rate at which it reimburses riders, and the vehicle cooperative procurement is estimated to remain constant with a minor increase in staff time.

Overall, the operating expense for transit services is expected to increase by 18% to \$6.6 million from FY 2025 to FY 2029. It is unknown at this point what impact a transition to zero-emission electric buses will have on operating expense, considering increases in energy costs for recharging and maintenance of charging infrastructure, and the cost-savings from reductions in fossil fuel usage.

## Operating Revenue

Basin Transit operating revenue plan is built upon revenue projections provided by SBCTA for the five-year SRTP period. These projections are based on current economic conditions and may change based on actual revenue received, changes in the Consumer Price Index (CPI), changes in population, demonstration of need, continuance of appropriations by the state legislature, and success of application submittals for discretionary grants.

A combined funding allocation of almost \$4 million for SB 125 TIRCP and ZETCP in FY 2025 provides Basin Transit with a surplus of funds that will offset expenses throughout the five-year period.

Basin Transit is electing to use SB 125 funds for operating expenses as it continues to analyze its needs for zero emission implementation. This decision will preserve the primary operating revenue of LTF funds (73%) that will carry over from year to year.

This can also provide an opportunity to make operational adjustments to find the right mix of services to meet the community's mobility needs.

For this financial plan, the year-to-year carryover is presented in the capital revenue plan, considering that funding for operations is limited and many of Basin Transit's funding sources can only be used for capital projects while ZEB implementation is still on the horizon.

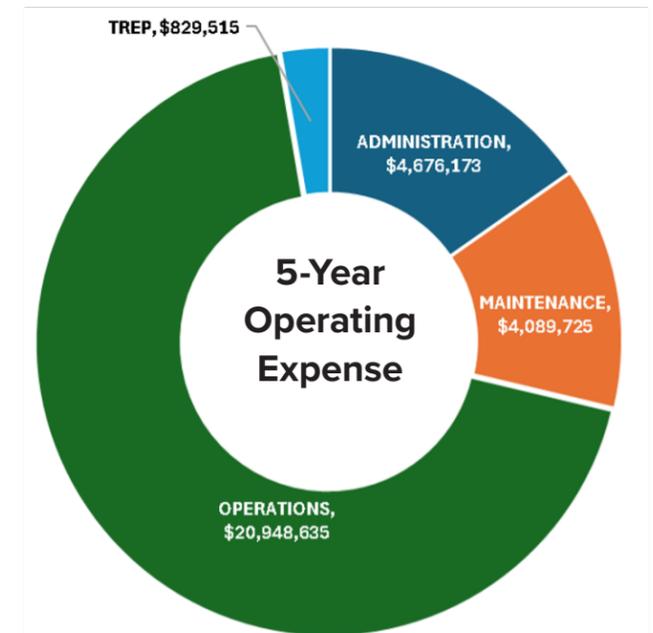


Figure 44: Basin Transit Operating Expense Chart

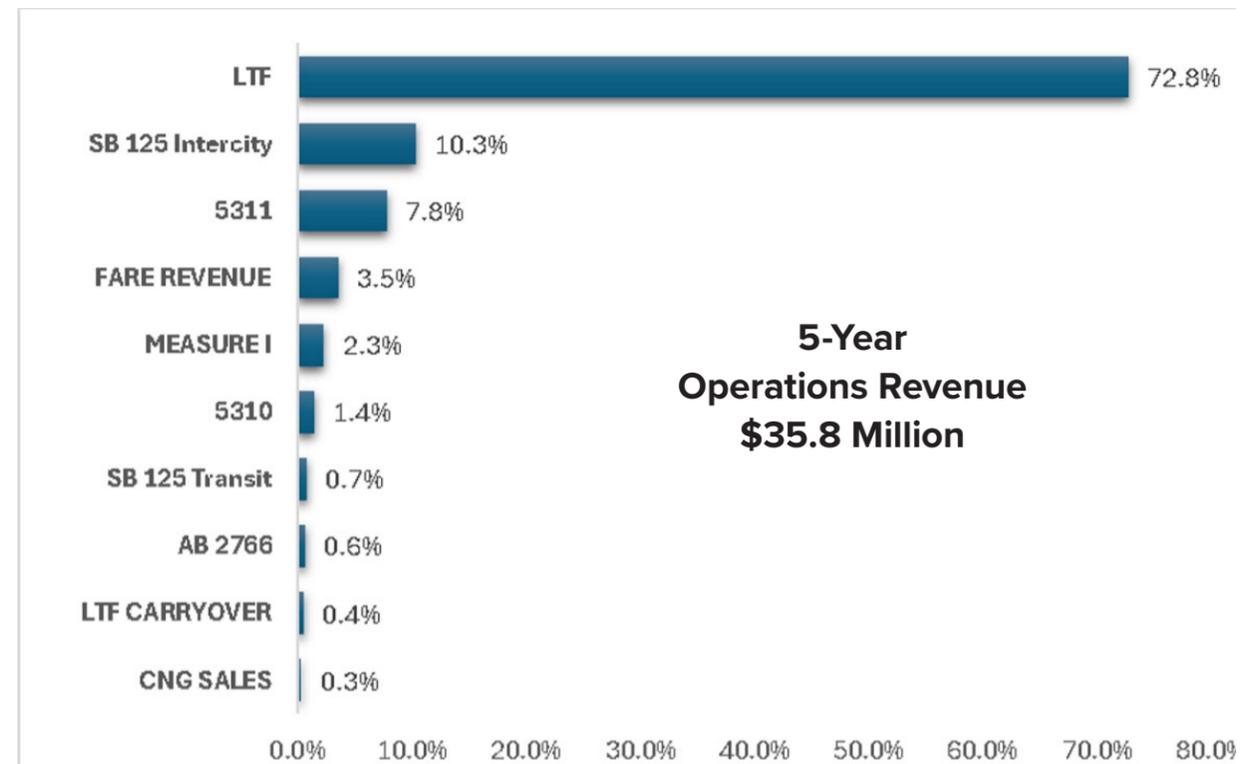


Figure 45: Basin Transit Operating Revenue Chart

# Capital Plan

## Capital Funding

The following capital plan provides cost estimates for needed asset investments based on the projection for expected revenue sources. Capital expenditures include vehicle replacement, zero emissions projects, retirement funding, bust stop improvements, facility upgrades, engine overhauls, and technology support.

## Capital Expenditure

The greatest expenditure over the 5-year planning period will continue to be the replacement of transit vehicles that have reached the useful life benchmark. The \$3.7 million eight (8) vehicle replacement projection considers the transition from combustion powered vehicles to battery electric vehicles, based on the useful life schedule, on a 1:1 vehicle replacement basis.

Transition to battery electric buses may require additional vehicles to maintain current levels of service if the recharge range of electric vehicles is insufficient, before needing to be recharged. This scenario would require the purchase of additional vehicles, and a higher level of expenditure would be incurred.

Basin Transit will be releasing a Request for Proposals in FY 2027 to conduct an analysis of cost implications for ZEB transition, that will include an assessment of vehicle needs, electrification upgrades, and charging infrastructure.

The capital expenditure plan sets aside \$1.5 million for upgrades to an inadequate electricity infrastructure and vehicle charging equipment. The fund surplus that will be realized from SB 125 funding could be used to offset any unforeseen costs associated with ZEB transitioning.

Over the next few years, Basin Transit will be purchasing Compressed Natural Gas (CNG)

buses as part of their fleet strategy. This decision aligns with current operational needs and is made possible due to a few applicable exemptions provided by the California Air Resources Board (CARB).

Bus stop improvements are increased in this plan to accommodate an anticipated increase in ridership on Route 1, and engine overhauls are expected to decrease once the seven vehicles on back order have been received and placed into service.

Basin Transit will continue to fund retirement and pension trust contributions throughout the five-year period, and operations support for TransTrack data management licensing will slightly increase. The upfront costs for upgrading ITS equipment carry through FY 2028, where the annual licensing requirement begins the following year.

## Capital Revenue

Basin Transit has consistently utilized CMAQ funds for the replacement of transit vehicles, an approach that will continue throughout the course of this plan. CMAQ represents 42% of Basin Transit's total capital revenue and will support the majority of new bus purchases in this 5-year plan. The additional funds needed to complete the vehicle replacement plan will be augmented by LTF carryover funds.

Funding for zero emissions projects will be supported by LTF funding rolled over from FY 2023 and carried over from the SB 125 swap for LTF in FY 2024. It is recommended that Basin Transit pursue LTF Article 3 funds through SBCTA's biennial call-for-projects to cover most of the costs of bus stop improvements which will free up other capital funding for ZEB transition activities.

CAPITAL EXPENDITURE	AMOUNT	% OF TOTAL
REPLACEMENT VEHICLES	\$3,695,173	40%
CERBT/CEPPT Trust	\$1,451,940	16%
ZERO EMISSIONS PROJECTS	\$1,450,000	16%
BUS STOP IMPROVEMENTS	\$1,230,000	13%
FACILITIES	\$400,000	4%
ENGINE OVERHAULS	\$325,000	4%
OPERATIONS SUPPORT	\$320,000	4%
SHORT RANGE TRANSIT PLANS	\$150,000	2%
INTELLIGENT SYSTEMS	\$120,000	1%
<b>TOTAL</b>	<b>\$9,142,113</b>	

Figure 47: Basin Transit Capital Expenditures

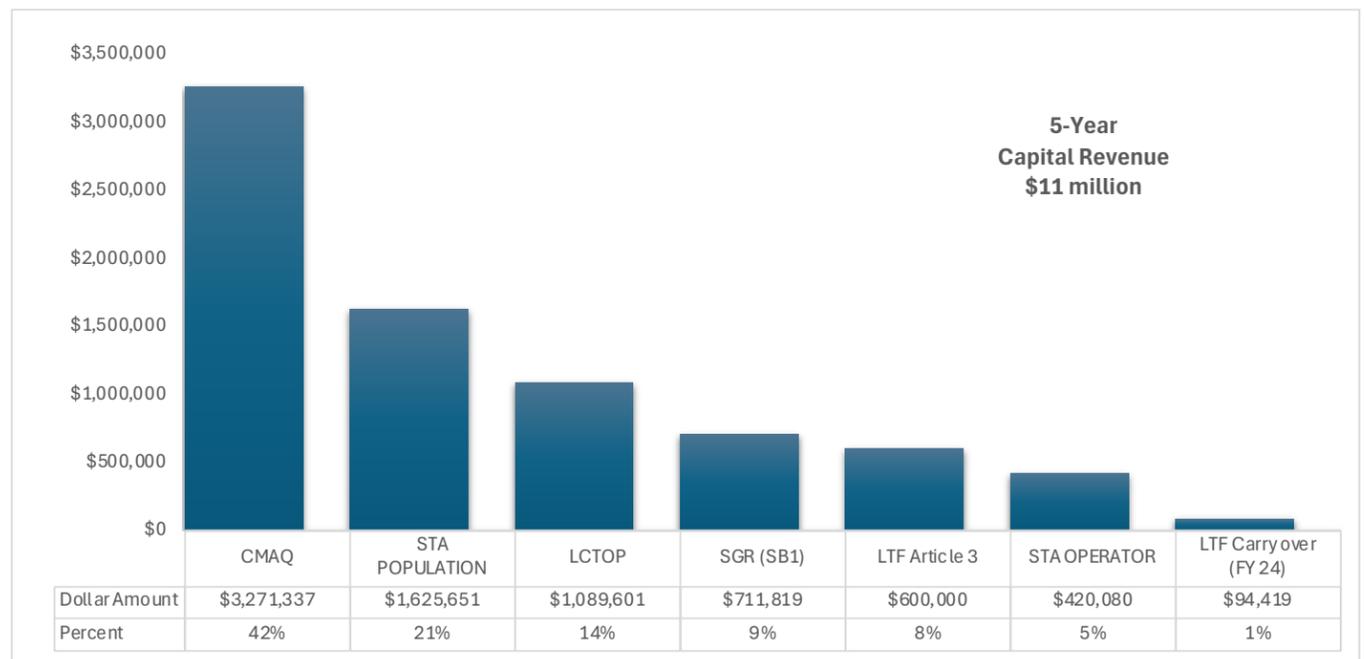


Figure 46: Basin Transit's Capital Revenue

# 5-Year Operating and Capital Financial Plan

OPERATING PLAN	FY 24/25 Budget	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
<b>OPERATING REVENUE</b>						
FARE REVENUE	245,950	250,000	250,000	250,000	250,000	250,000
5311 OPERASST	555,516	555,516	555,516	555,516	555,516	555,516
LTF OPS SUPPORT	4,001,456	5,279,722	5,161,608	5,187,416	5,213,353	5,239,420
LTF CARRYOVER						218,233
MEASURE I	153,100	153,100	157,218	161,809	166,340	172,162
5310 TREP		62,010	100,000	100,000	125,000	125,000
SB 125 Intercity		3,693,476				
SB 125 Transit		246,734				
AB 2766	40,000	40,000	40,000	40,000	40,000	40,000
CNG SALES	16,693	17,528	18,404	19,324	20,290	21,305
<b>TOTAL OPERATING REVENUE</b>	<b>5,012,715</b>	<b>10,298,086</b>	<b>6,282,746</b>	<b>6,314,065</b>	<b>6,370,499</b>	<b>6,621,636</b>
<b>OPERATING EXPENSE</b>						
ADMINISTRATION	863,462	859,049	896,168	934,242	973,308	1,013,407
MAINTENANCE	772,078	782,531	780,812	810,521	841,514	874,347
OPERATIONS	3,636,080	3,851,597	4,001,575	4,178,626	4,362,955	4,553,882
TRANSP REIMB ESCORT PRGM (TREP)	114,526	119,515	175,000	175,000	180,000	180,000
<b>TOTAL OPERATING EXPENSES</b>	<b>5,386,146</b>	<b>5,612,692</b>	<b>5,853,555</b>	<b>6,098,389</b>	<b>6,357,777</b>	<b>6,621,636</b>

Figure 48: 5-year Operating Plan

CAPITAL PLAN	FY 24/25 Budget	FY 25/26	FY 26/27	FY 27/28	FY 28/29	FY 29/30
<b>CAPITAL REVENUE</b>						
CMAQ	904,072		689,078	245,067		2,337,192
LTF Article 4	1,278,266		89,277	31,751		302,808
LTF Article 3			150,000	150,000	150,000	150,000
LTF Carry over		94,419				
STA OPERATOR	84,016	84,016	84,016	84,016	84,016	84,016
STA POPULATION	290,340	425,651	300,000	300,000	300,000	300,000
LCTOP	164,762	250,553	209,762	209,762	209,762	209,762
SGR (SB1)	136,782	136,782	139,518	142,308	145,154	148,057
Carryover			5,057,150	4,657,498	4,853,873	4,422,332
<b>TOTAL CAPITAL REVENUE</b>	<b>2,858,238</b>	<b>991,421</b>	<b>6,718,801</b>	<b>5,820,402</b>	<b>5,742,805</b>	<b>7,954,167</b>
<b>CAPITAL EXPENSE</b>						
OPERATIONS SUPPORT		60,000	60,000	65,000	65,000	70,000
CERBT/CEPPT Trust	290,388	290,388	290,388	290,388	290,388	290,388
ENGINE OVERHAULS	100,000	90,000	50,000	55,000	60,000	70,000
REPLACEMENT VEHICLES	1,164,329		778,355	276,818		2,640,000
INTELLIGENT SYSTEMS	900,000					120,000
SHORT RANGE TRANSIT PLANS	100,000				150,000	
ZERO EMISSIONS PROJECTS	246,734		1,000,000	200,000	150,000	100,000
FACILITIES	84,081		100,000	100,000	100,000	100,000
BUS STOP IMPROVEMENTS	219,440	150,000	240,000	260,000	280,000	300,000
<b>TOTAL CAPITAL EXPENSES</b>	<b>3,104,972</b>	<b>530,388</b>	<b>2,458,743</b>	<b>1,182,206</b>	<b>1,030,388</b>	<b>3,620,388</b>
<b>TOTAL ALL REVENUE</b>	<b>7,870,953</b>	<b>11,289,507</b>	<b>13,001,547</b>	<b>12,134,467</b>	<b>12,113,305</b>	<b>14,575,802</b>
<b>TOTAL ALL EXPENSES</b>	<b>8,491,118</b>	<b>6,143,080</b>	<b>8,312,298</b>	<b>7,280,595</b>	<b>7,388,165</b>	<b>10,242,024</b>

Figure 49: 5-year Capital Plan and Total Revenues & Expenses

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# 8

# Network Alternatives

# Service Goals and Key Policy Decisions

## Major Findings

Throughout the technical analyses and public outreach activities that we conducted to prepare this plan; we discovered three themes that are key to reorganizing Basin Transit's system to better meet the mobility needs of its growing service area.

- We heard from stakeholders and the community a desire for additional service hours in the evening and on weekend days, more service to regional destinations, and more frequency of service, but also a desire to cover areas that do not currently get service.
- We learned from the analysis of transit markets that Basin Transit operates in a vast and challenging service area. However, the area contains active urban centers with significant concentrations of residents that could use transit, with many important destinations along or accessible from one key corridor – Highway 62, and with commute patterns that show latent demand for regional connections.
- We learned from the analysis of performance that Basin Transit has had declining productivity and cost-efficiency metrics in the last 10 years (since well before the COVID-19 pandemic). The system needs to boost ridership and, to achieve that, make its service more attractive for travel to increase its relevance as a mobility option in the community.

## SRTP Goals

Based on these findings, the main goals of this SRTP are to increase system ridership, improve productivity and cost-efficiency metrics, and adjust the system to shift its balance from a service that is highly focused on providing geographic coverage to a service that is more focused on providing service that generates ridership.

Shifting the balance toward generation of ridership will help attracting more riders onto the system. More passengers will improve productivity metrics, such as the number of boardings per revenue hour, and that will improve cost-efficiency metrics, such as the cost per boarding and fare recovery ratio.

## Key Policy Decisions

To generate more ridership, Basin Transit needs to make the service more attractive for travel and increase its relevance as a mobility option in the community. That will require making a few policy decisions about network design and allocation of resources to provide service. This SRTP proposes the following strategic decisions to make Basin Transit services more convenient and useful for residents of the Morongo Basin.

- **Geographic Coverage of Service.** Reduce and define with a clear boundary the extent of the service areas that are provided with coverage service such as Ready Ride. The current Ready Ride service areas are not clearly defined which make them hard to enforce, and difficult to establish limits to service trips to outlying areas that are very costly and take away resources that could be spent, for instance, on more Ready Ride service in urban areas with higher residential and employment density.
- **Time of Day Coverage of Service.** Except for Route 1, Basin Transit services are generally not available on weekdays after 5:00 pm and on Saturday and Sunday. While Ready Ride is generally not available after 3:00 pm on weekdays. This is a significant limitation to use service. Therefore, the plan seeks to reallocate resources spent in coverage service to invest in additional service hours on weekday evenings and weekend days, on local and regional routes, that will make the system more usable and convenient for more people and destinations.
- **Connectivity of Services.** Provide timed connections between all Basin Transit services at key centralized locations such as the Yucca Valley and Twentynine Palms Transit Centers. Timed connections are critical to extend the reach of the transit network and provide everyone with access to all services and destinations, even if trip times are limited. Timed connections between regional commute, fixed-route, and on-demand services will improve the ability of residents to travel across the basin and the region, connecting distant locations, such as Twentynine Palms and Morongo Valley or Yucca Mesa and Palm Springs, with just one transfer.
- **Regional Connectivity.** Regional travel patterns show that there is latent demand for transit service between the Morongo Basin and Palm Springs. The plan seeks to increase the frequency of service to Palm Springs, on weekdays and weekend days, to connect with the SunLine transit system and provide more travel options for residents to access jobs, services, and recreational opportunities in the Coachella Valley.
- **Overlap and Customization of Services.** Neighborhood shuttles fill gaps in service on Route 1's market, along Highway 62 and Adobe Road, and they overlap with Ready Ride service in residential areas of Yucca Valley and Twentynine Palms. This duplication is triggered by the customization of Ready Ride service to seniors and persons with disabilities that live in areas also served by neighborhood shuttles, but it results in an overinvestment of resources to areas of low demand. The SRTP proposes to eliminate duplications of service and use those resources to increase service hours and frequency on Ready Ride, Intercity and Commuter services, that will make Basin Transit more attractive and useful for a larger number of residents.

# Network Design Strategies

Basin Transit's current system spends about 63% of operational resources on services providing coverage and 37% on services dedicated to ridership. Based on the aforementioned policy choices this SRTP proposes two network alternatives that share the following service design strategies and investment priorities:

## Eliminate One-Way Neighborhood Shuttles Loops and Combine with Ready Ride Service.

Neighborhood Shuttles 7A, 7B, 3A, and 3B overlap with Ready Ride service in Yucca Valley and Twentynine Palms. Neighborhood Shuttles are tasked with providing ADA complementary service through deviations from fixed-route service by advanced reservation, while Ready Ride services are tasked with providing demand response service to seniors and individuals with physical disabilities also by advanced reservation. In other words, the services not only overlap on the areas they serve but also on their mission.

Since the services share the goal of providing flexible service to low-density residential neighborhoods, and the resources that are available for their operation are limited, they end up splitting resources and providing a service that is only available on weekdays up to 3:00 pm and 5:00 pm, respectively. Therefore, the recommended service strategy is to eliminate Neighborhood Shuttles in Yucca Valley and Twentynine Palms neighborhoods and use these resources to expand service hours on Ready Ride, for instance by adding Saturday service, to provide a service that is more flexible and responsive to the needs of the community.

This change will not only reduce duplication of service but also simplify the network and its fare structure. Ready Ride's fare includes a transfer

to Route 1, while Neighborhood Shuttles do not include a transfer and are priced at one-half the fare of Route 1. The change will also reduce the need to deviate Route 1 to comply with ADA regulations, by relying on Ready Ride to provide ADA service for a longer period of the day and the weekend.

## Contain Ready Ride Service Areas.

Ready Ride service areas are currently loosely defined. They are mostly enforced by the dispatch department through scheduling practice but not by a defined boundary. Establishing a clear boundary is a best practice for two reasons:

- The boundary can define an area where the service can be provided more frequently, like every hour or every half-hour, and vehicle trips shared with more people, improving both the responsiveness and productivity of service.
- The boundary helps establishing the fare structure with more clarity and enforcing a premium fare for those trips that are starting or ending outside of it. This also helps disincentivizing the use of Ready Ride for trips that are more expensive to provide and more difficult to share, which result in a loss of productivity.

Ready Ride currently serves an area of about 12 square miles in Yucca Valley (RR 30 and RR 31), Joshua Tree (RR 50), and Twentynine Palms (RR 34), Monday to Friday, and limited trips twice a week to larger outlying areas in the Morongo Valley, Sunfair Heights, Desert Heights, and Wonder Valley. The recommended service strategy is to define a boundary of not more than 12 square miles around Yucca Valley, Joshua Tree, and Twentynine Palms, and add new service hours to these zones only.

This will increase the frequency of service of Ready Ride in areas of higher residential and employment density, where it can be more responsive and effective in meeting mobility needs of neighborhoods that are beyond walking distance of Highway 62.

## Operate Ready Ride as a Microtransit and Comingled Service.

Currently, Ready Ride service is scheduled through a manual "pencil and paper" process where riders call in to request a trip and dispatch writes down in cards, that then are grouped together in logical routes and used to develop driver schedules for each day of service. This method results in very efficient route schedules when dispatchers have deep knowledge of the service area and its challenges, which is the case at Basin Transit. But it is limited in scale and can only produce so many schedules in the day, especially if the method relies on paper trail and entering information by hand. The combination of limited hours of service and paper trail recording ends up limiting the capacity of the system to provide service to more riders. Therefore, the recommended service strategy involves three actions:

- Migrate the scheduling and tracking of service information to a software platform that allows dispatcher and driver to follow and modify the route in real-time, while producing a full record of each trip that includes actual pick-up and drop-off times, locations, and time and distance traveled. This will allow for dynamic adjustment of service operations on the day of service, while maintaining a full record for ex-post evaluation.
- Operate the system as a micro-transit service that is truly on-demand, where riders

can request a trip on the same day, at a moment's notice, via a smartphone app, call center or website, as long as it is completely within the newly defined service boundaries.

- Open the service to all within those boundaries and comingled trips between regular passengers (youth and adults), seniors, and individual with disabilities. Additional service hours that will be invested in the system plus the higher level of responsiveness of micro-transit software and smartphone technologies, will allow the service to not only provide rides to seniors and individuals with physical disabilities, but also to all members of the community.

Because operational resources are limited and because the intent is to emphasize the generation of ridership, the micro-transit service will be an extension of the fixed-route service. This means that Ready Ride service will be tethered to a few key locations, such as the Yucca Valley Transit Center, Twentynine Palms Transit Center, Walmart, Stater Bros or the Kickapoo Park and Ride, where it will have timed connections with Route 1 and other fixed-route services. In practice, this means that Ready Ride will have a timed connection with other services at least once per hour, and that it will provide flexible on-demand routes inside the community, that will regularly connect with the larger system, to increase access to opportunity and travel across the region.

An exception to this rule will be trip requests for those that are ADA certified, which according to ADA regulations are entitled to a service that is comparable to fixed-route service within three-quarters of a mile of fixed-route service. Demand response trips to individuals with disabilities would still be provided curb to curb, across the region, for those who meet these conditions.

## Design Service Schedules to Connect with Intercity and Regional Services.

Fixed route schedules, in particular, Routes 1 and 12 will be adjusted to provide regular hourly or bi-hourly service to ensure timed-connections at designated transfer points, between Ready Ride, Intercity, and Regional Commute services, and ensure continued travel across the region on one transfer, from any place in Basin Transit's service area.

Route 1 is the backbone of Basin Transit's system. It runs on Highway 62 between Yucca and Twentynine Palms, connecting communities across the basin, and providing direct access to jobs and quality of life opportunities. The goal of network alternatives is to consolidate its schedule on weekday evenings, and expand its hours of service on Saturdays, to provide a consistent schedule that people and the system can rely on to access opportunities.

Route 12 is the main connection between the Morongo Basin and the Coachella Valley, with the service providing a direct link between Yucca Valley, Morongo Valley, and Palm Springs. However, the service operates only 3 round trips Monday to Friday, and without reliable timed connections to Route 1.

The main recommendation is to duplicate the number of round trips on Route 12, from 3 to 6 roundtrips on weekdays, add new service on Saturday (6 or 7 roundtrips), and provide timed connections with Route 1 on all trips. This will result in two big benefits for the network:

- There will be many more travel time options for travel between Yucca Valley and Palm Springs, in both directions of travel, 6 days per week (Monday to Saturday). Sunday service will be provided by Route 15 (see below).

This will allow many more residents and workers to travel "down the hill" for all types of jobs, whether traditional and non-traditional work shifts, and for all types of trips, whether recreation, shopping, health-care, and higher education, or simply to connect with other regional services such as SunLine, Bolt Bus and Amtrak service.

- There will be many more days of service between Yucca Valley and Morongo Valley, with many travel time options each day in both directions of travel. This will eliminate the need for Ready Ride service (RR 36) to Morongo Valley, which operates twice a week only, and will increase access of Morongo Valley residents to Yucca Valley and Palm Springs.

Route 15 is a Super Route that combines the current Routes 3A, 1, and 12, and provides a limited-stop express service between the Twentynine Palms MCAGCC and the Palm Springs Airport. It currently provides 2 round trips on Saturday and Sunday, and 1 round trip Friday evenings. The recommendations for Route 15 include three service changes:

- Do not provide service on Saturday. The additional service hours and trips on Routes 3A, 1, and 12 will provide sufficient frequency and coverage for all residents of the basin, including MCAGCC members, to travel across the basin and to Palm Springs.
- Use the Saturday service hours to increase service on Sunday to 6 round trips (three times more than current) to provide more travel options during the day, for a larger number of possible trips, that will be more useful and attractive to a larger number of people.
- Add a few more stops to the route to allow access to more people to reach destinations

across the basin and the region, when Route 1 is not in service.

There are also two additional considerations that require further evaluation, beyond this SRTP. Evaluating whether increased hours of service on Routes 3A, 1, and 12, can replace the Friday evening roundtrip on Route 15, and evaluating whether the current fare structure of Route 15 needs change to attract more users to the modified service.

# Alternative 1

## Overview

The main goal of Alternative 1 is to consolidate Route 1 as the backbone of Basin Transit’s network, by creating a single and continuous route to travel between the Twentynine Palms Marine Base and the Kickapoo Park and Ride in Yucca Valley.

An additional goal of Alternative 1 is to increase service to Morongo Valley and Palm Springs via Route 12, by adding trips to provide more frequency through the day and by providing timed connections with Route 1 on all trips, to allow for seamless travel across the region, from Twentynine Palms to Palm Springs.

Also, Alternative 1 proposes to modify the operation of Ready Ride service to function as an on-demand “micro-transit” service but providing timed connections with Route 1 at designated transfer points, with the purpose of extending the coverage of Route 1 with Ready Ride acting as a feeder to the fixed route network.

These changes will create a continuous and connected service network that will reduce transfers for anyone traveling within the Morongo Basin, to none if living within walking distance of the Highway 62 corridor, and to just one transfer for those living away from Highway 62 and connecting to Route 1 via Route 21 or Ready Ride service.

The following paragraphs provide a more detailed explanation of the proposed changes.

## Route 1

The biggest change to Route 1 is adopting the alignment that it is used on Saturday as the alignment of Route 1 every day of the week that the service is in operation. The frequency of service will remain hourly from 6:00 am to 10:00 pm, but providing more consistent frequency on

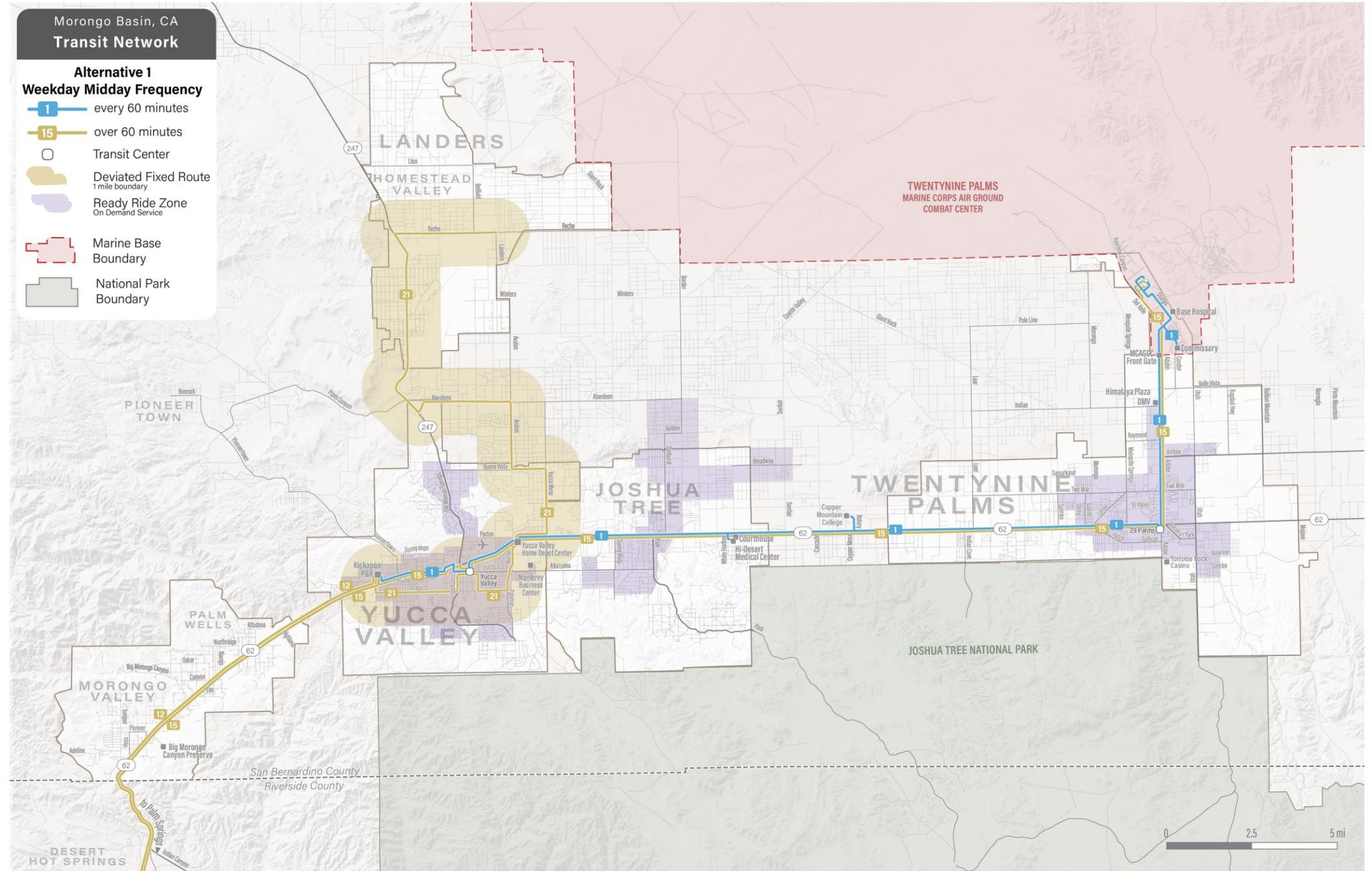


Figure 50: Alternative 1 - Network in the Basin

weekday evenings, closing the gap in service that currently exists at 6:00 pm.

In Yucca Valley, the route will run on Highway 62 from Kickapoo Park and Ride to Yucca Mesa Road but deviate off Highway 62, to serve the Yucca Valley Transit Center on Yucca Trail, via Joshua Lane and Airway Avenue.

Route 1 will keep the current deviations off Highway 62 to the Hi-Desert Medical Center and Copper Mountain College on its way to the Twentynine Palms Transit Center. From there it will head north on Adobe Road past the city limit and into the Marine Base. Route 1 will follow a simplified routing while on base that minimizes right-hand turns and provides a more convenient route for travel inside the base, from residential blocks in the north end to the Commissary in the south end, before returning to Adobe Road and the Twentynine Palms Transit Center.

Operating Route 1 along Adobe Road provides more direct access to neighborhoods and connectivity to important destinations in the City of Twentynine Palms such as The Plaza and the DMV office. City residents will be able to travel between Stater Bros Market and the DMV office on a single route.

The changes to Route 1 will not only offer a one-seat ride across the Morongo Basin but focus service on the communities where activity density is the highest and more riders are likely to use the service. Additionally, the extension of Route 1 to the Kickapoo Park and Ride and route changes inside the base, will create a more efficient scheduling cycle that will only require 3 vehicles for its operation.

The proposed alignment is currently served by Routes 7A and 7B, Route 1, and Route 3A, utilizing 4 vehicles for its operation. Utilizing one fewer vehicle saves resources that are

reinvested in other parts of the network, such as providing Ready Ride service on Saturday.

### Route 21

The existing alignment of Route 21 is a large 40-mile long “figure 8” loop that is operated in one direction only, Monday to Friday, from Yucca Valley Transit Center to Yucca Mesa, Homestead Valley and Landers. Basin Transit allows deviations of up to 1.5 miles from the route on 4 out of 6 trips, if scheduled one day in advance.

The main change proposed for this route is to eliminate the “figure 8” and operate a consolidated alignment in both directions of travel, from Yucca Valley to Homestead Valley to Landers and back. This will provide riders in Homestead Valley and Yucca Mesa with a more direct travel path to Yucca Valley, and timed connections with Route 1 and regional service to Palm Springs.

The frequency of service will remain every two hours and offering the same 6 round trips that are provided today but with the addition of Saturday service. Because the route will travel a shorter path to and from Yucca Valley, it will also be able to make deviations on all trips, including the first and last trip in the day. However, the proposal is to limit deviations to only 1.0 mile away from the route, to reduce delays and also because a one-mile band around the route will provide coverage to most current users. Any existing customers in outlying areas that lose coverage with these changes can be grandfathered in until they stop using the service.

Changes to Route 21 in Homestead Valley and Landers will permit extending the route along Onaga Trail in Yucca Valley, to connect Walmart with neighborhoods south of Highway 62 with a direct two-way service. Route 21 will first connect with Route 1 at Walmart and last

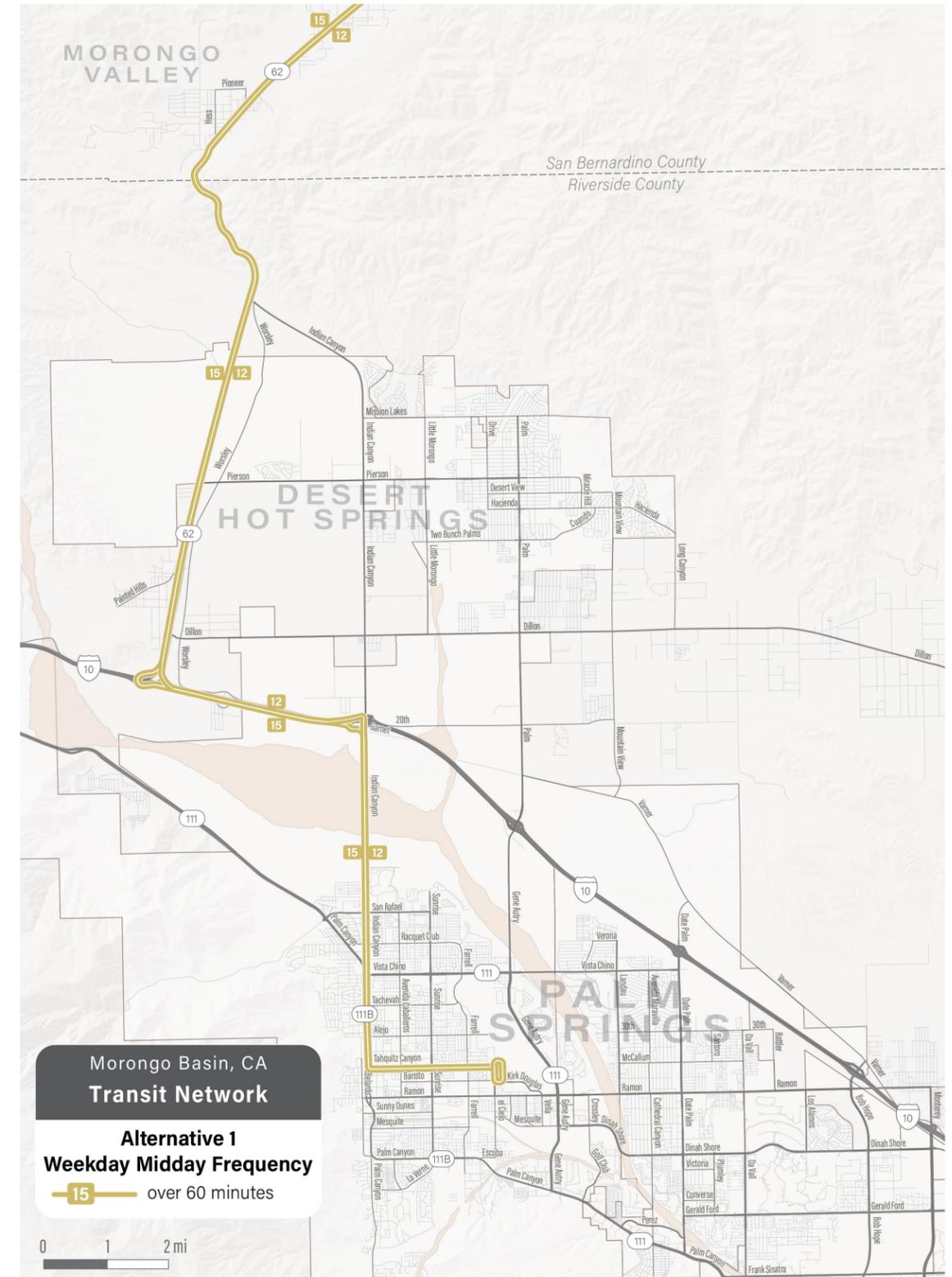


Figure 51: Alternative 1 - Regional Network

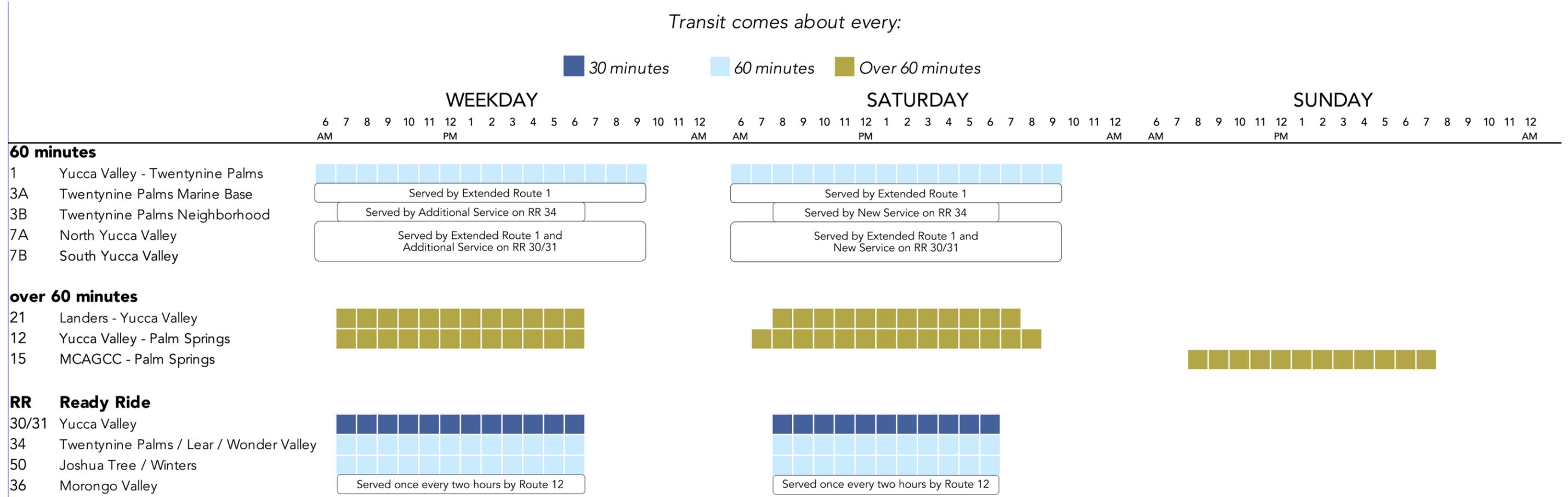


Figure 52: Alternative 1-Frequency Chart

at the Kickapoo Park and Ride, so the proposal is to time connections with Route 1 at Walmart and with Route 12 to Palm Springs at the park and ride. These changes will ensure that Yucca Valley High School and communities south of Highway 62 get enough service and connections to the network. They will also reduce excessive demand pressure off the new Ready Ride micro-transit service.

**Ready Ride**

Ready Ride will operate as a micro-transit service in three zones of not more than 12 square miles in Yucca Valley, Joshua Tree, and Twentynine Palms, see Figure 50. There will

be two vehicles providing service to Yucca Valley (RR 30 and RR 31), one vehicle providing service to Joshua Tree (RR 50), and one vehicle providing service in Twentynine Palms (RR 34), same as today, but the hours of service will be expanded on weekday evenings, and on Saturdays, to make the service more attractive and a better alternative for travel than the current Neighborhood Shuttle routes.

Ready Ride micro-transit service will be contained within each zone and not allowed to travel between zones, as it does today between Joshua Tree and Yucca Valley. Instead, Ready Ride service will be tethered to one stop along Route 1, within each zone, that will provide a

timed connection to travel across the Morongo Basin on the Intercity Highway service.

These changes in operation will contain the service within each zone allowing it to provide service more effectively with limited resources. The size of each Ready Ride zone will make it possible to complete dynamic routes through neighborhoods, to and from transit centers or other key locations, within one hour, to more effectively connect with and extend the reach of the fixed-route network. Additional service hours will allow the service to provide better coverage through the day and the week and increase its capacity to meet additional mobility needs.

**Routes 12 and 15**

Routes 12 and 15 will continue providing regional commute service on their current alignment but with the following changes:

- Route 12 will increase its service from 3 roundtrips to 6 roundtrips, Monday to Friday. This will allow operating a consistent frequency of service every two hours, from 7:00 am to 7:00 pm.
- Route 12's service will be expanded to run on Saturday, with one additional roundtrip (7 total), to provide service from 7:00 am to 9:00 pm, also every two hours.

Route 12's Saturday service will replace Route 15's service.

- Route 15's service hours on Saturday will be re-invested to provide additional service on Sunday. This will allow Route 15 to provide 4 more roundtrips on Sunday (6 total) and provide service from 8:00 am to 8:00 pm, every two hours.

These changes will create a regular connection, and consistent frequency of service, every two hours and 7 days per week, between all cities and census designated places in the Morongo Basin with Palm Springs and the Coachella Valley.

These changes respond not only to observed latent demand, but also to the feedback received during community outreach activities. Community survey responses, conversations with senior citizens and students, and talks with college and Marine Base representatives, emphasized the need for a reliable connection to Palm Springs throughout the week, and especially on weekends, to access jobs, services, and recreational opportunities.

## Frequency of Service

Community feedback and the analysis of Fixed Route and Ready Ride services on Chapter 3 and Chapter 4, identified gaps in service in the early morning and late evening, Monday to Friday, and a significant gap in service on Saturday and Sunday. The service changes described for Alternative 1 seek to fill these gaps and improve the frequency and availability of service, to make the system more effective in providing a convenient mobility option to the community. Figure 52 shows the frequency and availability of service that can be achieved with the changes recommended in Alternative 1.

- **Route 1:** Provides hourly service from 6:00 am to 10:00 pm, Monday to Friday, and hourly service from 7:00 am to 10:00 pm on Saturday, from the Twentynine Palms MCAGCC to the Kickapoo Park and Ride.
- **Routes 3A, 3B, 7A, and 7B:** Eliminate Routes 3A, 3B, 7A, and 7B, and replace with additional service on Ready Ride services RR 30 and 31 in Yucca Valley, and RR 34 in Twentynine Palms. Also replaced with Route 1 extension to MCAGCC along Adobe Road (Routes 3A and 3B), and extension to Kickapoo Park and Ride along Highway 62 (Routes 7A and 7B).
- **Route 21:** Eliminate "figure 8" one-way loop and consolidate on bi-directional alignment via Yucca Mesa, Buena Vista, Avalon, Highway 247, and Reche, from Yucca Valley Transit Center to Walmart to Landers Post Office. Operate service every two hours from 7:00 am to 7:00 pm, Monday to Friday, and new service on Saturday from 8:00 am to 8:00 pm.
- **Route 12:** Operate every two hours from 7:00 am to 7:00 pm, Monday to Friday, from Kickapoo Park and Ride to Palm Springs Airport. Add new service on Saturday and also operate every two hours, from 8:00 am to 10:00 pm, to connect with Route 1 and Route 21 at the Kickapoo Park and Ride and continue travel across the basin.
- **Route 15:** Operate every two hours from 8:00 am to 8:00 pm, Sunday only. Add stops to provide access to all key destinations on Highway 62, between the MCAGCC and the Kickapoo Park and Ride.
- **Ready Ride Service:** Concentrate Ready Ride service to the three areas of higher demand and density – Yucca Valley, Joshua Tree, and Twentynine Palms. Increase

service hours within these areas to provide service every 30 minutes in Yucca Valley, every hour in Joshua Tree, and every hour in Twentynine Palms. Operate service from 7:00 am to 7:00 pm, Monday to Friday, and from 8:00 am to 7:00 pm on Saturday. Operate service on-demand with a dynamic route, using a dense web of virtual stops within each zone, and tethered to one or two key transfer locations to Route 1 and other services.

## Resource Requirements

Alternative 1 changes the allocation of operational resources to a 52% focus on ridership and 48% focus on coverage. Service improvements are funded through re-allocation of resources and an increase of 10% in annual vehicle revenue hours, from 33,600 to 37,000.

- **Weekdays:** Service design changes require 3 fewer vehicles for peak operation (9 buses instead of 12). However, vehicle revenue hours are reduced by 4% only. Showing the consolidation of vehicle revenue hours into fewer routes and services.
- **Saturday:** Saturday service is increased by more than 250% with the addition of vehicle revenue hours on all routes and services, requiring 9 vehicles for peak service, like weekdays.
- **Sunday:** Sunday service is increased by 100% to provide travel options through the day on Route 15, which will require 2 vehicles.

# Alternative 2

## Overview

The goal of Alternative 2 also is to consolidate Route 1 as the backbone of Basin Transit’s network, by straightening the current alignment in Yucca Valley and boosting timed connections with regional, local, and Ready Ride services at the Yucca Valley and Twentynine Palms Transit Centers.

Alternative 2 proposes a higher emphasis on regional connections with the addition of service on Route 12 to connect with downtown Palm Springs, and the addition of a new Route 13 that would connect the Yucca Valley Transit Center with a new Mobility Hub in Desert Hot Springs (currently being explored by SunLine Transit Agency). The combination of Routes 12 and 13 will provide frequent service between Morongo Valley and Yucca Valley, while also increasing connections with the SunLine system to travel across the region.

Alternative 2 also proposes to modify the operation of Ready Ride service to function as an on-demand “micro-transit” service that provides timed connections with Route 1 at the Yucca Valley and Twentynine Palms Transit Centers, with the purpose of feeding Route 1 and extending the coverage of the fixed route network.

Alternative 2 acknowledges the difficulties of running Route 1’s large buses inside the Twentynine Palms MCAGCC and so it proposes to keep Route 3A to provide that service, through a timed connection with Route 1 at the Twentynine Palms Transit Center. These service changes will create a continuous and connected service network that will concentrate transfers between regional, intercity, local, and Ready Ride services at the existing Yucca Valley and Twentynine Palms Transit Centers. The following paragraphs provide a more detailed explanation of the proposed changes.

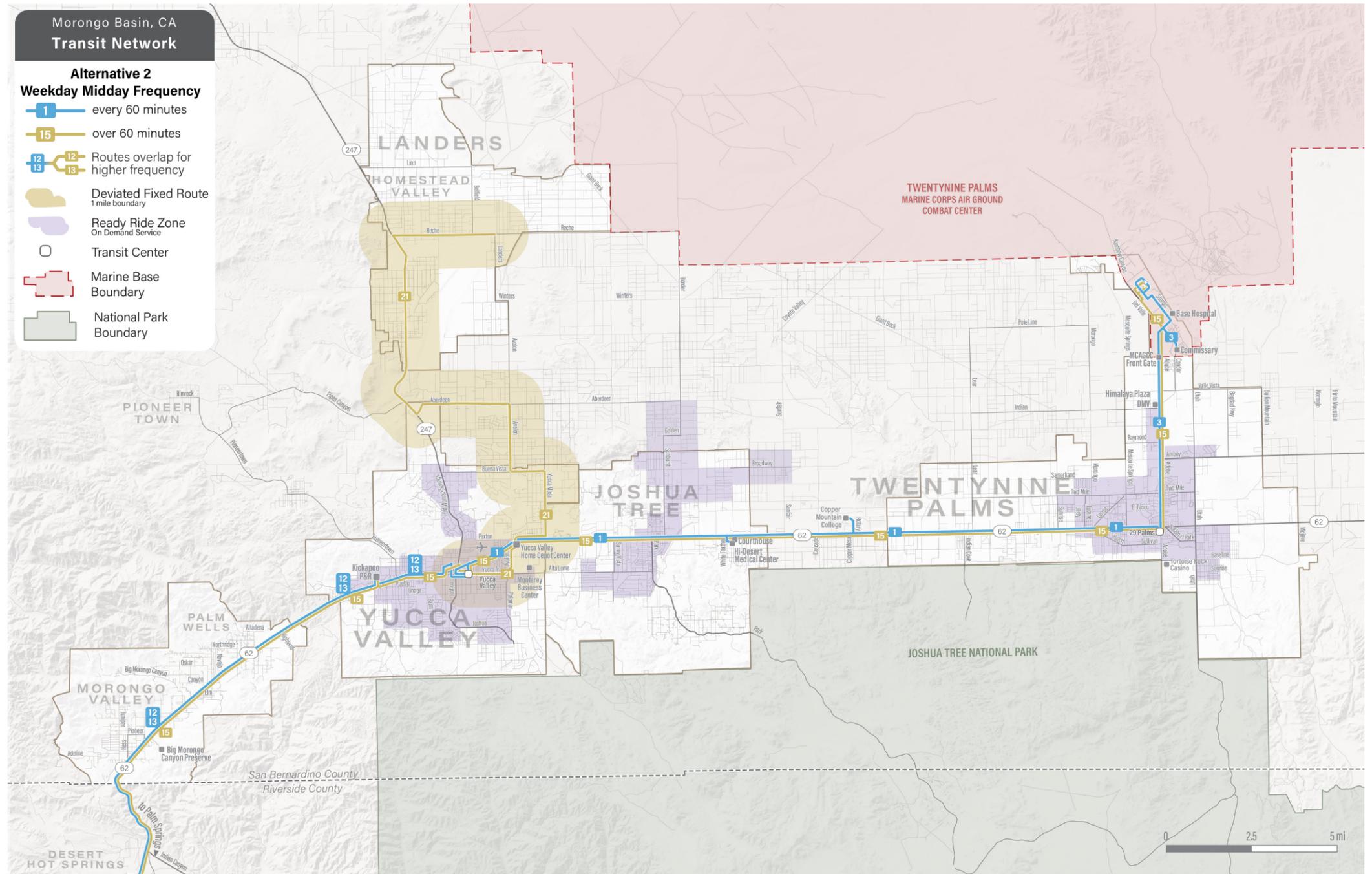


Figure 53: Alternative 2 - Network in the Basin

### Route 1

Route 1 will continue running across the basin from the Yucca Valley Transit Center to the Twentynine Palms Transit Center, as it does today, but with a slightly modified alignment in Yucca Valley to stay on Highway 62 between Walmart and the transit center, on both directions of travel. Currently, Route 1 travels this segment in the eastbound direction only.

Riders continuing their travel along Highway 62 towards the Kickapoo Park and Ride, will need to transfer to other routes at the Yucca Valley Transit Center. Riders continuing their travel along Adobe Road towards the Marine Base, will also need to transfer to other routes at the Twentynine Palms Transit Center.

Keeping Route 1 on this alignment allows for a very efficient hourly schedule cycle that requires two vehicles for its operation. Although this alignment does not save any resources, unlike Alternative 1, the service will still be focused on the communities with the highest concentration of people and jobs, ideally leading to more ridership on the system.

### Route 3

With Route 1 ending at the Twentynine Palms Transit Center, and the conversion of Route 3B into Ready Ride service, the current Route 3A will become Route 3. Route 3 will continue providing service along Adobe Road, between the TPTC and the Marine Base and connecting service with Route 1.

Route 3 will follow a simplified routing while on base that minimizes right-hand turns and provides a more convenient route for travel inside the base, from residential blocks in the north end to the Commissary in the south end, before returning to Adobe Road and the Twentynine Palms Transit Center.

By maintaining Route 3 as a separate service, there is more flexibility to adjust hours of service according to demand for travel in and out of the base. Ridership counts (conducted in 2018) show a traditional commute pattern, with trips going into the base in the morning peak and out of the base in the afternoon peak, and very low levels of demand in the middle of the day.

If Route 3 is only needed at peak hour times, the service can be provided for just a few hours each day and the unspent resources used to boost the frequency and capacity of Ready Ride service in Twentynine Palms. On the other hand, operating fixed-route service through the day along Adobe Road, provides more direct access to neighborhoods and better regional connectivity to important destinations in the City of Twentynine Palms such as The Plaza and the DMV Office.

Basin Transit should conduct new ridership counts to assess current demand patterns and decide on the best service option for Route 3.

### Route 21

Like Alternative 1, the change proposed for this route is to eliminate the “figure 8” and operate a consolidated alignment in both directions of travel, from Yucca Valley to Homestead Valley to Landers and back. This will provide riders in Homestead Valley and Yucca Mesa with a more direct travel path to Yucca Valley.

With Route 1 ending at the Yucca Valley Transit Center under Alternative 2, Route 21 will also end at this location and provide a timed connection, or “pulse”, with Route 1 and regional service to Palm Springs. The frequency of service will remain every two hours and offering 5 round trips (one fewer than today) but with the addition of Saturday service.

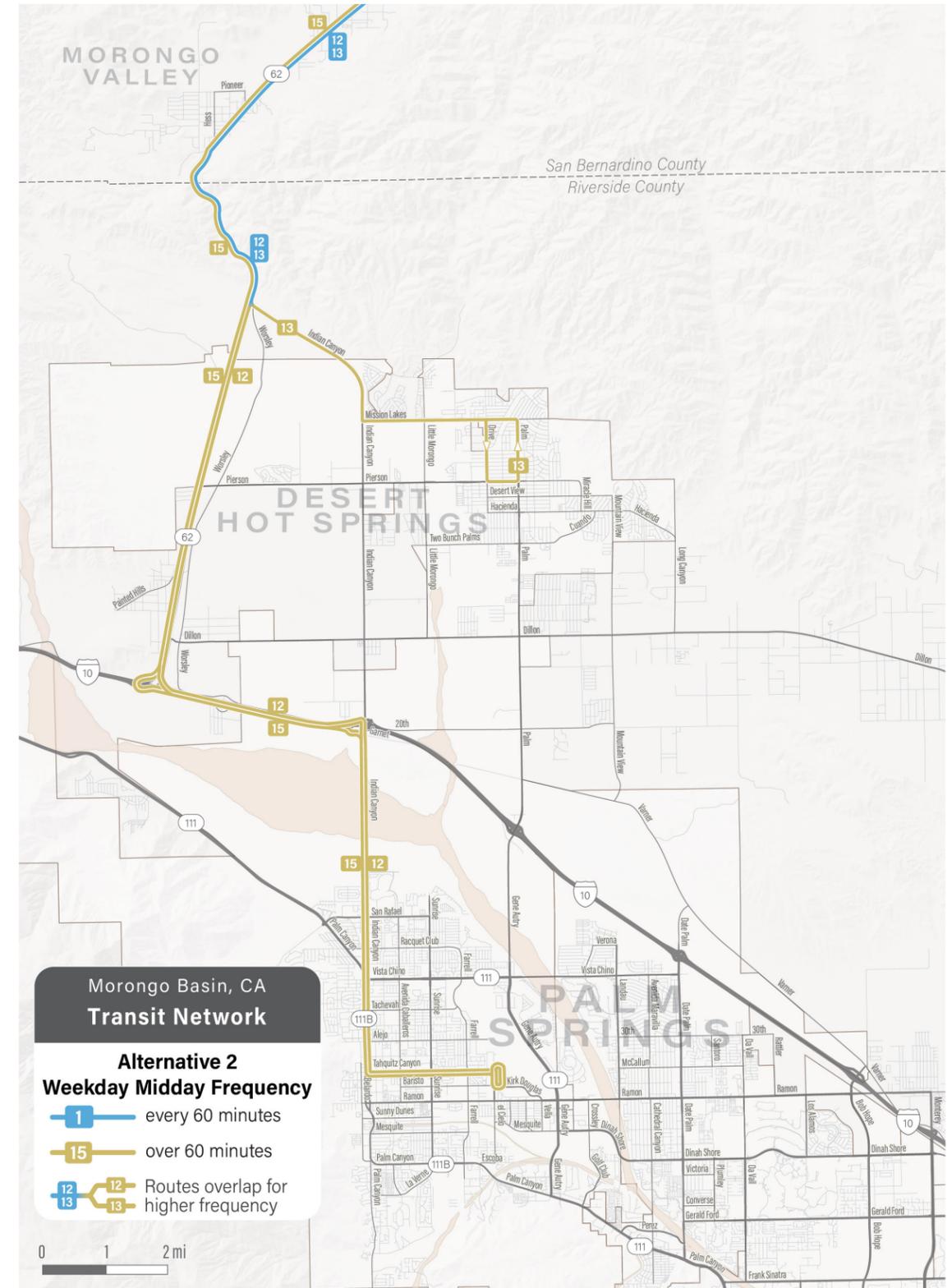


Figure 54: Alternative 2 - Regional Network



## Route 12 and 15

Routes 12 and 15 will continue providing regional commute service on their current alignment but with the following changes:

- Route 12 will increase its service from 3 roundtrips to 6 roundtrips, Monday to Friday. This will allow operating a consistent frequency of service every two hours, from 7:00 am to 7:00 pm.
- Route 12's service will be expanded to run on Saturday, with one additional roundtrip (7 total), to provide service from 7:00 am to 9:00 pm, also every two hours. Route 12's Saturday service will replace Route 15's service.
- Route 15's service hours on Saturday will be re-invested to provide additional service on Sunday. This will allow Route 15 to provide 4 more roundtrips on Sunday (6 total) and provide service from 8:00 am to 8:00 pm, every two hours.

These changes will create a regular connection, and consistent frequency of service, every two hours and 7 days per week, between all cities and census designated places in the Morongo Basin with downtown Palm Springs.

## Route 13

Alternative 2 proposes a new Route 13 that would connect the Yucca Valley Transit Center with a new Mobility Hub in Desert Hot Springs (that is currently being explored by SunLine Transit Agency). Route 13 will run every two hours on Highway 62 west of the Yucca Valley Transit Center, to the Kickapoo Park and Ride and Morongo Valley. Route 13's schedule will overlap with Route 12's to provide hourly service along Highway 62's commercial corridor in Yucca Valley, to match Route 1's frequency

and connections, and it will provide hourly service to Morongo Valley until the intersection of Indian Canyon Road, where Route 13 will turn east to reach the City of Desert Hot Springs.

This proposal creates an additional connection with the SunLine transit system that increases access to regional destinations in the Coachella Valley, such as the Cal State University San Bernardino and University of California Riverside Palm Desert Campuses.

## Frequency of Service

The service changes described for Alternative 2 also seek to fill gaps in service on weekday evening and Saturday and Sunday service, and improve the frequency of service, to make the system more effective in providing a convenient mobility option to the community. However, Alternative 2 requires one more vehicle to operate than Alternative 1, which means that the revenue hours that are available for service need to be spread over more vehicles. This results in slightly shorter spans of service on weekday and weekend days for most routes. Figure 55 shows the frequency and availability of service that can be achieved with changes recommended in Alternative 2.

- **Route 1:** Provides hourly service from 6:00 am to 9:00 pm, Monday to Friday, and hourly service from 7:00 am to 9:00 pm on Saturday, from Twentynine Palms Transit Center to Yucca Valley Transit Center. This is one fewer hour of service per day than Alternative 1.
- **Route 3A and 3B:** Keeps Route 3A connecting the Marine Base with the TPTC but eliminates Route 3B. Route 3B is replaced with additional service on Ready Ride service RR 34 in Twentynine Palms. Route 3A becomes Route 3 providing hourly
- **Route 7A and 7B:** Eliminates Routes 7A and 7B. Replaces with additional service on RR30 and RR 31 in Yucca Valley, and hourly service along Highway 62 between Yucca Valley Transit Center and the Kickapoo Park and Ride, on Routes 12 and 13.
- **Route 21:** Eliminate "figure 8" one-way loop and consolidate on bi-directional alignment via Yucca Mesa, Buena Vista, Avalon, Highway 247, and Reche, from YVTC to Walmart to Landers Post Office. Operate service every two hours from 8:00 am to 6:00 pm, Monday to Saturday, reducing one hour of service on weekdays but adding new service on Saturday.
- **Route 12:** Operate every two hours from 7:00 am to 7:00 pm, Monday to Friday, from Yucca Valley Transit Center to Palm Springs Airport. Add new service on Saturday and also operate every two hours, from 7:00 am to 9:00 pm, to connect with Route 1 and continue travel across the basin.
- **Route 13:** Add new Route 13 to provide service between YVTC and Desert Hot Springs. Operate every two hours from 8:00 am to 6:00 pm, Monday to Saturday. Route 13 will augment service on Highway 62, between Yucca Valley Transit Center and Morongo Valley, and connect with Route 1 at YVTC to continue travel across the basin.
- **Route 15:** Operate every two hours from 8:00 am to 8:00 pm, Sunday only. Add stops to provide access to all key destinations on Highway 62, between the MCAGCC and the Kickapoo Park and Ride.

service from 7:00 am to 7:00 pm, Monday to Friday, and 7:00 am to 9:00 pm on Saturday to match Route 1's schedule and provide effective connections to travel between the base, Yucca Valley and Palm Springs.

- **Ready Ride Service:** Concentrate Ready Ride service to the three areas of higher demand and density – Yucca Valley, Joshua Tree, and Twentynine Palms. Increase service hours within these areas to provide service every hour in Yucca Valley, Joshua Tree, and Twentynine Palms. Operate service from 7:30 am to 5:30 pm, Monday to Friday, and from 8:00 am to 6:00 pm on Saturday (one fewer hour of service per day than Alternative 1). Operate service on-demand with a dynamic route, using a dense web of virtual stops within each zone, and tethered to the Yucca Valley and Twentynine Palms Transit Centers to connect with Route 1 and other services.

## Resource Requirements

Alternative 2 changes the allocation of operational resources to 55% focus on ridership and 45% focus on coverage. Service improvements are funded through re-allocation of resources and an increase of 9% in annual vehicle revenue hours, from 33,600 to 36,600.

- **Weekdays:** Service design changes require 2 fewer vehicles for peak operation (10 vehicles instead of 12). Showing the consolidation of resources into fewer routes and services. Weekday vehicle revenue hours are reduced by about 5%.
- **Saturday:** Saturday service is increased by more than 260% with the addition of vehicle revenue hours on all routes and services, requiring 10 vehicles for peak service.
- **Sunday:** Sunday service is increased by about 100% to provide travel options through the day on Route 15, which will require 2 vehicles, same as Alternative 1.

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# 9

# Organizational Review

# Organizational Review

Basin Transit currently has 16 staff members, not including the Coach Operators. Aside from the Director of Procurement, all other roles within the transit agency fall under the General Manager. The General Manager specifically oversees government affairs, financial planning, and management of technology vendors. All other roles and duties are either shared with the Office Manager and Operations Manager or handled by other departments.

## Office Roles

The General Manager oversees the Office Manager and the clerks beneath them. With the Office Manager, the General Manager shares the following tasks: marketing, website management, and performance reporting. The rest of the duties are relegated to the Office Manager and the team below them. The main duties the office performs are as follows: TransTrack data entry, QA/QC regarding these data points, accounting, grant management, HR (payroll and benefits), managing board packets and agendas are all roles within the office organization. Graphic design is generally outsourced.

## Operations Roles

The General Manager also oversees the Operations Team with the Operations Manager. The two manage all service planning and analysis. There are three branches of operations: Safety and Training, Dispatch, and Mechanic Shop. The rest of the tasks are under one of these three branches in the operations purview, including: the creation of all user information like maps and timetables, HR (workers comp and personnel issues), training, safety management, service scheduling, customer service, and all mechanic or shop related issues. Any technology maintenance and troubleshooting is currently outsourced.

## BASIN TRANSIT Organization chart

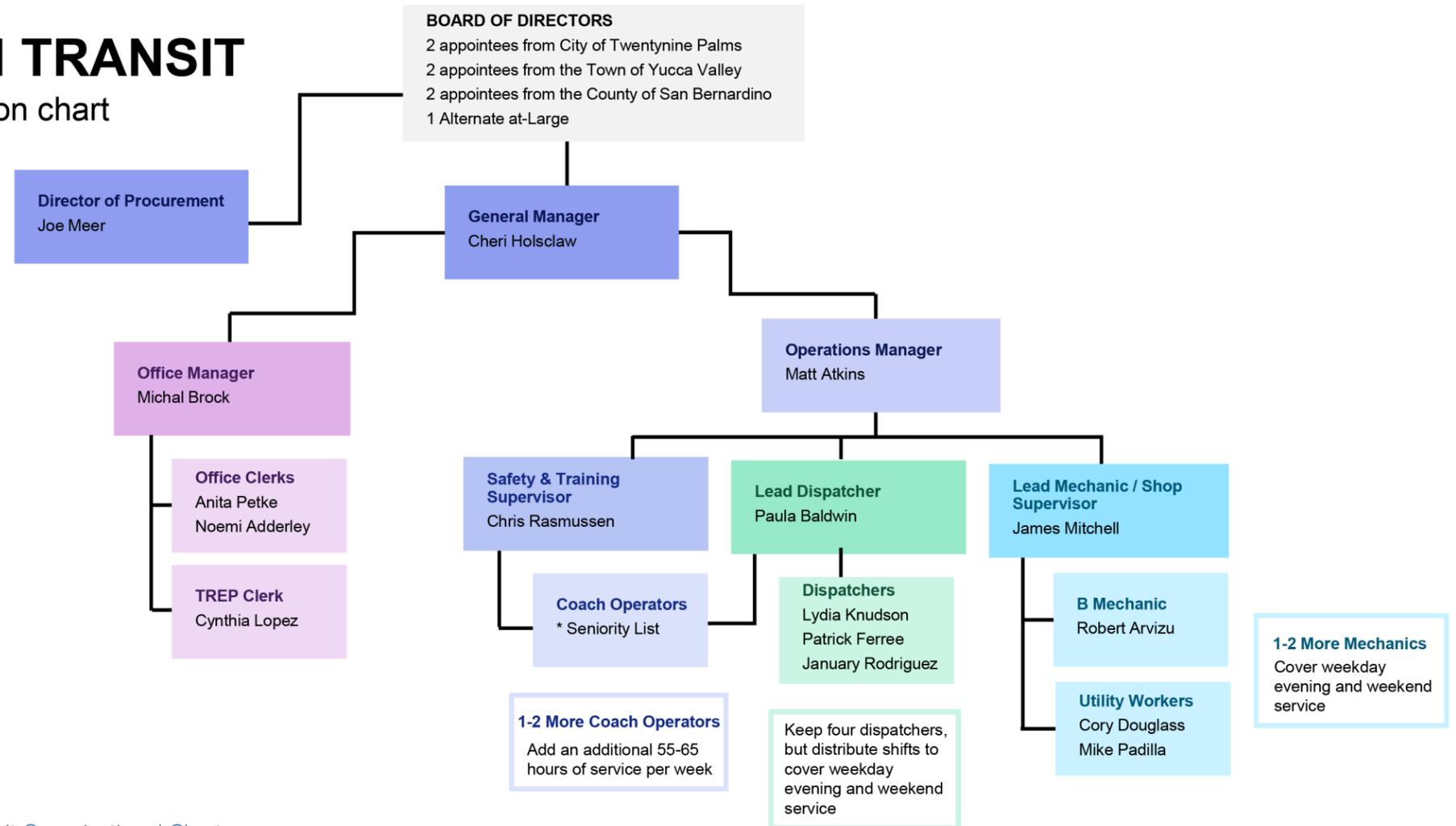


Figure 56: Basin Transit Organizational Chart

## Hiring Needs

In order to provide more vehicle revenue miles on the road in the proposed Network Alternatives, 1 or 2 additional Coach Operators would need to be hired in order to fulfill an additional 55-65 hours of service per week. Currently, there are 23 full-time Coach Operators, and 3 part-time on the extra board. The changes would increase full-time operators up to 24-25 drivers.

Currently, all members of the dispatch team staff the call center, do the scheduling of Ready

Ride service, and produce driver manifests/ shifts in a manual format. This is a tedious effort that requires each dispatcher to be quite knowledgeable of the Morongo Basin and the capabilities of Basin Transit to fulfill the service requests it receives.

By switching dispatch operations to become software based, the scheduling and management of operations will become more dynamic and maintain a complete record of service. Fewer dispatchers would be needed to staff the office at any given time, but this would allow the same team of 4 dispatchers to staff the

office evenly across the week, including new proposed weekday evening and Saturday and Sunday hours.

With longer evening hours on weekday and increased weekend service, Basin Transit would need more mechanics to staff the shop and handle any issues that arise during service hours. Currently there are 4 staff members on this team, and with more strain being placed on the vehicles and longer spans, about 1-2 more mechanics are estimated to be needed to cover this additional need.

Reflection of a Joshua Tree in a bus window  
Photography by: Aubrey, Adobe Stock



# Appendix

# Bus Stop Assessment

## Assessment Criteria

In both network alternatives, the focus is on increasing service to areas where there is already demonstrated demand to increase riders' confidence on the system as a transit option. This will generate a higher level of dependability on the system and ideally increased future ridership. The location of bus stops and the physical conditions of bus stops are very important for any transit system, because they provide a point of entry to the service and a point of access to destinations and life opportunities in the city.

Bus stops are one of the two physical manifestations of the availability of service in a city. The only physical clues that potential users have about service are the bus stops and the buses. Once a potential rider has made the decision to use the system, they will spend time walking to/from the bus stop and waiting for the bus. This means that a minimum level of comfort, security and accessibility is necessary for riders to have a good experience when using the service.

With this perspective in mind, the SRTP reviewed the current inventory of bus stops and developed a planning level assessment to establish priorities, with the goal of providing guidance to Basin Transit for phasing the improvement of bus stops included in its program that includes a dedicated line item in the planned capital expenditures for the next 5 years.

The SRTP established the following criteria to phase the improvements of a select group of 21 bus stops that Basin Transit had identified as priorities.

First, assign the highest priority to stops that are located on the main corridor – Highway 62, in the densest parts of Yucca Valley, Joshua Tree and Twentynine Palms, as these stops are the

“low hanging fruit” that can be improved quickly and for maximum benefit, strengthening the overall presence of Basin Transit for most users.

Additionally, any stops that already have existing functional infrastructure like sidewalks and signalized crosswalks should be further improved to provide maximum pedestrian comfort, walking access safety, and convenience to access destinations on both directions of travel.

Any stops on the primary corridor, outside the densest parts of Yucca Valley, Joshua Tree and Twentynine Palms, that are near an intersection with at least a crosswalk that provides access to a neighborhood or important destination should receive a higher priority. These stops may need a bit more improvement such as building a sidewalk connection or paving a bus shoulder.

Upgrading these stops to provide a shelter, seating and signage would further strengthen the Basin Transit brand, the perception of transit availability, and provide high ridership benefit.



Figure 57: Bus stop examples - On the left, a stop with minimal presence, and on the right, a sheltered stop with seating, trash receptacle, lighting, signage, sidewalk and curb separation from the road. Ideally, all improved high priority stops would reach this level of amenities.

Alternatives 1 and 2 propose eliminating circulator routes (7A, 7B and 3B), which means that many of the stops on these routes that would have served as a transfer to the primary corridor (Routes 1, 3, 12, and 13), can be removed from the priority list, or at the very least reduced to a select few providing access to important origins or destinations inside neighborhoods, that could be used as gathering points for the operation of Ready Ride as a microtransit service.

These stops could be upgraded from a pole in the ground to sheltered stops, including landing pad and sidewalk connection, for riders whose wait time will be more variable than fixed route riders. These stops are also most likely to need the most attention to make accessible for elderly or disabled riders that live inside neighborhoods. Since many of these stops are located on dirt road shoulders, the expense of adding a concrete pad and other elements to bring the stop into ADA compliance would be substantial. For these reasons, these types of stops will be assigned a lower priority in the short-term plan.

Stops on Route 21 are subject to similar considerations, any stops that are still used on the new routing could be improved, while others off the route would be moved to the lowest priority, or a select few upgraded for Ready Ride users.

The following tables expand upon the existing bus stop assessment (maintained by Basin Transit) with the additional overlay of the proposed networks. This assessment may need to be revisited after the Ready Ride service zones are defined with clear boundaries and converted to a microtransit operation.

An additional re-assessment may be needed for the stops along Adobe Road, included as an extension of Route 1 in Alternative 1 and as part of Route 3 in Alternative 2. Currently, and

in these proposed networks, it is necessary for non-military riders to alight before entering the Base and re-board after the bus has left the Base. Therefore, a strong argument can be made for adding a more significant transit stop, bus turnaround, or perhaps transfer location, near the Himalaya Plaza at Adobe and Indian Trail that is more convenient for local riders and bus operations going into the base.

## Prioritization Guidelines:

The SRTP divides the selected list of 21 stops in four priority improvement groups that include:

- **Category 1.** The stops with highest priority for improvement that will strengthen transit's presence on the existing Highway 62 corridor (Route 1). These are expected to make the most impact in higher activity density areas with existing pedestrian infrastructure.
- **Category 2A.** These are located in lower density stretches along Highway 62 (Routes 1 and 3) and include stops that are nearest to a desirable location or an intersection, and could be improved on both sides of the street.
- **Category 2B.** These are stops on Route 21 or stops along Highway 62 (Routes 1, 3, and 12) that are further from development or established pedestrian infrastructure.
- **Category 3.** These are stops on the current Routes 7A, 7B and 3B that are recommended for elimination, but that could be reconsidered later, to serve as collector stops for the Ready Ride service, which the SRTP recommends be operated with a series of virtual stops to pool people at intersections and reduce deviations into individual addresses, to increase efficiency.

Stop			Alt. 1					Desirable Location or Nearby Intersection	Rating	
			Fixed Routes	Frequency	Transfer Opportunity (shared stop)	Infrastructure Potential (crosswalk)	City Center			
1.	Hwy 62	@ Sunfair	1, 15	60 min	Y	N	N	Y - Sunfair	2A	Pair #10
2.	Hwy 62	@ Cascade	1, 15	60 min	Y	N	N	Y - Cascade	2A	Pair with #9
3.	Hwy 62	@ Sierra	NA						3	
4.	Hwy 62	@ Monte Vista	1, 15	60 min	Y	N	N	Y - Lear	2A	
5.	Hwy 62	@ Valley View	1, 15	60 min	Y	N	N	Apartments	2A	
6.	Hwy 62	@ Smoketree	1, 15	60 min	Y	Y	Y - 29 Palms	Retail	1	
7.	Adobe Rd.	@ Desert Trail	1, 15	60 min	Y	Y	29 Palms	Some Retail	2B	
8.	Hwy 62	@ Sierra	1, 15	60 min	Y	N	N	Y - Sierra	2B	
9.	Hwy 62	@ Cascade Dr.	1, 15	60 min	Y	N	N	Y - Cascade	2A	Pair with #2
10.	Hwy 62	@ Sunfair Rd.	1, 15	60 min	Y	N	N	Y - Sunfair	2A	Pair with #1
11.	Hwy 62	@ Whitefeather	1, 15	60 min	Y	N	N	Hi Desert MC	2B	
12.	Hwy 62	@ Dumosa	15	>60 min	N	Y	Y - YV	Retail	1	
13.	Hwy 62	@ Dr. Thomas & Assc.	1, 15	60 min	Y	Y	Y - YV	Retail	1	
14.	Paxton	@ Avalon	NA						3	
15.	Sunnyslope	@ Mohawk Apts	NA						3	
16.	Yucca Trail	@ Inca	NA						3	
17.	Indio	@ Business Ctr. Dr	NA					Business Ctr	3	
18.	Onaga	@ Grand - YV HS	21	>60 min	N	Y		YV HS	2B	
19.	Utah Trail	@ Sunset	NA						3	
20.	Sunrise	@ Utah Trail	NA						3	
21.	Baseline Rd	@ Utah Trail	NA						3	

- 1 Highest Priority
- 2A Medium-High Priority
- 2B Medium-Low Priority
- 3 Low Priority

Figure 58: Alternative 1 Bus Stop Improvement Priorities

### Improvement Recommendations

Stops in Category 1 would all ideally be upgraded to include a shelter, seating, signage and sidewalks meeting ADA accessibility. Crosswalks with signals to opposite stops should be considered as well.

Category 2A improvements would include a shelter, seating, concrete pad for waiting, lighting and potentially a crosswalk signal and curb cut with ramps if paired with a corresponding high priority stop.

Category 2B stops would receive, at minimum, a finished concrete waiting pad, seating and lighting. Typically these are locations that exist on dirt shoulders and a connection to sidewalks or crosswalks isn't feasible.

Category 3 stops would receive similar upgrades as Category 2B only if they are identified as significant locations for the new Ready Ride zones.

Stop			Alt. 2					Desirable Location or Nearby Intersection	Rating	
			Routes	Frequency	Transfer Opportunity (shared stop)	Infrastructure Potential (crosswalk)	City Center			
1.	Hwy 62	@ Sunfair	1, 15	60 min	Y	N	N	Y - Sunfair	2A	Pair with #10
2.	Hwy 62	@ Cascade	1, 15	60 min	Y	N	N	Y - Cascade	2A	Pair with #9
3.	Hwy 62	@ Sierra	1						3	
4.	Hwy 62	@ Monte Vista	1, 15	60 min	Y	N	N	Y - Lear	2A	
5.	Hwy 62	@ Valley View	1, 15	60 min	Y	N	N	Apartments	2A	
6.	Hwy 62	@ Smoketree	1, 15	60 min	Y	Y	Y - YV	Retail	1	
7.	Adobe Rd.	@ Desert Trail	3, 15	60 min	Y	Y	Y - 29 Palms	Some Retail	2B	
8.	Hwy 62	@ Sierra	1, 15	60 min	Y	N	N	Y - Sierra	2B	
9.	Hwy 62	@ Cascade Dr.	1, 15	60 min	Y	N	N	Y - Cascade	2A	Pair with #2
10.	Hwy 62	@ Sunfair Rd.	1, 15	60 min	Y	N	N	Y - Sunfair	2A	Pair with #1
11.	Hwy 62	@ Whitefeather	1, 15	60 min	Y	N	N	Hi Desert MC	2B	
12.	Hwy 62	@ Dumosa	15	>60 min	N	Y	Y - YV	Retail	1	
13.	Hwy 62	@ Dr. Thomas & Assc.	12, 13, 15	60 min	Y	Y	Y - YV	Retail	1	
14.	Paxton	@ Avalon	7A						3	
15.	Sunnyslope	@ Mohawk	7A						3	
16.	Yucca Trail	@ Inca	7A						3	
17.	Indio	@ Business Ctr. Dr	7B					Business Ctr	3	
18.	Onaga	@ Grand - YV HS	7B					YV HS	3	
19.	Utah Trail	@ Sunset	3B						3	
20.	Sunrise	@ Utah Trail	3B						3	
21.	Baseline Rd	@ Utah Trail	3B						3	

- 1 Highest Priority
- 2A Medium-High Priority
- 2B Medium-Low Priority
- 3 Low Priority

Figure 59: Alternative 2 Bus Stop Improvement Priorities