

On November 30, 2021 the San Francisco Board of Supervisors passed resolution No. 537-21 urging the San Francisco Municipal Transportation Agency (SFMTA) to develop and implement a plan to promote unobstructed pedestrian access for boarding public transit by eliminating parking in bus stops and making other necessary infrastructure improvements.

This memo provides data regarding: the number of bus stops by type, both citywide and by supervisor district; a discussion of the current bus stop access policy; next steps for an update to this policy; and an implementation strategy to make prompt improvements to promote unobstructed Muni access.

Current transit stop access infrastructure

Muni vehicles stop at the following types of stops:

1. Flag stops – Flag stop means that the transit vehicle stops in an active travel lane to board/alight passengers. Most of these locations allow curb parking, however, there are some locations (ie Sunset Boulevard) where no on street parking exists. Flag stops are delineated by yellow bands painted on utility poles and/or a rectangular yellow bar painted on the street. They may have transit shelters and transit stop signage but do not have dedicated curb space for the transit vehicle to load.

2. Box zones – Box zones are defined as transit stops where curb parking is prohibited and consist of a painted red curb with a long white box painted in the curb lane (usually parking lane) indicating where the box zone is. Box zone stops also have either a painted pole or on-street bar to indicate the stop location, and many have transit shelters and transit stop signage. Box zones are typically 40 to 60 feet longer than the length of the bus to allow space for the bus to pull into or out of the box zone. (For reference, a good rule of thumb is that a parking space is about 20 feet long).

BOX ZONES RECOMMENDED LENGTHS BY TYPE/LOCATION

Stop Position	Type of Vehicle and Appropriate Zone Length (Ft.)			
	40' Bus	2x40' Bus	60' Bus	2x60' Bus
Farside	80	125	100	165
Nearside	100	145	120	185
Midblock	120	185	140	205
Farside (After right turn)	140	145	160	230

3. Transit bulbs – Transit bulbs are stops where the sidewalk is extended into the parking lane, which allows the bus to pick up passengers without leaving the travel lane. Transit bulbs are a major component of the Muni Forward program and can be used to improve transit vehicles' reliability and can eliminate the blockage of bus stops caused when vehicles illegally park in box zones. Transit bulbs also consume slightly less curb frontage than box zones and can be as short as 40' and still support effective and accessible boarding.

TRANSIT BULB RECOMMENDED LENGTHS BY TYPE/LOCATION

Stop Position (Bus bulbs)	Bus Type and Recommended Length (Ft.)				Additional space for transition (ft)
	40' Bus	2x40' Bus	60' Bus	2x60' Bus	
Farside	45	90	65	130	15 to 25
Nearside	35	80	55	115	15 to 25
Midblock	35	80	55	115	30 to 50
Farside (after right turn)	Case-by-case basis				15 to 25

4. Boarding island – Boarding islands have traditionally been used on the Muni light rail system to provide a location for waiting and boarding passengers to stand out of moving traffic. The Muni Forward program has installed a number of boarding islands, especially on streets that also have a type II or better bikeway, for example 11th Street in SOMA. Boarding islands are used when there is a lane of traffic between the lane the bus uses and the curb. Boarding islands are typically the same length as a bus bulb, and require removing parking for the length of the boarding island as well as the length of the lane shift, approximately 60 to 100 feet.

The SFMTA currently has approximately 1,500 flag stops, 1,100 box zones, 200 boarding islands and 100 boarding bulbs systemwide, as is outlined below.

STOP TYPES BY SUPERVISOR DISTRICT

Supervisor District	Flag Stop	Box Zones	Transit Bulbs	Boarding Island	Other	Total
1	67	155	17	1	-	240
2	75	137	1	2	-	215
3	159	129	15	21	2	326
4	142	56	1	24	-	223
5	44	133	14	7	-	198
6	38	123	11	56	8	236
7	263	89	2	25	4	383
8	227	78	6	29	6	346
9	105	103	29		-	237
10	322	99	7	32	-	460
11	149	54	3	16	-	222
Total	1,591	1,156	106	213	20	3,086

Current policy

The *San Francisco Municipal Railway Bus Stop Guidelines* identifies the current policy and procedures for bus stop placement and access characteristics for each stop.

Generally, box zone (or transit bulb/boarding island) stops are preferred on all Rapid, Frequent routes and on Grid and Connector lines in either commercial or dense residential neighborhoods. Flag stops are only preferred on low-frequency Grid and Connector routes on residential streets, and in circumstances where transit vehicles are making turns or other special maneuvers in commercial and residential areas.

The current policy specifies that box zones (or transit bulbs/boarding islands) should be provided at locations that meet any of the following criteria:

1. All transfer point stops, including transfer points to other transit operators, intercity carriers, regional carriers, etc.;
2. All terminals;
3. Stops servicing major traffic generators, e.g.; senior centers, schools, hospitals, etc.;
4. Stops with a pattern of boardings by wheelchair users, other disabled persons or seniors;
5. Stops with a minimum of 100 riders per day (combined boardings and alightings);
6. Stops with a combined boarding/alighting average of 2 passengers per scheduled trip; or
7. Any stop where safety or operational concerns could be remedied with a box zone.

The Accessible Stops section of the existing *Bus Stop Guidelines* notes that “Flag stops are considered accessible if there are curb cuts adjacent to the stop, if the street grade does not exceed the standard (greater than 8%), and if the street crown is not too pronounced (greater than 2%). Each stop is considered on an individual basis as stops with a high street crown can often be served.”

Next Steps

SFMTA will be taking several steps to address issues identified in the Resolution, starting with updating policy, followed by several phases to implement the updated policy. Each of the approximately 1,500 flag stops identified in the Muni system will require site investigation, legislation, outreach, and implementation by SFMTA shops crews. Implementing these changes will require a significant amount of staff time and is anticipated to cost between \$3-5 million in staff time and materials. Consequently, full implementation will need to be completed through a phased approach.

Phase 1 – Policy Update

The *Bus Stop Guidelines* have not been updated since 2011. The Box Zone policy is still appropriate as written, but the Accessible Stop section of the *Guidelines* would be restructured to add additional guidance in response to Resolution No. 537-21.

Specifically, we will add to the end of the Flag Stop section that “each stop in the system should have at least 20’ red curb to provide unobstructed access to the front door of a bus or train. When applicable, SFMTA Accessible Services shall request, and prioritize, locations for front

door transit bulbs that have a pattern of boarding by wheelchair users, other disabled persons or seniors”.

This policy change will be presented to the SFMTA Board for consideration as part of the SFMTA Short Range Transit Plan update scheduled to go to the MTA Board for approval in the Fall.

Phase 2 – Implement Bus Zone upgrades (March 2022 - March 2026)

The top priority of flag stop conversion will be to focus on flag stops 1) on Frequent routes, or 2) located within a commercial zone. Based on our data, there are approximately 506 flag stops that meet these criteria and they are enumerated, by district, in the chart below.

TOP PRIORITY FOR FLAG STOP CHANGES BY SUPERVISOR DISTRICT

Supervisor District	Transit Stops	Flag Stops	Flag Stops on Frequent Route or in a Commercial Zone*	% Flag Stops
1	240	67	38	28%
2	215	75	40	35%
3	326	159	72	48%
4	223	142	47	64%
5	198	44	22	22%
6	236	38	24	16%
7	383	263	47	68%
8	346	227	65	66%
9	237	105	26	44%
10	460	322	94	70%
11	222	149	31	67%
Total	3,086	1,591	506	51%

* Commercial zone defined as a SF Planning Neighborhood Commercial District.

SFMTA staff will work closely with District staff during the evaluation process so concurrence can be reached on next steps depending on specific circumstances of each stop.

Recommendations will include 1) maintaining as a flag stop, 2) converting to a 20' red curb for front door boarding or 3) converting to a full box zone, or 4) consolidation or deletion of the flag stop(s).

Converting to a 20' clear zone for the front door will remove 1 parking space and would be legislated through the City Traffic Engineers current authority. Converting a flag stop to a box zone requires 80-120' of red curb legislation (depending on type of bus stop and location) and several months of outreach and administrative processes before obtaining parking approval legislation from the SFMTA Board.

Due to the staff and financial resources required to advance phase 2, SFMTA is committing to review 100-125 stop locations a year identified in phase 2. Consequently, we anticipate this phase taking four years to complete. As can be seen in the chart above, Districts in the west and southern part of the city (D4, D7, D8, D10 and D11) have a higher proportion of flag stops, so SFMTA staff will focus on these areas first.

Phase 3 – Red curb at all remaining flag stops (September 2022 - March 2029)

Aside from the 506 flag stops that will be addressed as part of the phase 2 process, there is approximately 1,085 flag stop locations to be analyzed in phase 3. These stops are mostly located in residential neighborhoods and on low frequency (20 min or more) transit lines and therefore do not warrant box zones. All of these locations, however, will be reviewed for a 20' clear zone to support front door boarding/alighting in accordance with the new policy guidance as outlined above.

Concurrently with phase 2, phase 3 locations will be reviewed by SFMTA staff in concert with District staff at approximately 125-150 phase 3 locations a year. Consequently, we anticipate it will take approximately 7 years to evaluate these locations. Implementation of a front door clear zone will remove 1 parking space and would be legislated through the City Traffic Engineers current authority.

Additionally, SFMTA Accessible Services shall request, and prioritize, locations for front door bus bulbs that have a pattern of boarding by wheelchair users, other disabled persons or seniors. In these locations, the red curb will be converted to a front door bulb using the Accessible Stops Spot Improvement program in the SFMTA Transit Optimization Capital Improvement Plan (CIP) and we currently anticipate approximately \$25,000 a year, as needed, will be dedicated for this effort.