

**Title VI Service Equity Analysis
Pilot Service Evaluation
Line 60 Extension: South Hayward BART
Line 78: Alameda Seaplane Lagoon Terminal**

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I. EXECUTIVE SUMMARY

On May 26, 2021, the AC Transit Board of Directors approved proposed pilot service routes in response to requests from customers and communities. In August 2021, in conjunction with the opening of WETA's Seaplane Lagoon Terminal, AC Transit implemented the Line 78 pilot service which connects passengers to the ferry terminal, as well as back across the City of Alameda's east-west axis to the Webster and Park Street corridors. In December 2021, as a pilot route, Line 60 was extended from Chabot College along Hesperian Boulevard and Tennyson Road to the South Hayward BART Station.

The ongoing pandemic has had significant impacts on the District's service levels. When these pilots were approved by the Board, staff meant for a system-wide planning process to take place and a resulting new network to serve post-pandemic travel needs to be implemented in August 2022. However, given the arc of the pandemic and delayed planned network redesign, staff has proposed a one-year extension of the Line 60 pilot until December 2023 and a one-year extension of the Line 78 pilot until August 2023. Staff hopes that with an additional year for the region to see more consistent demand patterns emerge, we will be able to better gauge success over the long term.

Board Policy 518, "Title VI and Environmental Justice Service Review and Compliance Report Policy," directs staff to undertake a Title VI service equity analysis whenever there is a major service change. The District is also required to conduct a service equity analysis for changes which, when considered cumulatively over a three-year period, meet the major service change threshold. The Title VI service equity analysis will assess the quantity and quality of service provided and populations affected; the analysis will measure service in terms of current AC Transit standards for frequency, span of service, and/or distance to bus routes. There are exceptions to this requirement, including, if the introduction or discontinuance of service which will be or has been in effect for less than twelve months (meaning pilot or trial programs). While the Line 60 and Line 78 pilot service changes would have fallen under an exception, staff returned to the Board seeking to extend the pilot service changes beyond the twelve-month period, thereby triggering the requirement for the Title VI service equity analysis.

AC Transit is also required to provide equitable opportunities to all persons to participate in planning and decision-making processes, such as the service change processes. Section VIII of this report provides a summary of public engagement process that was undertaken to meet this requirement, along with information about the comments provided by the public, particularly those addressing issues covered by Title VI and associated laws and regulations. Copies of the reviewed Service Equity Analysis including public engagement efforts and public comments from other participating agencies are included as attachments to the staff report.

The analysis, contained in this report, found that the pilot service changes originally introduced in Staff Report 21-255 do not carry any discriminatory effects on Title VI-protected populations. This report analyzes the effects of the pilot service changes implemented, as part of the service recovery process, on populations protected by the Civil Rights Act of 1964. The analysis finds no disparate impact on people of color and no disproportionate burden on low-income populations. This report contains a statistical analysis of the process and the final finding. The report also describes how the public, and particularly communities protected by Title VI, was engaged in the planning process; describes how comments were solicited and obtained; and

provides details about comments that were received through different means. In compliance with FTA requirements, the AC Transit Board of Directors will review this service equity analysis in April 2022 before the expiration of the twelve-month temporary service period. The District anticipates conducting a system-wide planning process to determine the future of the network as the region recovers from the pandemic and its impacts.

II. TITLE VI OF THE CIVIL RIGHT ACT

Title VI of the Civil Rights Act of 1964 states:

“No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.”

Executive Order 12898 extends some protections of Title VI to low-income populations, however while other demographic groups may be protected by other laws and regulations they are not covered by Title VI or this assessment.

In 2012, the Federal Transit Administration (FTA) issued guidance to help recipients of federal funding such as AC Transit to comply with civil rights laws and orders. Since then, Board policies and the District’s Title VI Program have been regularly updated to provide staff with concrete direction and instructions to remain in compliance with those regulations.

III. BACKGROUND, METHODOLOGY, DATA SOURCES

The Federal Transit Administration (FTA) recommends that recipients of federal aid evaluate service changes according to the following steps (adapted from FTA Circular C4702.1B, October 1, 2012):

1. Assess the effects of the proposed service changes on people of color and low-income populations.
2. Engage the public in the decision-making process to develop the thresholds used to identify disproportionate impacts on protected populations.
3. Determine which, if any, of the proposals would result in a disparate impact on minority populations, and modify the proposed changes in order to avoid, minimize, or mitigate impacts.
4. Determine which, if any, of the proposals would place a disproportionate burden on low-income populations, and take steps to avoid, minimize, or mitigate impacts where practicable.

Background

The ongoing pandemic, including the emergence of the different variants, and less than optimal ridership has continued to have impacts on the District’s service levels. This, however, has also led to changes in the way the District approaches planning for the future. In Late April 2021, the District started a public engagement process with the Transit Talks series. Input from that process was to play a part in a larger, system-wide planning process originally planned for August 2022 provide a foundation for future transit service in the communities AC Transit serves. The delay in restoration of pre-pandemic service afforded staff the opportunity to respond to community feedback from the last several years. Through that process, staff identified opportunities for new pilot services or changes to existing service lines.

As planned for many years, the Water Emergency Transportation Authority (WETA), which operates the San Francisco Bay Ferry, opened a new ferry terminal at Seaplane Lagoon in Alameda Point with robust direct service to San Francisco. AC Transit staff proposed, and the Board approved providing peak-hour timed service connection to the ferry terminal that operates across the island along Ralph Appezato Memorial Parkway and Santa Clara Avenue and up to the Fruitvale BART Station (Line 78 Pilot). WETA roughly aligned their service start date with AC Transit's service change timeline to allow for a coordinated launch with bus and ferry service. The alignment takes advantage of new stops located in the Alameda Point development and serves as a first step toward 15-minute service planned at full build-out. Early morning riders now have a line connecting them to the ferry as well as back across the island to Webster and Park Street corridors. This overlay also provides critical additional capacity along the 51A corridor for those looking to make trips to and from Fruitvale BART and within Alameda.

Since Line 22 was eliminated in 2017 to improve frequency on the other lines with which it overlapped. Students and administrators at Chabot College have been requesting a direct connection between the South Hayward BART Station and Chabot College via Tennyson Road, and staff identified a pilot extension of Line 60 from Chabot College along Hesperian Boulevard and Tennyson Road to the South Hayward BART Station that addresses those concerns.

Methodology

The purpose of an equity analysis is to apply quantitative data methods to evaluate the impact of the proposed service changes. AC Transit service equity analyses do this by comparing impacts of the proposed change borne by protected populations to impacts borne by non-protected populations. Board Policy 518 directs staff to conduct a service equity analysis by assessing the quantity and quality of service provided and populations affected; the analysis will measure service in terms of current AC Transit standards for frequency, span of service, and/or distance to bus routes.

District staff conducted two separate analyses, which will be described further in this document:

- The service intensity analysis, which asks how the pilot service changes affected the amount of service available to protected populations compared to non-protected populations.
- The service quality analysis, which asks how the pilot service changes affected the amount of time for protected populations to complete transit trips as compared to non-protected populations

Data sources

Service Intensity Analysis: staff combined HASTUS schedule outputs with data from the American Community Survey 5-year dataset (2015-2019) using Microsoft SQL Server 2017 spatial functions: to count the number of people who lived within 1/4 mile of bus stops before and after the changes and also to count the number of trips available to those people in existing and proposed service. The process aligned with past AC Transit methodology using different software tools. This analysis was conducted at the system-wide level and at smaller planning area level.

Service Quality Analysis: staff used the r5 and r5r software packages, which are free and open-source and primarily developed by Conveyal and the Brazilian Institute for Applied Economic Research. These packages were used to calculate the number of jobs accessible from areas across the District; the pedestrian networks were derived from OpenStreetMap exports, and the transit networks from static AC Transit GTFS feeds. In this case, average job accessibility was calculated by Census block group for persons in people of color and not people of color populations, and low-income and not low-income communities, within 30, 60, and 90 minutes using the

schedules for each service change. The analysis also calculated the average travel time from an expansive grid to all Census block groups within walking distance of the AC Transit bus network.

IV. DESCRIPTION OF THE PILOT SERVICES

LINE 60 EXTENSION TO SOUTH HAYWARD BART

Since Line 22 was eliminated in 2017 to improve frequency on the other lines with which it overlapped, students and administrators at Chabot College have been requesting a direct connection between South Hayward BART and Chabot College via Tennyson. Staff identified the extension of Line 60 from Chabot down Hesperian and along Tennyson to South Hayward BART as a pilot to address those concerns. With Line 83 still suspended, this improves frequency along Tennyson – an historically disadvantaged community – and connects Chabot to the Tennyson Corridor and South Hayward BART with a one-seat ride.

Line 60 Extension Pilot Service Characteristics

Headway	40 minutes
Service Days	7 Days a week
Span	6:00 a.m. to 11:00 p.m.
Bus Type	Standard 40-foot coach
Garage	Division 6 - Hayward

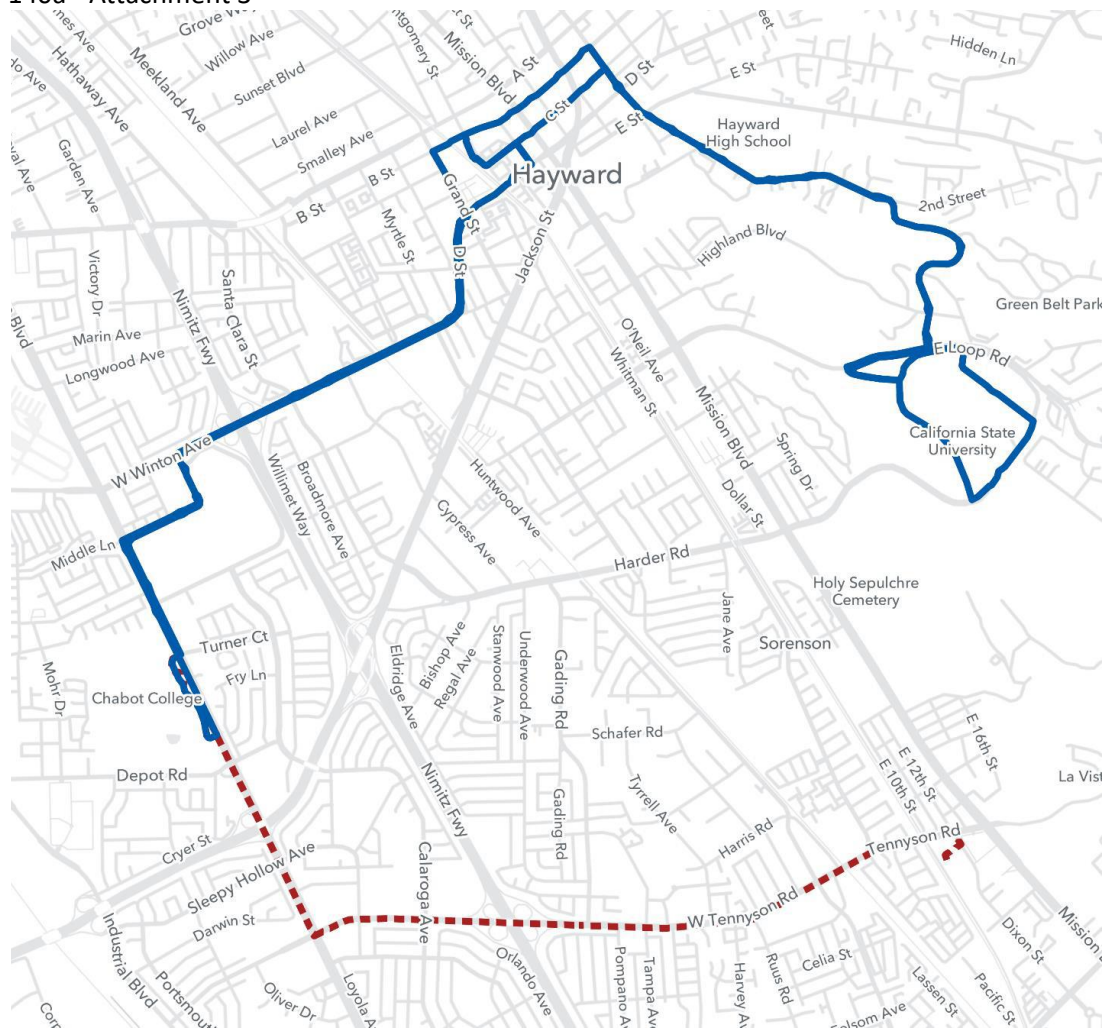


Figure 1: Red Line is Line 60 Proposed Extension

LINE 78 TO SEAPLANE LAGOON FERRY

The Water Emergency Transit Authority (WETA) opened its new Seaplane Lagoon Ferry Terminal in August 2021 and the City of Alameda and WETA coordinated with AC Transit on the appropriate means of serving it with bus service. The primary market for ferry service in Alameda is the center of the island – from Webster to Park – so a line that mimics Line 51A from Fruitvale BART to Webster before turning and serving the Seaplane Lagoon Ferry Terminal in Alameda Point is being proposed. Trips operate in peak hours in both directions and are timed to meet the ferries going to San Francisco in the morning and the ferries coming from San Francisco in the evening.

Line 78 Pilot

Service Characteristics

Headway	between 20-60 minutes; coordinated according to peak direction ferry timetable
Service Days	Mon - Fri
Span	6:00 a.m. to 9:45 a.m.; 3:00 p.m. to 10:20 p.m.
Bus Type	Standard 40-foot coach



Figure 2: Blue Line is Line 78 Proposed Pilot

V. SERVICE AREA PROFILE

The AC Transit service area population of over 1.6 million people is approximately 72% people of color and 25% people who live in low-income households (Exhibit 1).

Exhibit 1 – Population in AC Transit Service Area	
Total	1,619,969
People of Color	72.38%
Low-Income	24.73%

Race and Ethnicity

It is important to understand how race and income categories are determined for the purpose of Title VI analyses, and how that influences language used in this report. The FTA requires recipients of federal funds to evaluate fare changes to determine whether those changes have a discriminatory impact on “minority” populations. However, people that traditionally have been called “minority” make up the majority of the population in the AC Transit service area and also the large majority of AC Transit riders, so in this report, “people of color” is used to refer to people protected by the Title VI ban against discrimination on the basis of race, color, or national origin. Because Latino/a populations are protected by Title VI, only a person who identifies as white and also *not* Latino/a is part of the non-protected class in this analysis.

Income

The FTA also requires recipients of federal funds to evaluate fare changes to determine whether they would

have a discriminatory impact on low-income populations. According to AC Transit policy, a person is considered low-income if they have household income of less than two times the federal poverty rate; the 2019 federal poverty rate for a family of four is \$25,750, so a person is considered low-income for Title VI purposes if they had a household income of under \$50,000.

VI. ANALYSIS

Determining Impacts of Pilot Service Changes

As stated in the report, District staff used two different methods to conduct the service equity analysis: the Service Intensity and Service Quality analyses.

Throughout the Service Equity Analysis, the following parameters were used:

- Data related to Lines 60 and 78 within the AC Transit service area were included in the analysis.
- a typical Monday schedule was chosen to represent service throughout the week.
- “People of color” include all persons who self-identify as not white in the US Census, including all persons who identify as Latino/a or Hispanic.
- Low-income populations include all persons living in households with income less than 200% of the federal poverty level.

Service Intensity Analysis

The Service Intensity Analysis asks the question: “how did the service change affect the amount of service available to populations protected by Title VI of the Civil Rights Act compared to non-protected populations?” Staff analyzed access to service and the amount of service to protected and non-protected groups system-wide; the amount of service was also analyzed on a smaller area-wide basis.

Methodology

Staff utilized exported trip and stop data from its HASTUS scheduling software and combined it with data from the American Community Survey 5-year dataset (2015-2019). This analysis was conducted within AC Transit’s in-house Microsoft SQL Server 2017 database software. Spatial database functions were used to count the number of people who lived within 1/4 mile of bus stops pre and post the pilot service change; and to count the number of trips available to those people in both periods. The process aligns with the past AC Transit methodology used but was implemented with different software tools.

The SQL Server 2017 queries generated 1/4-mile buffers around bus stops and estimated the amount of population within the buffers. The queries also automatically counted the amount of bus service (i.e. trips) available in each of the buffers based on the service data contained in the maps.

Census data provided by the American Community Survey 2015-2019 5-year sample was extracted via the Census’ API for this dataset. In this dataset, people of color status is coded by subtracting the white, non-Latino/a population from the total population (in table B03002), and low-income status is coded at 200% of the US federal poverty rate (in table C17002).

Access to service

Staff first analyzed how many people of color and low-income people lived within 1/4 mile of a bus stop under the existing service and compared it to how many people of color and low-income people would live within a 1/4 mile of a bus stop with the proposed service. This analysis found that the overall population within 1/4 mile of service would experience no change between Fall 2021 and Winter 2021.

This analysis was repeated on Pilot Service Line 60 for the Fall and Winter 2021 service changes, and for Pilot Service Line 78 for the Spring and Fall 2021 service changes. Staff analyzed changes for people of color, non-people of color, low-income, and not low-income people, and the results were compared (Exhibits 3 thru 6).

Exhibit 3 – Pilot Service Line 60: People of Color and Non-People of Color Population within 1/4 mile of service by Service Change

People within 1/4 Mile of AC Transit Stops	Fall 2021	Winter 2021-22
People of Color	90,515	90,515
Non-People of Color	18,177	18,177
People of Color Change		0
Non-People of Color Change		0
People of Color % Difference		0.0%
Non-People of Color % Difference		0.0%
% Difference		0.0%

Exhibit 4 – Pilot Service Line 60: Low Income and Not Low Income Population within 1/4 mile of service by Service Change

People within 1/4 Mile of AC Transit Stops	Fall 2021	Winter 2021-22
Low Income	23,844	23,844
Not Low Income	84,848	84,848
Low Income Change		0
Non Low Income Change		0
Low Income Change		0.0%
Non Low Income Change		0.0%
% Difference		0.0%

Exhibit 5 – Pilot Service Line 78: People of Color and Non-People of Color Population within 1/4 mile of service by Service Change

People within 1/4 Mile of AC Transit Stops	Spring 2021	Fall 2021
People of Color	34,639	34,639
Non-People of Color	22,291	22,291
People of Color Change		0
Non-People of Color Change		0
People of Color % Difference		0.0%
Non-People of Color % Difference		0.0%
% Difference		0.0%

People within 1/4 Mile of AC Transit Stops	Spring 2021	Fall 2021
Low Income	14,247	14,247
Not Low Income	42,608	42,608
Low Income Change		0
Non Low Income Change		0
Low Income Change		0.0%
Non Low Income Change		0.0%
% Difference		0.0%

The changes in service coverage were due the implementation of two pilot service routes in direct response to the community requests – the Line 60 extension in response to students and administrators at Chabot College that requested a direct connection between South Hayward BART and Chabot College, and Line 78 to Seaplane Lagoon in response to residents of Alameda and WETA that have requested a direct connection to WETA’s Seaplane Lagoon Ferry Terminal on Alameda.

The differences between the change in coverage for people of color and non-people-of-color and for low-income and non-low-income populations all fall below the district’s threshold of 15% for disparate impacts and disproportionate burdens.

Amount of Service

Along with counting the number of people who lived near transit service, staff counted the amount of service available to the different population groups. This involved counting the number of trips passing through people-of-color census block groups within 1/4 mile of bus stops and multiplying that by the total population in those census block groups, resulting in the number of annual people-of-color-person trips near bus stops. This analysis was repeated for non-people of color, low-income, and non-low-income population groups; and was repeated using both existing and proposed service. The results of which are shown below (Exhibits 7 through 10).

The analysis found that for the Line 60 extension pilot service change, people of color received more service (3.1% more) than non-people of color (Exhibit 7), and low-income populations received slightly more service (0.9% more) than not low-income populations (Exhibit 8).

Additionally, for the Line 78 Seaplane Lagoon pilot service change, people of color received slightly less service (0.9% less) than non-people of color (Exhibit 9), and low-income populations also received slightly less service (0.8% less) than not low-income populations (Exhibit 10).

Exhibit 7 – Pilot Service Line 60: People of Color and Non-People of Color Population Annualized Person Trips by Service Change

Annualized Person Trips	Fall 2021	Winter 2021-22
People of Color	7,490,254,865	8,337,309,500
Non-People of Color	1,476,103,350	1,596,897,135
People of Color Difference	0	847,054,635

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Non-People of Color Difference	0	120,793,785
People of Color % Difference		11.3%
Non-People of Color % Difference		8.2%
% Difference		3.1%

Exhibit 8 – Pilot Service Line 60: Low Income and Not Low Income Population Annualized Person Trips by Service Change

Annualized Person Trips	Fall 2021	Winter 2021-22
Low Income	2,044,170,214	2,279,448,331
Not Low Income	6,922,188,001	7,654,758,304
Low Income Difference	0	235,278,118
Not Low Income Difference	0	732,570,302
Low Income % Difference		11.5%
Not Low Income % Difference		10.6%
% Difference		0.9%

Exhibit 9 – Pilot Service Line 78: People of Color and Non-People of Color Population Annualized Person Trips by Service Change

Annualized Person Trips	Spring 2021	Fall 2021
People of Color	6,214,408,185	6,580,728,625
Non-People of Color	3,044,833,800	3,250,896,575
People of Color Difference	0	366,320,440
Non-People of Color Difference	0	206,062,775
People of Color % Difference		5.9%
Non-People of Color % Difference		6.8%
% Difference		-0.9%

Exhibit 10 – Pilot Service Line 78: Low Income and Not Low Income Population Annualized Person Trips by Service Change

Annualized Person Trips	Spring 2021	Fall 2021
Low Income	2,836,383,866	2,995,908,038
Not Low Income	6,412,842,619	6,824,999,287
Low Income Difference	0	159,524,172
Not Low Income Difference	0	412,156,668
Low Income % Difference		5.6%
Not Low Income % Difference		6.4%
% Difference		-0.8%

AC Transit Board Policy 518 indicates:

“When people of color populations or riders as a whole will experience a 15% (or more) greater adverse effect than that borne by the non-people of color populations or riders, such changes will be considered to have a disparate impact. An adverse effect is defined as a geographical or time-based reduction in service which includes but is not limited to: elimination of a route, short turning a route, rerouting an existing route, or an increase in headways.”

AC Transit Board Policy 518 also says:

“When the proportion of low-income populations or riders as a whole adversely affected by the proposals is 15% (or more) than the proportion of non-low-income populations or riders adversely affected, such changes will be considered to have a disproportionate burden.”

Overall, access to service remained unchanged on both pilot service routes. For the Line 60 Extension pilot service, both People of Color and low-income persons see a slight increase in available trips compared with non-People of Color and not Low-Income populations. On the Line 78 Seaplane Lagoon pilot service, both People of Color and low-income persons see a slight decrease in available trips compared with non-People of Color and not Low-Income populations.

There are no adverse effects of these pilot service changes on People of Color or Low-Income Persons; and no disparate impacts nor disproportionate burdens as defined in Board Policy 518.

Service Quality Analysis

The Service Quality Analysis asks the question: how did the service change affect access to economic opportunity for protected populations compared to non-protected populations? In this case, staff used the number of jobs accessible by walking and by transit as a proxy for economic opportunity.

To accomplish this, staff carried out an Origin-Destination (or O-D) exercise using employment data from the U.S. Census Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics (LEHD LODES, or LODES) 2018 dataset. The LODES dataset provides employment numbers summarized at the block level and were aggregated by block group for this analysis.

Methodology

Staff used the open source r5 multimodal routing software package and its companion R programming language package r5r to generate combined pedestrian and AC Transit network analysis datasets reflective of the two pilot route service areas. The r5 package is primarily developed by Conveyal and is derived in part from the OpenTripPlanner project. The r5r package is primarily developed by IPEA, Brazil’s national Institute for Applied Economic Research.

The pedestrian network was derived from OpenStreetMap street centerline data and transit networks from AC Transit’s static GTFS feeds for each pilot service change. The r5 network parameters assume standard walking speeds of 1.5 meters per second (or just under three miles per hour) for pedestrian links, and average transit travel times during these periods based on GTFS transit schedules.

Using the r5r package, staff calculated travel time estimates for departures spaced every four minutes (7:00 a.m., 7:04 a.m., and so on) for the weekday AM peak period (6:00 a.m. to 10:00 a.m.). For origins, 7,999 points on a 1/5-mile grid within the AC Transit service area (Exhibit 18) were used. For destinations, 3,803 ACS block

group centroids within a two-mile radius of stops in the AC Transit bus network were used.

Using this as a starting point, each origin point was buffered by 200 feet and grouped by origin and destination block groups to ensure all origin block groups were covered in the model. Average travel times were then calculated between block groups (including walk times, out-of-vehicle wait times, and in-vehicle travel times) and the average number of jobs accessible within 30-, 60-, and 90-minute thresholds were tabulated. These job figures were then multiplied by population to make job access comparisons for people of color, non-people of color, low-income, and not low-income census block groups.

Findings

Staff evaluated the number of accessible jobs within 30-, 60-, and 90-minute average travel times (which includes both average out-of-vehicle wait times and in-vehicle travel times) and found there were no disparate impacts or disproportionate burdens as a result of the service changes.

Job Accessibility at a 30-minute Travel Time Threshold

Within a 30-minute travel time threshold, people of color experienced a greater increase in access to jobs with the introduction of both Line 60 and Line 78 pilot service changes (by 2.4% percent, and 2.2% percent, respectively). While people of color experienced slightly more of an increase when compared to non-people of color, in access following the introduction of the pilot service changes, the difference between them was less than 1 percent (Exhibit 11 & Exhibit 13), which is below the Disparate Impact threshold in Board Policy 518.

Low-income populations when compared to Not Low-Income populations also experienced a slight increase in job accessibility at a 30-minute travel time threshold with both Line 60 and Line 78 pilot service changes. The difference between the two populations was less than 1 percent on Line 60 (Exhibit 12), and slightly greater than 1 percent on Line 78 (Exhibit 14), both of which are below the Disproportionate Burden threshold in Board Policy 518.

Exhibit 11 – Pilot Service Line 60: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
People of Color	401,347,815	410,931,167
Non-People of Color	76,596,436	78,080,554
People of Color Difference	0	9,583,352
Non-People of Color Difference	0	1,484,118
People of Color % Difference		2.4%
Non-People of Color % Difference		1.9%
% Difference		0.5%

Exhibit 12 – Pilot Service Line 60: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
Low-Income	108,562,700	111,563,046
Not Low-Income	369,381,551	377,448,675
Low-Income Difference	0	3,000,345
Not Low-Income Difference	0	8,067,125
Low-Income % Difference		2.8%
Not Low-Income % Difference		2.2%
% Difference		0.6%

Exhibit 13 – Pilot Service Line 78: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
People of Color	1,038,227,301	1,061,127,514
Non-People of Color	624,688,818	632,823,900
People of Color Difference	0	22,900,213
Non-People of Color Difference	0	8,135,082
People of Color % Difference		2.2%
Non-People of Color % Difference		1.3%
% Difference		0.9%

Exhibit 14 – Pilot Service Line 78: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
Low-Income	421,254,261	433,206,833
Not Low-Income	1,241,052,558	1,260,140,381
Low-Income Difference	0	11,952,572
Not Low-Income Difference	0	19,087,823
Low-Income % Difference		2.8%
Not Low-Income % Difference		1.5%
% Difference		1.3%

Job Accessibility at a 60-minute Travel Time Threshold

Within a 60-minute travel time threshold, people of color populations retained access to more jobs than non-people of color populations. Line 60 pilot service shows a slight increase in access to jobs by less than 1% (Exhibit 15), while Line 78 pilot service sees a decrease in access to job for people of color but still slightly better than non-people of color (Exhibit 17).

Within a 60-minute travel time threshold, low-income populations, when compared to not low-income populations, retained access to jobs at a slightly better rate on the Line 60 pilot service (Exhibit 16) and loss access to jobs at a slightly lower rate on the Line 78 pilot service (Exhibit 18).

The threshold for disparate impacts or disproportionate burdens on protected populations is not met.

Exhibit 15 – Pilot Service Line 60: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
People of Color	3,912,615,638	3,921,428,680
Non-People of Color	681,277,175	681,186,914
People of Color Difference	0	8,813,042
Non-People of Color Difference	0	-90,261
People of Color % Difference		0.2%
Non-People of Color % Difference		0.0%
% Difference		0.2%

Exhibit 16 – Pilot Service Line 60: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
Low-Income	1,089,422,201	1,095,587,408
Not Low-Income	3,504,470,612	3,507,028,186
Low-Income Difference	0	6,165,207
Not Low-Income Difference	0	2,557,574
Low-Income % Difference		0.6%
Not Low-Income % Difference		0.1%
% Difference		0.5%

Exhibit 17 – Pilot Service Line 78: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
People of Color	7,450,746,604	7,304,966,743
Non-People of Color	4,695,233,785	4,563,631,808
People of Color Difference	0	-145,779,861
Non-People of Color Difference	0	-131,601,977
People of Color % Difference		-2.0%
Non-People of Color % Difference		-2.8%
% Difference		0.8%

Exhibit 18 – Pilot Service Line 78: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
Low-Income	3,047,965,259	2,990,618,179
Not Low-Income	9,089,485,905	8,869,430,072
Low-Income Difference	0	-57,347,081
Not Low-Income Difference	0	-220,055,832
Low-Income % Difference		-1.9%
Not Low-Income % Difference		-2.4%
% Difference		0.5%

Job Accessibility at a 90-minute Travel Time Threshold

Within a 90-minute travel time threshold, people of color loss access to more jobs than non-people of color with for both the Line 60 and Line 78 pilot service changes (Exhibit 19 & Exhibit 21, respectfully).

Within a 90-minute travel time threshold, low-income populations loss access to jobs at a slightly slower rate than not low-income populations with each pilot service change (Exhibit 20 & Exhibit 22).

The threshold for disparate impacts or disproportionate burdens on protected populations is not met.

Exhibit 19 – Pilot Service Line 60: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
People of Color	13,146,168,813	12,753,779,672
Non-People of Color	2,427,220,843	2,358,328,447
People of Color Difference	0	-392,389,141
Non-People of Color Difference	0	-68,892,396
People of Color % Difference		-3.0%
Non-People of Color % Difference		-2.8%
% Difference		0.2%

Exhibit 20 – Pilot Service Line 60: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Fall 2021	Winter 2021
Low-Income	3,630,514,175	3,519,332,601
Not Low-Income	11,942,875,481	11,592,775,518
Low-Income Difference	0	-111,181,574
Not Low-Income Difference	0	-350,099,963
Low-Income % Difference		-3.1%
Not Low-Income % Difference		-2.9%
% Difference		0.1%

Exhibit 21 – Pilot Service Line 78: People of Color and Non-People of Color Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
People of Color	27,781,366,169	27,270,835,879
Non-People of Color	17,772,028,725	17,459,915,037
People of Color Difference	0	-510,530,290
Non-People of Color Difference	0	-312,113,688
People of Color % Difference		-1.8%
Non-People of Color % Difference		-1.8%
% Difference		0.0%

Exhibit 22 – Pilot Service Line 78: Low-Income and Not Low-Income Population Jobs Accessibility by Service Change

Jobs Accessibility	Spring 2021	Fall 2021
Low-Income	11,238,722,582	11,043,387,786
Not Low-Income	34,280,379,987	33,654,204,130
Low-Income Difference	0	-195,334,795
Not Low-Income Difference	0	-626,175,858
Low-Income % Difference		-1.7%
Not Low-Income % Difference		-1.8%
% Difference		0.1%

VII. PUBLIC ENGAGEMENT

As part of the outreach leading up to the public hearing, AC Transit staff publicized the proposed extensions to maximize peoples' opportunity to provide input regarding the proposed service changes. These meetings were promoted using a variety of digital and traditional strategies, including: website notices, eNews, social media posts, at-stop signage, rail hangers on buses serving the affected areas, posted notices at the AC Transit General Offices and Alameda and Hayward city halls, distribution via external stakeholders' networks and

In order to ensure that people with limited English proficiency who live near or ride the affected lines could understand the proposals and opportunities to provide comment about them, materials and information were provided in three languages – English, Spanish, and Chinese. Spanish and Chinese interpreters were provided at the AC Transit virtual public hearing, and notice of their availability was included in materials advertising the virtual meeting.

The virtual public hearing was hosted in three languages, with all on-screen materials translated in advance and audio provided by default in English, Spanish, and Chinese to allow for full immersion for participants in all three languages. In total, the District received 169 public comments and the virtual public hearing was attended by a total of 18 participants.

VIII. CONCLUSION

Considering together the data reviewed in the major service change analysis, this report finds no disparate impacts or disproportionate burdens on protected populations as a result of the proposals codified in Resolution No. 22-013.