TRANSIT	Board Policy No. 501 Bus Stop Guidelines
ADOPTED: RECENT AMENDMENT: SEE ALSO:	SUBJECT CATEGORY: SECTION 500, PLANNING AND SERVICE DEVELOPMENT SUBSECTION: BUS STOPS CONTROL DEPARTMENT: PLANNING AND ENGINEERING

I. PURPOSE

Bus stops are critical to the delivery of bus service to the public. The purpose of this Policy is to set forth AC Transit's (the District) guidelines for future bus stop placement, which includes spacing, location, length, and accessibility.

In addition to the factors discussed in this policy, the District shall also take into consideration the process for review by District staff as described in Administrative Regulation 501A: Bus Stops. In adopting this policy, the Board acknowledges that the District does not own, control or maintain the bus stop areas <u>beyond any physical poles we have installed and some shelters that came under ownership of the District in 2023. Thus, thend that</u> ultimate decision-making authority concerning the placement of a bus stop at a particular location rests with the city or jurisdiction in which the stop is located. This policy is not intended to address other issues about bus stops <u>(i.e. such as complaints about</u> cleanliness, damage, replacement of fixtures, etc. or temporary closures or detours), but to focus on decision-making processes for how to locate and improve the customer <u>experience at permanent stops on an aggregate level.</u>

II. PERSONS AFFECTED

This policy is applicable to the Board of Directors, Board Officers, District employees and any consultants or contractors that have a direct or indirect role in carrying out changes to bus stops, including but not limited to, placement; relocation; and removal. This policy is also applicable to cities/local jurisdictions, affected property owners, the general public and bus riders within the District's service area.

III. DEFINITIONS

"Bus Stop" means a place where a bus regularly stops to allow passengers on or off. This includes, but is not limited to standard bus stops, bus boarding islands, bus bulbs, bus stop parklets, bus rapid transit platforms, and bus stop layovers. See also, Administrative Regulation 501A.

"Far-side" means any bus stop located along the curb right after the intersection. "Near-side" means any bus stop located along the curb right before the intersection.

"Mid-block" means any bus stop located along the curb that is in the middle of a block between two intersections.

"Controlled Intersection" means any intersection that has traffic lights, yield signs, or stop signs, or round-about treatments.

"Uncontrolled Intersection" means any intersection that does not have traffic lights, yield signs, or stop signs, or round-about treatments.

"Marked Crosswalk" means any pedestrian right of way marked by paint lines; Drivers must be aware of crosswalks and stop for pedestrians who are within a marked crosswalk.

"Unmarked Crosswalk" means any pedestrian right of way not marked by painted lines; Drivers must be aware of crosswalks and stop for pedestrians who are within a unmarked crosswalk

"Crosswalk" means any pedestrian right-of-way to cross the street; drivers must be aware of crosswalks and stop for pedestrians who are within them. They can be marked by painted lines or unmarked.

"Bus bulb" means any curb extension that aligns a bus stop with a parking lane, allowing buses to stop and board passengers without ever leaving the travel lane. Bus Bulbs at intersections also shorten the crossing distance for pedestrians.

IV. POLICY CONTENT

This document serves to outline the requirements and decision-making processes involved in the placement of bus stops by AC Transit. It encompasses Criteria and Procedures governing bus stops within the AC Transit service area, specifically related to:

<u>Location</u>

Location decisions include whether to place bus stops on far-side, near-side, or mid-block stops, according to local conditions.

Decision-Making

Determining bus stop placement involves considering tradeoffs among criteria and local factors to make informed decisions.

Policy Criteria

<u>Criteria considered in determining bus stop locations include spacing, stop lengths, and</u> <u>accessibility.</u>

This Policy also includes attached supplemental diagrams and related documents.

V. POLICY

A. Coordination with Cities/Local Jurisdictions

1. The Role of AC Transit

AC Transit shall be responsive in how it addresses bus stop requests and foster a cooperative relationship with cities/local jurisdictions to implement solutions that promote the use of public transit, increase ridership, and improve the speed and reliability of bus service. The District shall provide timely and accurate data and recommendations to cities/local jurisdictions in order for them to make informed and equitable decisions concerning bus stop requests

2. Expectations of Cities/Local Jurisdictions

AC Transit expects cities/local jurisdictions to conduct a thorough and thoughtful process when considering bus stop requests. The Board recognizes that while cities/local jurisdictions have ultimate decision-making authority with respect to stops, cities/local jurisdictions should be responsible and accountable in a way that ensures that the greater good is served by balancing the concerns of the few with the benefits to the community and the interests of bus riders.

Service Type	Spacing (feet)	Explanation
Local (Trunk, Feeder, All- Nighter, and Supplementary)	800-1,300	This service type has closely spaced stops that are typically within walking radius.
Rapid Bus/Bus Rapid Transit	Rapid Bus Only: 1,300-1,900 Bus Rapid Transit	This service type has stops that are typically within walking radius, but more widely spaced. This stop spacing should be applied on streets with a single local service that also provides frequent service.
(BRT)	1,300-1,900 Rapid With Local Service: 1,700-2,600	This service type has stops that are typically within walking radius, but more widely spaced. This stop spacing should be applied to streets that have both Rapid and underlying Local Service Types.
Transbay Express*	1,300-2,600	This service type has stops at major destinations along the Peninsula and in San Francisco and in the originating area it serves in the East Bay but runs nonstop between the two.
Flexible or Community Circulator	800-TBD	This service type's stop spacing varies. This service type may service existing or previous local service stops.

B. Bus Stop Location

Bus stops can be at one of three locations: far-side, near-side, or mid-block. Below are the preferred use cases and advantages of each location, with a preference for far-side stops whenever feasible.

Far-side Bus Stops are preferred at Controlled and Uncontrolled Intersections. They are also preferable wherever buses turn left because they allow sufficient maneuvering distance from curb to left lanes, and allow buses to stop after clearing the intersection.

Advantages of a far-side bus stop include the following:

- They reduce conflicts between right turning vehicles and stopped buses;
- They eliminate sight distance deficiencies on approaches to the intersection;
- They encourage pedestrians to cross at the rear of the bus;
- They require shorter maneuvering distance for the buses to enter and leave moving traffic;
- At signalized intersections, buses can find gaps for re-entry into the traffic stream.

Disadvantages of a far-side bus stop include the following:

- A bus standing at a far side stop obscures sight distance to an automobile driver turning right from the cross street onto the street where the bus is located. This issue should be addressed by locating stops at Controlled Intersections.
- Where the bus stop is too short, the rear of the bus will obstruct the cross street.

Near side Bus Stops can be acceptable at Controlled Intersections when a far side stop is deemed unsafe or impracticable.

Advantages of a near-side bus stop include the following:

- They interfere minimally at locations where traffic is heavier on the far-side than on the approach side of the intersection.
- Bus drivers can use the intersection to re-enter traffic.
- Passengers generally board buses close to a crosswalk.

Disadvantages of a near-side bus stop include the following:

- Heavy vehicular right turns can cause conflicts, especially where a vehicle makes a right turn from the left of a stopped bus;
- Bus may often obscure STOP signs, traffic signals, or other control devices as well as pedestrian crossing in front of the bus;
- Where the Bus Stop is too short, the rear of the bus will be in the traffic lane.

Mid block Bus Stops should only be used when no other alternatives are available and when there are Mid-block Bus Stops should not be placed near a Marked Crosswalk at an Uncontrolled T-intersection. Mid-block locations are also generally applicable in areas where multiple routes require long loading areas that might extend an entire block.

Advantages of mid-block bus stops include the following:

- Buses minimally interfere with sight-distance of both vehicles and pedestrians;
- Waiting passengers assemble at less crowded sections of the sidewalk.

Disadvantages of mid-block bus stops include the following:

- The removal of considerable curb parking may be required;
- Pedestrians from cross streets may have to walk farther to board the bus.

Criteria for Choosing a Bus Stop Location

• New Bus Stops should be located on the far-side of Controlled Intersections where there is a Marked Crosswalk. If physical curb treatment renders far-side impractical, locate bus to the near-side of the Controlled Intersection where there is a Marked Crosswalk;

• New Bus Stops at Uncontrolled Intersections with Marked Crosswalks should be located on the far side;

• Locations at Uncontrolled Intersections with Unmarked Crosswalks should be avoided.

Exhibit 1 - Bus Stop Placement Types



Exhibit 2 - Bus Stop Placement Types Trade-offs

Far-s	side
Preferred at Controlled and Uncontrolled Interse buses turn left because they allow sufficient mai make the turn and allow buses to stop after clea	ections. They are also preferable wherever neuvering distance from curb to left lanes to ring the intersection.
Advantages & When to Use	Disadvantages & When Not to Use
 Reduce conflict between right turning vehicles and stopped buses. Eliminate sight-distance deficiencies on approaches to the intersection. Encourage pedestrians to cross at the rear of the bus. Require shorter maneuvering distance for the buses to enter and leave the curb. At signalized intersections, buses can find gaps for re-entry into traffic flow. 	 A bus standing at a far-side stop can potentially obscure sight-distance to an automobile driver turning right from the cross street onto the street where the bus is located. This issue should be addressed by locating stops at Controlled Intersections. Where the bus stop length is too short, the rear of the bus might obstruct the crosswalk and intersection.

Near-side

Can be acceptable at Controlled Intersections when a far-side stop is deemed less safe or impractical.

Advantages & When to Use	Disadvantages & When Not to Use	
 They interfere minimally at locations where traffic is heavier on the far-side than on the approach side of the intersection. Bus drivers can use the intersection to re-enter traffic. Eliminates double stopping, where the bus has to stop before and after an intersection. Can be useful when facilitating an important transfer to reduce the need for customers to cross the street. 	 Heavy vehicular right turns can cause conflicts, especially where a vehicle makes a right turn from the left of a stopped bus. Bus may often obscure STOP signs, traffic signals, or other control devices as well as pedestrians crossing in front of the bus. 	
Mid-t	block	
Should only be used when no other alternatives be placed near a Marked Crosswalk at an Uncon also generally applicable in areas where multiple extend an entire block.	are available. Mid-block Bus Stops should not trolled T-intersection. Mid-block locations are e routes require long loading areas that might	
Advantages & When to Use	Disadvantages & When Not to Use	
 Buses minimally interfere with sight-distance of both vehicles and pedestrians. Waiting passengers assemble at less crowded sections of the sidewalk. Might be preferable if the primary trip generator on a long block is mid-block and the walking distance is too far if 	 The removal of considerable curb parking may be required. Pedestrians from cross streets may have to walk further to board the bus. May encourage less safe pedestrian crossings. 	

1. Bus Stop Length

Buses should have enough curb length to pull up parallel to the curb. When buses are required to pull out from traffic, stop lengths accommodate for transitions in and out of traffic. Table D below details the minimum bus stop lengths for pull-out stops and bus stop layovers:

Table D – Minimum Pull-out Stop Lengths						
	Type of Vehicle and Stop Length (Ft.)					
Stop Position		2 x 40'			2 x 60'	
	40' Bus	Buses	45' Bus	60' Bus	Buses	
Near-side	100	160	110	120	185	
Far-side	65	125	65	100	165	
Mid-block	120	185	125	145	210	

2. Bus Stop Accessibility (moved to later section)

The wheelchair ramp land zones (outlined in Attachment A) of new or relocated bus stops shall meet the Americans with Disabilities Act (ADA). For specific guidelines, see Americans with Disabilities Act (ADA) Guidelines for Transportation Facilities, Section 810.2 and Section 209.2.3

The District utilizes a variety of fleet types that have two, three, or four doors depending on the vehicle model. Ramps are located in the first or second door. Bus stops must have a clear ADA landing zone for the first two doors of all vehicles, to the maximum extent practical, in order to meet the Americans with Disabilities Act (ADA). Right of way changes are the responsibility of the local jurisdiction. Bus stop amenities shall be placed so as to meet ADA standards. Attachment B shows the District's bus door locations and ADA landing requirements by bus type.

C. Decision-Making

Each bus stop comes with its own unique set of decisions and challenges. Decisions are often not as straight forward as standardized requirements but require a decision-making process that incorporates District criteria and local circumstances. This section aims to synthesize the elements of this policy that must be considered.

1. Criteria

See the Policy Criteria section of this document for standards and minimum requirements that bus stops should meet.

- ADA compliance and accessibility
- Bus stop spacing standards
- <u>Bus stop length</u>

2. Local Circumstances

• <u>Controlled vs. Uncontrolled intersections</u>

- Volume of traffic, right turning traffic
- Surrounding businesses, residences, etc.
- <u>Streetscape</u>
- Access to critical destinations, transfers, and other transit

3. Stop Removals, Relocations, and Additions

Administrative Regulation 501A provides the procedures for changing bus stops from an initial request intake to review and implementation. The second stage, review, includes an evaluation of the proposed change or removal by AC Transit Service Planning Staff and the Bus Stop Advisory Committee, an internal group made up of staff from various departments that are impacted by bus stops. This section outlines the decision-making considerations used for that evaluation.

Stop Relocations

AC Transit will relocate stops when:

- An issue arises with a current stop (safety concerns, conflict with local activity, etc.)
- Improvements are made at a nearby location that is more ideal
- <u>The change is part of a larger project (which may be a project of a city, AC Transit, etc.)</u>

Stop Removals

AC Transit will remove stops:

- When an issue with the current stop arises and there is no better alternative location
- As part of a larger project or series of changes that includes optimization of bus stop spacing.

Stop Additions

AC Transit may add stops when:

- There is too large a gap in stop spacing
- <u>There is a new key destination, demand, or need (e.g. a large development with potential riders)</u>
- There is a request for a new stop

D. Policy Criteria

1. Bus Stop Length

The following are minimum bus stop lengths criteria and standards for AC Transit bus stops. Bus stop length, spacing standards, and ADA requirements are all prerequisites for considering a potential bus stop location.

Exhibit 3 - In-Lane Bus Stop Lengths

Stop Length Components	40' Bus	2 x 40' Buses	45' Bus	60' Bus	2 x 60' Buses	40' Bus and 60' Bus
	NE	AR-SIDE OR	FAR-SIDE			
Bus length (ft)	40	80	45	60	120	100
Clear space between 2 buses (ft)	-	20	-	-	20	20
Daylighting from crosswalk (ft)	20	20	20	20	20	20
Total near-side or far-side stop length (ft)	60	120	65	80	160	140
		MID-BLO	СК			
Bus length (ft)	40	80	45	60	120	100
Clear space between 2 buses (ft)	-	20	-	-	20	20
Total mid-block stop length (ft)	40	100	45	60	140	120

Exhibit 4 - Pullout Bus Stop Lengths

Stop Length Components	40' Bus	2 x 40' Buses	45' Bus	60' Bus	2 x 60' Buses	40' Bus and 60' Bus
	NEAR	-SIDE BUS ST	TOPS			•
Pull-in distance (ft)	50	50	55	65	65	65
Bus length (ft)	40	80	45	60	120	100
Clear space between 2 buses (ft)	-	20	-	-	20	20
Daylighting from crosswalk (ft)	20	20	20	20	20	20
Total near-side stop length (ft)	110	170	120	145	225	205
	FAR-	SIDE BUS ST	OPS			
Bus length (ft)	40	80	45	60	120	100
Clear space between 2 buses (ft)	-	20	-	-	20	20
Pull-out distance (ft)	20	20	20	20	20	20
Daylighting from crosswalk (ft)	20	20	20	20	20	20
Total far-side stop length (ft)	80	140	85	100	180	160
	MID-B	LOCK BUS S	TOPS			
Pull-in distance (ft)	50	50	55	65	65	65
Bus length (ft)	40	80	45	60	120	100
Clear space between 2 buses (ft)	-	20	-	-	20	20
Pull-out distance (ft)	20	20	20	20	20	20
Total mid-block stop length (ft)	110	170	120	145	225	205

Additional Factors Impacting Stop Length

Staff also may consider factors including:

Paratransit:

- <u>The provided stop lengths do not include paratransit stop lengths.</u> Paratransit stop <u>lengths requirements differ from bus stop length requirements.</u>
- <u>East Bay Paratransit (EBP) vans are not permitted to stop in no-stopping or no-parking</u> zones, including bus stops. Accessible passenger loading zones are preferred for EBP curb access in areas with high parking occupancy rates.
- <u>AC Transit staff will prioritize close coordination with jurisdictions to provide dedicated</u>
 <u>paratransit stops and not just accessible passenger loading zones.</u>

Bus bulbs/Curb extensions:

- If a curb extension is placed at a bus stop with buses stopping in-lane, it must be, at minimum, as long as the stopping area length (i.e., the bus length, plus the clear space between buses if the stop is intended to serve multiple routes simultaneously) so the bus can pull up to the curb to board and alight passengers.
- If a curb extension is installed next to a pull-out bus stop, the curb alignment must be designed considering the necessary pull-in or pull-out taper.
- 2. Bus Stop Spacing

Bus stop spacing standards establish preferred distances between stops for four different service types, with flexibility for exceptions based on factors like location, infrastructure, and safety considerations. These standards aim to ensure stops are accessible, safe, convenient, and reliable for riders.

The table in Exhibit 5 details bus stop spacing standards for the four different service types.

Service TypeSpacing (feet)ExplanationLocal/All-Nighter
(OWL)/
Supplementary/800-1,300This service type has closely-spaced stops that
are typically within walking distances.

Exhibit 5 - Bus Stop Spacing Standards

Microtransit		are typically within waiking distances.
Rapid/ Bus Rapid Transit (BRT)	Rapid Bus Only: 1,300-1,900	This service type has stops that are typically within walking distances, but more widely spaced. This stop spacing should be applied on

	BRT: 1,300-1,900	provides frequent service.
	Rapid with Local Service: 1,700-2,600	This service type has stops that are typically within walking distances, but more widely spaced. This stop spacing should be applied to streets that have both Rapid and underlying Local Service Types.
Freeway Express*	1,300-2,600	This service type has stops at major destinations along the Peninsula and in San Francisco, and in the originating area it serves in the East Bay, but runs nonstop between the two.

* Where there is no underlying local service, the Transbay Express Line can act as a Local Service and use spacing criteria for Local Service.

Other Spacing Considerations:

<u>Reference Board Policy 545 – Density standards and service objectives, Distance to bus routes, and Route type tables</u>

3. Bus Stop Accessibility

The passenger ramp landing zones (outlined in Attachment B) of new or relocated bus stops shall meet the Americans with Disabilities Act (ADA) to the furthest extent of the law practicable. For specific guidelines, see Americans with Disabilities Act (ADA) Guidelines for Transportation Facilities, Section 810.2 and Section 209.2.3.

AC Transit utilizes a variety of fleet types that have two, three, or four doors depending on the vehicle model. Ramps are located at the first or second door. Bus stops must have a clear, accessible landing zone for the first two doors of all vehicles, where practicable. Right-of-way changes are the responsibility of the local jurisdiction. Bus stop amenities shall be placed to meet ADA standards. Attachment B shows AC Transit's bus door locations and ADA landing requirements by bus type.

VI. AUTHORITY

A. Board Authority

The Board reserves the right to amend this policy from time to time as it deems appropriate.

B. General Manager's Authority

The General Manager shall issue any and all necessary administrative regulations required to implement this policy, including the development of a process the District will use to evaluate and make timely recommendations concerning bus stop requests. The General Manager shall specify the criteria on which the evaluation shall be based, including but not limited to ridership impacts and any disproportionate effects of the proposed request.

VII. ATTACHMENTS

A. Associated Documents/Policy References

<u>A range of policies govern Bus Stop decision making for AC Transit. This table provides a guide</u> to these documents for reference.

Document/Policy	Purpose
Board Policy 545	Service Standards and Design Policy: provides definitions, and standards relevant to service design. Standards include Levels of Service based on service provision, load factor, and service span; density standards applying to frequency and distance to bus routes; and frequency and vehicle load factors based on route type. (Note: An update of this document is underway and expected to be complete in Fall 2024.)
<u>Administrative</u> <u>Regulation 501A</u>	Administrative Regulation for Bus Stops: provides AC Transit process for making bus stop changes. This includes the review and implementation process to alter or remove stops.
Transit-Supportive Design Guidelines	Guidance on fixed route and paratransit operational needs and comfort for people accessing bus stops. (Note: In progress to be adopted as an update of the 2018 Multimodal Corridor Guidelines, which provide guidance on design elements of bus stops adjacent to bicycle infrastructure. This is expected to be completed in Fall 2024.)
Bus Stop Furniture Guidelines	Comprehensive guide for bus stop furniture, including types, placement methodology, and maintenance.
<u>Bus Parklet Study</u> <u>Manual</u>	Siting and design recommendations for bus parklets, which combine temporary platforms with parklets (low-cost structures that extend sidewalk curb and provide flexible public spaces) to enhance the transit boarding experience. The manual includes siting considerations, design elements and prototypes, and maintenance responsibilities for this new boarding concept.

B. ADA Landing Requirements

