County Connection
2477 Arnold Industrial Way Concord, CA 94520-5326 (925) 676-7500 countyconnection.com

OPERATIONS & SCHEDULING COMMITTEE
MEETING AGENDA

Wednesday, February 7, 2024
8:00 a.m.
Supervisor Andersen Office
309 Diablo Rd, Danville, CA

The committee may take action on each item on the agenda, even items that are listed as "information only". The action may consist of the recommended action, a related action or no action. Staff recommendations are subject to action and/or change by the committee.

1. Approval of Agenda

2. Public Communication

3. Approval of Minutes of January 3, 2024*

4. On-Time Performance Update – Information Only*
   (Staff will provide an update on the On-time Performance related service changes)

5. Bus Stop Placement Guidelines – Information Only*
   (Staff will provide an update on the Bus Stop Spacing Guidelines)

6. Countywide Travel Training Program Expansion*
   (Staff recommends the O&S Committee forward to the Board the recommendation to authorize the expansion of our travel training program to cover the whole county)

7. Monthly Reports – Information Only
   a. Fixed Route*
   b. Paratransit*

8. Committee Comments

9. Future Agenda Items

10. Next Scheduled Meeting – March 6, 2024 (8:00am at 309 Diablo Rd, Danville, CA)

11. Adjournment

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*Enclosure
FY2023/2024 O&S Committee
Dave Hudson – San Ramon, Robert Storer – Danville, Jim Diaz – Clayton

General Information

Public Comment: Each person wishing to address the committee is requested to complete a Speakers Card for submittal to the Committee Chair before the meeting convenes or the applicable agenda item is discussed. Persons who address the Committee are also asked to furnish a copy of any written statement to the Committee Chair. Persons who wish to speak on matters set for Public Hearings will be heard when the Chair calls for comments from the public. After individuals have spoken, the Public Hearing is closed and the matter is subject to discussion and action by the Committee.

A period of thirty (30) minutes has been allocated for public comments concerning items of interest within the subject matter jurisdiction of the Committee. Each individual will be allotted three minutes, which may be extended at the discretion of the Committee Chair.

Consent Items: All matters listed under the Consent Calendar are considered by the committee to be routine and will be enacted by one motion. There will be no separate discussion of these items unless requested by a committee member or a member of the public prior to when the committee votes on the motion to adopt.

Availability of Public Records: The agenda and enclosures for this meeting are posted also on our website at www.countyconnection.com.

Accessible Public Meetings: Upon request, County Connection will provide written agenda materials in appropriate alternative formats, or disability-related modification or accommodation, including auxiliary aids or services, to enable individuals with disabilities to participate in public meetings and provide comments at/related to public meetings. Please submit a request, including your name, phone number and/or email address, and a description of the modification, accommodation, auxiliary aid, service, or alternative format requested at least two days before the meeting. Requests should be sent to the Assistant to the General Manager, Lathina Hill, at 2477 Arnold Industrial Way, Concord, CA 94520 or hill@cccta.org. Requests made by mail must be received at least two days before the meeting. Requests will be granted whenever possible and resolved in favor of accessibility.

Shuttle Service: With advance notice, a County Connection LINK shuttle can be available at the BART station nearest the meeting location for individuals who want to attend the meeting. To arrange for the shuttle service, please call (925) 938-7433 between 8:00 am and 5:00 pm at least one day before the meeting.

Currently Scheduled Board and Committee Meetings

Board of Directors:	Thursday, February 15, 9:00 a.m., County Connection Board Room
Administration & Finance:	Wednesday, February 7, 2:00 p.m., 3rd Floor Conference Room
Advisory Committee:	Tuesday, March 12, 1:00 p.m., County Connection Board Room
Marketing, Planning & Legislative:	Thursday, February 1, 8:30 a.m., 3338 Mt. Diablo Blvd., Lafayette

The above meeting schedules are subject to change. Please check the County Connection Website (www.countyconnection.com) or contact County Connection staff at (925) 676-1976 to verify date, time and location prior to attending a meeting.

This agenda is posted on County Connection's Website (www.countyconnection.com) and at the County Connection Administrative Offices, 2477 Arnold Industrial Way, Concord, California

County Connection

INTER OFFICE MEMO

Summary Minutes
Operations & Scheduling Committee
Wednesday, January 03, 8:00 a.m.

Directors: Robert Storer, Jim Diaz, Dave Hudson
Staff: Bill Churchill, Melody Reebs, John Sanderson, Pranjal Dixit, Rosa Noya, Laura Corona
Public: Rashida Kamara (CCTA)

Call to Order: Meeting called to order at 8:00 a.m. by Director Storer.

1. **Approval of Agenda**
   The Committee approved the agenda.

2. **Public Communication**
   None.

3. **Approval of Minutes of December 6, 2023**
   The Committee approved the minutes.

4. **Fixed Route Peer Performance Comparison**
   Mr. Dixit presented an update on Bay Area bus ridership, outlining both positive recovery trends and lingering challenges. While the pandemic initially caused a steep drop in ridership, encouraging signs of progress are emerging. Interestingly, the return to normalcy is seeing a shift in demand away from traditional commuter routes. Local and weekend services are experiencing growth, highlighting efforts to better serve underserved communities, particularly low-income and minority populations.

   He informed that Transit agencies demonstrated adaptability throughout the pandemic, tailoring services to meet evolving needs with some agencies prioritizing essential services, while others expanded local options with a continued focus on underserved communities. He added however that critical shortage of operators poses a significant hurdle and agencies are prioritizing schedule reliability to regain customer trust. Mr. Dixit highlighted the County Connection's partnership with Swiftly, showcasing an initiative aimed at improving on-time performance.

5. **Means Based Paratransit Fares**
   Mr. Sanderson informed the Committee that building on the success of Tri Delta Transit's means-based fare pilot program, County Connection proposes a similar initiative for its ADA paratransit service, LINK. Supported by CCTA's Measure X funding, this program directly addressed "gaps" identified in the CCTA's Accessible Transportation Strategic Plan.

   He added that County Connection plans a seamless integration with its existing pre-paid fare system providing fare relief to low-income riders while ensuring efficient implementation and cost-effectiveness. He informed that the pre-paid fares will be distributed as monthly credits and Ms. Kamara added that information about the program will be shared with existing customers through MyTransit App, emails and texts on file.

   He informed that CCTA had allocated $145,000 in Measure X funding to support the County Connection means-based fare program for 12 months. The Committee accepted staff's

recommendation to forward the proposal to the Board, authorizing the General Manager to enter a new MOU with CCTA for cost reimbursement.

6. **Monthly Ridership Reports**
   Mr. Dixit shared that the ridership in November dipped slightly but still saw an 11% y-o-y growth and was at 83% of pre-pandemic level. He informed that productivity was higher than pre-pandemic levels highlighting the high rate of service utilization by passengers. The missed trips ticked up slightly due to operators on vacation during the holiday period.

   Ms. Noya shared that ridership in November dipped slightly due to holidays, reaching 79% of pre-pandemic levels in November. She highlighted performance standards were met in both productivity and on-time performance, with cost reductions due to lower fuel costs. Mr.Churchill added that having Big Star operate One Seat trips helps Transdev to improve service in the core service area leading to higher on-time performance. Furthermore, Ms. Noya reported over 140 commendations received, with timeliness being the primary focus of complaints.

7. **Committee Comments**
   None

8. **Future Agenda Items**
   Director Storer requested an update on bus stop placement process.

9. **Next Scheduled Meeting**
   The next meeting was scheduled for February 7 at 8:00 a.m. at Supervisor Andersen Office located at 309 Diablo Rd, Danville, CA

10. **Adjournment –** The meeting was adjourned at 8:45 a.m.

Minutes prepared and submitted by: Pranjal Dixit, Manager of Planning

County Connection

INTER OFFICE MEMO

To: Operations & Scheduling Committee **Date:** 01/31/2024

From: Melody Reebs, Director of Planning, Marketing, & Innovation **Reviewed by:** RR

SUBJECT: On-Time Performance Update

Background:

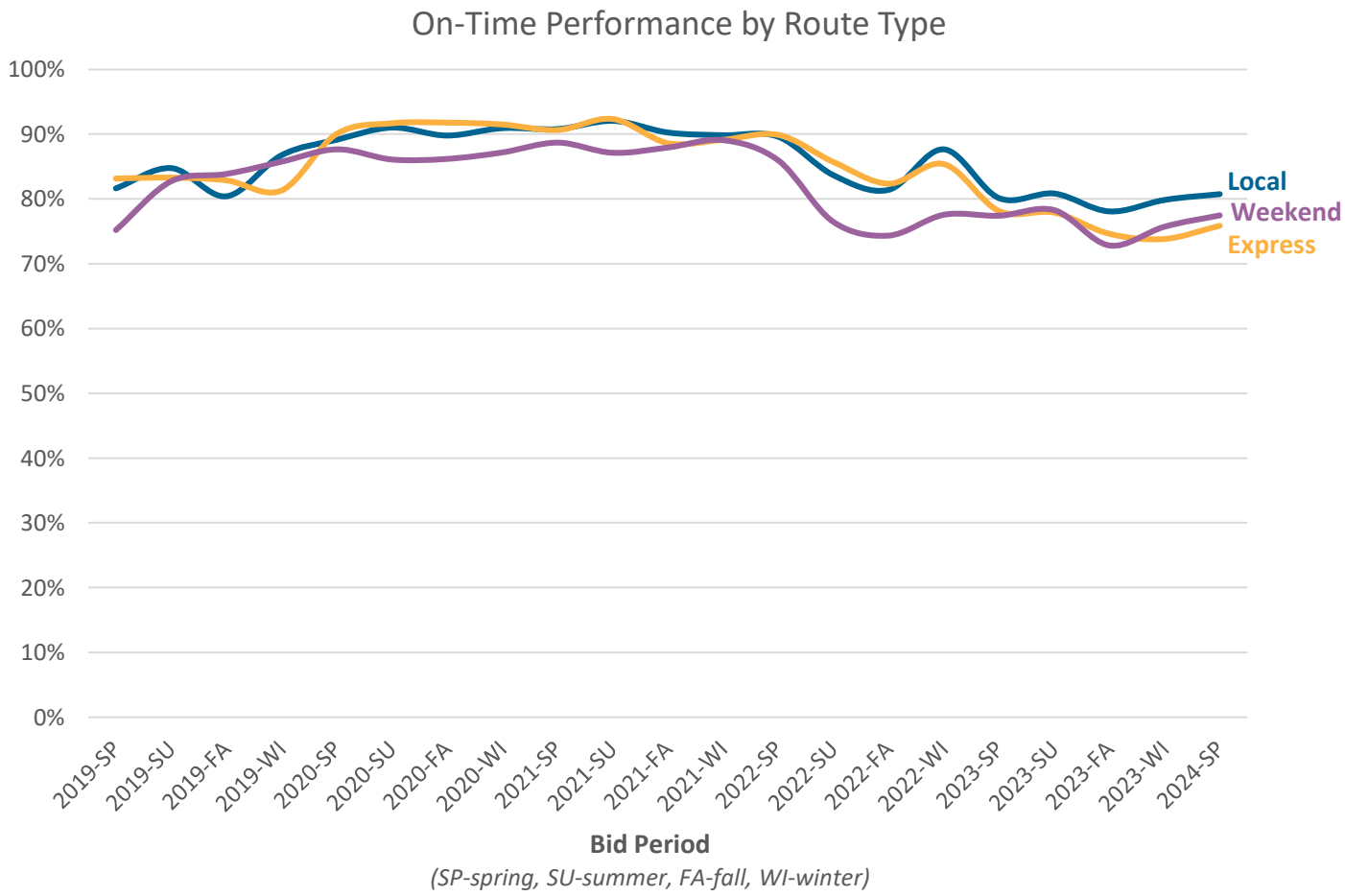
Over the past couple years, the Service Planning and Scheduling department has focused its efforts on improving service reliability, particularly as frequencies were reduced due to the pandemic and the ongoing operator shortage has limited the ability to restore service. In addition, traffic patterns have continued to evolve, and congestion has increased significantly as the economy recovers from the pandemic. In order to respond quickly to these changing conditions, planning staff have been closely tracking on-time performance and run times in order to make timely schedule adjustments.

Historically, on-time performance and run time data has been collected and reported using the Clever Devices Computer-Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system installed on the buses. However, obtaining useful and timely data from this system has been an ongoing challenge. In late 2022, staff began using Swiftly, a cloud-based transit data platform that provides more accurate and granular real-time data for on-time performance and runtimes. This has allowed staff to analyze and develop schedule changes more quickly in response to performance issues and/or operator concerns.

On-Time Performance Trends:

Following the COVID-19 shelter-in-place order in March 2020, traffic levels dropped dramatically, and congestion became nearly non-existent. The lack of congestion as well as lower ridership levels resulted in buses being able to move faster and make fewer stops. In order to prevent early departures and/or drivers having to hold at stops, staff made schedule adjustments for the Fall 2020 bid to reflect the existing operating conditions.

On-time performance remained relatively high at around 90% through the first half of 2022. However, as businesses reopened and schools returned in-person, traffic levels started to rise and have continued to increase. In addition, traffic and congestion patterns have not returned in the same way as pre-pandemic—demand is more spread out over the day and less concentrated around the traditional AM and PM commute hours. These changes have had a significant impact on-time performance, particularly on weekend routes, which have historically not faced the same traffic-related challenges as weekday routes. The following chart shows on-time performance trends by route type and bid period.



Schedule Adjustments:

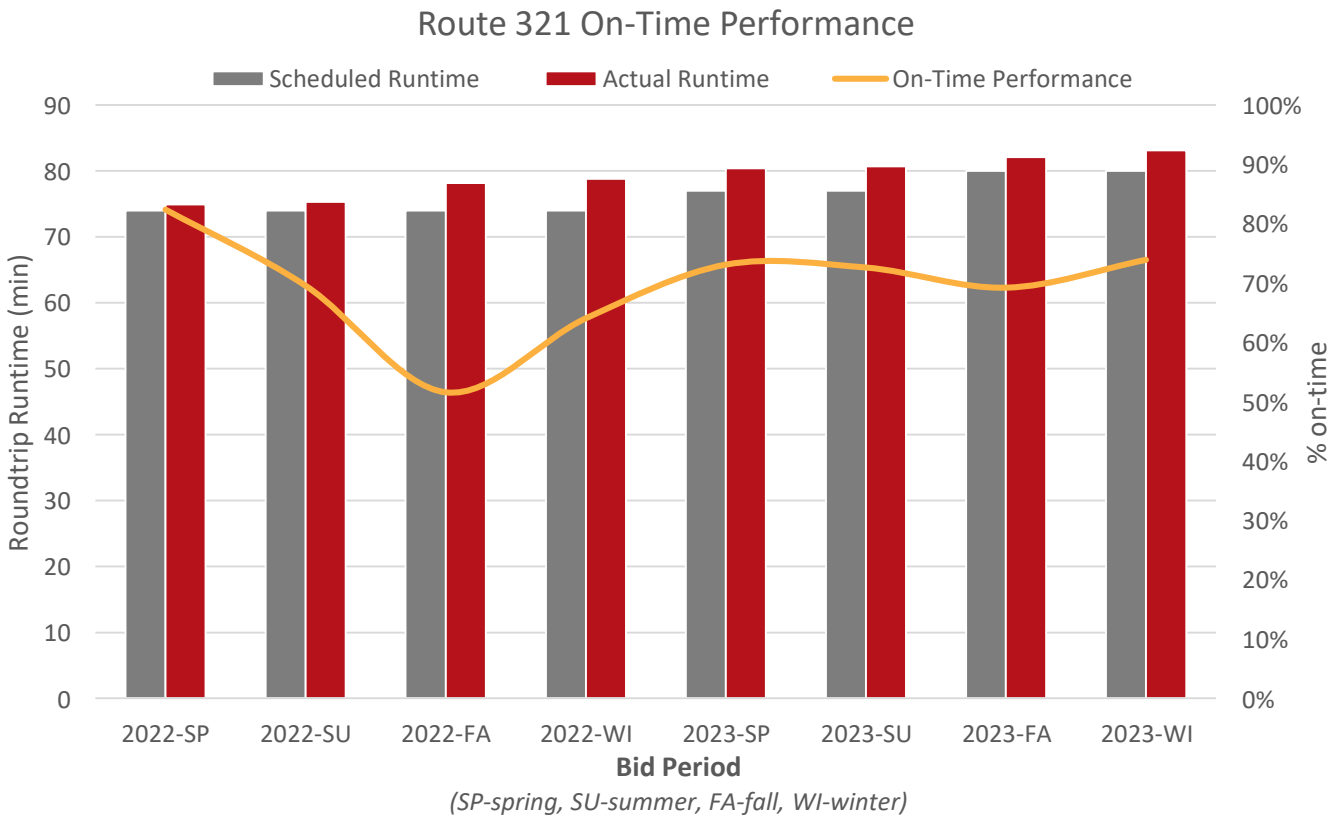
Since early 2022, staff have continuously made schedule adjustments to address on-time performance issues. Typically, schedule changes must be finalized at least three months prior to implementation in order to provide time to update passenger information (e.g., schedule brochures, information panels, website, etc.), notify riders, and conduct the operator bidding process. Because of this, it usually takes at least two bid periods once staff becomes aware of a scheduling issue to try and address it. More recently, staff have been able to use Swiftly to more closely monitor performance in real-time, enabling them to quickly identify issues and conduct the analysis needed to evaluate potential solutions.

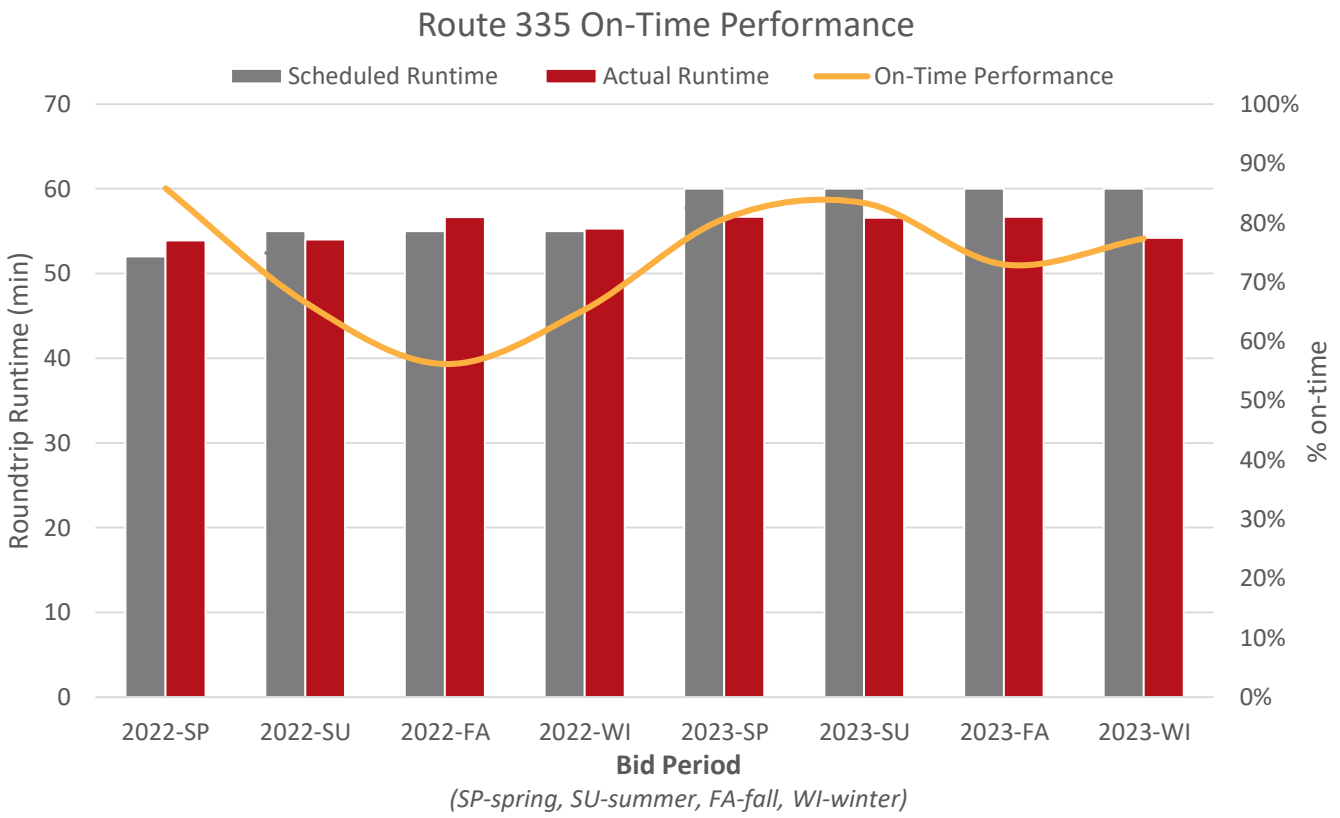
On-time performance can be impacted by a variety of factors. Runtime is the travel time between stops, and how closely the scheduled runtimes match actual conditions is the primary driver of on-time performance. However, there are additional considerations. Almost all of County Connection's routes have clock-face schedules, meaning that trips operate at regularly spaced intervals, which are meant to align with BART train times. However, there can be a large degree of variability in congestion and travel speeds throughout the day, and in order to strike a balance between on-time performance and efficiency, schedules are usually based on an average, which means that some trips will be late during times of peak congestion, while others will have additional recovery time. In addition, runtimes may intentionally be shortened at stops that are not suitable locations for buses to wait if they are running early. Finally, several of County Connection's routes are interlined, which is when two or more routes are connected together to improve scheduling efficiency, so the on-time performance on one route may have a cascading effect on subsequent trips on another route.

The following table summarizes schedule adjustments that have been made over the last couple years to address on-time performance issues. Staff have been able to improve performance on some routes. Most notably on Routes 35 and 335, staff worked with the City of San Ramon to relocate a stop from Sunset Dr to Camino Ramon, which has saved an average of 3 minutes per trip and increased on-time performance by about 4 percentage points.

Bid	Route	Change
Summer 2022	335	Increased runtime
Winter 2022	321 & 335	Shifted recovery time
Spring 2023	10 & 20	Increased runtime and recovery time
	320	Increased runtime
	321 & 335	Increased runtime
Fall 2023	35	Increased runtime
	321	Increased runtime
Winter 2023	15	Increased recovery time
	35 & 335	Relocated stop at City Center
Spring 2024	321	Shifted recovery time

However, despite adding runtime, some routes continue to fall behind schedule. In particular, runtime has been added multiple times on Route 321 but is being outpaced by increasing traffic congestion. In addition, even though Route 335 now has plenty of runtime, because it's interlined with Route 321, its on-time performance is also impacted.





Staff continues to closely monitor on-time performance and identify areas for improvement. In addition to further analysis of Route 321, staff are also evaluating potential adjustments on Routes 5 and 91X, which have had more recent declines in schedule adherence. However, these types of schedule adjustments are short-term solutions, and as traffic congestion continues to rise, extending runtimes will ultimately degrade service levels. Instead, transit priority and other capital improvements that speed up buses and increase efficiency will be necessary to avoid future service cuts.

Financial Implications:

None, for information only.

Recommendation:

None, for information only.

Action Requested:

None, for information only.

Attachments:

None

County Connection

INTER OFFICE MEMO

To: Operations & Scheduling Committee **Date:** 01/26/2024

From: Pranjal Dixit, Manager of Planning **Reviewed by:** MR

SUBJECT: Bus Stop Placement & Amenities

Background:

County Connection provides service to over 1,200 bus stops in the entire service area serving residential neighborhoods, regional shopping centers, educational and medical institutions, municipal and government offices, as well as transit hubs and other transportation centers. Since County Connection does not have purview over the public right-of-way, staff works with cities and the County via the encroachment permit process to install, remove, or relocate bus stops as needed. Neighborhood preference, geography, right-of-way and accessibility are some of the factors that have determined bus stop locations.

Bus Stop Amenities:

Once a bus stop location is approved by the City/County, County Connection staff is able to install a bus stop sign and/or information panels on the bus stop pole or in the shelter. Information panels include schedule information for each route that services that stop. All stop locations include, at minimum, a bus stop pole and flag. Stops that are only served by one route do not have an information panel due to maintenance staff constraints. In addition, over 150 locations include a bench and approximately 160 locations include a shelter with seating area (see Attachment 1).

In 2014 County Connection was awarded a federal grant to improve access to transit. Since then, County Connection staff has worked with various cities to replace and/or relocate shelters. Existing shelters can be relocated but must be approved by Outdoor Media and the respective jurisdiction. Per the ad agency's contract with the various jurisdictions, the total shelter count does not change, unless specifically outlined in the agreement. Existing agreements require the ad agency to provide all maintenance, which includes cleaning, trash removal and graffiti removal and repairing any damage. County Connection does not receive any revenue from bus shelters advertising. All proceeds go to the respective jurisdiction.

Recent shelter replacement/relocation projects focused on stops with the highest boardings. For example, the City of Concord requested the relocation of a shelter from a location with minimal boardings, to another area that is close to senior housing, shops, and businesses. In other cases, shelter installation has not been feasible due to limited public right-of-way, resistance from private property owners near the bus stop, and/or accessibility improvements being cost prohibitive.

In addition to bus stops managed by the cities and county, stops at BART stations are assigned and maintained by BART or the developer within each station. Finally, County Connection collaborates with other transit agencies when serving bus stops out of County Connection's service area to minimize conflict and ensure adequate information is available.

Bus Stop Spacing:

Bus stop spacing plays a crucial role in balancing walking distance for passengers with bus speed and reliability. Closer stops offer easier access but slow down buses, while wider spacing speeds up travel but requires longer walks. This trade-off is carefully considered based on route demand, service type, and pedestrian infrastructure.

High-demand routes with frequent service can benefit from wider spacing, as passengers are more willing to walk for faster trips and reliable schedules. Conversely, feeder services with fewer riders at each stop prefer closer spacing to minimize delays. Beyond demand, stop spacing also considers pedestrian network quality and topography. Grid networks with short blocks offer better connectivity, while sprawling development and hills can make walking more challenging. Additionally, passenger characteristics, such as mobility limitations, are factored in.

The spacing of bus stops is currently not consistent across County Connection's service area, and stops have generally been added, removed, or relocated on a case-by-case basis in response to new developments or construction, city requests, and/or other external factors. To optimize bus stop placement on a more holistic, systemwide level, County Connection partnered with on-call planning consultant, Transportation, Management and Design (TMD) to develop a bus stop spacing policy. This policy will help identify locations for relocating and consolidating stops to improve transit speed and reliability for passengers.

Bus Stop Placement:

The policy outlines various factors that are to be considered for choosing the specific stop locations:

- Safety: Prioritizing locations that minimize risk to pedestrians and passengers, availability of crosswalk
- Ridership: Targeting areas with existing/projected high demand and Facilitating connections between different routes and services.
- Service Level: Aligning stops with service type (express, local, etc.) for efficiency.
- Accessibility: Ensuring stops are accessible to all, including those with disabilities.
- Land Use: Balancing stop placement with current and future development patterns.
- Travel Time: Minimizing delays from stop placement and ensuring efficient routes. Optimizing locations based on signalization, turning lanes, and safety.
- Service Quality Trade-offs: Carefully considering potential trade-offs between various service aspects (e.g., speed vs. coverage).

Next Steps:

The bus stop spacing policy will help drive the bus stop consolidation project forward, which includes the following:

- Inventory of all existing bus stops including amenities such as benches, shelters, etc.
- Identify stops for consolidation based on ridership, safety, schedule reliability
- Identify priority stops for amenity improvements such as real-time signage, shelter etc. through the lens of equity and ridership
- Identify stops for ADA improvements
- Identify inter-agency stop consolidation opportunities

Staff is also working to enhance information available at the bus stops as part of the larger regional mapping and wayfinding efforts aimed at unifying the branding of transit across the Bay Area.

Financial Implications:

None, for information only.

Recommendation:

None, for information only.

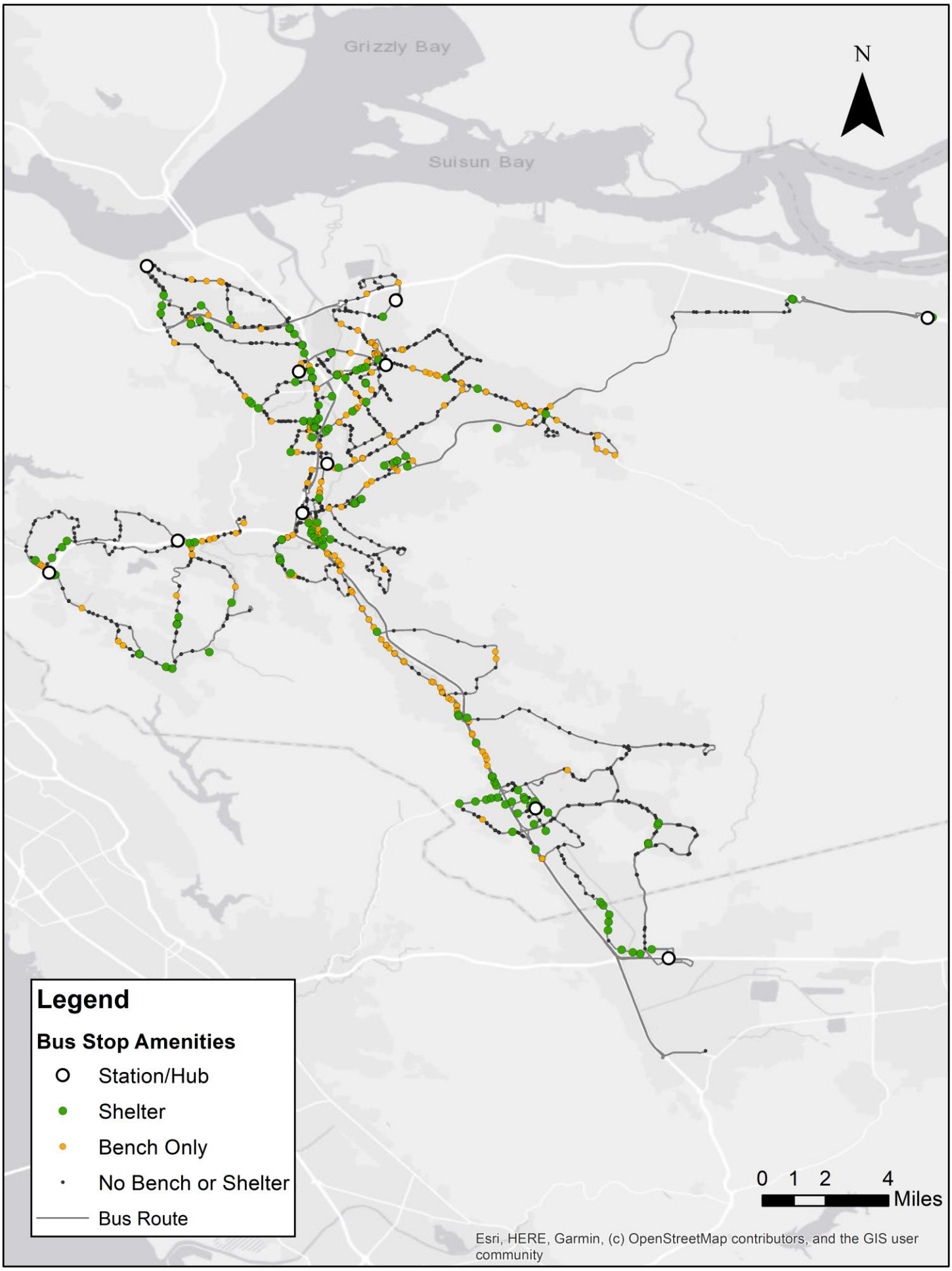
Action Requested:

None, for information only.

Attachments:

Attachment 1: Bus Stop Amenities

Attachment 2: County Connection Bus Stop Spacing and Location Guide


Grizzly Bay
Suisun Bay
N
Legend
Bus Stop Amenities
Station/Hub
Shelter
Bench Only
No Bench or Shelter
Bus Route
0 1 2 4
Miles
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

County Connection

Bus Stop Spacing and Location Guide

November 2023

County Connection

CENTRAL CONTRA COSTA TRANSIT AUTHORITY (CCCTA)
Bill Churchill, General Manager

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Dave Hudson	City of San Ramon

Acknowledgements

TMD

Transportation Management & Design

Table of Contents

Figures

1. Introduction

The purpose of this guide is to develop a bus stop spacing policy for County Connection and provide direction on how to apply the policy. The tradeoffs that need to be considered in deciding how to space bus stops are briefly discussed. Two approaches to bus stop spacing based on industry best practice are presented, with a recommendation as to which approach is best suited for County Connection. The bulk of this document addresses how to apply the spacing policy since there are several factors that must be taken into consideration in identifying and installing each specific bus stop. Note that a peer review of documents from other transit agencies was used as the methodology for this guide.

2. Existing Conditions

County Connection currently does not have a policy regarding the spacing of bus stops. In actual practice there is a wide variation of spacing between bus stops. For example, Route 1 averages 5.5 stops per mile in the southbound direction and 6.1 stops per mile in the northbound direction. However, on Route 1 there is considerable variation in spacing of stops. There are 21 stops less than 0.2 mile apart including seven that are less than 0.1 mile apart, and five that are more than 0.25 mile apart.

Other examples of existing bus stop spacing include Route 10 which averages 6.5 stops per mile in each direction, Route 15 which averages 5.4 stops per mile eastbound and 6.19 stops per mile westbound, and Route 16 which averages 5.7 stops per mile northbound and 6.1 stops per mile southbound. Average spacing on all four routes ranges between 0.16 and 0.18 miles between stops. These examples appear to be typical throughout the system. See **Appendix A** for a table of current County Connection average stop spacing.

Some conclusions that can be drawn from this are that, on average, bus stops are very close together and, as explained below, bus stop consolidation is warranted. Also, on three of the four examples above the number of stops varies by direction. Since most passengers travel round trip there should be corresponding stops in each direction, which appears to not always be the case. Additionally, while bus stop consolidation is generally warranted, there are places where bus stops are too far apart and additional stops may be justified.

3. Stop Spacing Recommendations

3.1 Overview

Stop spacing refers to the distance between bus stops along a route. Stop spacing affects overall travel time and, therefore, competitiveness with driving and demand for transit. The tradeoff is between close stops, which result in short walking distances but longer transit trip times, and stops spaced further apart, which results in longer walking distances but higher speeds, more reliable bus service, and shorter transit trip times. Routes and corridors with higher demand and frequency should have stops spaced further apart, as riders are more willing to walk further for higher frequency service. Additionally, higher demand results in more riders boarding, which slows the bus. Meanwhile, feeder and shuttle services require stops closer together. Since riders are less likely to walk to less frequent service, there will not necessarily be people at each stop, meaning the bus will experience fewer delays.

The ability to increase stop spacing depends in part on the quality of the pedestrian network and connectivity in the area – can pedestrians safely and directly walk to the next-closest stop? Topography and natural features often impact achievable street connectivity; trips may be lengthened by having to avoid lakes or by limited crossings of rivers, or they may be made more difficult by hills. Post-World War II development often has very large blocks and cul-de-sacs, which greatly reduce connectivity. In a grid network, shorter blocks facilitate more direct travel, placing more area within walking distance of a stop. It may also depend on the characteristics of the passengers using the stop – for example, people with limited mobility may find it difficult to walk to the next stop. In many cases, the extra time spent walking to another stop will be more than made up with time savings during the trip on the bus.

Additionally, the more frequently the bus stops, the more time is lost in decelerating and accelerating (approximately 15 seconds). If stops are too close together, the bus becomes incapable of reaching its maximum speed. As a result, each stop impacts the progression band provided by the street's signal timing, resulting in an increased likelihood of the bus to stop at lights and causing additional delays. Therefore, consolidating stops can be a productive way to improve transit speeds, even though average dwell times increase due to more riders boarding, as long as accessible routes are available from a consolidated stop to the next closest stop and walking distances are not excessive.

Furthermore, industry best practice encourages to use the maximum bus stop spacing unless superseded by other determining factors such as topography (hills), limited access areas (freeways, bridges, airports), surrounding attractors, and transfer points.

Bus stop spacing will continue to be governed by a number of factors, which are described in greater detail below. It is intended that this process be objective, but also flexible enough to respond to unique needs and circumstances.

There are two approaches commonly used to determine bus stop spacing – density and service type.

3.2 Spacing by Density

While the standard walkshed radius for stop spacing is generally ¼ mile, the following density areas should be considered as outlined in Determining Levels of Density

3.2.1 Determining Levels of Density

In order to apply the spacing recommendations above, the following information may be used in order to determine the appropriate level of density:

1. The standards must be adjusted to account for the difference between net and gross acreage. Taking an average of 25% of gross acreage used for such things as right-of-way, 22 units/acre becomes approximately 16 units/total acre (including right-of-way).
2. Mixed use, commercial and industrial areas should also be included by using a conversion to identify the number of people per acre (e.g., employees for employment areas). Residential areas should use an average of 2.5 persons per household as used in the table above. Nonresidential should use 3.4 employees per unit.
3. Future growth needs to be accounted for as well and can be determined by looking at zoning and regional growth projections.

Figure 1: Spacing by Density

	High Density Areas	Medium to Low Density Areas	Low to Rural Density Areas
Units per Acre	22 or more units/acre	4-22 units/acre	Below 4 units/acre
Persons per Acre	Residential: 41 or more persons/acre Non-residential: 56 employees/acre	8-41 persons/acre	Less than 10 persons/acre
Spacing Recommendation	Stops every 3 blocks/780 ft	Stops every 4 blocks/1,000 ft	Stops no more frequent than every 1,000 ft
Notes	Includes regional designated centers (e.g., Town Centers, Main Streets) Less than this is only appropriate in special circumstances on a stop-by-stop basis or for safety	Less than this is only appropriate in special circumstances on a stop-by-stop basis or for safety	As needed on a location basis

Source: TriMet Bus Stop Guidelines

3.3 Spacing by Service Type

Spacing should also consider the type of service being provided. County Connection has three types of service: local, express, and school. **Figure 2** includes a list of possible spacings and explanations for these different service types.

Figure 2: Spacing by Service Type

Service Type	Spacing (feet)	Explanation
Local	800 – 1,300 ft	Stops may be located more closely than listed based on trip attractors, stop activity or demand, transfer points, or other land uses that may warrant it.
Express	1,000 – 2,600 ft	Service may use local stops as necessary to provide geographic coverage and to minimize delay for longer-distance passengers.
School	TBD	Same as local service
BRT	1,760 – 2,640 ft	People will walk further to high frequency/high capacity service.

Source: AC Transit Multimodal Corridor Guidelines

3.4 Recommended Approach

Based on the suburban nature of the County Connection service area, bus stop spacing should be based on service type.

- Local bus stop spacing should average 1,000 feet or five stops per mile with a minimum distance of 800 feet and maximum of 1,300 feet.
    - This policy should be applied to all new route alignments where bus stops are being installed for the first time as well as when considering requests for installing new stops on existing alignments.
- An audit of bus stop locations on existing local and express routes should be performed to identify where existing bus stop spacing does not meet the standard above.
    - Because it appears that this could be a significant effort, the audit may need to occur in phases, prioritizing routes based on highest ridership and/or poorest reliability (since consolidating/replacing stops could improve reliability).
    - An audit of bus stop spacing on school (600 series) routes is unnecessary. Where a school route shares an alignment with a local route, it will share stops with that route and any modifications to stop locations for the local route would also apply to the school route. Where school routes do not share an alignment with a local route, there is no need to expend resources making stop adjustments, except to address specific problems with a stop location, since the stop is served only once or twice a day. However, the bus stop spacing policy should be used when locating stops on any new alignment used exclusively by school service.
- Considering the factors described below, develop specific recommendations for bus stop removal (where a stop can simply be removed without making other changes), bus stop consolidation (new location(s) replacing two or more existing stops), or adding stops where gaps exist and there is a market to be served.
    - Bus stop removal should take place once identified as this involves minimal effort and expense. Bus stop consolidation and additions should occur as soon as practical but will require additional effort in gaining necessary approvals and may require additional infrastructure.
- County Connection currently does not operate BRT service, however, may in the future and should plan stops 1/3 to 1/2 mile apart.

3.5 Factors to Consider

Multiple factors should go into the spacing and placement of bus stops. **Figure 3** includes a list of ridership factors County Connection should consider as bus stops are added, moved, or removed.

Figure 3: Stop Spacing Ridership Factors to Consider

Ridership Factors	Considerations

Safety	• Provide a safe location for operational movements
	• Pedestrian safety
	  ○ To and from the bus stop, and at the bus stop (waiting, boarding, and alighting)
	  ○ Steer riders toward safe street crossings
	  ○ Watch for other pedestrians
	• Provide adequate lighting at stops for bus patrons
	  ○ Lighting can be cast by pedestrian-scale light fixtures, lighted shelters, overhead street lights, or brightly-lit signs.
	• Provide adequate sight distance (i.e., visibility for driver and waiting riders)
	  ○ Avoid obstructions to sightlines between bus operators and passengers such as trees, signs, buildings, shelters, and topography
	  ○ Bus stops should not be located over the crest of a hill, immediately in or after a roadway curve to the right, or at locations that might reduce visibility between buses and other vehicles

Travel Time Delays	• Far-side stops allow signal treatments to work most effectively • Alternate placement of near- and far-side stops if signals occur at every stop

Service Quality Tradeoffs	• Fewer stops mean:
	  ○ Faster, more efficient service
	  ○ More potential for stop amenities
	  ○ Longer walk distance for some
	  ○ More ridership at existing stops

Suitability for Bus Operations	• Safe access into and out of bus stop location (no parking) • Provide bus operators with adequate view of street and pedestrian areas • Provide adequate sight distance for autos before bus stop, so drivers are aware the bus is stopped • Avoid bus pull outs on roadways where the speed limit is 45 mph or less unless the stop is a layover location or a timepoint where a bus may need to stop longer than necessary to board passengers. Bus pullouts cause delay for reentering traffic lanes and can be a source of collisions between buses and oncoming traffic.
Ridership	• Assess both existing and projected boardings and alightings, as well as the ridership profile at the stop • Low-ridership stops, particularly those near higher-ridership stops, may be considered for consolidation or removal

Ridership Factors	Considerations

Pedestrian Environment	• Connections and condition
	  ○ Sidewalks immediately at the stop and those providing access to the stop and surrounding area are an important consideration
	  ○ Look at pedestrian pathways (formal and informal), not just streets
	• Crossings
	  ○ Where bus stops are located near pedestrian crossings, the crossing should be marked and preferably located behind the stop, so that passengers are encouraged to cross behind the bus
	  ○ Ideally, crossings should be signalized, especially in high-traffic and high-speed environments. Intersections and at-grade driveway crossings should have ADA-compliant curb ramps
	  ○ At major transit generators, locate the stop near pedestrian access to the generator, preferably at the signal
	  ○ Stops should be paired, at same intersection when possible

Physically Accessible	• Slope (no more than 2% for level surface, 8% for ramps) • Construct 5'x8' concrete pad if necessary • Check for curb ramps at intersection and surrounding streets • Direct routes and comfortable, safe walking environment
Existing & Future Land Use	• Ensure compatibility with adjacent properties • Note sensitive land uses, including medical facilities, municipal buildings, senior housing, and major transit trip generators such as shopping malls, schools, and dense commercial or residential complexes; Stop locations may be adjusted or added to provide better access to passenger origins and destinations • Consider impacts on traffic

Stop Elements	• Bus stop signs should be placed 2.5 feet from the curb with informational signs flag-mounted away from the street
	• Shelters require:
	  ○ Five feet of pedestrian pass by, including clearance between poles, hydrants, and other obstacles
	  ○ ADA landing pad adjacent to sign and outside of shelter
	  ○ Clear pathway from the ADA waiting area inside the shelter to the ADA landing pad
	  ○ Clear pathway from the rear door landing area to the pedestrian path
	• Bench placement can be considered at any stop where accessibility is provided and placement does not compromise safety or accessibility
	  ○ Should not be placed closer than 3.5 feet from curb
	• Trash can placement must not infringe upon the APA pad or pathway

Existing Service	• Consideration should be given to maintaining and/or improving bus stops serving parallel or intersecting bus routes

Factors	Considerations
Public Notification, Review, & Input	• Before a stop is permanently added, letters should be sent to adjacent property owners and occupants warning them of the impeding change as soon as possible, preferably at least two weeks in advance • While jurisdictions often place stops in the public-right-of-way, property owner input prior to these changes is encouraged • Do not move existing stops for trash, noise, and/or nuisance; Instead, seek ways to address the problem directly

4. Location of Stops

The table above provides factors that need to be considered. The material below provides guidance on bus stop placement for determining bus stop locations. When determining bus stop locations, it is best to proceed as if the stops were being placed for the first time. For cases with existing stops, if the existing stop does not fit into this process there must be a very compelling reason to retain it (e.g., if significant investment has already been made at the stop, or if there is heavy use by riders who are elderly or disabled and a new location would clearly degrade service for those riders). Additionally, it is easier to locate accessible transit stops when there is high street connectivity and when streets and adjacent land activities are designed for pedestrians and transit users.

Preferred bus stop locations are determined in the following sequence:

- Transfer locations
    - New stops to facilitate transfers with other existing transit
- Designated crossings
    - Stops at signalized intersections with safe pedestrian crossings
- Other major stops/transit trip generators

As programs or requests for bus stop changes call for review of specific bus stops, the spacing criteria outlined above should be considered. Even key bus stops may require adjustment (e.g., near-side to far-side placement). Long-term user and operating benefits will be weighed against project costs and neighborhood/rider objections to proposed changes.

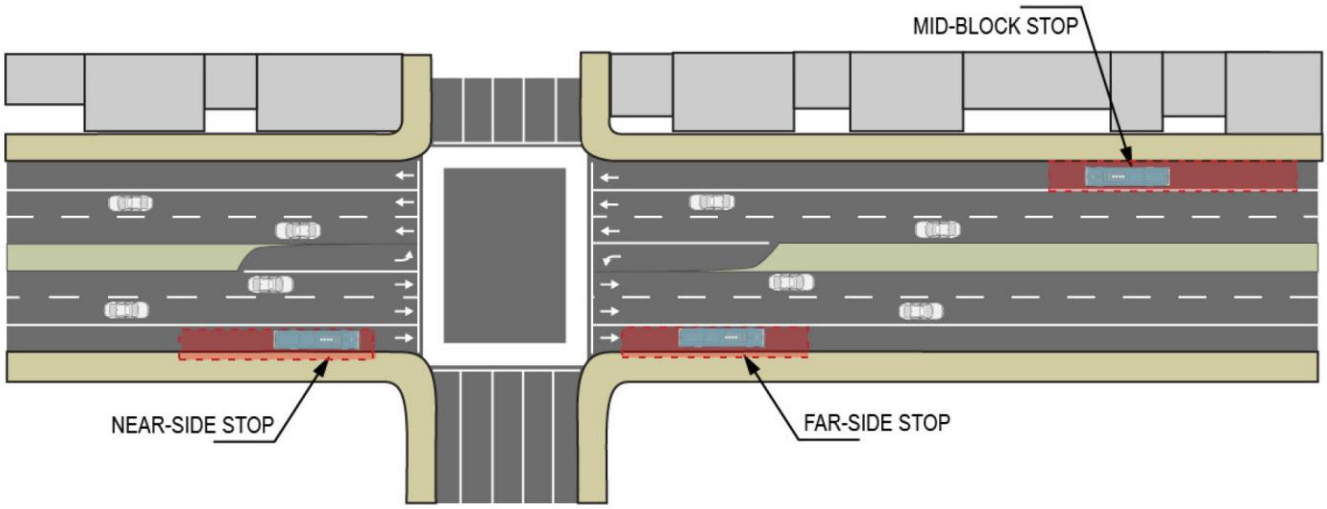
3.6 Placement of Stops

The most common location for transit service is on the side of the street, usually in mixed traffic lanes but sometimes in exclusive lanes. Side-of-street alignments permit the use of simple stops on the sidewalk and are generally less expensive to construct than center-of-street alignments. On one-way streets, side-of-street alignments are usually on the right side of the street to suit vehicle doors.

Determining the proper location of bus stops involves choosing between near-side, far-side and mid-block stops. Each of these stop locations have benefits and drawbacks, and the choice between these stop locations is affected by the existing conditions along a route such as roadway type and width, transit service characteristics, and land use.

Far-side bus stops are located after an intersection, allowing the bus to travel through the intersection before stopping to load and unload customers. Far-side bus stops support the use of a broad array of active transit signal priority treatments and take up the least amount of curbside space. Near-side bus stops are located before an intersection, allowing customers to load and unload while the vehicle is stopped at a red light or stop sign. Mid-block bus stops are located between intersections. **Figure 4** depicts these stop types.

Figure 4: Stop Placement



Source: AC Transit Multimodal Corridor Guidelines

Stops should be placed at locations:

- That are safe for passengers and vehicles,
- That may be easily accessed from the surrounding neighborhood, major transit trip generators, and/or intersecting transit services, and
- Where improvements in safety, convenience, and/or reduced trip times outweigh negative impacts

Preferred bus stop placement based on particular situations are listed in **Figure 5** below.

Figure 5: Stop Placement Preferences

Preferred Placement	Situation
Far-side	• Any signalized intersection • If bus turns at intersection • Intersection with many right turns • Complex intersections with multi-phase signals or dual turn lanes
Near-side	• If nearside curb extension prevents autos from trying to turn right in front of bus
Starting near-side, alternate sides to maximize advantage from timed signals	• If two or more consecutive stops have signals

Preferred Placement	Situation
One near-side, one far-side to eliminate crossing required to transfer	• If obvious, heavy single-direction transfer activity
Mid-block	• If blocks are too long to have all stops at intersections • Major transit trip generators not served by stops at intersections • Mid-block pedestrian-crossing defined by refuge island and/or striping
Off-street	• Transit center • Major transit generator that cannot be served by on-street stop, or where ridership gain will far outweigh inconvenience to passengers already onboard

Source: TriMet Bus Stop Guidelines

3.7 Intersection Stops

Stops located at the ends of a block (i.e., near-side or far-side) are intersection stops. Benefits of intersection stops include reduced walking distances between origins, destinations, and stops; safer, legal street crossings since most crosswalks are at intersections; and accessibility to curb ramps and other accessibility features.

3.7.1 Far-side Stops

Far-side intersection stops are generally preferred because they reduce conflicts between right-turning vehicles and stopped buses, eliminate sight-distance deficiencies on approaches to an intersection, and encourage pedestrian crossing at the rear of the bus. Additionally, far-side stops are integral to implementation of transit signal priority. Far-side stops also allow passengers to cross the street from multiple directions to access the bus boarding area, due to its location on the corner of the intersection.

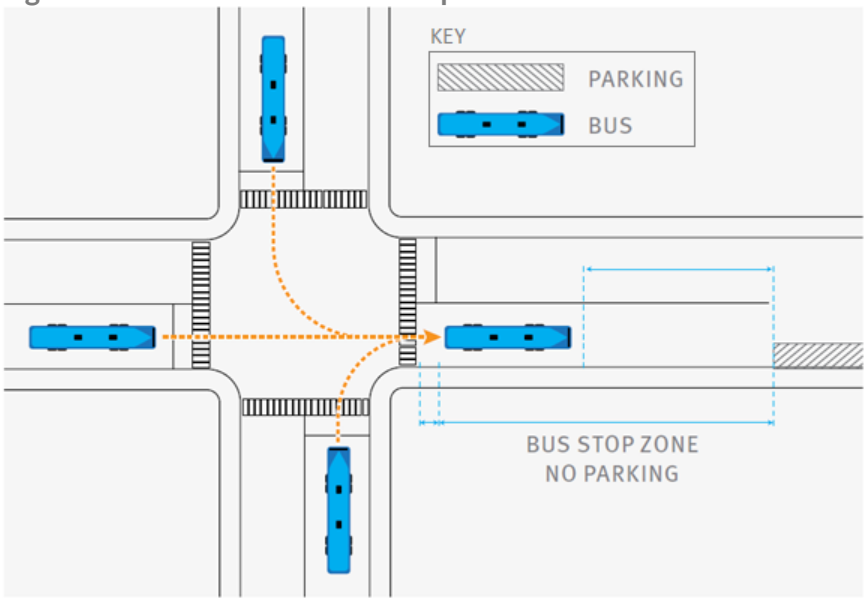
Figure 6 lists the pros and cons of far-side stops, while **Figure 7** illustrates them.

Figure 6: Far-side Pros & Cons

	Far-side Pros	Far-side Cons
Safety	• Customers cross behind bus, resulting in fewer bus and pedestrian conflicts • Better pedestrian and auto sight distances • Creates gaps to reenter traffic • Bus clears right turn lanes for traffic and other transit vehicles	• Drivers may not expect buses to stop immediately after intersections
Travel Time	• Enhances benefits of signal priority	• Queueing buses may block intersections
Customer Experience	• Under correct timing customers pass through intersections before stopping	• Can result in stopping twice, at light and at bus stop
Reliability	• Greater bus maneuvering area • Allows buses to travel through an intersection before stopping • Signals provide time for buses to reenter traffic • Shorter bus zones as buses use the intersection as part of approach	

Source: TriMet Bus Stop Guidelines

Figure 7: Far-side Intersection Stops



Source: TransLink Transit Priority Toolkit

3.7.2 Near-side Stops

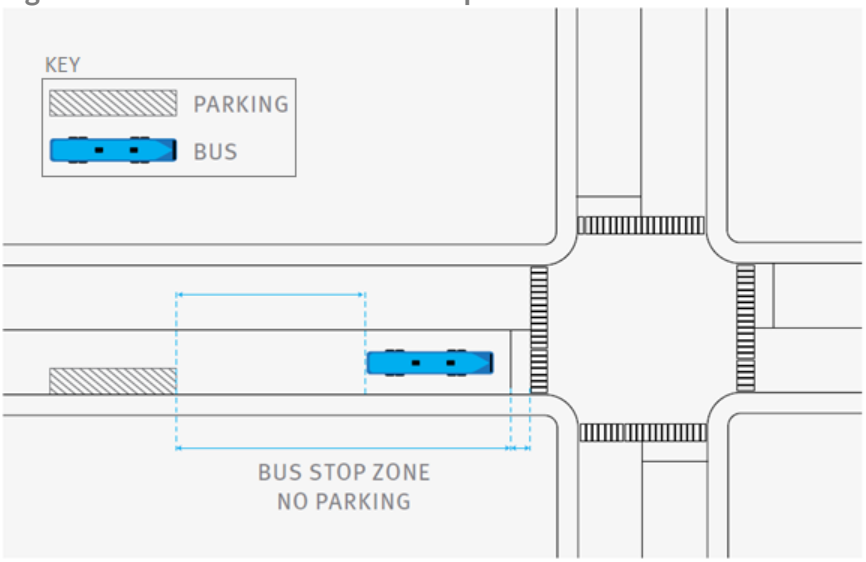
Near-side stops are acceptable when a far-side stop is deemed unsafe or impractical. They may also be used when a stop serves multiple routes that go in different directions after the downstream intersection. Like far-side stops, the stop's location allows passengers multiple crossing locations to access the bus boarding area, due to the location on the intersection corner. **Figure 8** lists the pros and cons of near-side stops, while **Figure 9** provides an example.

Figure 8: Near-side Pros & Cons

	Near-side Pros	Near-side Cons
Safety	• Allows driver to look for oncoming traffic including other buses for transfers	• Customers cross in front of bus • Conflicts with right-turning vehicles
Travel Time	• Can be used as queue jump lanes • Customers can board when vehicle is stopped at light	• Potentially longer dwell times • Not as effective for Transit Signal Priority
Customer Experience	• Customers can load/unload when vehicle is stopped at light or stop sign	

Source: TriMet Bus Stop Guidelines

Figure 9: Near-side Intersection Stops



Source: TransLink Transit Priority Toolkit

3.8 Mid-block Stops

Mid-block bus stops are generally less desirable than stops at intersections, however they must be considered when suitable near-side and far-side options are unavailable. This stop location generally has poor access due to the lack of formal street crossings near the stop, sometimes inducing passengers to reach the bus boarding area by crossing at undesignated locations. See

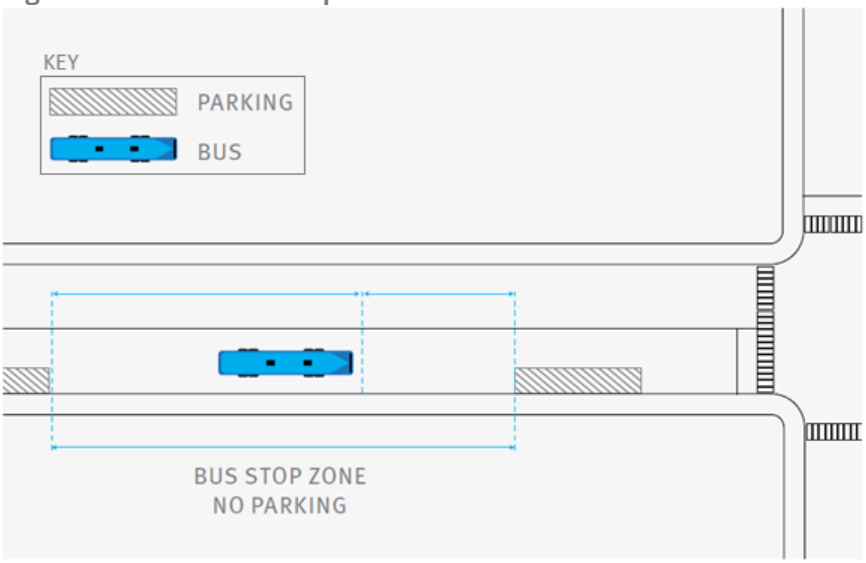
Figure 10 for a list of pros and cons, and **Figure 11** for a depiction of a mid-block stop.

Figure 10: Mid-block Pros & Cons

	Mid-block Pros	Mid-block Cons
Travel Time	• Useful where buses must make left turns at an intersection	• Buses may have to merge to reenter traffic
Customer Experience	• Less customer congestion • Could potentially decrease walking distance to points of interest for long blocks with mid-block crosswalks	• Increases walking distance to intersections
Safety	• Useful where traffic conditions would create safety issues at intersections • Reduces sight distance problems	• Encourages jaywalking • Requires a mid-block pedestrian crossing

Source: TriMet Bus Stop Guidelines

Figure 11: Mid-block Stops

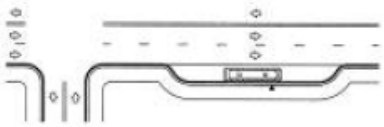
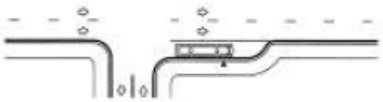
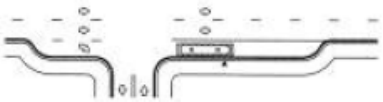
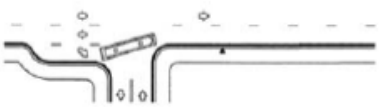


Source: TransLink Transit Priority Toolkit

3.9 Street Alignment

Aside from block location, it is also important to consider stop location in regard to alignment with the street. The minimum stop requirements for curb-side stops are shown in the designs below. However, the design of individual stops may be modified due to complementary treatments such as a curb-side dedicated lane or a boarding island/bulb out. **Figure 12** provides advantages, disadvantages, and suitability for the different types of side of street stops.

Figure 12: Side of Street Suitability

Type	Advantages	Disadvantages	Suitability
Side of street: Curbside stop  *Diagram: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Provides easy access for bus drivers and minimal delay for bus; simple in design, easy to install and relocate.	Traffic can back up behind the bus; auto drivers may make unsafe movements to avoid being caught behind the bus; no parking zone will require loss of on-street parking.	Most common type of stop.
Side of street: Nub  *Diagram: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Removes fewer parking spaces; improves pedestrian movements at the intersections; provides additional sidewalk area for pedestrians; results in minimal delay for the bus.	For existing development, there would be some construction cost; traffic can back up behind the bus; auto drivers may make unsafe movements to avoid being caught behind the bus.	Use when there is adequate space in the right-of-way and sidewalk can be altered; nub design also works well for pedestrian crossings at the corner.
Side of street: Bus bay with acceleration and deceleration lane  *Diagram: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Passengers get on and off the bus away from the travel lane; minimizes delay to through traffic,	Bus drivers may have problems merging back into traffic, causing delay to bus and potential for accidents; for existing development, there would be some construction cost; alters the street and sidewalk.	Use when there is no on-street parking; there is a high volume of traffic; street traffic speeds are 40 mph; traffic exceeds 250 vehicles during the peak hour; bus needs layover time at end of route.
Side of street: Open bus bay  *Diagram: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Has same advantages as bus bay, plus allows bus to decelerate as it moves through the intersection.	Bus drivers may have problems merging back into traffic, causing delay to bus and potential for accidents; for existing development, there would be some construction cost; alters the street and sidewalk.	Use when there is no on-street parking; there is a high volume of traffic; street traffic speeds are 40 mph; traffic exceeds 250 vehicles during the peak hour; bus needs layover time at end of route.
Side of street: Queue jumper bus bay  *Diagram: TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Has same advantages of bus bay and open bus bay, plus allows bus to bypass traffic queues at a signal, improving bus speed and reliability.	May cause delays to right-turning vehicles; for existing development, there would be some construction cost; alters the street and sidewalk.	Use when right-turn-only lane provides best alternative for bus stop at intersection; there is no on-street parking; there is a high volume of traffic; traffic exceeds 250 vehicles during the peak hour.
Side of street: Bus stop in right-turn-only lane with queue jumper (no bay)  *Diagram: Modified from TCRP Report 19, Guidelines for the Location and Design of Bus Stops, 1996*	Provides easy access for bus drivers and minimal delay for bus; allows bus to stop close to intersection to minimize walk to connecting bus stops; can give priority to buses in congested areas; does not block through travel lanes.	May cause delays to right-turning vehicles; for existing development, there would be some construction cost; alters the street and sidewalk.	Use when right-turn-only lane provides best alternative for bus stop at intersection; there is no on-street parking; there is a high volume of traffic; traffic exceeds 250 vehicles during the peak hour.

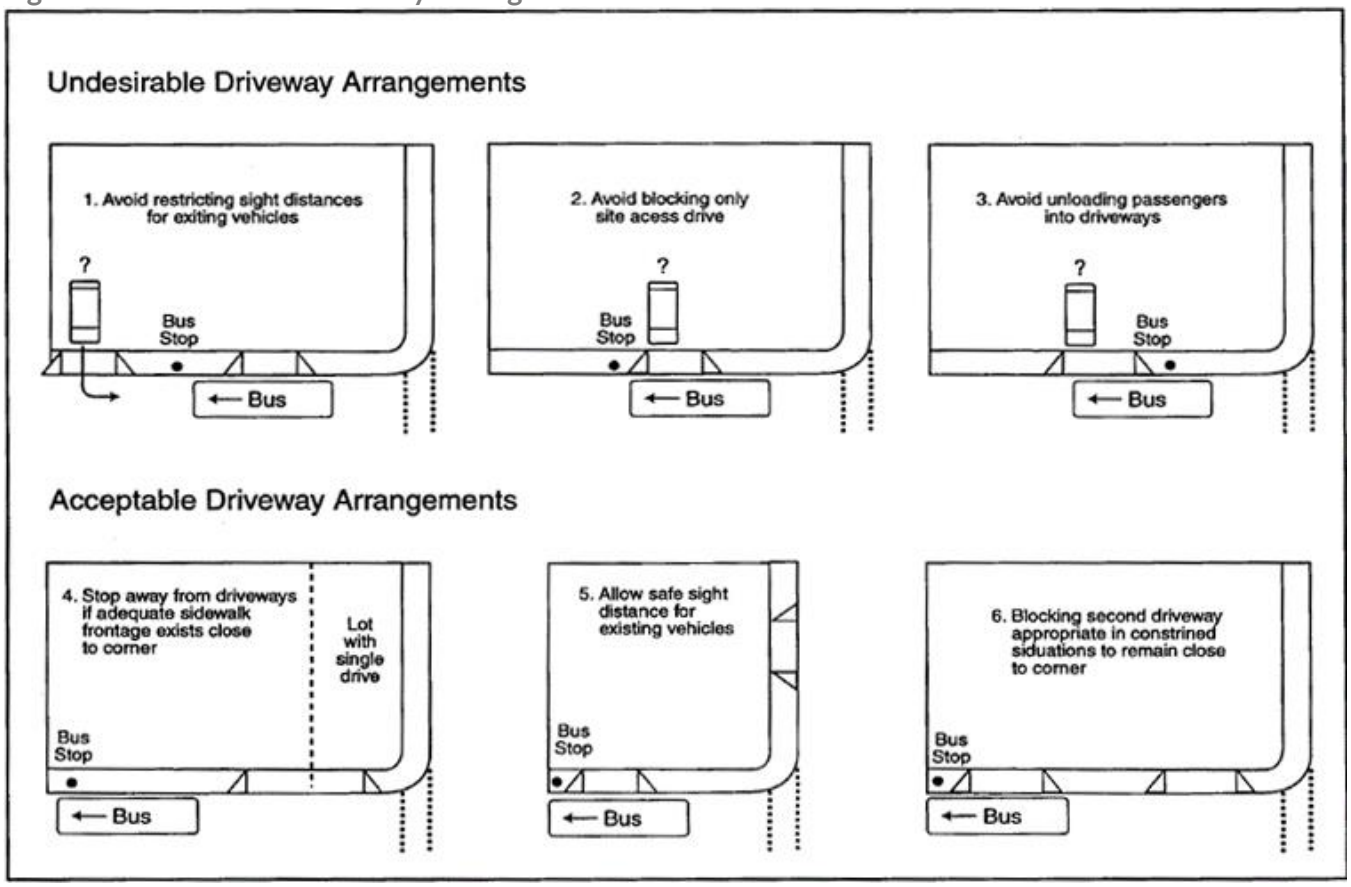
Source: APTA Design of On-street Transit Stops and Access from Surrounding Areas 2023

3.10 Driveways

Placement of bus stops in relation to driveways should also be considered. It is encouraged to observe the following guidelines outlined in **Figure 13** below:

1. Avoid restricting sight distances for exiting vehicles
2. Avoid blocking a site's only driveway access
3. Avoid unloading passengers into driveways
4. Stop away from driveways if adequate sidewalk frontage exists close to street corner
5. Allow for safe sight distance for existing vehicles
6. Blocking a second driveway can be appropriate in constrained situations in order to remain close to street corner

Figure 13: Undesirable Driveway Arrangements



Source: TriMet Bus Stop Guidelines

5. ADA Accessibility

All new stop locations need to be ADA accessible. The critical path of travel for passengers at a bus stop is the connection between the landing area and the sidewalk and bus shelters. The ADA requires that there be an accessible route between these points. Sidewalks and bus shelters shall be connected to the landing area by an accessible route. This requirement means that a clear, unobstructed, ADA-compliant path of travel must be provided. A 4-foot wide path is recommended, although the ADA requires a minimum 3-foot wide path, which can be used in extenuating circumstances.

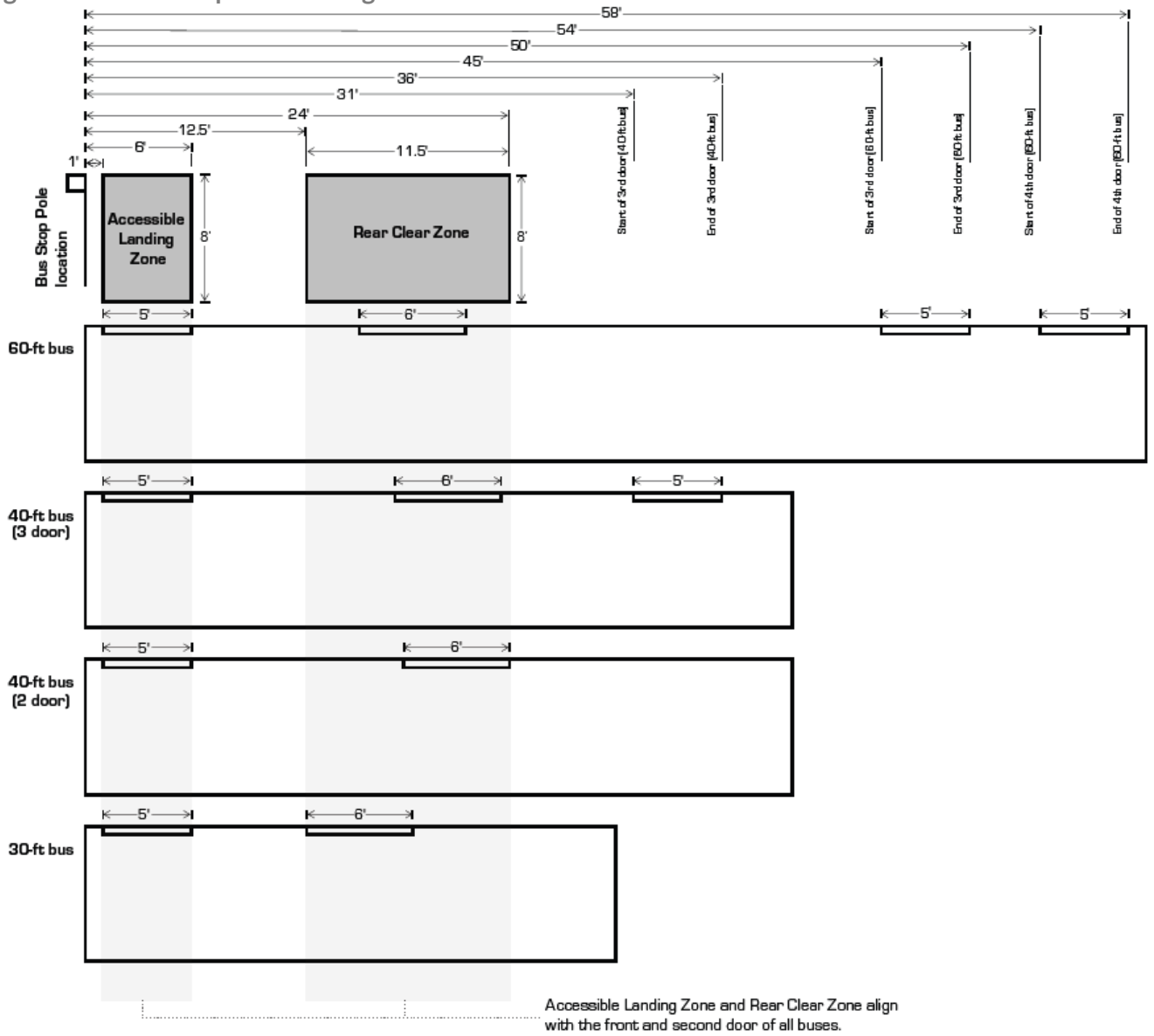
The ADA requires bus stop boarding and alighting areas at the front door landing area, and an accessible route between the landing area, sidewalk, and bus shelters. A clear zone at the first rear door is also encouraged.

If there is a variety of fleet types (e.g., bus lengths, number of doors), landing areas and clear zones should be laid out to accommodate the bus fleet in operation. Landing areas and clear zones should be free of driveways, curb ramps, and obstructions such as utility poles, hydrants, and other street furniture. It is recommended to design all stops with two door landing areas to accommodate the first two doors of all vehicles, regardless of vehicle length or model.

For the first door landing area, ADA guidelines require that a minimum width of 5 feet along the curb, and a minimum depth of 8 feet perpendicular to the curb, be provided at the landing area. The location of the landing area is primarily dependent on the siting of the stop relative to the intersection, and secondarily, on the availability of sidewalk space to accommodate an ADA-compliant landing area. The first door landing area should begin one foot behind the bus stop pole.

See Figure 1**Figure 14** for an example of ADA compliant landing areas.

Figure 14: ADA Compliant Landing Areas



Source: AC Transit Multimodal Corridor Guidelines

6. Conclusion

This Guide provides direction on the spacing of bus stops and guidance on dealing with the many factors that impact the exact location of each bus stop. The guide should be used for whenever a new stop is needed due to new or changed route alignments or in response to requests for new stops. It should also inform an audit of existing bus stops bus stops that should take place as resources allow and inform corridor studies.

Appendix A. References

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Appendix B. Average Stop Spacing

The following table of inventoried routes includes total mileage, average distance between stops, and average number of stops per mile.

Route	Direction	Pattern	Total Mileage (mi)	Average Distance Between Stops (mi)	Average Number of Stops per Mile
1	SOUTH	SB2	5.27	0.18	5.50
	NORTH	NB2	4.89	0.16	6.13
4	LOOP	LP3	2.22	0.13	7.66
		LP1	1.97	0.13	7.61
		LP2	2.20	0.13	7.73
5	SOUTH	SB1	1.60	0.15	6.88
	NORTH	NB1	1.52	0.14	7.24
6	EAST	EB1	7.81	0.23	4.35
	WEST	WB1	7.74	0.21	4.78
		LP3	1.16	0.29	3.45
7	LOOP	LP1	4.83	0.22	4.55
9	SOUTH	SB1	4.82	0.18	5.60
	NORTH	NB1	4.90	0.19	5.31
10	EAST	EB3	2.78	0.14	7.19
		EB1	5.11	0.16	6.07
	WEST	WB3	3.60	0.15	6.67
		WB1	3.78	0.16	6.08
11	EAST	EB1	4.23	0.16	6.15
	WEST	WB1	4.07	0.16	6.14
14	SOUTH	SB1	5.07	0.17	5.92
	NORTH	NB1	5.04	0.18	5.56
15	EAST	LP1	1.61	0.23	4.35
		EB2	6.32	0.18	5.54
	WEST	WB2	5.97	0.16	6.20
16	NORTH	NB1	7.09	0.17	5.78

Route	Direction	Pattern	Total Mileage (mi)	Average Distance Between Stops (mi)	Average Number of Stops per Mile
	SOUTH	SB1	6.71	0.16	6.26
17	NORTH	NB1	2.99	0.15	6.69
	SOUTH	SB1	3.43	0.16	6.12
18	SOUTH	SB1	9.18	0.16	6.10
	NORTH	NB1	9.21	0.15	6.62
19	SOUTH	SB1	5.44	0.25	4.04
	NORTH	NB1	5.47	0.25	4.02
20	EAST	EB1	2.14	0.21	4.67
	WEST	WB1	2.06	0.21	4.85
21	SOUTH	SB1	7.97	0.17	5.77
	NORTH	NB1	7.87	0.18	5.72
28	SOUTH	SB1	7.49	0.20	5.07
	NORTH	NB1	7.96	0.22	4.52
35	SOUTH	SB2	6.03	0.32	3.15
		SB1	7.44	0.34	2.96
		LP3	3.86	0.21	4.66
	NORTH	NB2	6.06	0.34	2.97
		NB1	7.46	0.34	2.95
91X	EAST	EB1	3.28	0.22	4.57
92X	SOUTH	SB2	1.47	0.37	2.72
		SB1	3.19	0.21	4.70
	NORTH	NB2	1.46	0.49	2.05
		NB1	3.26	0.27	3.68
93X	EAST	EB1	5.66	0.20	4.95
	WEST	WB1	5.29	0.21	4.73
95X	LOOP	LP2	2.03	0.20	4.93
		LP1	2.03	0.20	4.93
96X	LOOP	LP1	1.30	0.65	1.54
		LP2	1.32	0.66	1.52

Route	Direction	Pattern	Total Mileage (mi)	Average Distance Between Stops (mi)	Average Number of Stops per Mile
		LP3	1.31	0.66	1.53
97X	LOOP	LP1	1.40	0.47	2.14
98X	SOUTH	SB1	3.41	0.19	5.28
	NORTH	NB1	3.34	0.18	5.69
99X	WEST	WB2	6.23	0.48	2.09
		WB1	3.60	0.51	1.94
	EAST	EB3	1.36	0.34	2.94
		EB2	4.84	0.35	2.89
		EB1	3.61	0.40	2.49

County Connection

INTER OFFICE MEMO

To: Operations and Scheduling Committee **Date:** 01/30/2024

From: John Sanderson, Director of ADA and Specialized Services **Reviewed by**:

SUBJECT: Travel Training Program – Countywide Pilot Expansion

Background:

Among the recommended strategies for addressing "gaps" in available public transit service identified in the Contra Costa Transportation Authority's (CCTA) Accessible Transportation Strategic Plan (ATSP) was *Strategy 14: Travel Training (including inter-operator trips)* to help riders with disabilities learn to use accessible community transportation options beyond just Americans with Disabilities Act (ADA) paratransit to meet their travel needs.

County Connection already has a well-established travel training program for Central County, provided under a contract with Independent Living Resources of Solano and Contra Costa (ILRSCC). In addition, the Western Contra Costa Transportation Advisory Committee (WCCTAC) has recently completed a successful travel training pilot in West County. There is currently no public travel training program in East County.

Project Update:

The Countywide Travel Training pilot plan will incorporate both the County Connection and WCCTAC travel training programs, as well as a new travel training program to be implemented in East County, under a single administrative structure for a one-year pilot term. Anticipated benefits include some reduction in per-trainee administrative costs from slightly increased economies of scale, as well as a substantial public benefit in the form of increased relevance, usefulness, and flexibility of the travel training options available to meet the needs of the community.

Under the new Countywide Travel Training pilot program, trainees will not be limited to their home agency's service area. Instead, travel trainers and trainees will be able to access the full range of public transit options throughout Contra Costa County, including trips that involve more than one operator. For example, a trip from Antioch to Concord, using Tri Delta, BART, and County Connection, is not currently within the scope of any travel training program, but would be under the new countywide pilot.

With lessons learned from the existing County Connection program and the WCCTAC pilot, as well as input from our partner agencies, existing programs will operate effectively as one, under a common umbrella. Staff anticipates that additional lessons will be learned over the course of the pilot term, which can then be leveraged to either transition the pilot to a permanent program or inform future efforts.

Financial Implications:

The Countywide Travel Training pilot program is fully funded through a combination of Measure J and Measure X grants and would be cost-neutral to County Connection. The West County satellite is fully supported by Measure J funds, the Central County program will also continue to operate using Measure J funds (in the form of a grant from TRANSPAC), and Measure X funds will be used to support the startup and operation of the East County satellite.

Recommendation:

Given the identification of countywide travel training as a priority initiative under the ATSP, the likely benefit to the community, and the availability of outside funding to cover the cost of the pilot program, staff recommends the implementation of countywide travel training pilot program.

Action Requested:

Staff respectfully requests that the Operations & Scheduling Committee forward to the Board of Directors a recommendation that approval be granted for the General Manager to enter into an MOU with CCTA allowing for the reimbursement of County Connection's costs associated with operating the Countywide Travel Training pilot program.

Attachments:

None

County Connection

INTER OFFICE MEMO

To: Operations & Scheduling Committee **Date:** 1/18/2024

From: Pranjal Dixit, Manager of Planning **Reviewed by:** MR

SUBJECT: Fixed Route Operating Reports for December 2023

The following represent the numbers that are most important to staff in evaluating the performance of the fixed route system:

	FY23-24		Annual Goal*
	Current Month	YTD Avg	
Total Passengers	193,243	215,155	
Average Weekday	8,396	9,140	
Pass/Rev Hour	12.7	13.8	Standard Goal > 17.0
Missed Trips	0.35%	0.32%	Standard Goal < 0.25%
Miles between Road Calls	47,189	41,129	Standard Goal > 18,000

** Based on current standards from updated SRTP*

Analysis

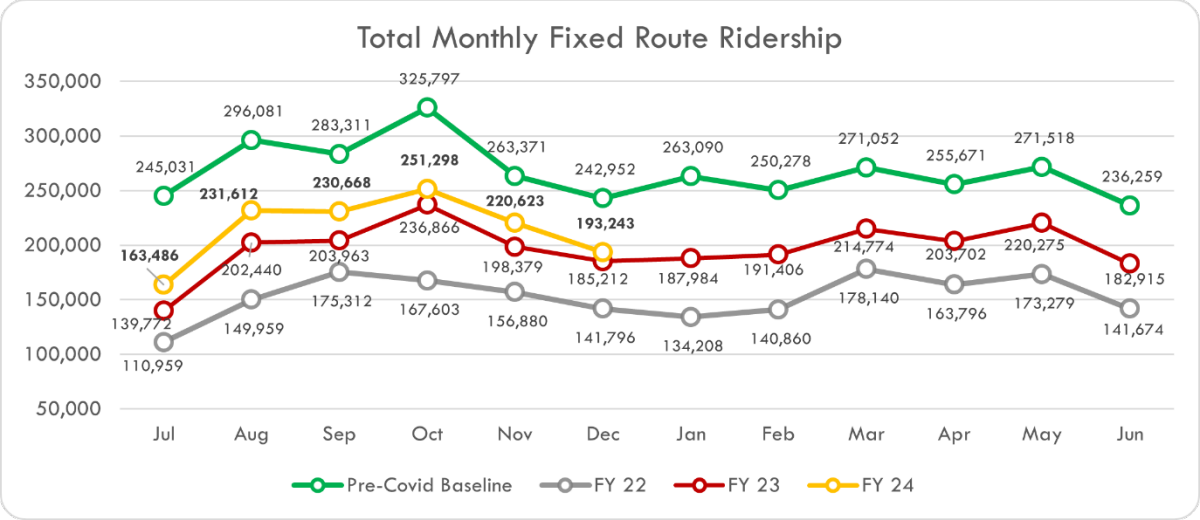
Average weekday ridership was lower in December 2023 (8,396 passengers) than the previous month of November 2023 (9,513 passengers) and is 4.7% higher than December 2022 (8,019 passengers).

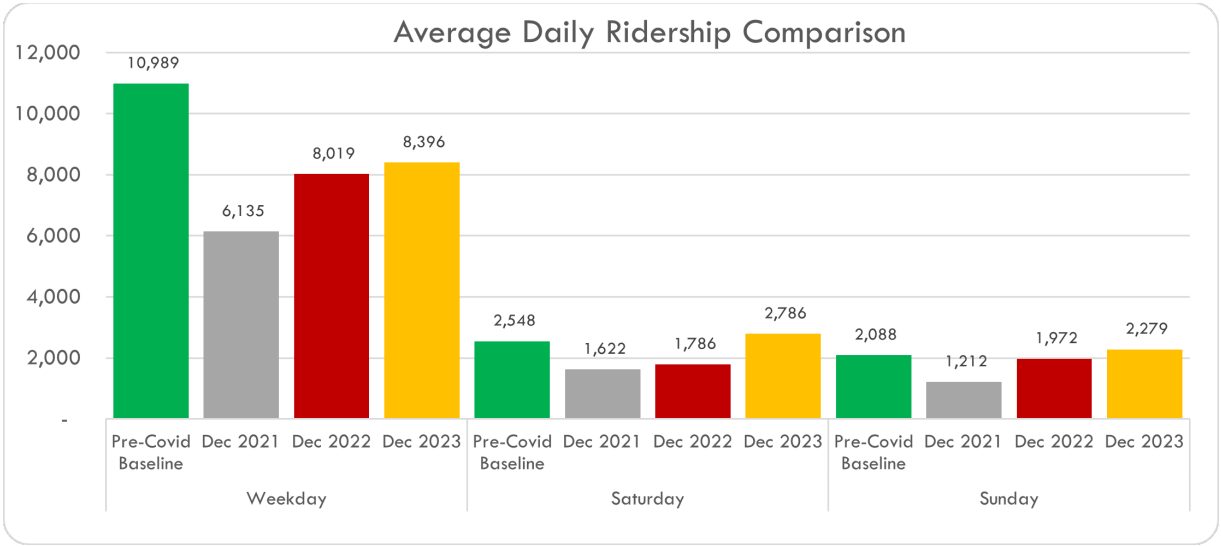
Passengers per hour in December was 12.7, which is lower than November 2023 and higher than December 2022 when passengers per hour was 11.9.

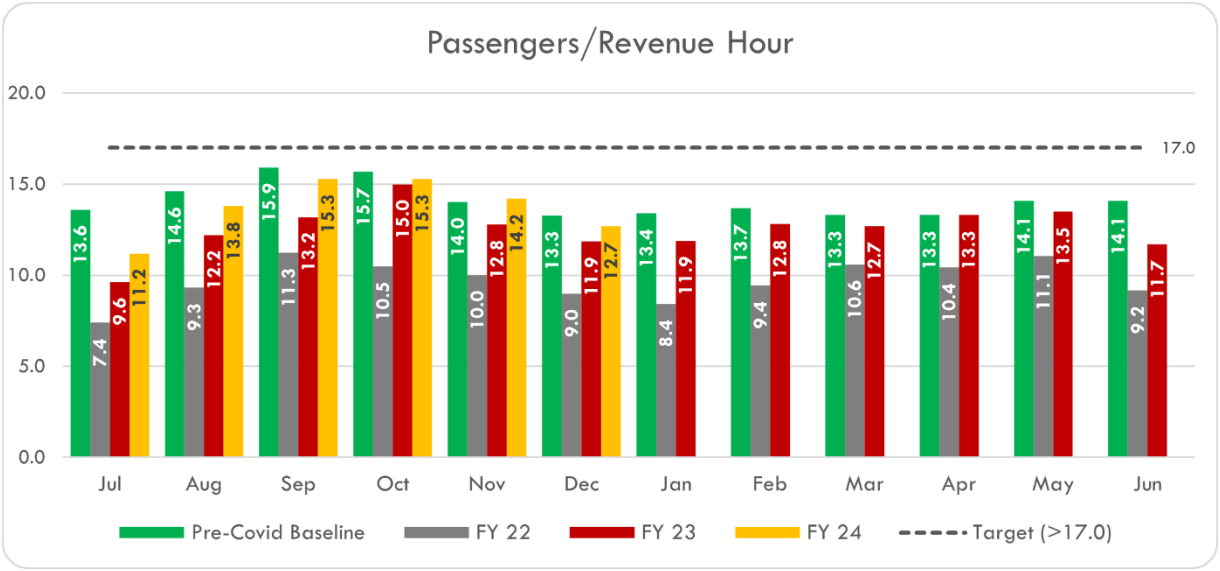
The percentage of missed trips in December was 0.35%, which is higher than the prior month when it was 0.32%.

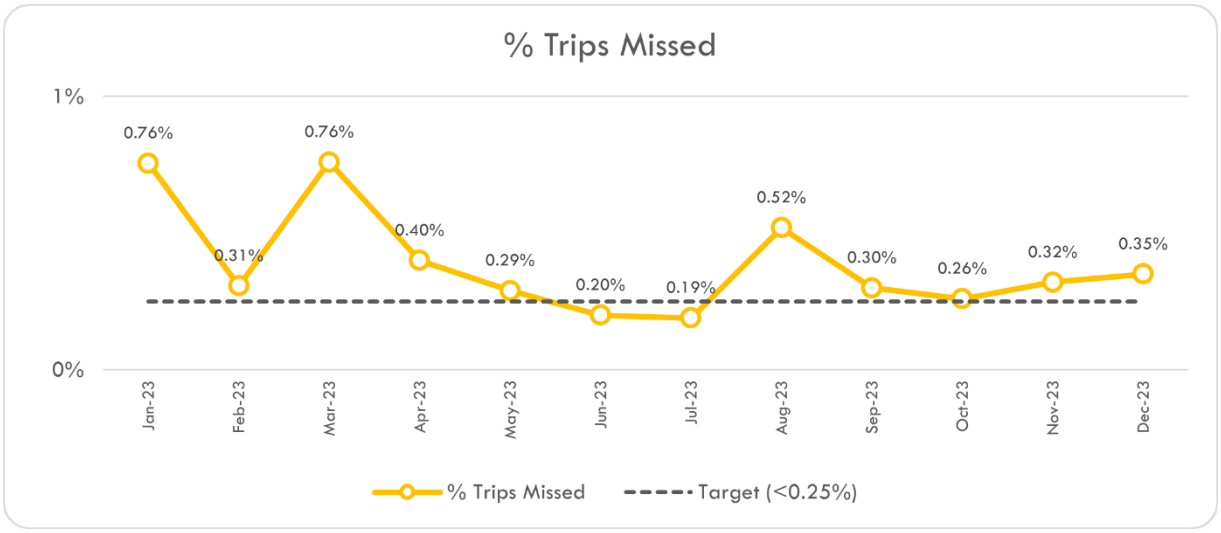
The number of miles between roadcalls was 47,189 miles in December, lower than the prior month in which there were 57,403 miles between roadcalls. The rolling 12-month average is 37,653 miles between roadcalls.

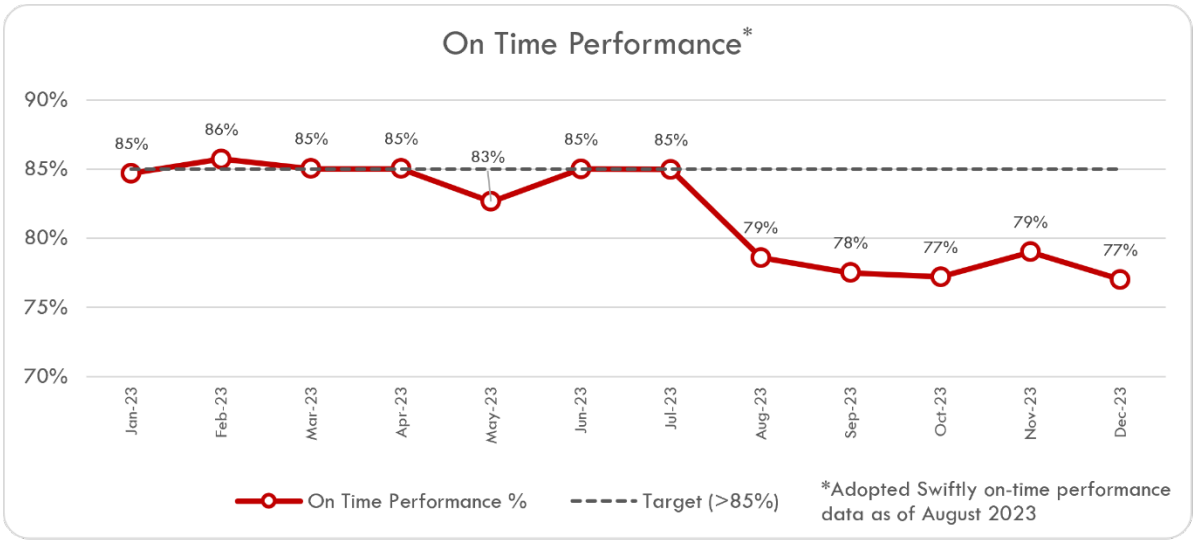
Of a total 193,243 passengers, 103,726 passengers had the potential to use a Clipper card aboard County Connection since 89,516 either used an employer or school pass or were on a free route. About 79.6% of the 103,726 potential Clipper card users paid using Clipper during this month.

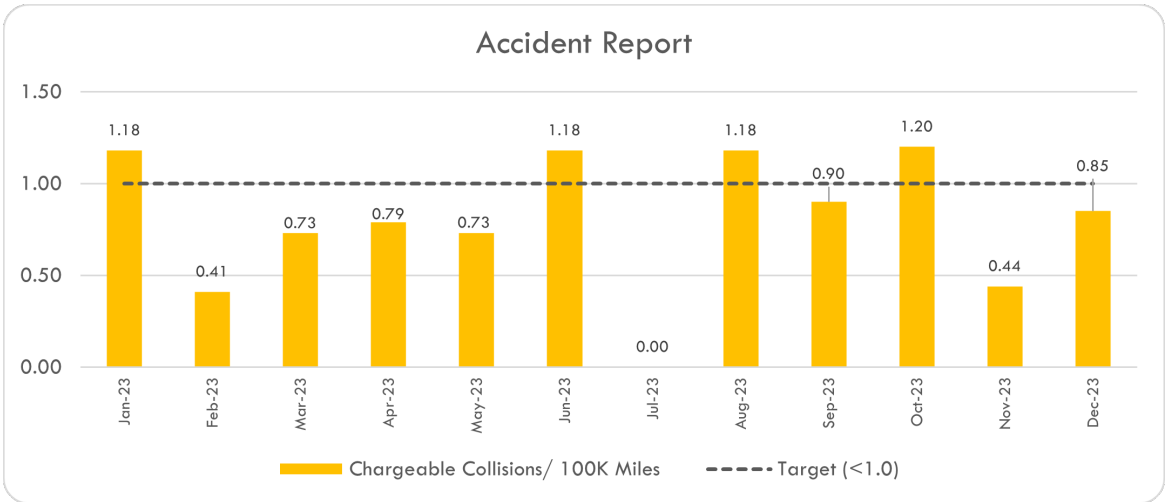

Total Monthly Fixed Route Ridership
350,000
300,000
250,000
200,000
150,000
100,000
50,000
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
245,031
296,081
283,311
325,797
263,371
242,952
263,090
250,278
271,052
255,671
271,518
236,259
231,612
230,668
251,298
220,623
193,243
163,486
202,440
203,963
236,866
198,379
185,212
187,984
191,406
214,774
203,702
220,275
182,915
139,772
149,959
175,312
167,603
156,880
141,796
134,208
140,860
178,140
163,796
173,279
141,674
110,959
Pre-Covid Baseline
FY 22
FY 23
FY 24

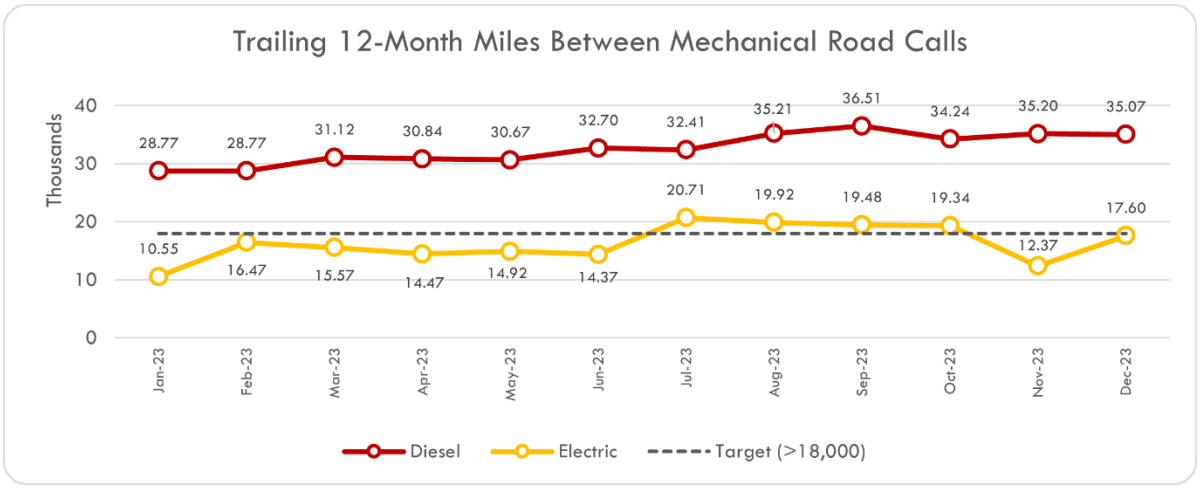

Average Daily Ridership Comparison
12,000
10,000
8,000
6,000
4,000
2,000
-
10,989
6,135
8,019
8,396
2,548
1,622
1,786
2,786
2,088
1,212
1,972
2,279
Pre-Covid Baseline
Dec 2021
Dec 2022
Dec 2023
Weekday
Saturday
Sunday

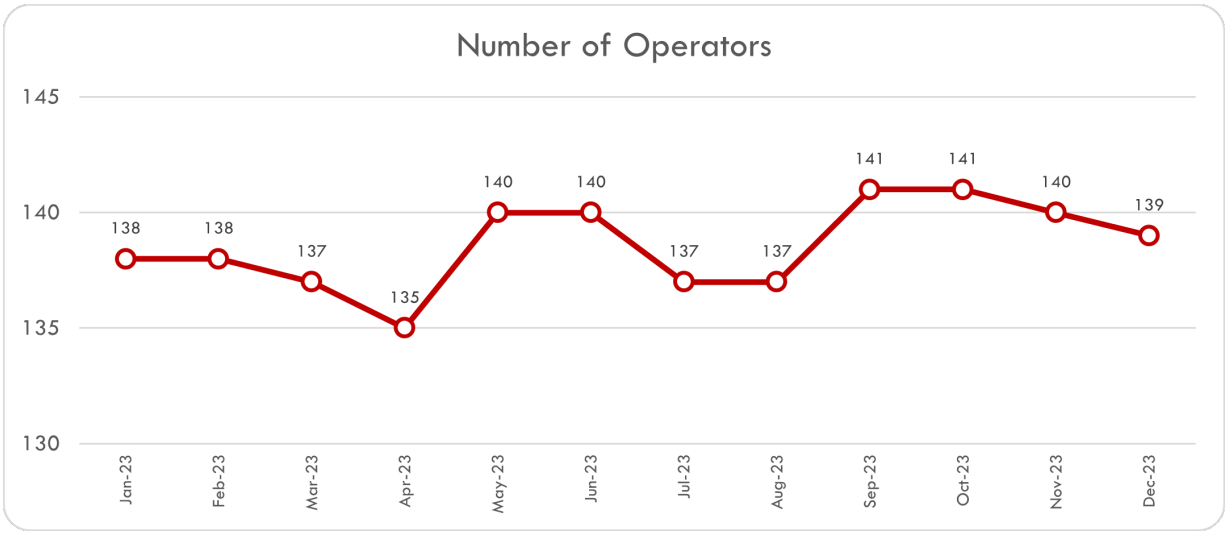

Passengers/Revenue Hour
20.0
15.0
10.0
5.0
0.0
17.0
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
13.6
7.4
9.6
11.2
14.6
9.3
12.2
13.8
15.9
11.3
13.2
15.3
15.7
10.5
15.0
15.3
14.0
10.0
12.8
14.2
13.3
9.0
11.9
12.7
13.4
8.4
11.9
13.7
9.4
12.8
13.3
10.6
12.7
13.3
10.4
13.3
14.1
11.1
13.5
14.1
9.2
11.7
Pre-Covid Baseline
FY 22
FY 23
FY 24
Target (>17.0)

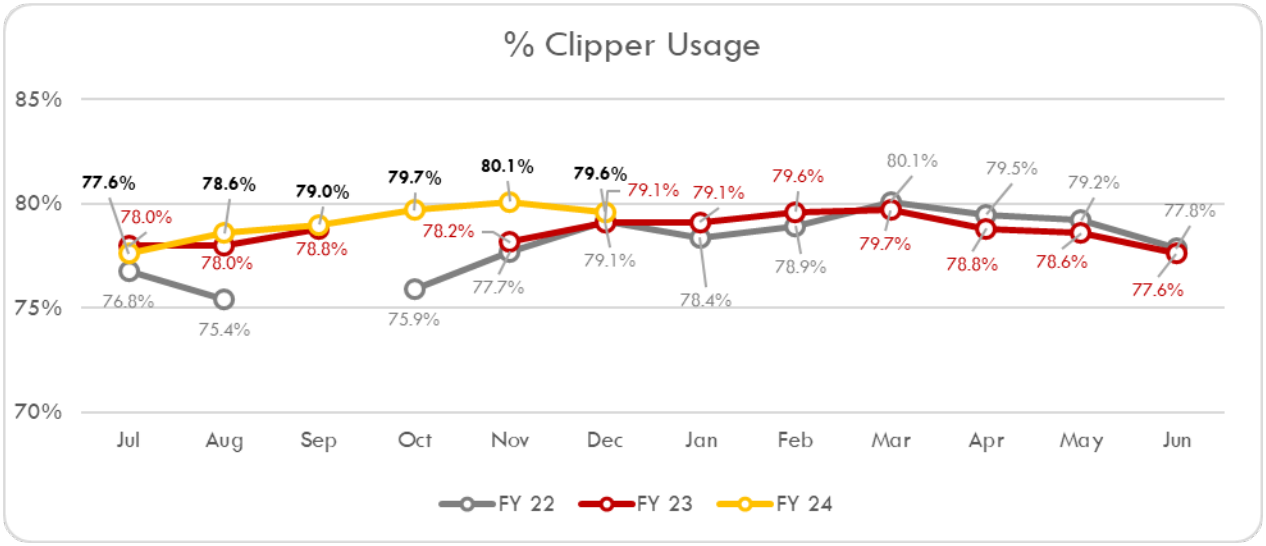

% Trips Missed
1%
0%
0.76%
0.31%
0.76%
0.40%
0.29%
0.20%
0.19%
0.52%
0.30%
0.26%
0.32%
0.35%
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
% Trips Missed
Target (<0.25%)


On Time Performance*
90%
85%
80%
75%
70%
85%
86%
85%
85%
83%
85%
85%
79%
78%
77%
79%
77%
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
On Time Performance %
Target (>85%)
*Adopted Swiftly on-time performance data as of August 2023


Accident Report
1.50
1.00
0.50
0.00
1.18
0.41
0.73
0.79
0.73
1.18
0.00
1.18
0.90
1.20
0.44
0.85
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Chargeable Collisions/ 100K Miles
Target (<1.0)


Trailing 12-Month Miles Between Mechanical Road Calls
Thousands
40
30
20
10
0
28.77
28.77
31.12
30.84
30.67
32.70
32.41
35.21
36.51
34.24
35.20
35.07
10.55
16.47
15.57
14.47
14.92
14.37
20.71
19.92
19.48
19.34
12.37
17.60
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23
Diesel
Electric
Target (>18,000)


Number of Operators
145
140
135
130
138
138
137
135
140
140
137
137
141
141
140
139
Jan-23
Feb-23
Mar-23
Apr-23
May-23
Jun-23
Jul-23
Aug-23
Sep-23
Oct-23
Nov-23
Dec-23


% Clipper Usage
85%
80%
75%
70%
77.6%
78.0%
76.8%
78.6%
78.0%
75.4%
79.0%
78.8%
79.7%
78.2%
75.9%
80.1%
77.7%
79.6%
79.1%
79.1%
78.4%
79.1%
79.6%
78.9%
80.1%
79.7%
79.5%
78.8%
79.2%
78.6%
77.8%
77.6%
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
FY 22
FY 23
FY 24

County Connection

INTER OFFICE MEMO

To: Operations & Scheduling Committee **Date:** 01/22/2023

From: Rosa Noya, Manager of Accessible Services **Reviewed by:** JS

SUBJECT: LINK Paratransit Executive Summary Report - December 2023

Background:

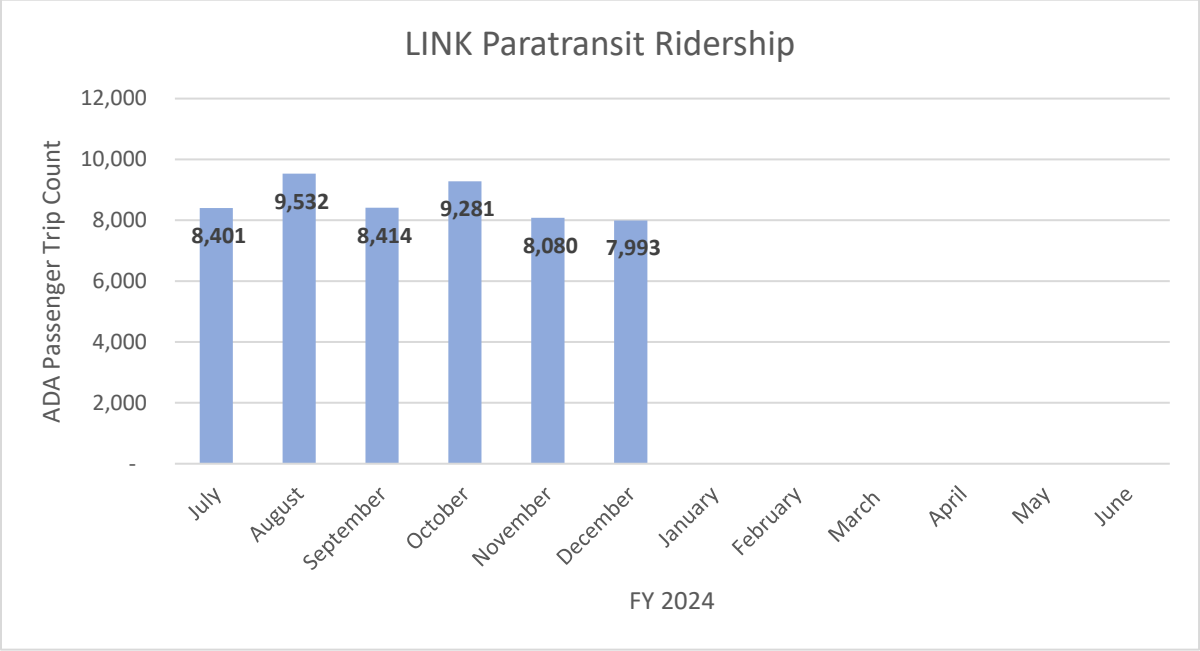
County Connection provides Americans with Disabilities Act (ADA) Paratransit services through the LINK Paratransit program. This is a summary report of LINK Paratransit services provided for the month of December 2023.

December 2023 Performance Report:

Ridership:

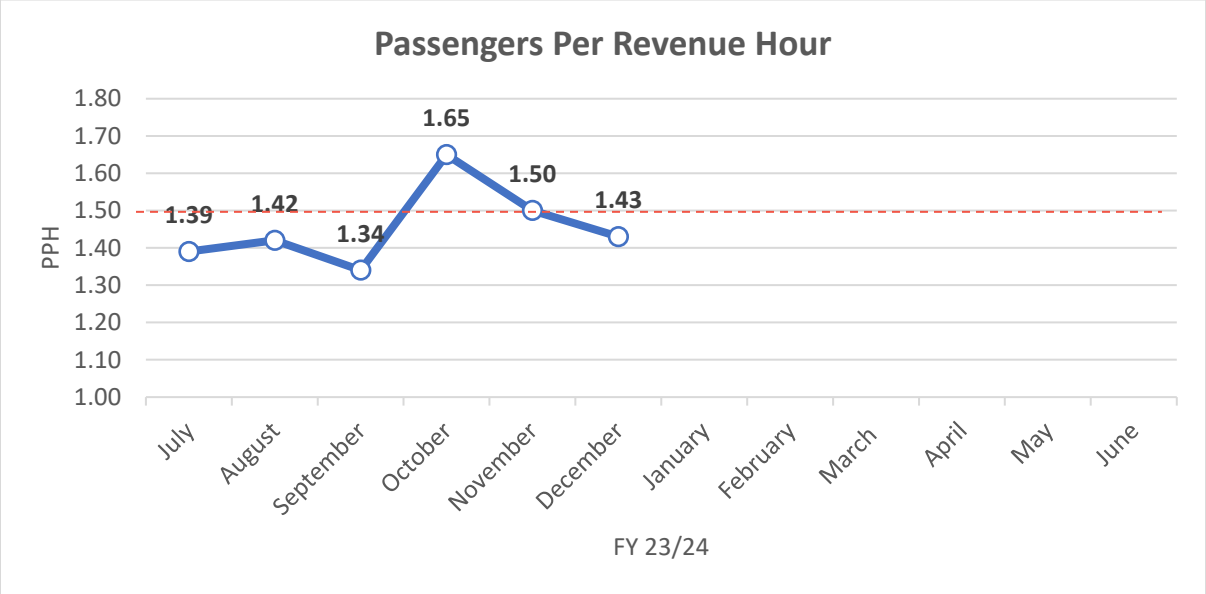
In December, there were 7,993 ADA passenger trips, showing a decrease from the 8,080 trips reported in November. This decline can be primarily attributed to the significant holiday season in December, during which several facilities frequently visited by LINK riders closed for the holidays, along with other facilities shutting down for winter break.

It's worth noting that the total reported number of ADA passengers in December 2023 represents approximately 77% of pre-pandemic ridership levels observed in December 2019.



Productivity:

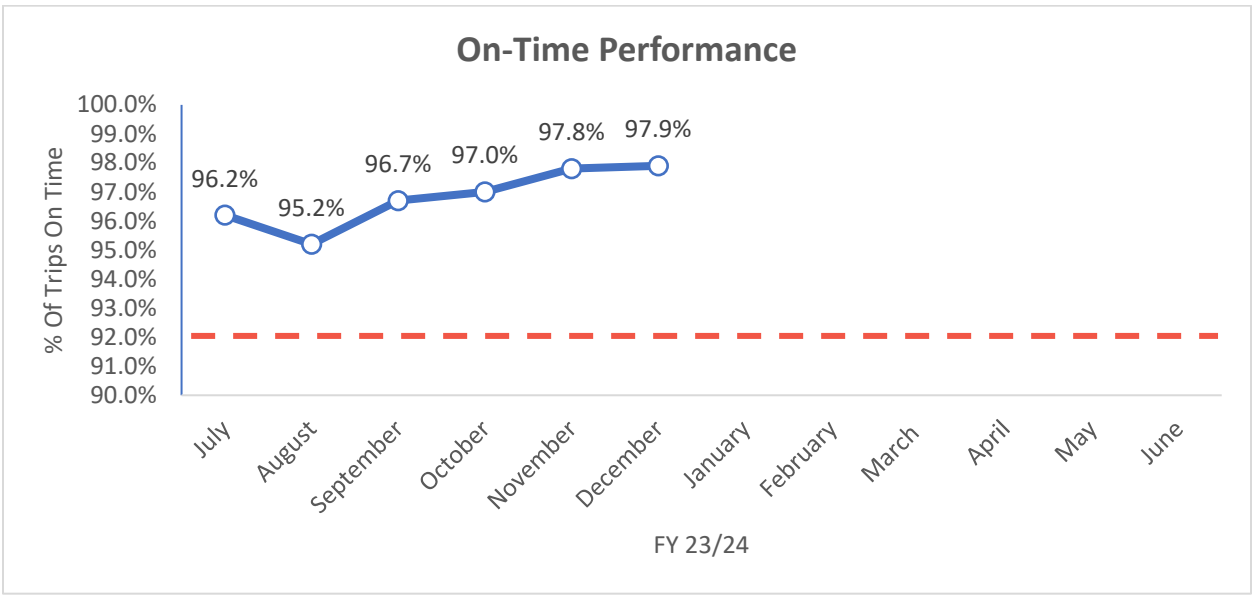
In December, the average number of ADA passengers per revenue hour stood at 1.43, marking a decrease compared to November, when the figure was 1.50 ADA passengers per revenue hour, excluding escorts or attendants. It's worth noting that the LINK Paratransit service's established benchmark is to uphold a minimum of 1.50 ADA passengers per revenue hour. While December saw a slight dip below this benchmark, we are actively monitoring and addressing factors contributing to this change.



On-time Performance:

The average on-time performance for trips reached an impressive 97.9%, showcasing an improvement from the previous month's 97.8% on-time rate.

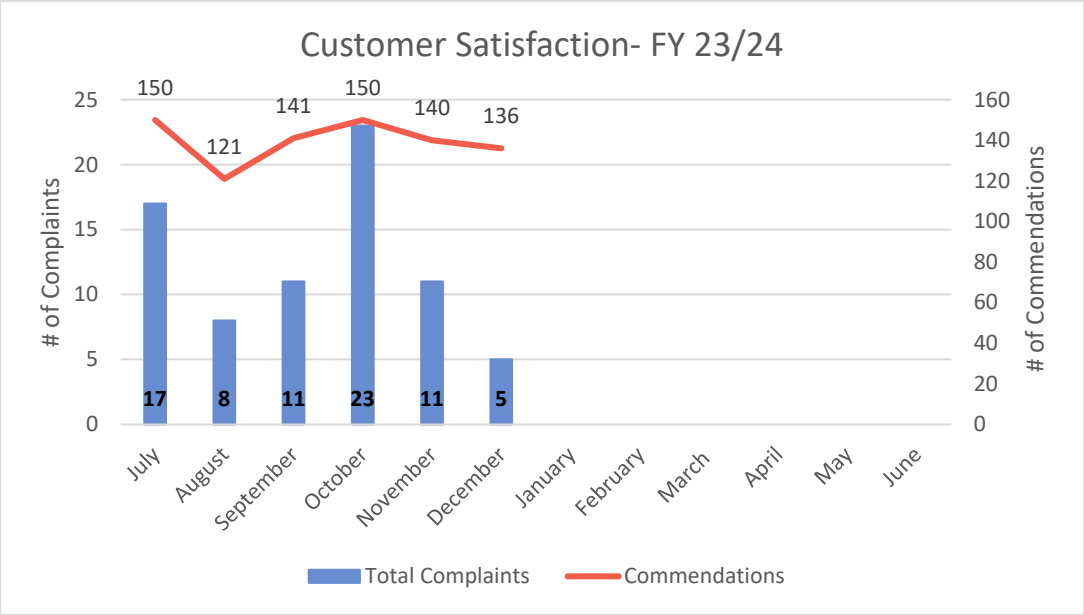
The performance exhibited in December reflects a positive trajectory, in line with our commitment to maintaining service quality. It's worth emphasizing that County Connection's established standard is set at 92%, and the past six months have consistently demonstrated performance exceeding this benchmark.



Customer Satisfaction:

In December, a total of five complaints were registered, with five linked to timeliness issues, one (1), related to the driver's skill concerns. The majority of the complaints this month were related to passengers unhappy with the drop-off time at their destination.

For commendations, the service received a total of 136 in December. The majority of these commendations come from passengers expressing satisfaction with the drivers' performance, often citing their exemplary attention to safety and courtesy.



Safety:

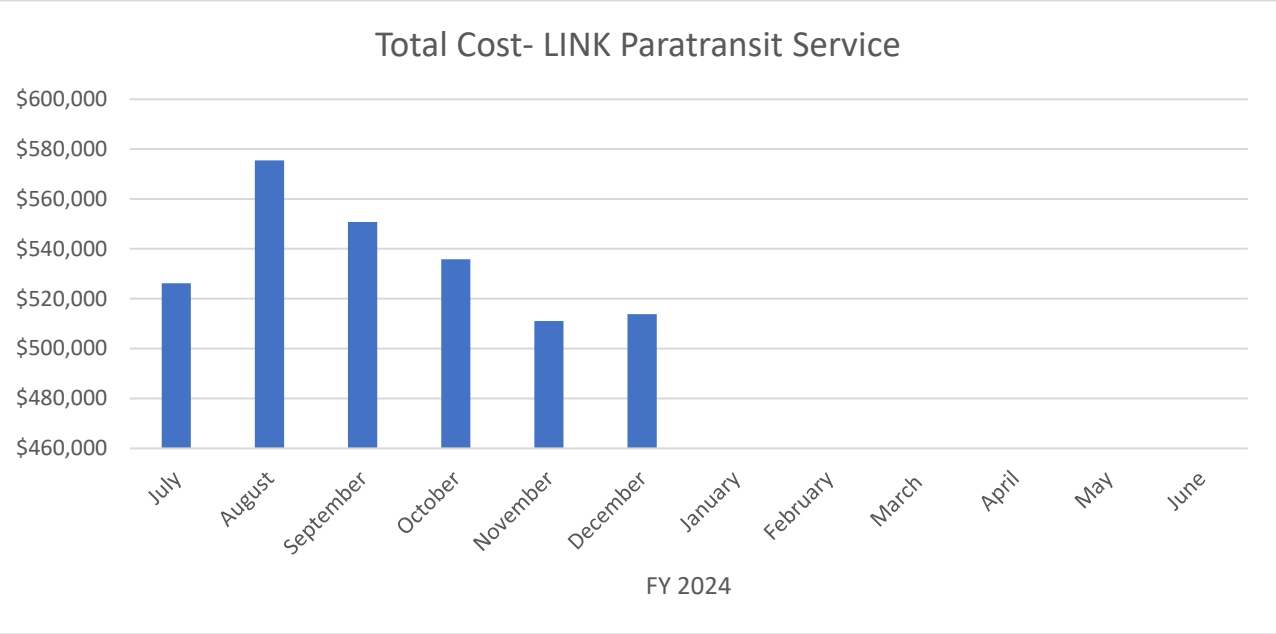
There was one reported preventable accident in the month of December which reflects and accident ratio of 0.88 preventable accidents per 100,000 miles. The accident standard goal is to have no more than 0.5 preventable accidents per 100,000 miles.

Staffing:

For the month of December, LINK Paratransit had a total of 59 drivers. Out of this group, 47 drivers were available and active while the remaining 12 were newly hired, on a leave of absence or on modified work. Transdev has continued to implement various strategies including organizing on-site job fairs, offering sign-on bonuses and referral bonuses, and providing on-site training to assist newly hired Class C drivers in obtaining their commercial license with passenger endorsements.

Financial Implications:

A preliminary un-audited total of $513,765 was spent in December for LINK paratransit service. This reflects an increase from November's total reported at $511,055.



Recommendation:

None, for Information only.

Additional updates:

None.

Action Requested:

None, for information only.

Attachments:

Attachment 1: December 2023 MOP

CCCTA PARATRANSIT

Performance Report: 12/1/2023-12/31/2023

	LINK and BART Statistics	FY 23/24 December	Variance from Goal	FY 22/23 December	YTD 23/24
	Ridership Statistics				
1	***ADA Passengers	6,880		4,714	22,264
2	Companions	38		27	131
3	Personal Care Assistants	411		371	15,795
4	***One Seat Passengers	1,113		643	1,206
5	Total Passengers	8,442		5,755	23,826
	Scheduling Statistics				
6	Total Number of No Shows & Late Cancels	378		837	1,033
7	Total Number of Cancellations	1,441		460	3,649
8	Same Day Trips	104		161	333
9	Denial Trips	-		-	-
10	Go Backs/ Re-scheduled	21		33	45
	Effectiveness Indicators				
11	***Revenue Hours	4,812.50		3,856.12	16,493.71
12	ADA Passengers per RVHr.	1.43		1.22	1.35
13	Average Trip Length (miles)	11.92			11.92
14	Average Ride Duration (minutes)	18.71			22.14
15	*Total Cost per ADA Passenger	$74.68		$ 90.64	$ 145.46
16	***Service Miles	95,301.00		56,637	304,835
17	Billable Service Hours	5,789.40		6,039.05	18,601.70
18	Fuel Cost	**$ 33,408.07**		**$ 32,794.48**	**$ 117,311.87**
19	Total Cost	**$ 513,765.36**		**$ 485,575.66**	**$ 2,133,629.95**
	On Time Performance Statistics				
20	Percent on-time	97.9%		97.1%	96.6%
21	Arrived 15-29 minutes past window	2		57	302
22	Arrived 30-59 minutes past window	28		18	170
23	Arrived 60 minutes past window	62		0	80
24	Total Missed Trips	0		0	13
25	Transfer Trips	299		276	1,278
	One Seat Pilot Data				
26	*Total Trips*	2,275		643	4,824
27	****Total Cost OS*	$ 43,352.05			$ 101,221.12
28	*Non-CCCTA Cost (Cost for Agencies)*	$ 22,513.61		$ 9,025.69	$ 71,358.07
29	****Total Miles*	22,649.60			52,323.20
30	*Non-CCCTA Miles (Agency Miles)*	11,777.37		6,513.84	56,142.00
31	*Non-CCCTA Revenue Hours*	366.00		189.92	1,286.88
32	***Total One Seat Revenue Hours*	703.90		384.86	2,952.95
33	*Total Fare Collected*	$ 3,925.50		$ 2,693.50	$ 13,168.50
34	*Non-CCCTA Fare Collected*	$ 2,394.75		$ 1,567.25	$ 7,800.75
	Customer Service **Complaint Standard Goal = 2/1,000 passengers**				
35	Total Complaints	6		0	23
36	Timeliness	5		0	16
37	Driver Complaints	1		0	1
38	Equipment / Vehicle	0		0	0
39	Scheduling/Staff Skill	0		0	6
40	Commendations	136		69	286
41	Avg. wait time in Queue for reservation/dispatch	1:56			2:43
	Safety & Maintenance **Accident Standard Goal = .5/100,000 miles;** **Roadcall Standard Goal = 4/100,000 miles**				
42	Total accidents per 100,000 miles	0.88		0.00	1.00
43	Roadcalls per 100,000 miles	0.00		3	1.00
	Eligibility Statistics				
44	Total ADA Riders in Data Base	1,811		1,780	6,954
45	Total Certification Determinations	40		106	252
46	Initial Denials	0		-	0
47	Denials Reversed	0		-	0

*Total Cost per ADA Passenger excludes cost of the One Seat Pilot

**One Seat Revenue Hours are total combined hours for all of the Agencies

***The miles, passenger count and revenue hours for the One Seat have been separated in this report

Transdev G.M.: Laura Corona

Date: 01/15/2024

Accident Revised 1/22/24 GM