SamTrans
(San Mateo County Transit District)
Service Policy Framework

Revised December 3, 2025

Resolution No. 2025-50

Board of Directors, San Mateo County Transit District
State of California

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2025 Update to the SamTrans Service Policy Framework

Whereas, in March 2022, the Board of Directors (Board) of the San Mateo County Transit District (District) adopted the SamTrans Service Policy Framework to memorialize the principles and practices developed in the design of service during Reimagine SamTrans and to operationalize the guiding principles of equity, customer focus, efficiency and workforce for use in service planning on an ongoing basis; and

Whereas, the Service Policy Framework includes six components, including the guiding principles, service categories, route development guidelines, route communication guidelines, route evaluation guidelines, and the service planning process; and

Whereas, staff recommends the Board update the Service Policy Framework to include updated demographic data and methodology for Equity Priority Areas; new bus stop siting guidance for added clarity and transparency to the public, and new criteria for undefined key performance indicators at the service category and network levels for route evaluation; and

Whereas, the Board desires to update the Service Policy Framework, which is a living document and will continue to be updated from time to time to reflect changing priorities and best practices.

Now, Therefore, Be It Resolved that the Board of Directors of the San Mateo County Transit District hereby adopts the 2025 Update to the Service Policy Framework, attached as Exhibit A and described above.

Regularly passed and adopted this 3rd day of December, 2025 by the following vote:

Ayes: Canepa, Esser, Fraser, Medina, Ratto, Speier, Chuang, Gee

Noes: None

Absent: Powell

Chair, San Mateo County Transit District

Attest:

District Secretary

Note

The Service Policy Framework provides SamTrans staff, leaders, stakeholders, and the public with a clear and transparent vision and methodology for how SamTrans designs and evaluates its mobility services. This document was originally created as a product and a memorialization of the work done as a part of the 2019-2022 *Reimagine SamTrans* Comprehensive Operational Analysis.

Building on cornerstone principles from the SamTrans Strategic Plan (2015 – 2019) and the SamTrans Business Plan (2018), as a part of *Reimagine SamTrans* staff identified four **guiding principles** specifically for the ways in which SamTrans designs, evaluates, and communicates about its bus service and supportive infrastructure investments. Those guiding principles have been included in the Service Policy Framework and will continue to guide staff in the formation and evaluation of service.

The COVID-19 pandemic challenged the public transit industry, and the "new normal" ridership patterns emerging as a result are beginning to appear more stable. This 2025 update includes new key performance indicators that were initially left to be determined (TBD) during the COVID-19 period, updated Equity Priority Areas, and additional details regarding bus stop placement.

The Service Policy Framework is a living document and will be updated in the future to incorporate population and land use changes as well as travel and transportation trends in San Mateo County and the San Francisco Bay Area as a whole.

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1 PURPOSE AND INTRODUCTION

The role of public transportation is to provide people with mobility to access places they want to go: employment, school, medical services, community resources, and places of recreation. Public transit benefits those without access to a personal vehicle who rely on transit as a mobility service and customers who may have personal vehicles that want to use alternative transportation. Providing effective, efficient, and high-quality mobility options comes from designing services that are attractive to people, are useful, and are sustainable to operate and reflect the values and priorities of the communities it serves. It is SamTrans' mission to supply the public with high-quality, safe, and efficient transportation that should enhance quality of life by increasing access and mobility, reducing congestion, improving the environment, and promoting economic vitality.

PURPOSE OF THIS SERVICE POLICY FRAMEWORK

With this document:

- SamTrans staff will have a guidebook to implement and refine new and existing SamTrans service when responding to requests and making service design choices in the future.
- The SamTrans Board of Directors (BOD), advisory, and stakeholders' groups will have weighed in and approved the framework.
- Stakeholders and the public will have access to the framework to better understand how SamTrans makes service planning and design decisions – balancing requests, resources, and needs.

SamTrans will also use this document in coordination with the BOD-approved Title VI Program to help monitor and ensure that programs and actions are not purposefully or accidentally discriminatory towards minority or low-income populations. Equity considerations will be interlaced with everything SamTrans does.

COMPONENTS OF THIS FRAMEWORK

Chapter 2 provides an overview of the *guiding principles* staff developed as the baseline for the Reimagined Network and will be used for service planning and evaluation.

Chapter 3 establishes a *family of services* based on route purpose and characteristics and discusses the role equity has in service planning at SamTrans.

Chapter 4 details principles of effective *route design* employed by SamTrans.

Chapter 5 memorializes *customer communications guidelines* for service planning and changes.

Chapter 6 establishes *metrics* to evaluate SamTrans' fixed-route service.

Chapter 7 provides an overview of the *service planning process*.

2 GUIDING PRINCIPLES

1. Employ customer-focused decision-making. Prioritize improvements to the SamTrans rider experience. Enhance the experience of planning and making bus trips on SamTrans.

- Enhance customer safety, security, and comfort on the bus and when waiting for the bus.
- Design and operate routes that are simple and easy to understand.
- Conduct transparent and empowering community engagement.
- Adopt and promote available tools and new technologies that improve the customer experience.

2. Be an effective mobility provider. Service that is fast, frequent, reliable, and takes people where they want to go is important for growing new and more frequent riders.

- Build ridership through operating effective public transportation services.
- Provide fast or time-competitive bus transportation.
- Provide reliable bus transportation.
- Integrate SamTrans into the larger county and regional transportation network.
- Explore new and alternative transportation delivery models.
- Use public funds and resources responsibly and efficiently.

3. Provide transportation that supports the principles of social equity. Improve transportation for communities in San Mateo County with the most significant transportation and access disparities, designated as *SamTrans Equity Priority Areas*. SamTrans' service design and evaluation will be aligned with SamTrans' Title VI Program.

- Direct resources to provide high-quality service in communities with the greatest transportation disparities and mobility needs.
- Prioritize service, infrastructure, and pilot projects in SamTrans' Equity Priority Areas (described in Chapter 3).
- Support access to jobs and workforce development opportunities from Equity Priority Areas.
- Seek to accommodate the transportation needs of workers with non-traditional work hours.
- Minimize missed trips (Do Not Operate/DNOs) on routes serving Equity Priority Areas.

4. Design service that can be reasonably delivered by our workforce. SamTrans' ability to provide reliable, high-quality bus transportation is tied to the availability of its bus transportation workforce.

- Support the recruitment and retention of our workforce through route design and scheduling practices that consider the driving experience, realistic road conditions, and availability of restrooms on route.
- Provide a feedback loop with the workforce, letting them know the ways in which their feedback is used.

3 GUIDELINES FOR ALLOCATING SERVICE

Service allocation guidelines help assess the appropriate level of service for a sustainable system that meets the needs of customers. The guidelines in this chapter provide a structure to help SamTrans make planning decisions and communicate with the public about investments. Chapter 6 Service Evaluation will turn these concepts into metrics that can be monitored and help target appropriate changes to the transit system.

DEFINING SERVICE CHARACTERISTICS

Figure 1 Key Service Characteristics

Guideline	Description
Frequency	The number of trips operated in an hour by route and direction
Span of Service	The hours in the day that service operates
Days of Service	The days of the week a route operates
Stop Spacing	The distance between stops

Frequency

Frequency refers to how often a bus comes. A route that operates every 15 minutes provides a much higher level of service than a route that provides service once an hour. Routes with more demand should operate more frequently. Routes that exist to provide a basic level of coverage and connection to the network operate less frequently.

Minimum Frequency: For service that operates on regular headways, service should not be less frequent than every 60 minutes.

If a route cannot support 60 minute service, alternative service delivery methods, such as on-demand service or partnerships with local jurisdictions for shuttle service, should be considered.

Span of Service

Span of service is the duration of time (hours) that vehicles are available for passenger service on a route. The service span is measured from the beginning time of the first trip on the route to the end time of the last trip on that route. A span of service that extends earlier or later enables riders to have more access, and clearly defined service spans can help simplify the system for riders. The earliest and latest trips of routes that operate throughout the day often have fewer riders than trips during the peak or midday. If this is not true, there is likely demand for earlier and/or later service. To simplify analyzing span of service, SamTrans has identified the following periods and what route categories should be operating in each period. Although the periods in Figure 2 extend from 4:00am to 3:59am the next day, service does not need to extend all the way to start of the first period it starts service or the last period it operates in (e.g., a route in a service category that should operate in the early morning does not need to start at 4:00am).

Figure 2 Periods of Service

Early Morning	Morning	Midday	Afternoon	Evening	Late Evening	Owl
4:00am ↓ 5:59am	6:00am ↓ 8:59am	9:00am ↓ 2:59am	3:00pm ↓ 5:59pm	6:00pm ↓ 8:59pm	9:00pm ↓ 11:59pm	12:00am ↓ 3:59am

Weekday Span of Service: The service span for Frequent, Local, and Community service categories should operate in the Morning, Midday, and Afternoon. Weekend service can vary slightly since ridership is lower but providing service span as close to weekday as possible makes the service useful and understandable for riders. Alternatively, School-oriented, Express & Limited Stop, Owl, and Special routes are targeted services that may have unique spans of service based on who and what destinations they serve.

Days of Service

Days of service tells customers which days of the week a service operates. Service that is not based around commuter or school-oriented service should operate seven days per week. This not only improves access across the county but also makes the system more legible and improves the chances of people adopting transit as their mode of choice for a variety of trip purposes. Services that have specific purposes, serving school or commuter job access, may not be needed on weekends because schools and office buildings are most likely closed.

Days of Service Goals: Provide seven-day-a-week service on all or as many Local, Community, and Frequent routes as possible.

Stop Spacing

The distance between stops is a key element in balancing transit access and service efficiency. Closely spaced stops provide customers with more convenient access, as they are likely to experience a shorter walk to the nearest bus stop. However, transit stops are also the major reason that transit service is slower than automobile trips, since each additional stop with activity requires the bus to decelerate, come to a complete stop, load and unload riders, and then accelerate and merge into traffic. Since most riders want service that balances convenience and speed, the number and location of stops is a key component of determining that balance.

Stop Spacing Goals: Provide stop spacing between stops that are consistent with each service category.

SAMTRANS SERVICE CATEGORIES

SamTrans will use the following service categories to communicate, design, and evaluate routes and other mobility services it provides. The main components of each category are frequency, span of service, days of service, and stop spacing.

Figure 3 SamTrans Service Categories

Category	Frequency*	Span of Service**	Days of Service	Stop Spacing
Frequent	15 all-day	Early morning, morning, midday, afternoon, evening, late evening	All days	Up to ½ mile
Local	30 or better	Morning, midday, afternoon, evening	All days	¼ - ½ mile
Community	60	Morning, midday, afternoon	All days	¼ - ½ mile
Express & Limited Stop	Limited trips	Morning, afternoon	Weekdays	½ mile or more on streets between high-speed corridors
School-Oriented	Limited trips	Morning, afternoon	Weekdays (when school in session)	¼ - ½ mile
Owl	Varied	Owl	Varied	¼ - ½ mile

* Frequency: maximum on weekdays (in minutes)

** Span of Service: minimum on weekdays

Frequent Routes

Frequent transit service connects people to places that can support higher levels of service – often areas of higher population or employment density with demand seven days a week from early morning to late in the evening. Routes in this category may warrant infrastructure improvements that prioritize transit, such as transit signal priority and bus lanes and may have specifically branded amenities and vehicles. Ideally, 15-minute service should be provided seven days a week on Frequent routes for much of the span of service, especially morning peak, midday and evening peak periods.

Local Routes

Local service connects neighborhoods, downtowns, and major destinations. They also are likely to provide important connections to transit routes within the service area. Local transit service should operate throughout the day, every day of the week when possible.

Community Routes

Community routes provide service to less densely populated areas and are considered a lifeline to the greater transit network and the community. Community routes may be more circuitous due to street network design and land uses. Community service should operate at least hourly on weekdays. The span of service can be less than Local or Frequent service based on demand, though later and/or earlier service hours may be a higher priority to a less densely populated community than high frequency.

Express & Limited-Stop Routes

Express & Limited-stop routes provide limited-stop service to or from major destinations and are typically longer in length. Express routes often travel on higher-speed corridors making few or no intermediate stops, cover more distance, and may operate only during peak times on weekdays. These routes may also overlay existing service where demand is high enough between specific origin-destination pairs to provide an enhanced service and faster travel time.

School-Oriented Routes

School-oriented routes operate very few trips a day (typically two) and are scheduled to align with school schedules and school bell times. The primary users of SamTrans' school-oriented service are students traveling to and from school, although these school-oriented routes are open to the public. School-oriented routes are meant to address a community mobility need, not to replace yellow school bus service where it does exist.

Owl Routes

Owl services operate overnight, after regular transit service has ended. Owl routes provide coverage to key employment locations with non-traditional business hours, areas with limited mobility options, and neighboring transit agencies.

Special Routes

Special routes serve a unique purpose that do not fit into other categories but should still be monitored for their performance to ensure that they are effectively serving the purpose of the service. Examples may include on-demand pilot programs, prolonged bus bridges for rail construction, and service to special events such as fairs or sporting events.

EQUITY PRIORITY AREAS

SamTrans follows a federally approved Title VI Program to explicitly track measures that are meant to help analyze the quality and performance of transportation available. SamTrans has also identified equity as one of the four guiding principles within this Service Policy Framework.

To further identify areas with significant transportation and access disparities in San Mateo County, SamTrans used an Equity Index[1] that geographically identifies block groups with concentrations of households that meet the following four criteria:

- **Low-income households:** Households earning less than $100,000 annually[2]
- **Racial and ethnic minorities:** Populations that identify as a race or ethnicity other than white
- **Zero-car households:** Households with no access to a personal vehicle
- **Rent-burdened households:** Households which spend more than 30% of their income on rent.[3]

The Equity Index produces a composite score of the above factors. The composite scores for each block group are mapped, allowing staff to spatially identify the areas of highest need, called *Equity Priority Areas*. These are neighborhoods where residents are less likely to have access to a private vehicle and are more likely to work low-wage jobs or identify as people of color. Mapping these areas helps staff understand and prioritize service in areas of highest transportation need.

The original analysis reflected in this framework was conducted using data from 2018. With this 2025 update, the analysis was re-run using 2023 Census American Community Survey data, revised income thresholds, and the addition of a rent burden criterion. SamTrans Equity Priority Areas (shown in Figure 4) are located throughout San Mateo County and, as of 2025, include portions of the following communities:

- Belmont
- Brisbane
- Colma
- Daly City
- East Palo Alto
- Half Moon Bay
- Menlo Park
- Millbrae
- Moss Beach
- Pacifica
- Redwood City
- San Bruno
- San Mateo
- South San Francisco

1 The metrics are computed using quintiles compared to countywide averages, at the Census block group level.
2, 3 Threshold selected in attempt to match "Very Low" income thresholds for family of three to qualify for affordable housing in San Mateo County, while using federally available income thresholds used in the US Census and available in that data set. https://www.smcgov.org/housing/income-limits-and-rent-payments

Figure 4 shows a systemwide view of the new Equity Priority Areas, along with the original geographic areas for reference purposes. Figure 5 through Figure 7 provide a closer look at the Equity Priority Areas by sub-region of the county. These maps, and the identification of Equity Priority Areas, will support SamTrans planning staff in conducting route planning in the future in the spirit of our guiding principles. Data used in the Neighborhood Equity Index should be updated at least every three years, allowing SamTrans to understand how Equity Priority Areas may have shifted. Criteria for defining Equity Priority Areas may be adjusted as best practices and our understanding of factors related to equity evolves in the future.

How This Analysis is Used

The outputs of the equity analysis described above are used as one of many tools in planning and evaluating the performance of SamTrans service. These tools can be used to guide near-term and long-term decision-making to ensure SamTrans is meeting its goals around prioritizing service in Equity Priority Areas.

Equity Priority Areas

Equity Priority Areas are spatially identified areas of highest need, determined using US Census block-group level data and mapping. Understanding these areas can be used in:

- Future visioning and investment exercises
- Route design and stop siting decisions
- Service enhancement or elimination decisions
- Identifying priority outreach locations
- Identifying priority infrastructure and demonstration project locations

Equity Priority: Route Rankings

SamTrans routes have been sorted based on the percentage of route alignment within Equity Priority Areas to understand which routes predominantly serve areas of highest need. This sorting exercise does not supersede Title VI minority and low-income route designations but can be used in:

- Service enhancement or elimination decisions
- Performance evaluation
- Transfer hub identification
- Identifying priority outreach routes

Figure 4 SamTrans Equity Priority Areas (Systemwide)

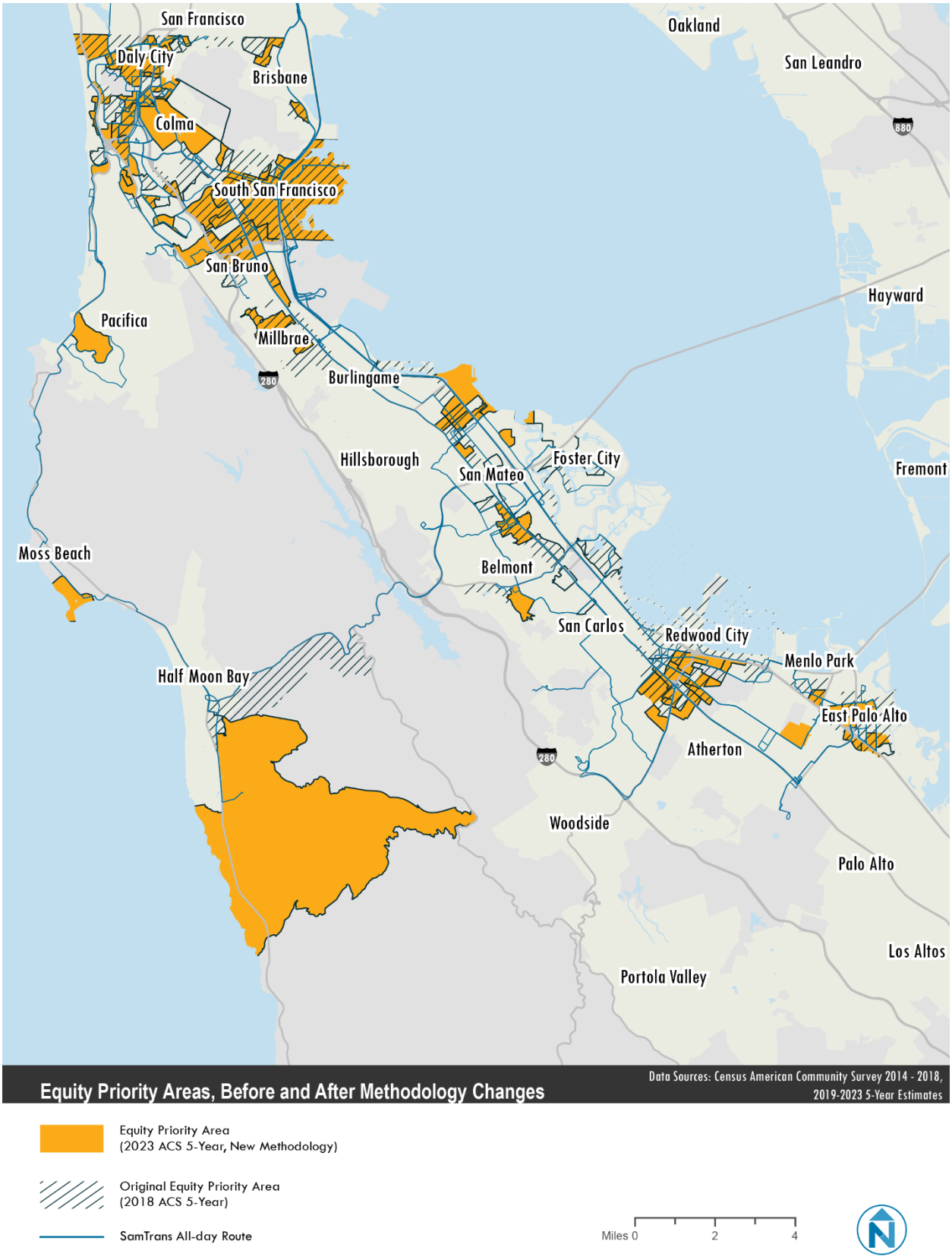

Figure 5 SamTrans Equity Priority Areas (North County)

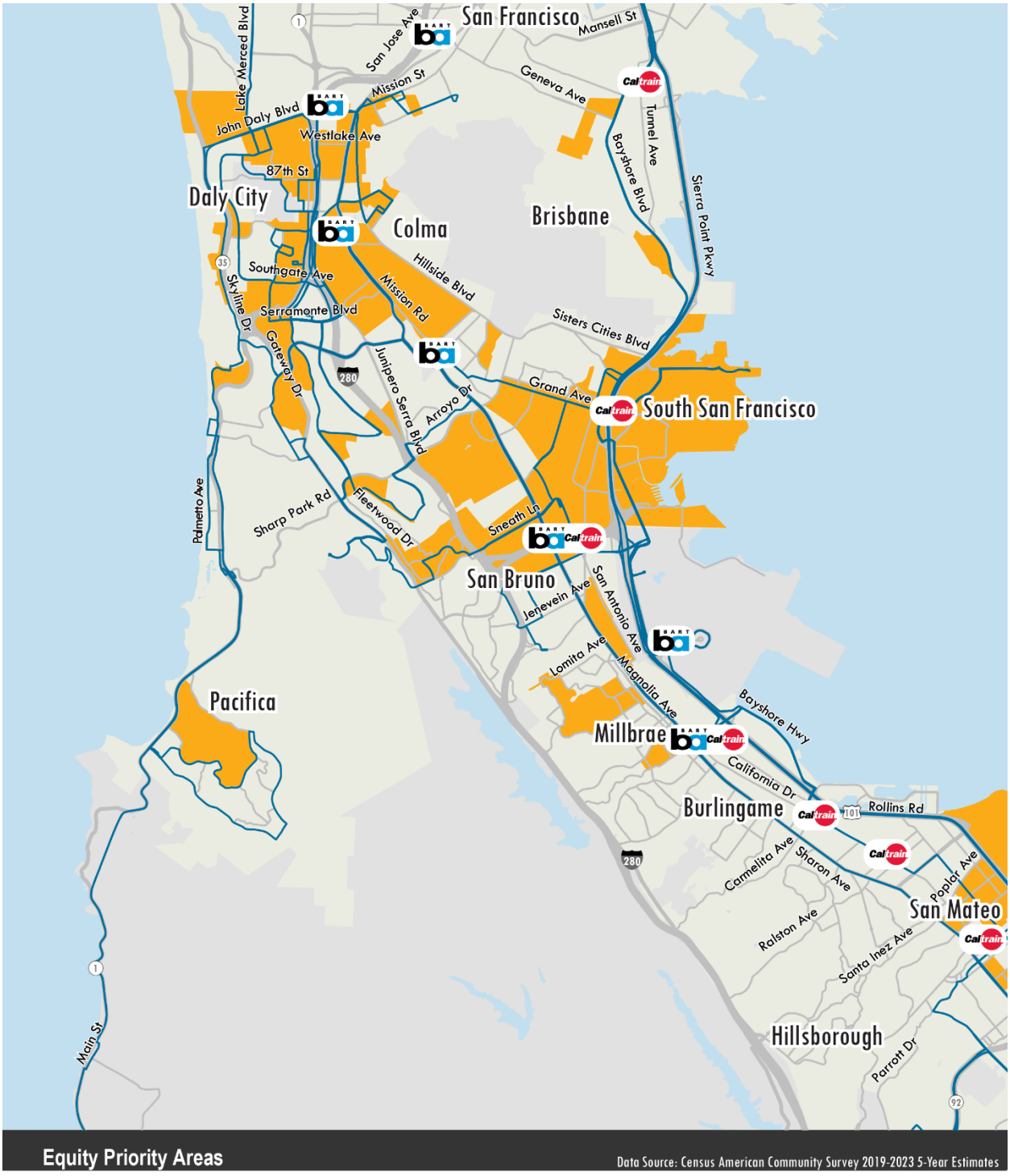

Figure 6 SamTrans Equity Priority Areas (South County)

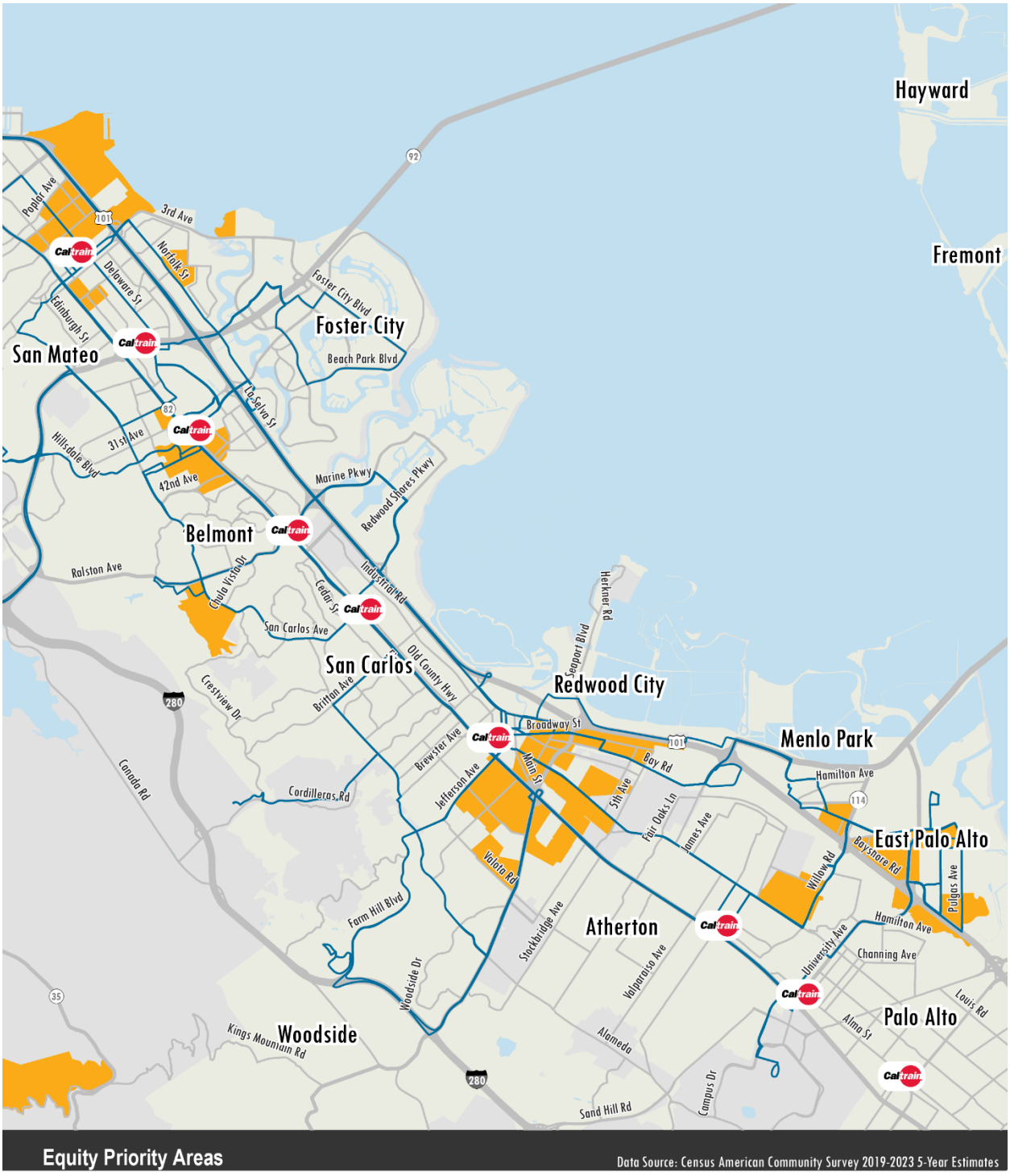

Figure 7 SamTrans Equity Priority Areas (Coastside)

4 ROUTE DEVELOPMENT GUIDELINES

Understanding where people want to travel and what levels of service can be supported is key to mobility and successful transit operations. At the route level, there are tradeoffs that must be made that balance service availability to as many people as possible with creating an attractive mode choice.

This chapter presents multiple key guidelines for SamTrans to strive for when considering new routes or changes to existing routes and is also reflective of the public and rider input on service trade-offs and preferences.

ROUTE DESIGN

Route design focuses on the alignment of the route including the directness, deviations from the main arterials, and how it relates to the overall system of services. Direct routes typically operate at higher speeds than routes that make deviations but usually have a longer distance between stops.

Route Directness

Routes should be designed to operate as directly as possible to increase average speed for the route and minimize travel time for passengers while maintaining access to service. Fast and direct routes tend to be more useful to people than circuitous routes.

The different services SamTrans operates will have different ideal levels of directness. Frequent, Local, and Express & Limited Stop routes should be as direct as possible to efficiently serve the customers using those services. Community, School-Oriented, and Owl routes may require slower and less direct paths to adequately serve their respective market because they are coverage-based services.

Although not a perfect indicator of route directness, the one-way trip length (in miles) can be divided by the direct driving distance (in miles) between the route terminals. Frequent and Express & Limited Stop routes should be as close to one as possible. Community and School routes should be designed to be as close to one as possible, but due to the purpose and areas served it may be difficult to achieve that.

Route Deviations

Routes should not deviate from the most direct alignment unless there is a compelling reason, such as the presence of a major shopping center, employment site, school, etc. In these cases, the benefits of operating the route off the main roadway must be weighed against the inconvenience caused to passengers already on board. Additional considerations include the impact on overall route productivity, the increased time added as a result of the deviation, and the schedule coordination with connecting services. If a deviation is made, service should be provided to that location as consistently as possible.

When ridership and vehicle load is available through actual data or modeled, SamTrans staff should compare the time lost to the customers not using the deviation to the ridership that use the deviation. This will help ensure that service to the location is justified compared to the impacts it may have on existing customers.

Route Duplication

Routes are best designed to not compete for the same customers. In most environments, people are willing to walk ¼ mile to access local transit service. Ideally, routes would therefore be at least ½ mile apart from each other. An exception is routes that converge near an activity center or transfer point. When possible, schedules for routes that operate on the same corridor should be offset to maximize frequency of service.

When designing new routes, a ¼ mile buffer should be used to see how much overlap there is between the new service and the existing system, with consideration given to the local conditions, pedestrian environment, and topography. With any duplication, it is ideal to reduce the overlap while still serving the intended purpose of the route.

ROUTE SCHEDULING

Efficient route scheduling is essential for a usable service. Route scheduling includes trip duration, timepoints along the route, trip start times, and transfers between services.

Route Duration

Routes should be the appropriate duration to maximize ridership potential and minimize operational issues. Excessively long routes with one-way trip times greater than 60 minutes in the off-peak hours should be avoided to minimize potential schedule adherence issues. In some cases, this is unavoidable to continue to serve existing SamTrans customers and their travel needs, but SamTrans staff should strive to identify solutions that reduce the duration of the one-way trips while still serving the needs of the community.

Route Timepoints

Route timepoints are points along the route that have established times when transit vehicles should arrive and depart. They are essential for communicating approximations to customers for when service will arrive and for schedulers to ensure the service is running efficiently and on time. Timepoints should be located at major transfer hubs, destinations, and cross streets and should be approximately 10 minutes apart.

Trip Start Times

Trips for routes by direction should have consistent start times within the hour throughout the day, especially with routes that have lower frequency (30- and 60-minutes). If a trip operates every hour and the first trip starts at 6:10am the subsequent trips should start at :10 for the entirety of the span of service. If a trip operates every half hour and the first trip starts at 6:10am the subsequent trips should start :40 and :10 for the entirety of the span of service.

Timed Transfers and Connections

SamTrans routes should be designed to work together to create a system that allows customers to easily travel throughout the county and not just to destinations along the route. Ideally, customers would be able to easily transfer from one route to another throughout the day, but due to multiple transfer points along routes and efficiency in using resources, it may not be possible. SamTrans should use the following framework when developing connections between routes, but it may not always be possible.

SamTrans Connections

The time spent waiting for a connecting bus is important to customers and should be minimized wherever possible.

Connections between Frequent and Local/Community routes should have timed transfers, preferably at major transfer hubs such as transit centers, train stations, and park and rides and should be based on customer travel patterns throughout the day.

Timed connections between low-frequency services (Local/Community) should be established when appropriate at major transfer hubs and other key locations to allow safe and convenient transfers. Untimed transfers are expected for trips on, or between, more frequent services (Frequent).

All SamTrans routes should (connections along the route and operational capacity allowing) do the following at major transfer hubs:

- Run every 15 minutes or better, for relatively easy connections (Frequent)
- Arrive and depart at a hub at similar times twice an hour, if it runs every 30 minutes or better (Local)
- Arrive and depart at a hub at similar times once an hour, if it runs every 60 minutes (Community)
- Arrival and departure times would ideally be coordinated to allow reasonable transfers between routes. Additional timed transfers would also be available at other smaller transfer locations.

Major **transfer hubs** include regionally identified centers and areas where high transfer activity has been identified which include the following:

- Serramonte Center
- Hillsdale Shopping Center
- Linda Mar Park & Ride
- Daly City, Colma, Millbrae, South San Francisco, and San Bruno BART Stations
- San Carlos, Redwood City, and the Palo Alto Caltrain stations

Regional Rail Connections

SamTrans will strive to connect lower frequency service as much as possible with regional rail connections. The connections will be based on travel patterns and factor in the feasibility of connecting with rail connections along with other established connections along the route.

Coordination with Other Transit Partners

SamTrans will continue to coordinate with other transit partners such as MUNI and VTA to ensure reasonable transit connections, when possible, at the Daly City BART Station and at the Palo Alto Caltrain Station.

BUS STOP SITING AND BALANCING

Many factors contribute to the speed at which a bus makes a trip along its route, including both internal and external factors. External factors include typical and acute traffic congestion events, street geometry and turning movements, and traffic signal timing. Internal factors include stop spacing and stop placement decisions.

Stop Spacing

The distance between stops is a key element in balancing transit access and service efficiency. Closely spaced stops provide customers with more convenient access, as they are likely to experience a shorter walk to the nearest bus stop. However, transit stops are also the major reason that transit service is slower than automobile trips, since each additional stop with activity requires the bus to decelerate, come to a complete stop, load and unload riders, and then accelerate and merge into traffic. Since most riders want service that balances convenience and speed, the number and location of stops is a key component of determining that balance.

The average stop spacing on a Local or Community Route should be approximately ¼ mile to achieve an appropriate balance between speed and access. However, stop spacing on Express routes or overlay service can be longer to increase speeds. Stop spacing will vary along the length of a route, with shorter spacing in denser areas and longer spacing with less dense development. When selecting locations, stops should be located close to locations with significant numbers of potential riders, such as housing and employment locations, as well as major destinations for transit riders, such as shopping centers, and consider topography, which impacts access to the stops.

Figure 8 Stop Spacing by Route Category

Category	Bus Stop Spacing (typical distance in miles)	Bus Stop Spacing (typical walk in minutes)
Frequent	Up to ½ mile	Up to 10 minutes
Local	¼ - ½ mile	5-10 minutes
Community	¼ - ½ mile	5-10 minutes
Express & Limited Stop	½ mile or more on streets between high-speed corridors	10 minutes or more
School-Oriented	¼ - ½ mile	5-10 minutes
Owl	¼ - ½ mile	5-10 minutes
Special	Varies	Varies

Stop Placement

Bus stop placement involves a balance of customer safety, accessibility, and operations. All stops should be fully accessible per the American with Disabilities Act of 1990 (ADA). Bus stops should be compatible with adjacent land use and the natural environment. Specific ridership generators may determine the placement of a bus stop. Infrastructure consideration for bus stop placement includes lighting, topography, and roadside constraints such as driveways, trees, poles, fire hydrants, etc.

Near-side and far-side stops allow passengers to board and alight closer to intersection crosswalks and are generally preferred over mid-block stops. The following situations are common determinants of bus stop placement:

- The preferred location for bus stop placement is far side of the intersection in most cases, especially in cases including:
  - The route turns left or right at an intersection
  - There is a high volume of vehicles turning right at an intersection
  - An intersection is complex, with multi-phased traffic signals or dual right- or left-turn lanes
  - A route utilizes transit signal priority (TSP) to receive priority crossings through a traffic signal
- When the route alignment requires the bus to make a left turn and it is not feasible or desirable to locate the bus stop on the far side of the intersection after the bus turns, a mid-block stop may be warranted.
- Mid-block bus stops prior to left turns should be located a safe distance from the intersection and allow the bus to easily maneuver into the proper lane to turn left.
- When connections between two bus routes show a strong directional pairing (e.g., passengers connecting from an eastbound route to a southbound route), placing one bus stop on the nearside and the other on the far-side can reduce pedestrian crossings at the intersection.

SamTrans Planning staff will coordinate and collaborate with Bus Transportation, Facilities, City/County staff, and Caltrans (where applicable) on all bus stop locations.

Adding, Relocating, and Removing Stops

As the community and physical environment change over time, there may be community requests or operational need to add, relocate, or remove SamTrans bus stops. Below are guidelines on when it is appropriate to add, relocate, or remove bus stops.

Adding	Relocating	Removing
▪ New route implemented ▪ Existing stop spacing exceeds recommended distance ▪ New construction resulting in the creation of an origin/ destination (e.g. new housing, business, school, or medical facility)	▪ Reported and confirmed safety incident due to stop location ▪ Change to physical environment (e.g. installation of new driveway) that conflicts with the bus ▪ Stop cannot be made accessible or conform to other laws (e.g. Daylight Law, AB 413) ▪ Stop is not compliant with recommended bus stop spacing or placement guidelines	▪ Route serving the stop is discontinued ▪ Reported and confirmed safety incident due to stop location and there is no other appropriate place to relocate ▪ Change to physical environment (e.g. installation of new driveway) creates conflict with the bus and there is no appropriate place to relocate ▪ Existing stop is not compliant with recommended stop spacing (i.e., it is too close to previous and next stop)

Only requests that meet these guidelines will be considered. All other requests will likely be denied to maintain access to bus service consistent with the guidelines in this Service Policy Framework.

ROUTE CROWDING

Passenger max load is a measure of crowding on the bus. It is used to determine when additional trips may be warranted on a bus route to meet demand and identify if there are any routes that may need trippers at specific times to alleviate overcrowding. Max load is determined by the number of passengers in a bus between stops divided by the seated capacity. Max load is expressed as a percentage where 100 percent represents all seats being used (100 percent seated capacity) and 150 percent represents a bus that can comfortably hold 150 percent of its seated capacity with standees. For example, with a max load of 150 percent, a bus with 40 seats could comfortably hold 60 passengers (40 passengers seated and 20 standees). The desired max load by route category is shown in Figure 9.

Figure 9 Load Factor by Route Category

Category	Maximum Load
Frequent	150%
Local	150%
Community	150%
Express & Limited Stop	100%
School-Oriented	150%
Owl	100%

Regardless of route category, route segments that operate on highways and freeways for a long length of time aim to have no standees for safety reasons. Routes that have a high turnover of passengers or carry passengers for short distances can tolerate more standees.

ROUTE TERMINALS

When possible, routes should end at major anchor points or destinations to foster ridership. Route terminals should have restrooms available for operators during all hours of bus service.

Layover space should be available at route terminals. From an operating perspective, minimizing the time spent getting to or from layover areas will reduce operating costs, and potentially give operators more layover and/or recovery time. Layover space in residential neighborhoods should be avoided and at least one end of route terminals should have dedicated facilities.

FREEWAY ROUTE PLANNING

Routes designated as Express routes should maximize travel time and distance traveled via a freeway by minimizing intermediate stops. It can take on average about 1,800 feet (or approximately one-third of a mile) to make one lane change in a bus. The necessity to transition to and from the far-left lane on a freeway should be considered when determining the appropriate proximity of intermediate stops.

SCHOOL-ORIENTED ROUTE DESIGN AND SCHEDULING

School-oriented service is an important element of the SamTrans bus system. School-oriented service is open to all passengers but is timed to meet school start and end times (bell times) at the school(s) the route serves.

This service is very important to the community but is also resource-intensive during the most constrained times of day, the peak commute times, and requires a large proportion of travel time to and from the route start and end (deadhead) for only one revenue trip. As a result, school-oriented routes should have a higher passenger productivity than other route categories. SamTrans strives to provide a package of school-oriented service that is efficient while maintaining service for youth and parents who depend on or prefer to use public transit to get to school. School-oriented routes that serve *Equity Priority Areas* are the priority school services to be provided.

SamTrans works in partnership with school officials to design school-oriented routes on an annual basis. To maintain efficient operations of school-oriented service, the following processes and guidelines are utilized:

- School-oriented route schedules are based on bell times provided by the schools. SamTrans relies on that information to schedule the service. Schools must notify SamTrans of anticipated bell time changes in the spring; if a school does not notify SamTrans of a change to the bell times the school runs the risk of their service not being accurately timed with their bell schedule.
- Changes to schedules of school-oriented routes are typically made only three times a year. Changes are made during regular scheduled service changes for the SamTrans service. If changes to bell times occur and SamTrans is not notified in a timely manner, there are limited opportunities to adjust the schedule until the next service change.
- School-oriented service is designed to connect with the school schedules during the week. School- oriented routes may have trips with variable start and end time on different days of the week, but service accommodations are not made for inconsistent or irregular school schedules. For example, if a school has a minimum day that is not scheduled consistently every week, the route start time will not be altered to accommodate the one-off schedule, but if the school has a late start every Thursday, then a route would be able to have a trip with a later start time on Thursdays.
- School-oriented routes are typically established to serve schools with 6th grade passengers and up; however, there are rare cases where school-oriented routes will service lower elementary grades.
- School enrollment and school-oriented route usage is more dynamic than local routes. Because of that dynamic nature, school-oriented routes should be reviewed a minimum of once a year to ensure resources are utilized efficiently.
- School-oriented routes should be prioritized where local routes are not able to meet the mobility needs of the school. New or expanded school-oriented service should be prioritized in *Equity Priority Areas* if resources allow.

5 ROUTE COMMUNICATION GUIDELINES

The following guidelines support SamTrans in providing clear and effective communications to customers and the public about the family of services we provide and how to make use of our mobility services.

CLEAR AND SIMPLE INFORMATION

SamTrans should adopt simple and clear route naming conventions, timetables, and other customer communications. On maps and timetables, SamTrans should embrace the use of universally understood symbols and icons to maximize legibility by all language speakers. Timepoints in published materials should be labeled consistently and align with on-board text/announcements. When possible, timepoints should reflect the place name if more common and well-known than the cross streets (i.e., BART station or school).

TRANSPARENT AND EMPOWERING COMMUNITY ENGAGEMENT

All service change proposals or decisions should be communicated in language that is easy for riders and community members to understand. SamTrans should conduct empowering community engagement by holding events in our communities in locations where our riders and stakeholders already visit or attend events. Major service changes should be communicated proactively across all platforms and consistent with the SamTrans Title VI Program.

TECHNOLOGY AND TOOLS

SamTrans should maintain and expand the availability of real-time bus arrival information, available across a variety of platforms, including 511, the SamTrans mobile app, other third-party transit apps, and real-time arrival screens at key bus stops and transit hubs in the County.

SamTrans should prioritize the expansion of bus stop-based arrival information screens at high ridership or high transfer stop locations and in SamTrans Equity Priority Areas.

REGIONAL INTEGRATION

SamTrans should continue to participate in regional efforts to standardize customer-facing information. This includes the regional mapping and wayfinding project, as well as efforts to improve and standardize data/GTFS feeds. Duplication of route numbers with adjacent transit agencies should be avoided, when possible, to minimize passenger confusion.

6 SERVICE EVALUATION

Tracking the performance of routes helps agencies identify where transit services are meeting customer needs and where there are opportunities for improvement. Exceeding or failing to meet targets does not necessarily require an agency to act. It is meant as a tool to help guide assessment and adjustment of bus operating resources investment when needed. Over time, being able to understand trends can help SamTrans be more proactive with service changes and more efficiently use resources.

There are many metrics used in the transit industry. The key is to find metrics that tie the goals established by the agency into actionable measures for service improvement. The metrics identified below tie to the four established guiding principles of: delivering a customer-focused experience, being an effective mobility provider, providing transportation supporting social equity, and designing service that can be reasonably delivered by our workforce.

- **Boardings per revenue hour** is a standard productivity measure that normalizes the ridership to the amount of service being provided by calculating the number of customers that board the service per the revenue hours operated by the service.
- **Cost per passenger** is a standard that measures the financial effectiveness of the service and is the total operating cost to provide the service per the number of boardings on the service.
- **On-time performance** measures how often the service departs timepoints on time (within a certain threshold of the publicly posted time). Under this measurement, buses are on time if they depart a measured timepoint within 59 seconds before schedule or 4 minutes and 59 seconds after schedule.
- **Max load** is standard that measures crowding. It is the seated capacity utilization of a vehicle at the service's peak load point.
- **Missed Trips** is a measure of service reliability that identifies the number of missed trips and includes service that was not operated or not completed.
- **Complaints per boarding** is a standard that identifies the customer perception of the service and is a ratio of the complaints per number of boardings.

A detailed look at how the metrics listed above relate to the four guiding principles can be seen in Figure 10.

Figure 10 Summary of Key Performance Indicators (KPIs) Aligned with Guiding Principles

Performance Indicators	Customer	Effectiveness	Equity	Workforce
Boardings per revenue hour		x		
Cost per passenger		x		
On-time performance	x	x	x	x
Max Load	x	x	x	x
Missed trips	x	x	x	x
Complaints per boarding	x			x

PERFORMANCE TARGETS

The performance of the SamTrans bus network is measured in the following two ways:

1. **Minimum targets.** For key performance indicators, targets establish a base level of productivity that should be expected for service to be successful and sustainable.
2. **Comparisons.** Comparing similar routes against each other within the same service category allows staff to identify routes that may need further analysis for improvement or modification.

Targets do not have to be static, but they should be based on industry standards for operating service that fits the demand and the identified guiding principles.

Minimum Targets

Minimum targets set a baseline for which all routes should operate. Boardings per revenue hour is the primary metric for measuring route performance. This metric has a three-tier system of targets. Routes meeting or exceeding the standard are performing well and require no action. Routes performing below the minimum standard are identified for additional monitoring and corrective action, such as activating additional marketing and monitoring. In cases where a route is performing far below a minimum standard, the route will then be considered for service adjustments, such as route straightening or shortening, changes to frequency or span, alternative service delivery, or service discontinuation.

For boardings per revenue hour, the KPI targets are based on how existing SamTrans routes perform and generally accepted industry standards. KPI thresholds were set so that about 75 percent of routes meet standards, another 10 percent of routes require additional monitoring, and the lowest performing 15 percent of routes are identified for corrective action. These metrics were rounded to whole numbers and adjusted slightly to align with the industry's best practice. For school-oriented routes, ridership per trip is high and calculating a number based on the performance of 75% of routes would not be a realistic benchmark. The target was based on a reasonably full bus to justify the cost of operating school service. Express & Limited Stop standards were set based primarily on the industry's best practice.

The other route-level metrics (cost per passenger, on-time performance, max load, missed trips, complaints per 10,000 boardings) should be used in conjunction with the productivity metrics to identify areas of potential improvement. When routes do not meet these minimum targets, additional monitoring should be implemented and corrective action taken if conditions do not improve.

If a route has a history of falling below minimum boardings per revenue hour (at least four straight quarters), SamTrans staff may develop an action plan to improve the route's performance. More information on developing an action plan is included in the next section (Route Comparisons).

Figure 11 Key Route-Level Performance Indicator Targets

Metric	Frequent	Local	Community	Express & Limited Stop	School-Oriented	Owl
Minimum Boardings per Revenue Hour						
Meets Standard	15 or above	10 or above	7 or above	16 or above	25 or above	5 or above
Monitoring / Activate Additional Marketing or Other Corrective Actions	10–14	7-9	5–6	9–15	20–24	—
Possible Service Adjustments or discontinuation	Below 10	Below 7	Below 5	Below 9	Below 20	Below 5
Cost per Passenger						
Meets Standard	$15	$20	$35	$15	$15	$35
On-Time Performance						
Meets Standard	85%	85%	85%	90%[4]	90%[4]	85%
Max Load						
Meets Standard	150%	150%	150%	100%	150%	100%
Missed Trips						
Meets Standard	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%
Complaints per 10,000 boardings						
Meets Standard	1	1	1	1	1	1

[4] Express & Limited Stop and School-Oriented routes should only track on-time performance at the arrival of the last bus stop (i.e., the employment center or school) in the morning and the departure from the first bus stop in the afternoon.

Route Comparisons

Currently, SamTrans Planning staff report systemwide Key Performance Indicators (KPIs) in quarterly reports. To supplement these quarterly KPI reports, Planning staff will begin monitoring individual route performance using the targets listed in Figure 11 (see previous section) and will compile data on individual route performance in conjunction with the quarterly KPI reports to understand how routes are performing relative to each other within the same service category.

Additional monitoring may be conducted on routes that do not meet at least one of the minimum targets. This additional monitoring should be tailored to the metrics that are not being met. As an example, if customer complaints are an issue, additional monitoring could include pulling more frequent data (monthly instead of quarterly) and reading/investigating the customer complaint data. If conditions do not improve, corrective action should be taken, if feasible.

If any changes are implemented, the route should continue to be monitored to see if conditions improve. It is important to also consider whether the route serves an Equity Priority Area; routes that serve Equity Priority Areas may be deemed a "lifeline" or essential service and may be retained despite not meeting targets.

As mentioned in the Minimum Targets section, if a route has a history of falling below multiple metrics (at least four straight quarters), SamTrans staff may develop an action plan to improve the route's performance. This action plan should include:

- What metrics the route is not meeting and for how long
- What has been examined or tried, if applicable
- The proposed solution(s) for addressing the metrics that are not being met, including identification of specific people to help implement the solution(s)
- A timeline in which improvements should be implemented and route performance re-evaluated

New Service

Any new service should be allowed to mature for at least 12 months before it is held to the same service standards as other routes in its category. SamTrans should do appropriate marketing and outreach to help any new service succeed.

Network-Level Metrics

In addition to metrics by route, it is important to provide network level metrics that can quickly provide a snapshot of the overall system's performance. SamTrans has identified several metrics that are important to understanding and assessing systemwide performance which are shown in Figure 12, along with targets for them.

The following definitions are for the new metrics introduced that are specific to the network-level metrics and have not been defined in the route metrics:

Farebox Recovery is the percent of fare revenue divided by the total operating cost.

Mean distance between failures is the total miles divided by the number of mechanical failures.

Mean distance between accidents is the total miles divided by the number of accidents.

Equity Priority Areas served by all day service is the percent of Equity Priority Areas in the SamTrans service area that are within ¼ mile of all day service.

Figure 12 Key Network-Level Performance Indicators

Metric	Target
Passengers per revenue hour	15
Cost per passenger	$15
Farebox recovery	8.5%
On-time Performance	85%
Complaints per boarding	<1 per 10,000
Missed trips (service availability)	<0.1%
Mean distance between failures	>25,000 miles
Mean distance between accidents	>100,000 miles
Equity Priority Areas served by all day service	85% or more within ¼ mile of a SamTrans bus stop or microtransit zone

7 SERVICE PLANNING PROCESS

BALANCING SERVICE PRIORITIES

Transit agencies weigh tradeoffs about where service is located and how frequently service should be available. The distribution of transit service considers many factors, including:

- Community goals and needs
- Service and design best practices
- Budget and resource constraints
- Equity needs across the service area
- Land uses and the built and natural environments

SamTrans' priorities for the distribution of service will not be static because what exists today may be different tomorrow. The size, demographics, and travel patterns of communities in San Mateo County change over time, along with the funds and resources available to provide transit service. The ability to dynamically adjust service based off the potential changes listed above will allow SamTrans to provide mobility services as effectively as possible to customers traveling within and through San Mateo County.

Service distribution must balance operating constraints (number of operators and vehicles available), maximize ridership, and provide coverage to residents. The desire to serve all must be balanced with the fiscal responsibility of having passengers use the service and the objectives of providing high-quality service in Equity Priority Areas. Applying service standards that consider social equity, effectiveness, and productivity helps an agency achieve the right balance.

The service and design guidelines are tools to help support SamTrans make service decisions. The service planning process ensures SamTrans has the tools to monitor and evaluate service and community needs that lead to service change recommendations. It also allows SamTrans to be transparent with service planning priorities and standards, and when faced with competing demands for limited resources, helps and supports staff decision making. It provides a mechanism to constantly refine the system by targeting low- performers and reallocating service to more productive services or new service.

PERFORMANCE EVALUATION

The process starts with an approved set of targets (the service standards) that should be reviewed annually. Using the performance targets, staff will measure each route's performance and the network's performance for productivity and equity considerations, targeting the lowest performers for improvement.

Operations Planning staff will create adjustments and alternatives to improve service and meet service level targets. Service change recommendations will be based on:

- Performance
- Financial obligations, resources, and funding availability
- Awareness of regional transportation infrastructure planning efforts and land use trends
- Promotion and development of high-quality service in identified Equity Priority Areas.

SERVICE REQUESTS

On an ongoing basis, staff will evaluate requests from external sources and customers for new or modified service based on the same criteria. The service guidelines presented earlier in this document will help staff communicate the circumstances in which SamTrans will consider changes and the priorities and best practices for service design. Using the criteria followed for the Title VI Program for community engagement and outreach, SamTrans will share ideas and gather input from the community on proposed major service changes.

SamTrans will conduct three to four service changes annually (consistent with the current labor agreement) with two of those changes having more significant updates (changes to runtimes, trip times, frequency, span, etc.) and the other changes allowing for minor tweaks in service. Attempts will be made to align service change dates with regional operators.

Major Service Changes

All major service changes should be consistent with and follow the guidelines identified in this document and consistent with the SamTrans Title VI Program.