



Short-Range Transit Plan

Alameda-Contra Costa Transit District SRTP | Fiscal Years 2019 – 2029



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Chapter 1: Introduction

1.1 Reasons for Preparing the SRTP

The Short-Range Transit Plan (SRTP) is a fiscal, planning and regulatory document which AC Transit is mandated to prepare. The SRTP must incorporate the detailed list of elements included in the Metropolitan Transportation Commission's (MTC) resolutions which govern Short Range Transit Plans: Resolutions 3532 and 4276. These elements are in turn derived from requirements of the Federal Transit Administration (FTA). Beyond the requirements, the SRTP is an opportunity for the District to gather important information in a single document to support planning in the next few years.

1.2 Current and Previous SRTPs

AC Transit's previous SRTP was prepared in 2017 but was not adopted by the Board of Directors because the District was simultaneously developing its Strategic Plan, which would provide more clarity to the SRTP. In the brief period since then, the fundamental characteristics of AC Transit as an agency and the Inner East Bay (AC Transit's geographic district) have remained the same.

However, some changes have occurred. The Tempo Bus Rapid Transit (BRT) line between Downtown Oakland and San Leandro is nearing completion the winter of 2019-2020. The Salesforce Transit Center in San Francisco opened in August 2018 before closing six weeks later due to concerns regarding structural beams. It re-opened to bus traffic in August 2019. Additional operating funding provided by Alameda

County Measure BB has allowed a modest expansion of service throughout the Alameda County portion of the District under a service planning effort entitled AC Go.

Urban residential construction has accelerated particularly in and near Downtown Berkeley, Emeryville, the Macarthur Transit Village, Downtown Oakland, and Fremont. The need for affordable housing has worsened throughout the region, requiring more workers to commute further. Inner East Bay job growth has not been as rapid as in San Francisco or Silicon Valley. However, Downtown Oakland has become increasingly appealing to employers. On a smaller scale, a new major employment and residential district is being established around the Warm Springs BART station in Fremont. BART is expected to open its extension to Berryessa by early 2020.

1.3 Relationship to Other Plans, Projects, and Actions

The SRTP provides a summary of and direction to other planning documents. It incorporates AC Transit's Strategic Plan, our goals and standards, operating and capital budgets, and service plan. At the same time, it is intended to set the context for future service and capital projects. The SRTP reflects the 2017 operating and capital budget adopted by the Board of Directors.

The SRTP also acknowledges the importance of the Tempo BRT project. Projects like BRT are specifically listed as topics for the SRTP in the Metropolitan Transportation Commission's (MTC) SRTP guiding

Resolution 3532. The SRTP incorporates service changes made as part of the Service Expansion Plan – the SEP (now called AC Go), adopted in January 2016. AC Transit has implemented nearly all the changes associated with AC Go, but funding and operator availability challenges have required the District to indefinitely postpone some frequency improvements. A final phase of AC Go is underway in the form of a plan for service in the cities of Newark and Fremont (also known as Special District 2). The plan should be complete and adopted in Early 2020 with implementation in the middle of 2020.

AC Transit is currently developing other planning documents. The District recently completed its first Strategic Plan in over 20 years. The Strategic Plan is intended to establish District-wide goals and values, and to consider the optimal trajectory for the agency in the next 10 years. The District also created a Facilities Utilization Plan, Clean Corridors Plan, and a Zero-emissions Bus Study to evaluate upcoming facility needs, prioritize corridors for zero-emission bus deployments and lay the groundwork for a complete transition to zero-emissions buses by 2040 in compliance with the California Air Resources Board's (CARB) Innovative Clean Transit Rule. With the passage of Regional Measure 3, the District is also undertaking the second phase of a plan for the restructuring and expansion of Transbay (Bay Bridge only) service; the plan is known as "Transbay Tomorrow." Because these plans are in progress, the SRTP will report on the status of these plans but will not be able to report on their outcomes.

AC Transit is participating in several corridor plans to improve transit and transportation through roadway and service improvements. The plans are at various stages of planning and implementation. The District is working with the Alameda County Transportation Commission (ACTC) on the Mission-E. 14th Corridor, with ACTC and the Contra Costa Transportation Authority (CCTA) on San Pablo Avenue, and with the city of Oakland on Grand Avenue.

AC Transit manages the contracted Dumbarton Express service in the Dumbarton corridor (see Chapter 2, Section 2.6) in addition to its own Line U to Stanford. MTC is now leading a follow-on study, Dumbarton Forward, to identify short-term transit improvements in the Dumbarton corridor. Concurrently, SamTrans led a longer-term study that includes expanded service in the corridor, and covers the service area of four transit agency service areas. These efforts are alongside SamTrans' consideration of initiating passenger rail service across the corridor.

1.4 SRTP Structure

This SRTP is structured to follow MTC's Resolutions 3532 and 4276 to ensure all required topics are covered.

Chapter 3 sets out the agency's Goals, Objectives, and Standards, which are then applied in Chapters 4 and 5. Chapter 4 provides the service and system evaluation. Building on that evaluation, Chapter 5 consists primarily of the 10-year operations plan and operations budget. Continuing the budget focus, Chapter 6 details the capital budget. Chapter 7 discusses projects which are in MTC's transit expansion Resolution 3434, BRT and the Major Corridors Study. Chapter 8 is an optional chapter, added at the direction of the Board of Directors in the last SRTP, which considers AC Transit's long-term vision and future.

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Chapter 2: Overview—The AC Transit District and AC Transit

2.1 The AC Transit district—the place where AC Transit provides service

The AC Transit district is distinctive among American transit districts. Most large American transit agencies focus on a single city (e.g. Long Beach Transit) or serve a full metropolitan region (e.g. Washington Metropolitan Area Transit Authority). The AC Transit district is a sub-region of a large metropolis. The area is sometimes referred to as the “Inner East Bay.”

The AC Transit district had an estimated 2010 population of 1,425,000, or roughly 20% of the nine county Bay Area, encompassing the western side of Alameda and Contra Costa Counties. Approximately 85% of the district’s population is in Alameda County, while 15% is in Contra Costa County.

Recent population growth in the district has been relatively modest—most cities are estimated to have grown 7-12% between 2010 and 2017 (Emeryville was an outlier with 17% growth). In Oakland, the central area of the city near Downtown has new residential developments and is gaining population, while population has been declining modestly elsewhere in the city. Employment growth has also been moderate by Bay Area standards; growth has focused around the University of California Berkeley, Emeryville’s core area, Downtown Oakland, and Fremont, although other East Bay cities have experienced more moderate levels of growth.

The district is unusually long and narrow—about 45 miles south to north, but less than 10 miles east to west. The district runs from Richmond in the north to Fremont in the south, encompassing 364 square miles. The AC Transit district includes 13 cities listed in the table below. Oakland, the largest city and the historic center, houses just under 30% of the district’s population; the next largest city—Fremont—has about 15%. There are also unincorporated areas in Alameda and Contra Costa Counties, which together constituted 12% of the district’s 2010 population. Union City, which operates its own transit agency, is not part of the AC Transit district.

Overall, the Alameda County portion of the AC Transit district is more densely populated than the Contra Costa portion. There is an average of 4,481 people per square mile in the Alameda portion of the AC Transit district.

Individual city densities are listed in the table below. In general, the more densely populated an area is, the more it can support transit service. By way of comparison, San Francisco has 18,653 people per square mile, while Walnut Creek has 3,498 people per square mile.

San Francisco is not in the AC Transit district, but Downtown San Francisco is an important destination for AC Transit riders. San Francisco has one of the largest downtowns in the United States. Downtown San Francisco has been adding jobs (and residents) in recent years, and thus growing steadily as a destination. In 2010, Downtown

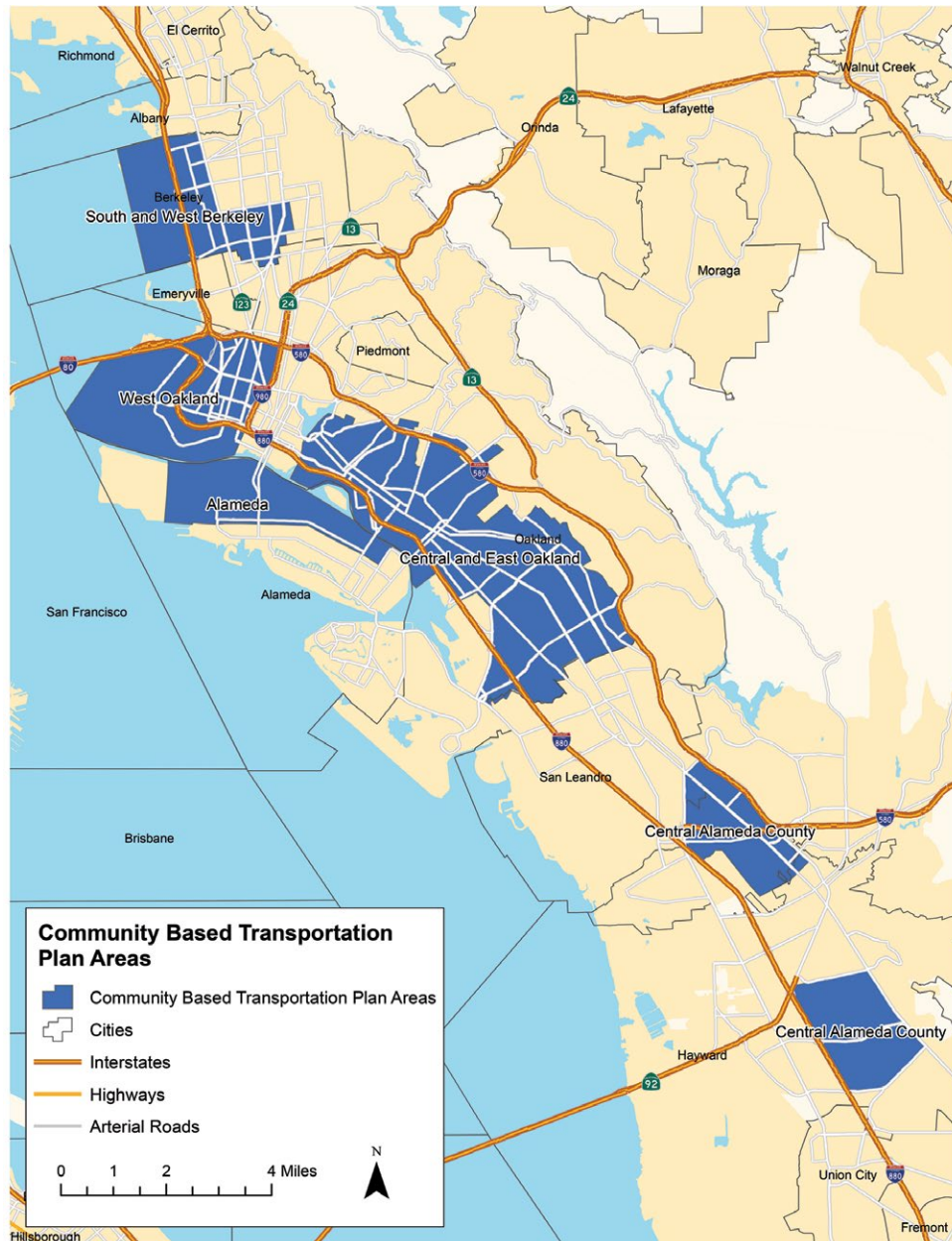
San Francisco had approximately 300,000 jobs (exclusive of the Civic Center Area), while Downtown Oakland had 113,000, and Downtown San Jose had 70,000. AC Transit operates service into the Salesforce Transit Center and does not travel to other destinations in San Francisco, except for the skeletal All-Nighter network that travels into the Mission District.

The cities in the AC Transit district are listed below with key characteristics:

Exhibit 1: Summary Characteristics of Cities in the AC Transit District

City	Population (2017 estimates)	Land Area (square miles)	Population Density (persons per square mile)	Pop. Density Rank	Selected Transit Arterial Streets	Selected Key Transit Hubs	Key Activity Centers
Richmond	110,040	30.1	3,655	10	Macdonald Ave., San Pablo Ave.	Richmond BART, Richmond Parkway Transit Center	Hilltop Mall, Richmond Field Station
San Pablo	30,536	2.6	11,744	1	San Pablo Ave., 23rd St.	Contra Costa College Transit Center	Contra Costa College
El Cerrito	25,400	3.7	6,864	7	San Pablo Ave., Arlington Blvd.	El Cerrito Del Norte BART	El Cerrito Plaza, San Pablo Ave.
Albany	20,143	1.8	11,190	2	San Pablo Ave., Solano Ave.	On-street service—Solano & San Pablo	Solano & San Pablo Commercial Area
Berkeley	112,324	10.5	10,697	3	Shattuck Ave., University Ave., San Pablo Ave.	Downtown Berkeley BART, Sather Gate on street center	University of California, Berkeley, Downtown Berkeley
Emeryville	11,671	1.3	8,977	4	San Pablo Ave., 40th St.	40th & San Pablo on-street transit center	Bay Street and adjacent shopping centers
Piedmont	11,353	1.7	6,678	9	Oakland Ave.	None	None
Oakland	425,195	55.9	7,606	6	International Blvd., Telegraph Ave., Broadway	Uptown Transit Ctr., City Center BART, Fruitvale & Coliseum BART	Downtown/Uptown Oakland, Oakland Airport
Alameda	79,177	10.4	7,613	5	Webster St., Santa Clara Ave., Park St.	On-street service Park & Santa Clara	Park & Webster streets business districts
San Leandro	90,553	13.4	6,757	8	East 14th St., Bancroft Ave.	San Leandro BART, Bayfair BART	Bayfair Mall
Hayward	160,500	45.5	3,567	11	Mission Blvd., Hesperian Blvd.	Hayward BART	Southland Mall, Cal State East Bay
Newark	47,531	13.9	3,419	12	Newark Blvd., Decoto Rd.	Ardenwood Park & Ride (Transbay)	Newpark Mall, Chabot College
Fremont	234,962	77.5	3,031	13	Fremont Blvd., Mowry Ave.	Fremont BART, Warm Springs BART	Ohlone College, Pacific Commons

Map 1: The District—Cities and Unincorporated Communities



2.2 Serving the AC Transit District— AC Transit and Other Operators

AC Transit has operated in a multi-operator environment for most of its history. The strongest connection is with The Bay Area Rapid Transit District (BART), which has 21 stations within the AC Transit district (nearly half the BART system total). BART is the only transit operator which regularly carries more passengers from the East Bay than AC Transit. BART is the principal transit mode across the Bay. Recent crowding on the BART system has encouraged more use of AC Transit Transbay buses.

AC Transit also connects to numerous other rail, bus and shuttle providers (listed at right). Many of these services only operate for limited hours. In some cases, AC Transit also provides parallel bus service to these destinations. Despite the large number of operators, these services generally have small ridership compared to AC Transit or BART.

Connecting Services:

To Sacramento and San Jose: Amtrak Capitol Corridor at 7 stations between Centerville (Fremont) and Richmond including Oakland Jack London, Emeryville, and (West) Berkeley.

To Milpitas and San Jose: Santa Clara Valley Transportation Authority (VTA) at Fremont and Warm Springs and at shared on-street stops

To Stanford University destinations: Marguerite Shuttle at Stanford University stops

To Union City destinations: Union City Transit at Union City BART, Union Landing Transit Center, and on-street stops in Union City

To San Mateo County: SamTrans at Hillsdale Caltrain station

To Cal State East Bay (Hayward): Hillhopper shuttle from Hayward BART

To San Leandro Industrial area: LINKS at San Leandro BART.

To Kaiser San Leandro: Kaiser shuttle at San Leandro BART

To San Francisco Peninsula cities: Caltrain at Hillsdale Caltrain station in the city of San Mateo

To San Francisco: Water Emergency Transit Agency ferries at Harbor Bay and Richmond

To San Francisco destinations including Civic Center and Mission Bay: San Francisco Municipal Transportation Agency (Muni) at Salesforce Transit Center

To Emeryville: Emery Go-Round at Macarthur BART

To Oakland Hospitals: Kaiser Shuttle, Children's Hospital, and Sutter Hospital; Shuttles at Macarthur BART

To West Berkeley: West Berkeley Shuttle at Ashby BART

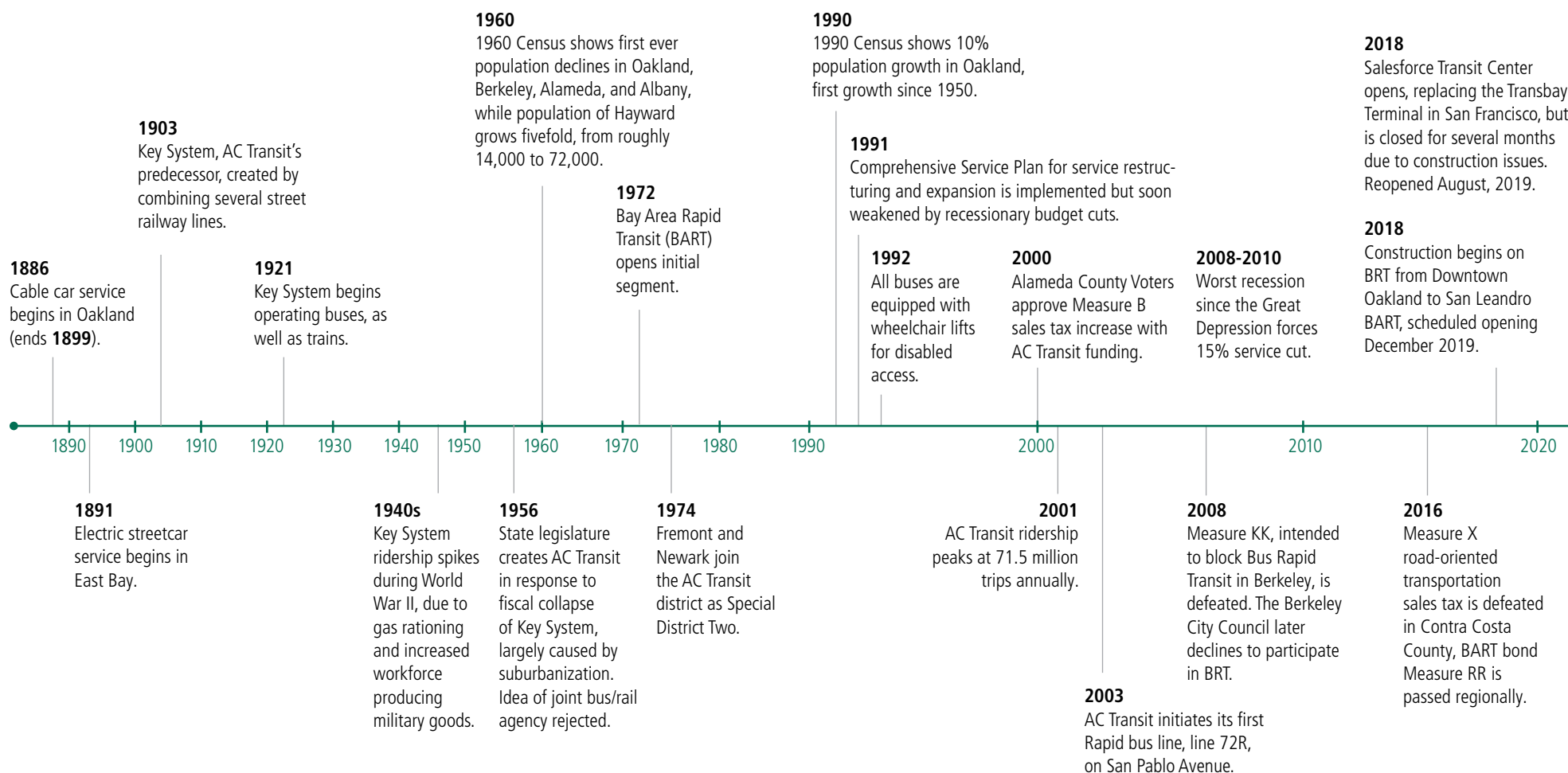
To UC Berkeley: BEAR Transit at Downtown Berkeley BART

To San Rafael: Golden Gate Transit at El Cerrito Del Norte BART

To Vallejo and Solano County: SolTrans at El Cerrito Del Norte BART

To Napa city and the Napa Valley: VINE Transit at El Cerrito Del Norte BART

2.3 Timeline of AC Transit and Related History



2.4 Governance and Organizational Structure

Governance

AC Transit is a public special district authorized under state legislation in 1955 and established by a vote of the people in 1956. In 1974, the southern Alameda County cities of Fremont and Newark (but not adjacent Union City) joined the AC Transit District. The district covers most of western Alameda and Contra Costa counties, from Richmond to Fremont, with a 2010 population of approximately 1,425,000.

AC Transit is governed by a seven-member non-partisan, elected Board of Directors. Five board members are elected from wards, which, as of the 2010 Census, have approximately 285,000 residents each. Two of the board members are elected at-large (from the entire AC Transit district). Elections take place as part of the November General Election in even numbered years, so the next election will be in November 2020. AC Transit is one of only three transit agencies in the country (BART is another) with a directly elected Board.

The current Board members are:

Joe Wallace, Ward 1, President, representing Albany, portions of Berkeley, Richmond, San Pablo, El Cerrito, unincorporated areas of Contra Costa County (Kensington, East Richmond Heights, El Sobrante, Rollingwood, and North Richmond), term expires December 2020

Elsa Ortiz, Ward 3, Vice-President, representing Alameda city and portions of Oakland and San Leandro, term expires December 2022

Greg Harper, Ward 2, representing Emeryville, Piedmont, and portions of Berkeley and Oakland, term expires December 2020

Mark Williams, Ward 4, representing portions of San Leandro and Hayward, and the unincorporated areas of Alameda County (San Lorenzo, Ashland, Cherryland, Castro Valley, and Fairview), term expires December 2022

Diane Shaw, Ward 5, representing Fremont, Newark, and portions of Hayward, term expires December 2022

Chris Peebles represents the District at-large, term expires December 2020

Joel Young represents the District at-large, term expires December 2022

AC Transit Organizational Structure

Management and Staff

The executive managers of AC Transit are as follows:

General Manager
Michael Hursh

District Secretary
Linda Nemeroff

General Counsel
Denise Standridge

Chief Operating Officer
Salvador Llamas

Chief Financial Officer
Claudia Allen

Executive Director of Planning & Engineering
Ramakrishna Pochiraju

Chief Information Officer
Ahsan Baig

Executive Director of External Affairs, Marketing & Communications
Beverly Greene

Executive Director of Human Resources
Nathaniel Kramer

2.5 Unions at AC Transit

Most employees at AC Transit are represented by one of three unions. Amalgamated Transit Union (ATU) local 192 is the largest and oldest union, representing an estimated 1,800 bus operators, mechanics, maintenance workers, and related occupations. American Federation of State County and Municipal Employees (AFSCME) local 3916 represents approximately 290 professional, administrative, clerical, and technical staff. The International Brotherhood of Electrical Workers (IBEW) Local 1245 represents 32 members, chiefly electricians and electronic technicians. Executive management, confidential and contract employees are not represented by a union.

As of November, 2019, AC Transit is engaged in negotiations with ATU to develop an updated bargaining agreement.

2.6 Contracted Transportation Services

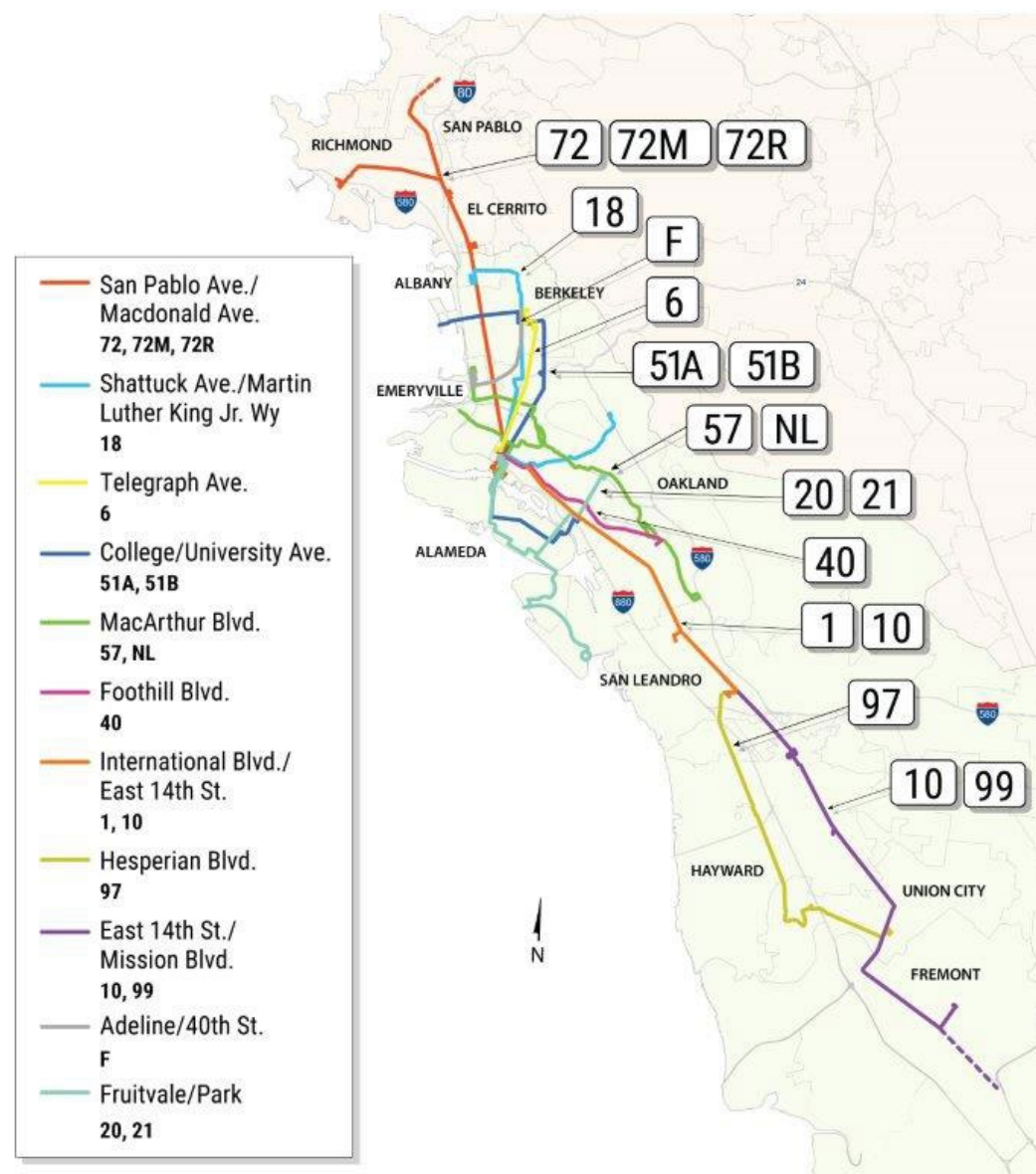
AC Transit contracts (on behalf of the Dumbarton Bridge Regional Operations Consortium) with MV Transportation to operate the Dumbarton Express (DB and DB1) routes. These routes provide connections from the Union City BART Station via the Dumbarton Bridge to locations in San Mateo and Santa Clara County.

Paratransit service is provided by companies which contract with East Bay Paratransit, a consortium of AC Transit and BART which provides Americans With Disabilities Act (ADA)-mandated paratransit service in the East Bay. See the Paratransit section for more details.

2.7 Service Structure and Service Types

AC Transit's Service types are defined in part operationally, such as trunk, rapid, and Transbay (express) routes. Several service types are defined by the land use characteristics of their corridors: urban cross-town, suburban crosstown and very low-density routes which are defined in Board Policy 545, Service Standards and Design Policy.

Map 2: Trunks and Major Corridors



- **Trunk Routes:** The main East Bay routes that operate—primarily in a north-south direction—along major streets in high ridership areas, the “backbone” routes of the AC Transit system. (Examples: Lines 1, 6, 18, 40, 51A, 51B, 57, 72, 72M)
- **Major Corridor Routes:** Similar to trunks, but operate in lower population densities and have lower passenger volumes. (Examples – Lines 10, 97, 99)
- **Rapid Routes:** Routes that operate along trunk corridors with elongated stop spacing and transit signal priority for greater speed. (Only current Rapids: Line 72R, San Pablo Avenue Rapid)
- **All Nighter Route:** Six routes which operate at night (roughly midnight-5 am) to provide lifeline service along trunk and major routes.
- **Urban Crosstown Routes:** The secondary routes in the higher density areas of the East Bay (generally over 10,000 people per square mile) that connect to the trunk and major corridor routes and form a four-direction system. Parts of Alameda, Oakland, Berkeley, Richmond, and San Pablo meet this density criterion (Examples – Lines 62, 98)
- **Suburban Crosstown Routes:** Connectors and feeder routes serving low- density (5,000-10,000 people per square mile) portions of the district. Parts of El Cerrito, Alameda, San Leandro, Castro Valley and Hayward meet this density criterion. (Examples – Lines 41 and 56)
- **Very Low-Density Routes:** Routes that operate in areas with population densities below 5,000 people per square mile. This includes many hill areas and parts of Fremont and Newark. (Example – Line 212)
- **Transbay Routes:** Routes that cross one of the San Francisco Bay bridges, operating between the East Bay and San Francisco or other West Bay destinations along the Peninsula. (Examples – Lines F, J, M, NL, O)
- When the **Bus Rapid Transit (BRT)** line begins to operate, generally with in-roadway stations on a dedicated right-of-way, it will represent an additional service type. BRT will replace Line 1 on International Boulevard/East 14th Street.
- **Community Flex Routes**—which provide service to a zone rather than a delineated route—have been launched in Newark and Castro Valley.



Trunk and Major Corridor Routes

AC Transit operates eight trunk routes and five major corridor routes. Trunk routes typically operate along major streets and provide the most frequent service, the longest operating hours and support the highest ridership. Examples include Line 40 from downtown Oakland to Bay Fair BART along Foothill Boulevard; Line 51A from Fruitvale to Rockridge principally via Santa Clara Street in Alameda and Broadway in Oakland; and Line 57 from Emeryville to Foothill Square in Southeast Oakland along MacArthur Boulevard.

The trunk routes are the busiest routes—the “spines” of the AC Transit system. Trunk routes generally operate from approximately 5:00 am to midnight on weekdays and 6:00 am to midnight on weekends. Some trunk routes have “owl” or “all-nighter” service operating on modified routes or schedules between midnight and 5:00 am. Saturday and Sunday schedules are generally the same as each other, though a few differentiated schedules have been introduced. Major corridors generally operate somewhat less frequently and often along shorter routes than trunk routes. The district also operates six “All-nighter” routes that run between the Salesforce Transit Center and the East Bay between the hours of midnight and 6:00 am, primarily traveling along trunk corridors.

Rapid Bus Lines

AC Transit now operates a single Rapid Bus line: Line 72R (San Pablo Avenue) from Oakland to the city of San Pablo via Emeryville, Berkeley, El Cerrito, and Richmond. The agency previously operated a Rapid line along International Boulevard in Oakland, but this route has been converted to a regular trunk route to facilitate construction of a Bus Rapid Transit line. The Rapid service type is sometimes described as “Bus Rapid Transit (BRT) Lite.” Rapid lines have various characteristics to improve travel times, including less frequent stops (generally 1/2 to 2/3-mile apart), transit signal priority, and stops located on the far side of intersections. They are intended to offer faster travel times compared to the local buses on the same corridor.

Local Service

The agency operates 42 local lines classified as urban crosstown routes, suburban crosstown routes, very low-density routes, and one feeder route (Line 339). Urban crosstown lines tend to have higher ridership, operate more frequently, and have longer hours of operation.

Local service is structured, where possible, as a grid of routes on major streets, to maximize access and minimize transfers. Northern Alameda County, southern Alameda County, and the southern portion of West Contra Costa County have grid-based roadway and service networks. However, the northern section of West Contra Costa County and Central Alameda County have roadways which are based on a more radial pattern.

The Service Expansion Plan titled AC Go—discussed further in Chapter 6—was designed in part to strengthen the route grid, especially by improving east-west service in Oakland, Emeryville, and Berkeley. Most of the AC Transit system’s busiest lines radiate out from Downtown Oakland, often following historic Key System streetcar and bus lines. Given the high cost of adding new service as well as challenges with recruiting and retaining bus operators, not all the planned grid lines under AC Go have been added, and some have been added with less service than planned.

Supplemental Service

On school days, AC Transit operates 51 routes serving public and private middle schools and high schools. These routes are open to the public. Where possible, the agency consolidates school service with underlying local routes. Nearly half (43%) of AC Transit’s supplemental service is provided for the Oakland Unified School District (OUSD).

Transbay Express Service

AC Transit operates express service via freeways and bridges from the East Bay to San Francisco and the mid-Peninsula. These routes are known as “Transbay” routes. There are 29 Transbay routes—all but two (Lines M and U) serve Downtown San Francisco. Transbay routes

are designated with letters, rather than numbers, to help distinguish the service. Many of these designations date back to the Key System. Most Transbay routes (23) operate in the weekday peak direction only. Line Z operates as a reverse commute route (eastbound in the morning) from San Francisco to Berkeley and Albany.

Three routes to San Francisco—Line F from Berkeley, Line NL from Eastmont Transit Center, and Line O from Alameda—operate all day, seven days a week. These routes operate in both directions all day, providing both local service and Transbay service for reverse commuters from San Francisco to Alameda, Downtown Oakland, and Downtown Berkeley. In 2018, Transbay routes carried an average of 18,370 people per weekday, or 10.5% of AC Transit's average weekday ridership. Transbay ridership has been steadily increasing for several years. Some Transbay routes, particularly the all-day routes, have substantial ridership within the East Bay.

Atypical Service

Several routes have atypical service patterns: Lines 314 and 356, operate two to three days per week as community service routes. Line 376 operates as a late evening (but not all night) circulator in West Contra Costa County.

Future Changes to Service Categorization

The existing categorization in Board Policy 545 does not include a definition of a rapid bus without an underlying local route. This is a potential service type which AC Transit is considering (especially for the Telegraph Avenue corridor)—which would have wider stop spacing than a typical local route but not as wide as rapid bus spacing. The goal is to provide both faster service and stops convenient to most passengers' origins and destinations. This type of stop-spacing will be implemented on the District's Bus Rapid Transit project and the recently updated Board Policy 501 provides direction regarding hybrid rapid bus stop spacing.

At present, AC Transit does not operate express buses within the East Bay but will consider potential routes being developed for Western Contra Costa County and is studying the issue independently. This would create a new express bus route categorization, separate from Transbay buses.

2.8 Services Provided in Partnership with Other Agencies

The services listed below are provided in partnership with others, who provide funding contributions and/or policy oversight.

- **Broadway Shuttle:** The Broadway shuttle in Downtown Oakland is sponsored by the City of Oakland, funded primarily by AC Transit and in part by the Bay Area Air Quality Management District, and operated by AC Transit.
- **Line U:** Line U travels from Union City to Stanford and is fully funded by MTC, Stanford University and the Stanford Medical Center to help meet the University's requirement to limit peak auto trips to campus.
- **Lines 800 and 801:** Through funding from the Bay Area Rapid Transit District (BART), All-nighter weekend service on line 800 (San Francisco to Richmond via Oakland and Berkeley) and on line 801 (International Boulevard and East 14th Street) is augmented to provide 20-minute frequency rather than the baseline 30-minute frequency.
- **Line 19:** Line 19 travels from the Fruitvale BART Station to Downtown Oakland via the newly developing Buena Vista Corridor in Alameda. This line was introduced as part of AC Go in 2017. The City of Alameda along with developers along the corridor provided additional funds to increase the frequency of the service from 30 minutes to 20 minutes in order to meet transportation conditions of approval placed on the developer by the City.
- **Early Bird Express Bus Service:** BART is undertaking a major construction program, which requires that their system open later in the morning. As a BART funded replacement service, AC Transit is operating 7 "Earlybird" routes between 4:00 am and 5:00 am. These routes throughout the East Bay, as far east as Antioch. This service is expected to be in place for several years.

2.9 Accommodation of Bicycles

All AC Transit buses have front bike racks that can hold two bicycles. New buses are all equipped with racks that can hold up to three bicycles. The 5 door BRT buses will have space for two bikes inside the bus. Median stations will also have bike parking.

2.10 Demand Responsive Service

AC Transit participates in the East Bay Paratransit Consortium with BART. AC Transit pays 69% of East Bay Paratransit costs and BART pays 31%. East Bay Paratransit provides service to people determined to be unable to use standard fixed route transit such as AC Transit or BART. Trips are provided using vans. East Bay Paratransit service is available by reservation for destinations within three quarters of a mile of a bus stop during the hours when the bus operates. Paratransit passengers can access the Bay Area, although connecting to another vehicle can be required. East Bay Paratransit estimated that it provided approximately 770,782 trips in Fiscal Year 2017-18, equivalent to about 1.4% of the fixed route ridership on AC Transit. For further discussion of paratransit, see Chapter 4.

In 2017, The AC Transit Board approved the long-term continuation of two demand-responsive "Flex" services in Newark and Castro Valley, replacing low density, low productivity routes. In Newark, the flex service replaced line 275, which has been discontinued. Unlike paratransit service, which is targeted to the elderly and the disabled, there is no restriction on who may use this service.

2.11 Fares and Passes

The tables below outline AC Transit's current fare structure. The discounted senior fare goes beyond the federal mandate to provide an off-peak senior fare not to exceed 50% of the base fare and provides the discount at all times. The District is recently adopted a schedule of regular adjustments to its local and Transbay fares and has recently made changes to its EasyPass institutional pass program.

Exhibit 2: Cash Fares

Cash Fares	Adult Age 19 - 64	Youth Age 5 - 18	Senior Age 65 + & Disabled
Local Single Ride	\$2.50	\$1.25	\$1.25
Local Day Pass	\$5.50	\$2.75	\$2.75
Transbay Single Ride	\$5.50	\$2.75	\$2.75

Exhibit 3: Clipper Fares

Clipper Fares	Adult Age 19 - 64	Youth Age 5 - 18	Senior Age 65 + & Disabled
Local Single Ride	\$2.25	\$1.12	\$1.12
Local Day Pass	\$5.00	\$2.50	\$2.50
Transbay Single Ride	\$5.50	\$2.75	\$2.75

Transbay rides are discounted to an "upgrade fare."

Exhibit 4: Passes

Passes	Adult Age 19 - 64	Youth Age 5 - 18	Senior Age 65 + & Disabled
Adult Local 31 - day	\$84.60	\$34.00	\$34.00
Transbay 31 - day	\$198.00	N/A	N/A
Day Pass	\$5.00 - 5.50	\$2.50 - 2.75	\$2.50 - 2.75

Fares effective July 1, 2019. Youth Pass available to youths age 5 to 18. Disabled pass only available on a Regional Transit Connection (RTC) discount Clipper card. Senior Pass only available to riders 65 + years old. Day Pass only available on board the bus.

Cash-paying riders receive a \$0.25 discount on local rides to and from BART with a two-part paper transfer issued at BART. With Clipper the discount is applied as a one-time \$0.50 discount on the first local bus trip away from BART.

EasyPass

The District also offers the EasyPass, a deeply discounted system-wide pass, to groups such as colleges, workplaces, and residential complexes. Passes must be purchased for all members of the defined group. Prices are based on number of passes purchased and the level of transit service available at or near the site. Pass prices range from \$59 to \$259 per participant per year (or \$4.92 to \$21.58 per month), depending on the level of bus service, the number of participants, and the type of facility served. The EasyPass pricing structure was modified AC Transit Board of Directors in September, 2019.

Measure BB includes a no-cost student/youth transit pass pilot project, with pilot implementation at middle and high schools in Oakland, San Leandro, Hayward, and in the New Haven (Union City) School District.

Paratransit Fares

Paratransit fares charged within the East Bay are based on distance:

- 0-12 miles: \$4.00
- 12-20 miles: \$6.00
- Over 20 miles: \$7.00

Paratransit Fare to San Francisco

- \$6.00 - \$10.00, depending on destination
- \$2.50 surcharge if destination is outside BART service area

Interagency Fares

AC Transit has interagency fare discount agreements with most of the transit agencies it connects. The San Francisco MTA (Muni) and Fairfield/Suisun Transit (FAST) are exceptions. The basic fare structure of these agreements is listed below. Many of the connections listed in Section 2.2 are with shuttle operators, which are typically free to the passenger.

Exhibit 5:

Inter-Agency Transfers To AC Transit		
TRAVELING FROM:	WHEN USING CLIPPER CARD	WHEN USING CASH
BART	One 50-cent discount on the AC Transit local fare	A 25-cent discount on two subsequent AC Transit local rides
Caltrain, Samtrans <i>(monthly passes only)</i>	Route M: One free transfer to the local portion or one discounted transfer to the transbay portion	NOT APPLICABLE Transfer credit on Clipper only
Capitol Corridor	NOT APPLICABLE	One free transfer to AC Transit local routes, or fare credit for transbay service: Transbay upgrade fare paid in cash: \$3.15 Adult, \$1.60 Youth/Senior/Disabled
FAST	NOT APPLICABLE	One free transfer to AC Transit local routes at intersecting points. Obtain transfer from FAST operator
Golden Gate Transit, Union City Transit	One free transfer to AC Transit local routes or one discounted transfer to AC Transit transbay routes	One free transfer to AC Transit local routes or discounted fare on Transbay routes: Transbay upgrade fare paid in cash
San Francisco Bay Ferry	One free transfer to AC Transit local routes or one discounted transfer to AC Transit transbay routes	NOT APPLICABLE, Transfer credit on Clipper only
VTA <i>(monthly passes or EcoPassesSmartPass only)</i>	One free transfer to AC Transit local routes or one discounted transfer to AC Transit Transbay Express routes	One free transfer to AC transit local routes or discounted fare on Transbay Express routes.
WestCat local routes, local portion of Lynx route	One free transfer to AC Transit local routes	One free transfer to AC Transit local routes with WestCAT transfer

Inter-Agency Transfers From AC Transit		
TRAVELING TO:	WHEN USING CLIPPER CARD	WHEN USING CASH
Golden Gate Transit	Good in the East Bay only; one discounted fare when tagging with Clipper card or presenting an AC Transit inter-agency voucher Clipper value: \$2.25 adult, \$1.10 Y/S/D Cash value: \$2.35 adult, \$1.15 Y/S/D	NOT APPLICABLE
San Francisco Bay Ferry	One discounted ride within 90 minutes of tagging on the AC Transit bus: \$2.10 discount for Adult \$1.05 discount for Youth/Senior/Disabled	NOT APPLICABLE Transfer credit on Clipper only
Sam Trans	One fare credit if using a monthly/31-day AC Transit pass, within 2 hours of Clipper tag on AC Transit bus	One local ride on Sam Trans
Union City Transit	One local fare credit	One local ride when presenting an Inter-Agency Voucher or valid Day Pass
VTA	One local fare credit	NOT APPLICABLE Transfer credit on Clipper only
WestCat	One discounted fare. Discounted fare is \$1.00 Adult or \$0.50 Youth/Senior/Disabled	Discounted fare of \$1.00 for Adult/Student or \$0.50 for Seniors/Disabled when presenting an Inter-Agency Voucher or Day Pass

Chapter 3: Goals, Policies and Initiatives from the Strategic Plan

Over the course of an 18-month period in 2017-19, AC Transit undertook a Board-initiated process to develop a Strategic Plan for the District. It is the District's first strategic plan in over 20 years. The Plan gained final approval from the Board on April 10, 2019. The Plan is on the AC Transit website at <http://www.actransit.org/wp-content/uploads/AC-Transit-Report-5.pdf>.

The Strategic Plan elements fulfill MTC's requirement for Goals and Objectives in the Short-Range Transit Plan. This chapter discusses the Strategic Plan as it relates to the SRTP. Readers interested in a fuller discussion of Strategic Plan issues should refer to the Strategic Plan itself.

The Strategic Plan was undertaken to bring greater coherence and synergy to various AC Transit policies, plans, and activities. The AC Transit Board of Directors sought a document that would provide more overall guidance for Board decisions. Prior to the approval of the Strategic Plan, AC Transit did not have a comprehensive statement of agency goals.

The Plan is a policy level document which sets forth core values, a Vision Statement, a Mission Statement, Goals, and Initiatives. These are agency-wide principals and activities, not specific work activities or service plans. The Plan highlights issues in service delivery and agency functioning. But it does not, for example, set standards for service levels or for passenger access to service, as some agency's Strategic Plans do. Instead, it highlights broad initiatives which the District needs to initiate or strengthen. The Strategic Plan and its potential future role at AC Transit is outlined on the following pages—stepping through the sequence of statements and policies which it sets forth.



3.1 Core Values

Prior to the Strategic Plan process, AC Transit did not have a stated set of Core Values. Like much of the Strategic Plan process, identifying Core Values required that latent and implicit agency values and ideas be made explicit. Core Values are AC Transit's fundamental ideals. Core Values speak to how we should conduct ourselves in all situations and to the broad outcomes we seek to achieve in the world.

The Strategic Plan identified seven core agency values, which we believe to generally be mutually reinforcing. Safety is listed first, but the Core Values are not ranked in priority order. Each Core Value has a brief explanatory statement that can be found in the Strategic Plan:



Safety

Service

Environmental
Sustainability

Equity

Innovation

Integrity

Trust

3.2 "Vision" Statement

Prior to this Strategic Plan process, AC Transit did not have a Vision Statement. The Vision Statement shows the long-term role and goal that AC Transit understands for itself within the East Bay transportation system. It indicates that AC Transit seeks to be highly regarded as a Bay Area transit agency. This Statement encourages AC Transit to take actions that improve mobility here.

AC Transit is valued as a mobility leader that helps the Bay Area thrive by connecting East Bay communities to each other and to regional destinations.

3.3 Mission Statement

Mission Statements describe what an agency or company understands itself as doing or attempting to do. The AC Transit Mission Statement represents a small update to our pre-existing mission statement:

We deliver safe, reliable, sustainable transit service that is responsive to the needs of our customers and communities.

3.4 Strategic Plan Goals

The six goals from the Strategic Plan, taken together, describe the desired characteristics of AC Transit service and AC Transit's functioning as an agency. They also speak to AC Transit's role in the broader community: our need for public support, our contribution to environmental improvement. While Initiatives focus on particular goals, these goals cannot be achieved in isolation from each other. The goals show, at a high level, how AC Transit should provide service and function.

Six Goals are shown in alphabetical order, with their defining sentence. Brief descriptions of the goals are available in the Strategic Plan document:

Convenient and Reliable Service

Providing transit service that is both convenient and reliable is AC Transit's purpose.

Environmental Improvement

Public transit should contribute to the fight against climate change and other environmental degradation.

Financial Stability and Resiliency

Our service—and all the supporting functions in the District—must be funded adequately to create convenient and reliable service.

High Performing Workforce

Our high-performing workforce includes the people who provide quality service, monitor safe operation, assure financial stability, and advocate for transit-friendly legislation and regulation.

Safe and Secure Operations

Safety and security are the foundation of AC Transit's operations.

Strong Public and Policymaker Support

AC Transit is an agency largely funded by tax dollars. As such, we need the ongoing support of the East Bay public and policymakers.

3.5 Strategic Plan Initiatives

The final step in the Strategic Plan's policy development is a set of Initiatives for the District. They are meant to move us from concept to action. The Initiatives represent major, ongoing work areas and approaches that will be important in the years ahead. The Initiatives are not on the level of individual service or spending decisions, such as "create another Rapid line." Rather they speak to broader problems, such as improving on-time performance as part of developing Convenient and Reliable Service. The Initiatives represent areas the District is already working on, but which need prioritized, multi-departmental, multi-function approaches.

Initiatives are framed to be collaborative activities to solve complicated, multifaceted problems which will necessarily involve multiple parts of the agency. Each Initiative addresses two to four of the Strategic Plan goals.

The Initiatives, with their defining paragraph, are listed below. Descriptions of the Initiatives are in the Strategic Plan document.

1. Service Quality

This multi-part initiative seeks to improve AC Transit service quality as shown by a variety of characteristics.

2. Infrastructure Modernization

This Initiative would rebuild or replace three operating Divisions: D2 (Emeryville), D4 (Oakland) and D6 (Hayward) to create state-of-the-art, environmentally sustainable facilities.

3. Employee Recruitment, Training, and Retention

This Initiative would improve AC Transit's employee recruitment, training, career development, and retention practices, to ensure that we have adequate numbers of bus operators and other essential staff. A parallel objective is to help current and future employees adapt to changing technology.

4. Zero Emission Programs

This Initiative would begin AC Transit's implementation of the California Air Resources Board (CARB) mandate to make all California transit buses zero (at vehicle) emissions by 2040.

5. Financial Efficiency and Revenue Maximization

This Initiative would simultaneously work to develop more cost-effective work processes and to create a long-term, stable source of funding for AC Transit. Securing additional funding would almost certainly need voter approval.

AC Transit will continue to assess how the goals and policies of the Strategic Plan can more effectively be integrated into the work of the agency.

Chapter 4:

System/Service Evaluation

4.1 Evaluation of Service

Transit agencies use various indicators to measure three different areas: effectiveness, service availability and quality, and efficiency.

Since AC Transit's purpose is to transport people, effectiveness is measured by the number of people who ride the buses (ridership). The specific metric most often used is passengers per revenue hour (revenue hours are hours that the bus is operating on its route and available to collect fares).

Service availability evaluates the ability of residents in the service area to access the bus system and the quality of that access. Is there a bus stop within reasonable walking distance? What hours does the bus run, what is its "span-of-service?" How frequently does the bus operate? Does the bus meet its schedule and what is its "on-time performance?"

Efficiency considers the resources AC Transit uses to provide service. The greater the cost in time and or labor which is required to operate a given route, the less service AC Transit will be able to provide. The performance measures used by AC Transit are:

Effectiveness

- Productivity (passengers per revenue hour)

Service Availability and Quality

- Distance to Bus Stops
- Span-of-service
- Frequency
- On-time Performance

Efficiency

- Cost Per Revenue Hour
- Cost per Passenger Mile

This SRTP includes a brief discussion of travel time, which has not historically been among the SRTP evaluation criteria, at the end of the chapter.

4.2 Service Effectiveness/Productivity

Policy 545 sets standards for the minimum target level of productivity for each type of AC Transit service, to ensure that bus service is productive. Different types of service are expected to carry a different number of riders based on their service characteristics and land use characteristics. Trunks, major corridor lines, and Rapids should carry the most. Urban crosstown lines operating in denser areas are expected to carry more passengers than suburban crosstown lines, which operate in lower density areas. The standard generally used to measure productivity is “passengers per revenue hour.” This is the average number of passengers who board a bus each hour that the bus is in operation, which is known as revenue service.

It includes layover time at the end of the line. AC Transit’s levels of bus ridership are among the highest in the region. Only San Francisco MTA (MUNI) consistently achieves higher ridership.

The ridership targets by service type and AC Transit’s performance against those targets are shown in Exhibit 6 below. All service types missed their performance targets on both weekdays and weekends, except for weekday Transbay service. These productivity shortcomings can be attributed to some recent increases in service as part of AC Go that have yet to yield significant ridership gains commensurate with the increase in service levels.

Low density lines have no set standards under Policy 545 because they function purely to cover a low-density area, without an expectation of high ridership. Nonetheless, in 2012, the District conducted an exercise with Southern Alameda County (where the very low-density routes are located) to eliminate lines that carry fewer than 10 passengers per hour. In addition, AC Transit has converted one very-low-density route in Fremont/Newark to Flex Service, a on-demand responsive operation. The District is undertaking another planning effort in Fremont and Newark with the goal of focusing service resources on major corridors and providing coverage in low-density areas.

Exhibit 6: Productivity and Standards—Passengers per Revenue Hour by Type of Service

Service Type	Weekday Ridership (Standard passengers per hour except Transbay)	Weekday Ridership (Actual)	Weekend Ridership (Standard)	Weekend Ridership (Actual)
Trunks, Rapid & Major Corridors	40	34.3	35	25.3
Urban Cross-towns	30	24.2	25	16.0
Suburban Cross-towns	20	14.0	15	10.2
Very Low Density	No standard	10.8	No standard	8.5
Transbay	25 per trip	28.9 per trip	Most Transbay lines not operated	NA

Trunk, Corridor, and Rapid Ridership by Line

Ridership can vary considerably even within a service type. Exhibit 6 lists the Major Corridor, Rapid, and Trunk lines and their respective productivity across different day types (weekday, Saturday, and Sunday). The Trunk and Major Corridor lines average 34.3 passengers per revenue hour on weekdays. However, on any given line, performance varies with average ridership ranging from 17.6 and 60.6 passengers per revenue hour on weekdays. No Major Corridor lines meet the weekday or weekend productivity standards. Several Trunk lines met the weekday standard – lines 1, 40, 51A, and 51B. Three of those same four met the standard on Saturday while only Line 51B met the Sunday standard. Many of the lines included in this table are slated for improvements associated with the Major Corridors Study, including corridor or service improvements that bring them up to “Rapid” or BRT service.



Exhibit 7: Ridership and Productivity for Trunk, Rapid, and Major Corridor Lines

Major Corridor, Trunk, and Rapid Lines				Weekday			Saturday			Sunday		
Line	Type	Peak Headway	Description	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/Hours
10	Major Corridor	15	E.14th	3,322	120	27.6	2,146	90	23.9	1,583	87	17.6
20	Major Corridor	30	Fruitvale Ave - Alameda	2,656	80	33.3	2,107	78	26.9	1,627	78	20.1
73	Major Corridor	15	73rd Ave - Hegenberger	2,709	72	37.8	1,727	69	24.9	1,512	69	21.2
88	Major Corridor	15	Sacramento - Market	2,450	96	25.6	1,477	83	17.9	1,234	83	14.5
97	Major Corridor	15	Hesperian - Union City	4,093	148	27.6	1,877	82	22.8	1,533	82	18.0
99	Major Corridor	20	Mission	2,739	155	17.6	1,521	107	14.2	1,377	107	12.2
210	Major Corridor	30	Fremont Blvd.	1,390	68	20.4	707	52	13.7	511	52	8.9
72R	Rapid	12	San Pablo Rapid	5,490	179	30.7	3,386	134	25.3	2,749	126	20.6
1	Trunk	8	International - E.14th	11,469	266	43.1	8,334	234	35.7	6,807	218	30.1
6	Trunk	10	Telegraph	5,931	155	38.3	3,488	109	31.9	2,772	109	24.9
18	Trunk	15	Albany - Oakland	4,382	156	28.1	2,843	118	24.1	2,293	115	19.2
33	Trunk	15	Montclair - Piedmont	3,298	126	26.2	1,373	80	17.1	1,153	80	13.8
40	Trunk	10	Foothill - Oakland	8,951	203	44.2	4,848	132	36.7	3,925	122	31.1
51A	Trunk	10	Broadway - Alameda	9,170	204	45.0	4,609	135	34.0	3,706	134	26.4
51B	Trunk	10	College University	9,440	156	60.6	6,337	128	49.7	5,186	128	39.5
57	Trunk	15	40th - Macarthur	6,235	206	30.3	4,653	197	23.6	3,712	186	19.0
72	Trunk	30	San Pablo	3,735	136	27.4	3,101	128	24.2	2,427	125	18.7
72M	Trunk	30	San Pablo - Macdonald	3,449	122	28.3	2,775	123	22.5	2,308	113	19.9
Total / Average				90,909	2,647	34.3	57,309	2,080	27.5	46,415	2,014	23.0

Urban Crosstown Lines

Among urban crosstown lines shown in Exhibit 8 (next page), five meet the weekday ridership standard—Lines 14, 39, 52, 54, and 76—while 18 do not. Of the lines that do not meet the standard, Lines 62 and 79 are within three boardings per hour of meeting the standard. There is no universal explanation for these lines meeting the standard. Lines 14, 52, and 54 operate frequently like most other Urban Cross-towns. Line 39 operates only hourly but has an extra morning trip timed with Skyline High School. Line 76 operates only every 30 minutes but has several peak trips with standing loads. Line 62 operate frequently, with line 79 connecting downtown Berkeley and UC Berkeley with communities to the north and south. Lines 14, 52, 54, and 62 meet the weekend standard on Saturday and only Line 52 meets it on Sunday.

Many of the lines failing to meet the standard have headways greater than 20 minutes but even some lines with peak frequencies of 20 minutes or better are failing to meet the standard.



Exhibit 8: Ridership and Productivity for Urban Crosstown Lines

Urban Crosstown			Weekday			Saturday			Sunday		
Line	Peak Headway	Description	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/ Hour	Passengers	Daily Revenue Hours	Passengers/ Hour
12	20	Lake Merritt - Berkeley via Grand, MLK	2,969	139	21.3	1,657	101	16.4	1,291	101	12.3
14	15	West Oakland - Fruitvale BART	4,675	147	31.9	2,130	73	29.3	1,720	72	23.5
19	20	Fruitvale - Buena Vista	781	55	14.1	500	48	10.3	387	48	7.6
21	30	Oakland Airport - Dimond District	1,714	68	25.1	1,225	63	19.6	986	63	15.3
29	20	Lakeshore - Walavista	1,347	81	16.6	726	65	11.1	575	65	8.6
36	30	U.C Berkeley - West Oakland	1,656	73	22.7	1,116	73	15.3	936	73	12.6
39	60	Fruitvale - Skyline	505	14	35.5						
45	15	Sobrante Park Eastmont	1,894	87	21.7	778	49	15.9	633	49	12.7
46	60	Coliseum BART - Oakland Zoo	283	14	20.1	83	8	10.2	82	8	9.8
46L	60	Coliseum BART - Oakland Zoo Limited	179	14	13.0						
47	55	Fruitvale BART - Maxwell Park	117	9	13.1						
52	15	UC Berkeley - Albany Village	2,742	73	37.4	1,155	45	25.8	1,187	45	25.3
54	10	35th Ave. - Redwood Rd.	2,113	47	44.7	605	23	26.0	481	23	20.3
62	15	West Oakland - Fruitvale	3,375	118	28.5	1,642	61	26.9	1,320	61	20.9
70	30	San Pablo Dam - Appian	886	43	20.6	403	21	19.2	348	21	16.1
71	30	Richmond Parkway - El Cerrito Plaza	1,431	71	20.1	566	37	15.2	452	37	11.7
74	30	Marina Bat - El Sobrante	1,333	66	20.2	506	49	10.3	404	49	8.0
76	30	Del Norte - Hilltop via N. Richmond	2,556	80	32.0	1,373	66	20.8	1,094	66	16.2
79	30	Colusa - Clairmont	1,802	65	27.6	1,399	57	24.7	1,160	57	19.7
80	20	Ashby - El Cerrito Plaza	895	94	9.5	636	94	6.7	682	94	7.0
90	20	90th Ave - Foothill Square	963	47	20.5	537	33	16.2	443	33	12.9
96	30	Alameda - Dimond District	1,408	65	21.7	1,181	65	18.1	997	65	14.7
98	20	98th Ave - Eastmont	1,730	73	23.9	698	48	14.6	521	48	10.8
Total / Average			37,354	1,545	24.2	18,916	1,080	17.5	15,698	1,079	14.5

Suburban Crosstown Lines

Suburban crosstown lines are generally concentrated in Central Alameda County locations such as San Leandro, Hayward, and Castro Valley, with some in the Berkeley Hills.

Among the 15 suburban crosstown lines shown in Exhibit 9 (next page), only lines 65 and 95 meet the ridership standard of 20 passengers/hour on week-days, and no lines met the standard for weekends. The suburban lines fell within a relatively narrow range of productivity between 10 and 15 passengers/hour. The one outlier is line 56, which complements Line 41, offering service through central and southern Hayward and into Union City. Many of the Central County lines were changed significantly as part of Package 3 of AC Go, with frequencies improved and loop lines split to improve passenger legibility and service reliability. Staff is still monitoring these lines for trends to determine if further adjustments should be made.



Exhibit 9: Ridership and Productivity for Suburban Crosstown Lines

Suburban Crosstown			Weekday			Saturday			Sunday		
Line	Peak Headway	Description	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/Hour	Passengers	Daily Revenue Hours	Passengers/Hour
7	30	The Arlington	763	49	15.5	427	34	12.8	496	34	13.6
28	30	Alvarado - Center	978	81	12.1	399	38	10.6	330	38	8.5
34	30	Hayward BART - Foothill Square	844	80	10.5	430	41	10.4	315	41	7.3
35	30	Bay Fair BART - Foothill Square	885	65	13.7	553	42	13.3	458	42	10.5
41	40	Hayward BART - Huntwood - Union Landing	540	47	11.4	309	29	10.5	213	29	7.0
56	40	Hayward BART - S Hayward BART - Union Landing	451	51	8.8	237	33	7.1	223	33	6.5
60	20	Hayward BART - CSU East Bay	1,263	70	18.0	499	36	14.0	362	36	9.9
65	30	Euclid - Grizzly Peak	632	30	21.3	162	12	13.7	139	12	11.4
67	30	Spruce St., Berkeley	442	22	19.7	207	20	10.2	191	20	9.2
83	30	A St. - Tennyson, Hayward	969	65	15.0						
86	30	Winton - Tennyson	1,111	76	14.5	590	50	11.7	520	50	10.0
93	40	Bayfair - San Lorenzo - Hayward	616	51	12.2	279	34	8.3	272	34	7.8
94	65	East Av. - Hayward Blvd	146	14	10.7						
95	40	Hayward BART - Kelly Park	352	16	22.4	159	14	11.5	135	14	9.5
200	30	Fremont - Union City	1,318	90	14.6	702	74	9.5	700	73	7.8
Total / Average			11,310	807	14.0	4,952	456	10.9	4,354	456	9.6

Very Low-Density Lines

Very Low-Density lines are found in Newark and Fremont. While the Very Low-Density lines are not held to any specific service standard, some of the lines perform as well as low-performing Suburban Crosstowns. Many of these lines are slated for significant adjustments as part of the South County portion of AC Go, which is in the planning phase now. Through that plan, service will improve along major corridors in South County and some lines may be eliminated in favor of expanded Flex service. Because Flex service has different operating parameters, it is not included in the chart below.

Exhibit 10: Ridership and Productivity for Very Low-Density Lines

Very Low Density			Weekday			Saturday			Sunday		
Line	Peak Headway	Description	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/Hours	Passengers	Daily Revenue Hours	Passengers/Hours
212	30	Fremont - Newpark Mall	771	73	10.6	398	40	9.9	319	32	8.8
215	60	Fremont - Northwestern Poly	186	28	6.7						
216	60	Union City - Silliman	313	29	11.0	188	25	7.6	158	26	5.8
217	30	Fremont - Great Mall	1,323	85	15.6	638	69	9.2	538	69	6.9
232	60	Fremont - Newpark Mall	410	33	12.4	230	28	8.3	238	28	7.5
239	30	Fremont - Kato	640	60	10.7						
251	60	Fremont - Ohlone	199	17	11.8	121	15	8.1	119	15	6.3
448	60	Castro Valley Flex	43	14	3.1						
475	30	Newark Flex	54	28	2.0						
Total / Average			3,939	365	10.8	1,576	177	8.9	1,371	170	8.1

Transbay Bus Lines

Under Board Policy 545, Transbay lines are evaluated by a different standard than local service. Most Transbay lines are relatively long in both distance and time. They also often require “deadhead” out of service trips from San Francisco to return to the East Bay. So that these common characteristics do not overwhelm the comparative analysis, Transbay lines are evaluated by the number of passengers they carry on each trip.

Most Transbay lines, unlike most other AC Transit lines, operate only during weekday commute hours, often only in the main commute direction (i.e., into San Francisco in the morning and to the East Bay in the evening). Three Transbay lines—F from Berkeley and Emeryville, NL from the Grand/MacArthur corridor, and O from Alameda—operate all day, seven days a week. Many passengers on these lines—especially the F and the NL—ride within the East Bay rather than to San Francisco. This demonstrates that the local component of some Transbay lines is as important as the Transbay component.

The Transbay ridership standard is 25 passengers per trip. The shaded rows in Table 4.2E exceed the productivity standard. While 23 Transbay lines meet this standard, six do not. Of those lines not meeting the standard, line NXC is a “sweeper” lines running as insurance for those customers who missed earlier peak trips. Another (Line Z) is a reverse commute line. Line B from Trestle Glen to San Francisco is within three riders/trip of meeting the standard, as is line L from El Sobrante. On the Peninsula, Line M serves Hillsdale, not San Francisco, so it does not have the same demand pattern. The only “regular” line with low ridership is the S. In general, ridership on Transbay buses has been increasing in the wake of BART crowding and the BART strike. Line U from Fremont BART to the Stanford campus outside Palo Alto helps Stanford meet its goal of not adding peak hour trips and achieves good ridership.

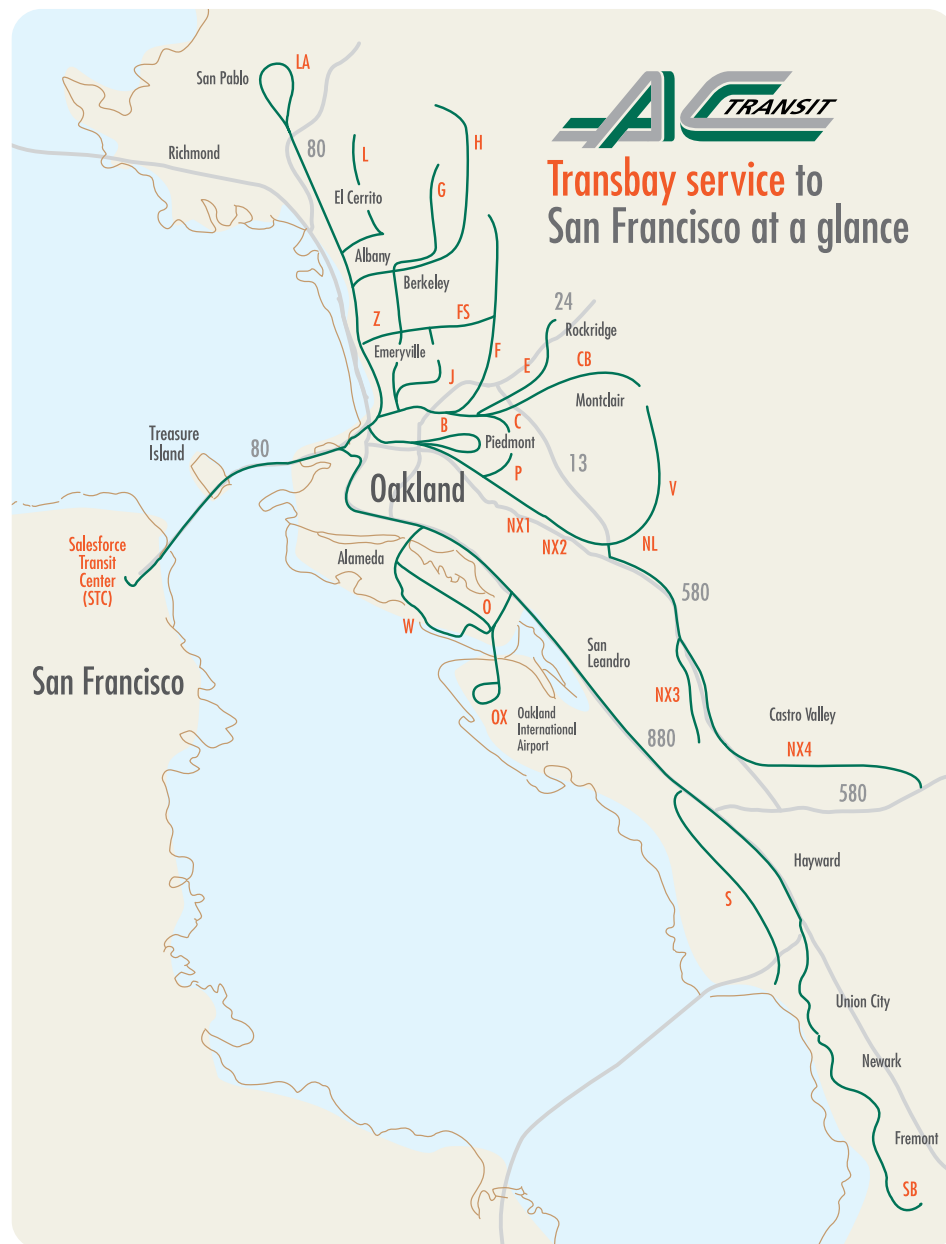
The Transbay system is now at or near capacity on most lines, with some instances of overcrowded buses leaving passengers behind. Policy 545, recognizing the length of Transbay trips, calls for a seat for each Transbay passenger, but AC Transit does not currently have capacity to meet this requirement. Staff is currently working with the community, riders, and stakeholders on adjustments to Transbay service to meet this increased demand and ensure service is structured optimally for continued expansion using funding from Regional Measure 3. In addition, MTC has provided AC Transit with funding through the Bay Bridge Forward program to fund the purchase of high capacity Transbay vehicles and cover operating costs.



Exhibit 11: Ridership and Productivity for Transbay Lines

Line	Description	Weekday Passengers	Weekday Trips	Passengers/Trip
B	Trestle Glen-San Francisco	281	13	21.6
C	40th St.-San Francisco	427	14	30.5
CB	Montclair/ N. Oakland-SF	293	9	32.6
E	Claremont Av.-San Francisco	392	10	39.2
F	Berkeley-SF	2,002	79	25.3
FS	Shattuck Ave.-San Francisco	721	14	51.5
G	El Cerrito-SF	458	13	35.2
H	Arlington-SF	669	18	37.2
J	Sacramento St.-Emeryville-SF	1,086	23	47.2
L	El Sobrante—San Francisco	508	23	22.1
LA	Richmond Pkwy.Parkway-SF	714	22	32.5
M	Hayward. BART-Hillsdale, SM	240	22	10.9
NL	Macarthur Blvd.-SF	3,303	114	29.0
NX	Eastmont-SF	325	10	32.5
NX1	Dimond-SF	191	7	27.3
NX2	Laurel-SF	282	10	28.2
NX3	Macarthur E. Oakland-SF	354	13	27.2
NX4	Castro Valley-San Francisco	390	14	27.9
NXC	Macarthur Sweeper	19	1	19.0
O	Alameda-SF	1,883	68	27.7
OX	Harbor Bay-SF	571	21	27.2
P	Piedmont-SF	942	27	34.9
S	Hayward-San Leandro-SF	176	11	16.0
SB	Newark-SF	427	16	26.7
U	Fremont-Stanford	335	11	30.5
V	Oakland Hills-San Francisco	722	26	27.8
W	Otis St., Alameda-SF	574	21	27.4
Z	W. Berkeley reverse commute	53	4	13.3
Total/Average		18,545	634	29.3

Map 3: Transbay Bus Service



4.3 Service Availability and Quality

Service availability and quality are key elements in how passengers determine the viability of transit for a given trip. Several elements influence the service availability and quality as understood by potential riders:

Distance to Bus Stops

Span-of-service (also known as “hours of operation”)

Which hours of the day is the bus running? This may vary between weekdays and weekends.

Frequency

How often does the bus come? Bus routes typically run more often during the day and on weekdays than on nights and weekends.

On-Time Performance

Does the bus operate on-time and meet its schedule?

Travel time

4.3.1 Distance to Stops

The generally accepted maximum that passengers will walk to a bus stop is a quarter mile. The distance may be longer for express or long distance service. Surveys have borne out these distances for willingness to walk.

Currently, 86% of the population of the AC Transit district lives within a quarter-mile radius of a bus stop. So most inner East Bay residents are within reasonable walking distance of a bus stop.

Board Policy 545 establishes standards for hours of operation and frequency, while on-time performance is tracked as part of the District’s Key Performance Indicators.

4.3.2 Span-of-service/Hours of Operation

A bus route is only useful to a passenger if it is operating at the time when the passenger needs it. Therefore, Policy 545 sets standards for the hours of the day that lines should be operating (also known as the “span-of-service”):

Exhibit 12: Service Span Policy Summary

Line Type	Span/Hours of Operation
Trunks and Major Corridors	19 to 24 hours per day, for example, 5:00 a.m. to at least midnight
Rapids	14 to 16 hours per day, for example, 6:00 a.m. to at least 8:00 p.m.
Urban Crosstowns	14 to 16 hours per day, for example, 5:00 a.m. to at least 7:00 p.m.
Suburban Crosstowns	14 to 16 hours per day, for example, 7:00 a.m. to at least 9:00 p.m.
Very Low-Density Lines	14 to 16 hours per day, for example, 6:00 a.m. to at least 8:00 p.m.

Rapid lines have a shorter span requirement under the assumption that they will generally be operating on the same street as the underlying trunk and major corridor service, which will be available for longer hours. Most Transbay lines only operate in the commute period, and are effectively exempt from standards for hours of operation that apply to local service.

Most AC Transit lines meet or exceed their minimum requirement for hours of operation. In 2017, 18 of 54 applicable lines did not meet the span standard. Following the implementation of AC Go covering Northern Alameda County and Central County in June 2018, only 11 of 65 lines fail to meet the standard.

AC Transit’s standard for trunk line bus span-of-service is similar to other metropolitan agencies, such as MBTA (Boston), Muni, Metro

in Los Angeles, and the Toronto Transit Commission. However, some systems, such as Muni and LA Metro operate more extensive all-night or “owl” service.

4.3.3 Frequency

Frequent service is fundamental to attracting and retaining passengers. Most passengers are unwilling to accept long waits for the bus and may seek other modes. The transit industry in recent years has placed renewed focus on providing frequent service. Policy 545 sets target frequencies for various service types during peak hours. The policy also sets higher, non-mandated frequency goals for some service types:

As illustrated in Exhibits 7-10, more than 60% (38 routes) of East Bay lines meet or exceed the frequency standard, while 26 lines do not. Trunks and major corridor lines generally meet the frequency standard with three exceptions: lines 20, 99, and 210. However, if Line 21 is included, the Park St. (Alameda) and Fruitvale corridors reach a combined frequency of 15 minutes. The combined service meets the frequency standard. Many urban and suburban crosstown lines, especially in West Contra Costa County and Central Alameda County, fail to meet the standard. Following AC Go most lines in Central County now meet the standard. AC Transit has temporarily reduced the frequency of some lines because it has been unable to hire enough operators.

Exhibit 13: Frequency Goals

Line Type	Target Minimum Frequency	Frequency Goal
Trunks and Major Corridors	Every 15-20 minutes	Every 10-14 minutes
Rapids	Every 10-14 minutes	N/A
Urban Crosstowns	Every 15-20 minutes	Every 15-20 minutes
Suburban Crosstowns	Every 21-30 minutes	Every 15-20 minutes
Very Low-Density Lines	Every 31-60 minutes	Every 21-30 minutes
Transbay	Every 21-30 minutes	Every 15 minutes or better during peak

4.3.4 On-Time Performance

On-time operation of buses is critical for passengers to be able to rely on a bus to deliver them on-time to work, school, medical appointments, and other activities. AC Transit sets a standard of at least 72% of the trips on a line should arrive on-time. On-time is defined as between one minute early and five minutes late.

System-wide, 74% of buses operated in July 2019 were on-time. In a significant shift from the last SRTP, the system as whole has met the 72% target for four consecutive months. However, some other agencies seek 80% or 85% on-time performance. The implementation of the Strategic Plan may determine future on-time performance targets. AC Transit scheduling and operations staff have placed emphasis on targeting the highest-impact lines to address reliability shortcomings. In addition, the changes made as part of AC Go were intended to improve reliability as a key outcome. This was accomplished by breaking up loops, splitting lines into more manageable segments, and reducing instances of complicated turning movements. On-time performance of Transbay service is expected to improve now that Salesforce Transit Center in San Francisco has been reopened, although the East Bay approaches from the bridge remain highly congested.

System-wide, 15 lines exceed the 72% OTP standard while four exceed 80% on-time (46, 73, 90, 95). This contrasts with the last SRTP when no trunk/major corridor and Rapid lines met the 72% standard. Line 72R, the District's only formal Rapid service, still lags other major lines at 65.3% though this is an improvement from last year when it hovered at 61%. Its performance is similar to the underlying local service (Lines 72 and 72M). The San Pablo Avenue corridor is long, with variable congestion patterns and compounded by its role as a relief route for Interstate 80 when that corridor is congested or there are incidents that require cars to detour off the interstate.

Transbay service shows a directionally differentiated pattern of on-time performance and is therefore reported by direction. On most lines, westbound morning commute service into San Francisco met or exceeded the standard. Conversely, almost no eastbound routes out

of San Francisco almost never met the standard. This was not a matter of missing or meeting the standard by a few percentage points—performance was much worse in the afternoon. On the heavily used J route (Berkeley/Emeryville) for example, 83% of westbound trips were on time, but only 57% of eastbound trips did—a difference of 26 percentage points. The difference results from the increased level of highway congestion in the afternoon.

In comparison with other large Bay Area transit agencies, AC Transit's on-time performance is not as good as Santa Clara VTA, which reports over 85% on-time performance for its bus network (though their goal is 92.5%); however, AC Transit's on-time performance exceeds San Francisco MUNI's, which is approximately 56% for its motor coach and trolley coach network. Lines which met the standard are shaded in Exhibits 14 through 18.



Exhibit 14: On-time Performance for Trunk and Major Corridor Lines

Line	Type	Description	On-Time Performance
10	Major Corridor	E. 14th	77.4%
20	Major Corridor	Fruitvale Ave - Alameda	66.8%
73	Major Corridor	73rd Ave - Hegenberger	83.7%
88	Major Corridor	Sacramento - Market	65.3%
97	Major Corridor	Hesperian - Union City	67.7%
99	Major Corridor	Mission	71.9%
210	Major Corridor	Fremont Blvd.	64.5%
72R	Rapid	San Pablo Rapid	65.3%
1	Trunk	International - E. 14th	70.4%
6	Trunk	Telegraph	71.3%
18	Trunk	Albany - Oakland	69.9%
33	Trunk	Montclair - Piedmont	75.0%
40	Trunk	Foothill - Oakland	66.2%
51A	Trunk	Broadway - Alameda	70.6%
51B	Trunk	College - University	70.0%
57	Trunk	40th - MacArthur	60.8%
72	Trunk	San Pablo	60.1%
72M	Trunk	San Pablo - Macdonald	64.0%

Exhibit 15: On Time Performance for Urban Crosstown Lines

Line	Description	On-Time Performance
12	Lake Merritt-Berkeley via Grand, MLK	67.6%
14	West Oakland - Fruitvale BART	70.4%
19	Fruitvale - Buena Vista	65.7%
21	Oakland Airport - Dimond District	60.4%
29	Lakeshore - Walavista	66.4%
36	UC Berkeley - West Oakland	57.3%
39	Fruitvale - Skyline	61.2%
45	Sobrante Park - Eastmont	78.5%
46	Coliseum BART - Oakland Zoo	81.0%
46L	Coliseum BART - Oakland Zoo Limited	71.1%
47	Fruitvale BART - Maxwell Park	64.9%
52	UC Berkeley - Albany Village	65.6%
54	35th Ave - Redwood Rd.	77.2%
62	West Oakland - Fruitvale	78.1%
70	San Pablo Dam - Appian	66.6%
71	Richmond Parkway - El Cerrito Plaza	68.2%
74	Marina Bay - El Sobrante	65.4%
76	Del Norte - Hilltop via N. Richmond	60.1%
79	Colusa - Clarimont	68.5%
80	Ashby - El Cerrito Plaza	65.9%
90	90th Ave - Foothill Square	85.5%
96	Alameda - Dimond District	59.1%
98	98th Ave - Eastmont	79.0%

Exhibit 16: On-time Performance for Suburban Crosstown Lines

Line	Description	On-Time Performance
7	The Arlington	76.1%
28	Alvarado - Center	54.9%
34	Hayward BART - Foothill Square	55.6%
35	Bay Fair BART - Foothill Square	68.4%
41	Hayward BART - Huntwood - Union Landing	73.6%
56	Hayward BART - S Hayward BART - Union Landing	71.8%
60	Hayward BART - CSU East Bay	70.3%
65	Euclid - Grizzly Peak	58.8%
67	Spruce St, Berkeley	64.0%
83	A St - Tennyson, Hayward	70.6%
86	Winton - Tennyson	78.4%
93	Bayfair - San Lorenzo Hayward	61.0%
94	Easy Ave - Hayward Blvd	71.3%
95	Hayward BART - Kelly Park	80.7%
200	Fremont - Union City	66.0%

Exhibit 17: On-time Performance for Very Low-Density Lines

Line	Description	On-Time Performance
212	Fremont - Newpark Mall	71.4%
215	Fremont - Northwestern Poly	69.3%
216	Union City - Silliman	54.4%
217	Fremont - Great Mall	58.7%
232	Fremont - Newpark Mall	72.8%
239	Fremont - Kato	63.7%
251	Fremont - Ohlone	67.8%

Exhibit 18: Transbay Routes On-time Performance by Direction

Line*	Origin**	On-time Perf. – WB	On-time Perf – EB
B	Trestle Glen	61%	50%
C	Piedmont Ave/ 40th St., Oakland	91%	61%
CB	Montclair/North Oakland	91%	36%
E	Claremont Ave.	76%	42%
F (all day)	Berkeley	78%	70%
FS	Shattuck/ University	81%	63%
G	El Cerrito-Albany	86%	61%
H	The Arlington	78%	64%
J	Sac to Emeryville	83%	57%
L	El Sobrante	81%	68%
LA	Richmond Parkway TC	85%	53%
LC	Richmond Parkway TC	No WB service	53%
M	Hayward-Hillsdale (San Mateo)	52%	53%
NL (all day)	Macarthur/Grand	72%	59%
NX	Seminary Ave.	85%	No EB service
NX1	Dimond District	No WB service	72%
NX2	Eastmont	No WB service	71%
NX3	Macarthur east	83%	48%
NX4	Castro Valley	80%	44%
NXC	Macarthur sweeper	No WB service	81%
O (all day)	Alameda	75%	65%
OX	Harbor Bay	90%	45%
P	Piedmont	77%	57%
S	Hayward-San Leandro	90%	46%
SB	Newark	74%	44%
U	Fremont-Stanford	71%	41%
V	Oakland Hills	86%	59%
W	Otis Street, Alameda	79%	62%
Z	West Berkeley reverse	76%	68%

*Commute hours only unless otherwise noted **San Francisco is destination unless noted

4.3.5 Service Efficiency

The previous section of this chapter discussed the quality of the service AC Transit provides. The evaluation of efficiency in this section measures how well the District is doing at minimizing the cost of providing that service. Increasing the efficiency of AC Transit operations would allow AC Transit to provide more service or to provide the same service at a lower cost.

Exhibit 19: Efficiency Metrics Comparison

Systemwide costs	FY 2017	FY 2016	FY 2015	FY 2014
Operating cost per revenue hour	\$176.12	\$187.46	\$169.72	\$165.55
Operating cost per (unlinked) passenger trip	\$7.17	\$7.63	\$6.40	\$6.01
Operating cost per passenger mile	\$1.98	\$1.84	\$1.61	\$1.54

Cost Per Revenue Hour

Cost per revenue hour (hour when the bus is operating) is a fundamental measure of AC Transit operations, driving other District costs. The FY 2017/18 Cost/Revenue Hour cost was 6.3% above the 2014 level, despite a reduction in costs between 2016 and 2017. Overall, District costs have increased significantly over the same period while service levels have generally remained constant. However, total service hours increased approximately 10% during this period with “ACGo” additions to service funded by Measure BB.

Cost per Unlinked Trip

Cost per unlinked trip is derived from the cost per revenue hour and the number of passenger trips taken in that hour. An “unlinked” trip is a single trip on a vehicle, regardless of whether the passenger transfers to another bus. A journey from origin to destination could include one, two, or, less commonly, three or more unlinked trips. A “linked” trip is a combination of multiple “unlinked” trips made by a single rider that

involve transfers. The FY 2017/18 Cost per unlinked trip has increased 19.3% since FY 2013/14. Ridership has declined across the period since the last SRTP but since July 2018 has been slowly increasing. This increase may help account for the fall in costs.

Cost per Passenger Mile

Unsurprisingly, longer trips require more resources, primarily bus operating time, than shorter trips. The change in cost per passenger mile closely mirrors the cost per unlinked trip.

The FY 2017/18 Cost/Passenger-mile is 28.6% above the 2014 level. This change is due to a significant increase in service as part of AC Go without a commensurate increase in ridership. AC Transit’s cost per revenue hour is higher than most (small) Bay Area bus operators. It remains similar to Muni’s bus operating cost and slightly below VTA’s. AC Transit’s cost per unlinked trip is relatively low for a large operator, lower than most major operators except MUNI. This perhaps surprising combination occurs because AC Transit buses have more passengers per hour than other bus systems in the region, except for MUNI.

4.3.6 Travel Time

Longer travel times is a growing concern for commuters and for AC Transit. Bus travel speed is a core element of bus passengers’ experience. In just 3 years, the average travel speed of the 64 local routes (routes 1-339) fell from 10.9 miles per hour in 2014 to 10.2 mph in 2017. Over the longer term, certain bus travel speeds deteriorated more. For example, the scheduled travel time of line 57 from Emeryville Market to Eastmont Transit Center (leaving at 5:00 pm) increased from 52 minutes in 2004 to 71 minutes in 2019—a 36% increase in 15 years.

In conditions of growing traffic, bus speeds fell 6%. Longer in bus travel time means higher operating costs (and/or lower levels of service). Travel time is also one of the factors affecting passengers’ decisions whether to ride the bus. AC Transit has been engaged in several

programs intended, in part, to improve travel speeds. These include implementation of the East Bay Bus Rapid Transit line, route/corridor projects on line 51, on line 97 (Hesperian Blvd.) and Grand Avenue, Transit Signal Priority installation and upgrades on various corridors. There are also (sometimes controversially) bus stop spacing increases which improve vehicle travel time but can increase walk access time to the bus.

Other Bay Area bus operators also struggle with travel speeds. Sam-Trans has a fleet-wide speed of 10.3 miles per hour, virtually identical to AC Transit. Even Santa Clara VTA, generally operating on newer, wider roads, could only reach 11.6 mph.

4.4 Community Based Transportation Plans (CBTP)

The Contra Costa Transportation Authority (CCTA) is leading an update of the CBTP. CBTPs are designed to improve mobility for low income people, in this case in the west Richmond/San Pablo area. The CBTP is in an early data gathering phase and has not yet made any recommendations concerning transit improvements or other issues. This is the only CBTP currently being revised in the AC Transit service area.

4.5 Title VI and Environmental Justice

Another key goal for the District is meeting its federal civil rights information, analysis, and operational requirements.

As set forth in the District's Title VI Program, AC Transit is committed to complying with Title VI of the Civil Rights Act of 1964, which states "No person in the United States shall, on the grounds 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." The program also ensures that Environmental Justice is incorporated into the District's mission. and the program complies with associated regulations which expand civil rights protections to people with limited English proficiency.

The District's Title VI Program contains a wide range of information, including how the District notifies the public of their rights, instructions for filing a Title VI discrimination complaint, results of its transit service monitoring program, and plans for how best to engage communities of color and people with limited English proficiency.

AC Transit conducted a major review and revision of its Board Policy, "Title VI and Environmental Justice Service Review and Compliance Report Policy" in 2014. Leading up to that action, AC Transit conducted many public engagement activities through community forums, presentation to organizations, and social media. Materials were translated into Spanish, Chinese, Vietnamese, Korean, and Tagalog.

In September 2017, the Board of Directors adopted its triennial Title VI Program update, which included guidance to staff on how to best carry out public engagement. At the November 2017 public meeting, the Board approved minor amendments and revisions to the Title VI/ Environmental Justice policy; the amendments and revisions more clearly define activities and process to assist staff in carrying out public engagement in the most productive and meaningful way.

The Board Policy and Title VI Program lay out methodology for conducting equity analyses whenever there is a change in fares or service that could impact populations protected by Title VI. The AC Transit service area population is more than 70% people of color and more than 30% low-income; the ridership is over 75% people of color and 33% low-income.

The East Bay Bus Rapid Transit (BRT) project is AC Transit's largest-ever capital project—a \$216 million investment in the communities of Oakland and San Leandro. To keep the community informed and about the BRT, the project's Public Outreach Team operates out of a BRT Information Center located on the project corridor. Outreach Team members communicate BRT construction activities to stakeholders and helping to resolve any issues related to construction.

During construction, civil rights compliance for the BRT project is covered by the NEPA/CEQA process; staff are preparing a service

equity analysis now, to be considered in the public hearing process, and which the Board of Directors must review and accept before the service becomes operational (during FY2019-20).

4.6 ADA Paratransit Service

As a public transit provider, AC Transit is required by the Americans with Disabilities Act (ADA) to provide paratransit service. AC Transit has partnered with BART under a Joint Powers Agreement (which established the East Bay Paratransit Consortium (EBPC)) to jointly meet the requirements of the ADA in the overlapping service areas of AC Transit and BART. ADA paratransit is provided through a contract with a paratransit broker, who in turn contracts with private transportation companies to deliver the trips.

To qualify for EBPC service, a rider must be certified as eligible due to a disability or a disabling health condition which prevents them from using AC Transit buses or BART trains. Applicants for service are required to complete a written application and participate in an in-person interview.

Because ADA paratransit is designed as a substitute for regular bus or BART service, it is only available within three quarters of a mile of an AC Transit bus route or a BART station, during the same hours that buses and trains are running. Most residents in the AC Transit district meet this criterion, although there are some exceptions in the upper hill areas. Most rides are provided within the AC Transit district, but EBPC also serves San Francisco. In addition, EBPC connects with adjacent transit operators for trips outside the primary service area.

Under the East Bay Paratransit Consortium's agreement, AC Transit pays 69% of costs. This figure was \$26.4 million in Fiscal Year 2016/17. This figure is projected to increase to \$30.9 million by Fiscal Year 2022/23, which is the final year of the current contract with EBPC's paratransit Broker. By the end of the ten-year period covering FY 2017/18 through FY 2026/27, AC Transit's cost is projected to be \$33.7M.

In Fiscal Year 2016/17, EBPC transported 728,631 passengers and the total cost (BART and AC Transit) of paratransit service was \$38,349,606. The cost per passenger transported was \$52.63. By FY 2026/27, projections are for 808,831 total passengers transported at a total cost (BART and AC Transit) of \$48.9 million; the projected cost per passenger is \$60.47.

Total Passengers transported have generally increased since FY 2013/14, as shown below, on the left. FY 2016/17 saw a small decrease in demand compared to FY2015/16.

Projected paratransit passengers for the next ten years are presented below. Growth in ridership of 1.1% per year is projected.



Exhibit 20: Paratransit Efficiency Metrics Comparison

	Actuals					Projected								
Fiscal Year	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Ridership	706,485	727,663	731,299	728,631	770,782	779,261	787,832	796,499	805,260	814,118	823,073	832,127	841,280	850,535

Chapter 5:

Operations Plan and Budget

Introduction

The purpose of this chapter is to demonstrate that funding will be available to support planned transit service. This chapter and the next (Ch. 6: Capital Improvement Program) represent the key implementation chapters of the SRTP. They lay out what the District hopes to achieve in the next 10 years.

Alameda County voters, with a ‘yes’ vote over 70%, approved Measure BB in November 2014. Measure BB is an increase in the county’s transportation sales tax, which makes substantial additional revenues available to AC Transit for service. In November 2016, the voters of the northern and central portions of the AC Transit district (from Richmond to Hayward) voted by an 82% margin to renew a \$30 million per year parcel tax. Other sources, such as the state’s Cap and Trade funding programs, are expected to contribute additional, albeit smaller, amounts of operating revenue. The SRTP lays out a broad, high level, 10-year “road map” for the use of existing and anticipated future funds. Specific annual expenditures will be reviewed and approved by the Board of Directors in the annual budget.

5.1 Overview of Service and Anticipated Changes

Measure BB provides approximately \$30 million per year in additional operating funds for AC Transit in Alameda County. Measure BB supports approximately 200,000 platform hours of service per year,

or an approximately 10% increase in service over 2014 levels. However, shortages of buses and bus operators act as constraints on how much service can be added and how quickly. About 85% of anticipated Measure BB funding is being used for service expansion.

AC Transit will continue to seek funds to improve service in the Contra Costa County portion of the district (Richmond, San Pablo, El Cerrito, North Richmond and Kensington). Measure C1 helps fund the continuation of existing service in Contra Costa County. Transportation sales tax Measure X failed to receive the necessary 2/3 vote in 2016. However, the Contra Costa Transportation Authority has now placed a new transportation sales measure—with a significant transit component—on the March 2020 ballot.

5.2 Transit service issues Highlighted in MTC Resolution 3532

5.2.1 Service Cuts

Projections for the next 10 years show the possibility, under pessimistic assumptions, for annual deficits as deep as \$24 million (the current year operating budget is \$420 million). The District’s approach would be to develop cost reductions and revenue increases to allow it to maintain service. AC Transit will seek to avoid service cuts—given that service has not been restored to pre-2010 levels, which we originally thought Measure BB would allow. However, in Summer, 2019 tempo-

rary cuts to the frequency of certain lines were instituted. These were necessitated by a shortage of bus operators that AC Transit (and other operators) has been experiencing.

5.2.2 Title VI

No service changes are required now to address Title VI concerns. All major service changes will be reviewed under the District's Title VI policy, which the Board of Directors adopted in October 2014.

5.2.3 Existing Transit Service—Revenue Hours

In Fiscal Year 2017/18, AC Transit operated 2,037,000 hours of revenue service. This is AC Transit's baseline service level, which represents a static service level from the 2.0 million revenue hours provided in 2016/17. The 2018/19 hours are expected to be down slightly. Some service has had to be temporarily cut back because of operator shortages.

In terms of comparative service intensity, AC Transit provides 1.43 revenue hours per resident of the district, Santa Clara County VTA provides 0.98 hours (bus and light rail) and Muni operates 4.44 hours per resident (one of the highest levels in the US). Depending on their location, East Bay residents may also benefit from BART service and service by other local transit providers.

5.2.4 Future Service Types

AC Transit operates local, trunk, rapid, and Transbay express (service using the freeway) and all but Transbay were changed under AC Go. Transbay service is being studied in MTC's Core Capacity Study and is central to AC Transit's *Transbay Tomorrow* planning effort. Existing service and service types are described in Chapter 2 and analyzed in Chapter 5. AC Go increased the level of local and trunk service, although somewhat less than originally hoped. The cost to operate new service was higher than expected, and the District has encountered difficulty in obtaining needed buses and drivers.

AC Transit anticipates continuing to operate the current types of service, as well as Bus Rapid Transit, over the next ten years. In addition, the District is considering express service within the East Bay. This is a service type which was operated in the past but discontinued as unnecessary given connections to BART. However, given the changing employment locations and crowding on BART, East Bay express service may prove useful again. This is currently being studied in the West Contra Costa County-Northern Alameda County market. AC Transit does not anticipate operating rail or ferry service within the S RTP time period.

5.2.5 Passenger Concerns

Several common themes emerged from survey-related passenger feedback. This is aggregate data and does not indicate the extent to which, if at all, different segments of the riding public differ in their views.

- **Reliability:** Although the SEP outreach focused on route and network design, schedule reliability is undeniably the primary concern among current AC Transit customers. Asked if improved frequency would reduce concerns about schedule adherence, members of the public cited bus-bunching on high frequency corridors (San Pablo, International/Telegraph, and Broadway/College) as examples of why reliability improvements are necessary. This feedback is consistent with the District's on-time performance data.
- **Frequency:** Essentially on par with improved schedule reliability, improved frequency was one of the most common requests. Frequency is critical to growing transit mode-share and implementing efficient network design. Most participants were willing to accept moderately longer walking distances to bus stops and less network coverage in exchange for improved frequency.
- **Speed:** Improved speed (or reduced travel time) is also critical to growing transit mode-share. Route and stop design should emphasize minimizing passenger travel time.
- **Crosstown Service:** New or improved crosstown (generally in the Bay-Hills direction) routes were a common request from participants.

With the passage of the Alameda County Measure BB sales tax, AC Transit has been able to address some of the deficiencies in the route network. For example, crosstown service on Ashby Avenue in Berkeley—a major east-west thoroughfare serving the West Berkeley employment area, Ashby BART, and Alta Bates Hospital—has been improved.

5.3 Service Structure Guiding Principles

Based on the goals and objectives set by the MTC Transportation Sustainability Plan, the results of the Service Expansion Plan (SEP) and associated outreach, and the passage of Measure BB, AC Transit set guiding principles to establish the SEP service restructuring recommendations in 2015. These principles also provide a general set of guidelines for use as appropriate in future service restricting. A qualitative evaluation of the success of the SEP in achieving these principles is described below.



Funding	
Establish a SEP Budget using 85% of Measure BB Operating dollars. This allows for remaining revenues to be used toward reserves and a capital contribution. At this level of funding, AC Transit can increase service in Alameda County by 14%.	Ongoing activity but service increased only 9.6%
Destinations	
Serve Priority Development Areas and transit-oriented developments.	Ongoing activity
Per Board Policy 545, establish more improved connections to attractors not previously served well (e.g. Union Landing Shopping Center)	Largely achieved
Re-establish connections to key destinations eliminated with the 2010 service cuts (e.g. Line 57 to Emery Bay shopping center)	Largely achieved

Streets	
Serve designated transit streets as identified by the local jurisdictions (e.g. Fremont Boulevard).	Largely achieved
Route Network	
Simplify corridor route design (e.g. San Pablo Ave, and MacArthur Boulevard where there are three or more routes serving the corridor).	Largely achieved
Implement a grid network where feasible.	Grid routing largely achieved, but many lines do not run frequently enough to allow convenient grid transfers.
Establish consistent weekday and weekend routing.	Largely achieved
Design simpler routes with fewer turns to improve reliability and legibility (e.g. a route can be described as the “Telegraph bus”).	Partially achieved, a number of routes remain overly complex.
Plan for timed transfers for the grid network, BART and schools.	Not generally achieved
Reconfigure confusing circulator loop routes.	Largely achieved
Develop shorter routes to improve reliability (60-minute travel time or better).	Route shortening partially achieved, some trunk routes are still over 60 minutes long, reliability of current service generally similar to previous service.
Implement Flex Service where warranted, beginning with Special District 2 (Fremont/Newark).	Two Flex routes implemented

Stop Spacing	
Change stop spacing so that it is more consistent with Board Policy 501; remove or add stops where warranted. Stop spacing should also be consistent with the goals for passengers' distance to bus routes in Policy 545.	Rationalizing (generally increasing) stop spacing is an ongoing activity; Policy 501 was updated in June 2019 to better reflect current best practices.
Frequency	
Increase frequency (improve to 30-minutes or better and only in conjunction with improving reliability).	Many lower frequency routes unchanged, due to fiscal constraints.
Replace 60-minute frequency routes with 30-minute frequency unless 60-minutes is warranted for the route function and demand.	7 routes continue to operate with 60-minute frequency during at least a portion of weekday daytimes, generally due to financial constraints.
Ensure 15-minute frequency or better on Major Corridors; 10-minutes or better on Trunk Lines.	Most trunk corridors provide 10-minute service on weekday daytimes, particularly in segments with overlapping service; Major Corridor routes provide 15-minute service on all corridors except Lines 99 and 210, which run every 20 and 30 minutes, respectively. Frequencies temporarily reduced in 2019 due to operator shortages.
Hours of Operation	
Develop consistent and improved service spans with 5:00 a.m. start times on trunk lines, 6:00 a.m. on other routes, and 8:00 p.m., 10:00 p.m., or 12:00 a.m. end times depending on service type.	Most routes retained existing start and end times, due to budget constraints.
Operational Efficiency	
Establish common endpoints for routes to access common operator restroom and break facilities, streamline road supervision, and create multiple routes to major destinations.	Most routes retained existing endpoints. Lack of layover space constrains endpoint changes, particularly in Downtown Berkeley and Downtown Oakland. The District will build operator restrooms at key locations to facilitate this effort.

Transbay Guiding Principles	
Increase span-of-service with existing fleet resources.	Service restructuring to achieve this is an ongoing activity.
Increase stop-spacing to improve speed, reliability and efficiency.	Nearly all Transbay routes underwent stop thinning as part of the first phase of Transbay Tomorrow in 2018.
Seek long-term recommendations under the San Francisco Bay Area Core Capacity Study being conducted by MTC.	Core Capacity study is proposing long term improvements.
Pursue pilots for new Transbay services that alleviate BART overcrowding (Montclair Village, Fruitvale Avenue and 73rd Avenue).	Some new routes being proposed, particularly from newly constructed Park & Rides from MTC, but there is also a focus on improving existing routes.

5.3.1 Evaluation Metrics for the Service Expansion Plan

To ensure that the implementation of the SEP recommendations is successful, AC Transit developed several performance metrics to measure the benefits and impacts of the service improvements.

Indicators

Ridership Increases System-wide

AC Transit has experienced slow, steady ridership growth since July 2018 and staff is analyzing the specific contributors to this trend. Most, but not all, transit agencies have lost ridership over the same period. Transbay ridership gains are clearly one contributor to systemwide ridership growth.

Ridership Productivity

Passengers per revenue hour have decreased, as is often the case when service hours are added.

Schedule Reliability

On-time performance has varied between 68% and 72% since October 2016 but reached or exceeded the 72% target for six of the last twelve months.

Recent Operations Planning Activities

Service Expansion Plan (AC Go)

AC Transit district-wide, discussed above

Transbay Tomorrow

Analysis of AC Transit service and ridership on the Bay Bridge to San Francisco with recommendations for restructuring service as appropriate — ongoing

San Francisco Bay Area Core Capacity Transit Study

AC Transit worked with MTC, BART, the San Francisco County Transportation Authority (SFCTA), the Water Emergency Transportation Authority (WETA), Caltrain and San Francisco MTA to prepare the San Francisco Bay Area Core Capacity Transit Study. This study was intended to develop a regional strategy to address short, medium, and long-term transit capacity challenges confronting the major high-capacity corridors serving downtown San Francisco, including the Transbay Corridor. The study was completed and released in late 2017 and became the partial basis for some Regional Measure 3 programs and allocations, and is expected to guide further funding.

Alameda Comprehensive Operational Analysis

A comprehensive operations analysis that will take a wide-ranging look at how transit in Alameda works today and ensures all of Alameda has access to robust transit.

5.4 Other Agencies' Transit Planning Efforts

Other agencies located within the AC Transit district are also engaged in transit planning efforts. These could lead, although this is by no means certain, to additional service by either AC Transit and/or other agencies during the SRTP period. Current key studies in this category include:

West County Express Bus Study

Study, led by the West Contra Costa Transportation Advisory Committee (WCCTAC), of potential new express bus routes from Western Contra Costa County to Northern Alameda County (and to a lesser extent San Francisco). This service may in part be funded by a transportation sales tax measure being developed in Contra Costa County.

San Pablo Avenue Multimodal Design Study

Alameda County Transportation Commission (ACTC) is developing a conceptual design for San Pablo Avenue, including transit facilities. Study limits will include the portion of San Pablo Ave. from Oakland north to Richmond, the area which is in the AC Transit district. A similar study of Mission Blvd./E. 14th St. in Central Alameda County will be initiated later by ACTC.

Downtown Oakland Specific Plan

City of Oakland land use and transportation plan for Downtown Oakland. Plan includes a network of transit streets, transit lanes and transit policies.

Dumbarton Forward

New study by MTC to develop short term and long term capital and service improvement plans in the Dumbarton corridor. The IDEA grant will support an early phase of work.

Grand Avenue Mobility Plan

City of Oakland project to enhance transit performance, improve pedestrian and bicycle safety and comfort, and contribute to greater mobility and mode shift along Grand Avenue in central Oakland.

5.5 Financial Plan

5.5.1 Introduction

Purpose of Plan

This section of the SRTF reviews AC Transit's financial outlook from FY2018/19 to FY2028/29. The overall fiscal context for the SRTF financial projections for operating expenses and revenues is framed by MTC's Transit Sustainability Plan (TSP). This financial section sets the economic context and constraints for AC Transit and the SRTF. The TSP requires that the seven largest transit agencies in the Bay Area submit an updated plan to MTC every two years.

The ten-year projection that follows shows that continuing to maintain a balanced budget will be an immediate and recurring challenge going forward. This chapter discusses some of the strategies that AC Transit is using to maintain a balanced budget.

Summary

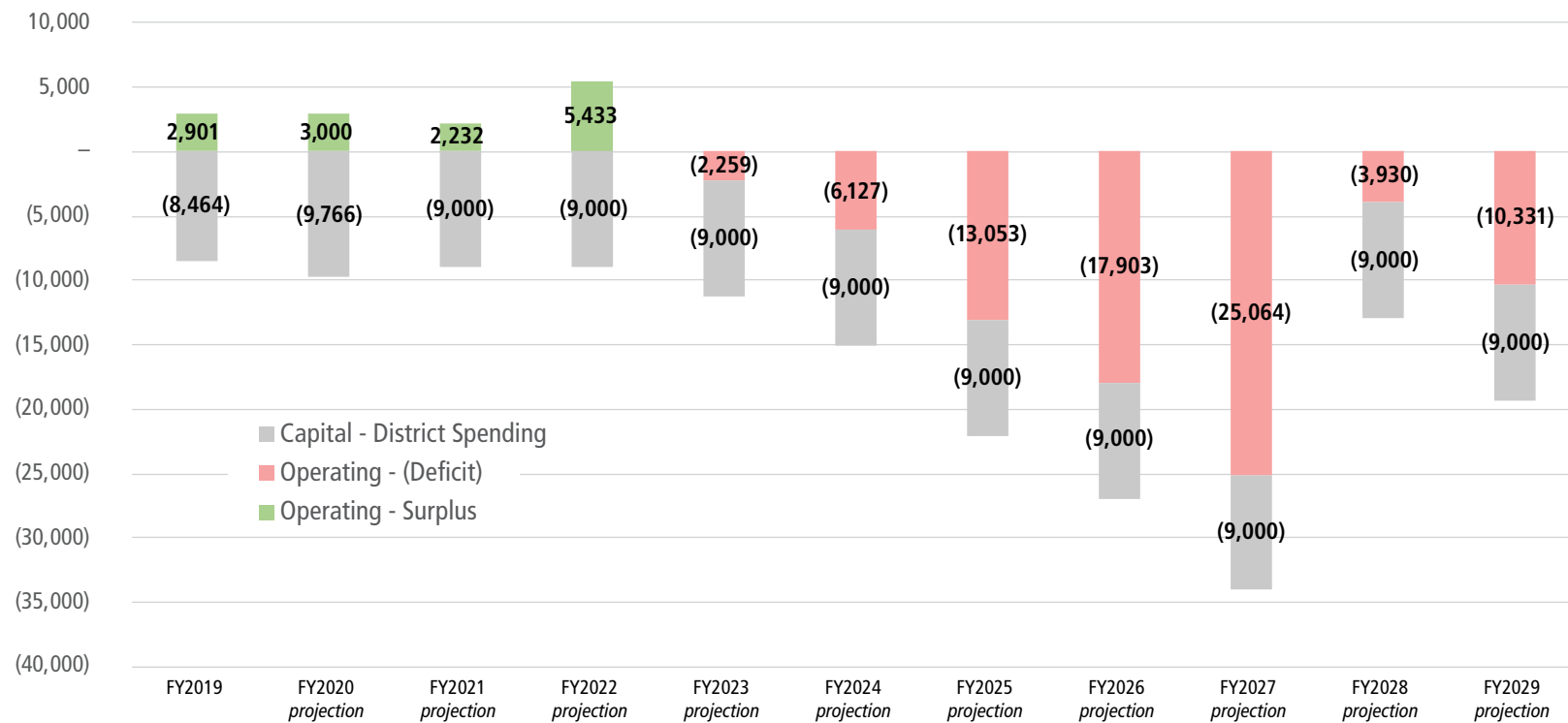
AC Transit's long-term financial outlook has changed significantly from what was presented in the 2015 SRTF. Projected expenses are higher than what was shown in the previous SRTF due to labor costs growing faster than forecast. This includes higher than anticipated per-position costs and a larger headcount increase than projected. The most significant factor in AC Transit's ten-year Financial Plan is that revenues are projected to grow at a slower rate than expenses. Because of this, the District's strategy focuses on ways to control costs and operate more efficiently.

Exhibit 21: Ten-Year Operating Projection Table

Baseline Case (Rounded)	Budget	10-year Projection									
<i>All amounts in \$1,000s</i>	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Revenues	452,749	474,024	488,472	504,580	512,831	525,189	534,867	547,012	557,057	570,387	580,912
Operating Expenses											
Baseline Operations Cost	449,848	471,024	486,241	499,146	515,091	531,316	547,920	564,915	582,121	574,316	591,243
Cost Difference between Route 1 and East Bay Rapid Transit O&M	0	239	2,260	2,220	2,177	2,130	2,078	2,022	1,962	1,896	2,462
Total Operating Expenses	449,848	471,262	488,500	501,367	517,268	533,445	549,998	566,937	584,083	576,212	593,705
Operating Surplus (Deficit)	2,901	2,761	(28)	3,213	(4,436)	(8,257)	(15,131)	(19,925)	(27,026)	(5,826)	(12,793)
District Capital Contribution	8,464	9,766	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Overall Surplus (Deficit)	(5,563)	(7,005)	(9,028)	(5,787)	(13,436)	(17,257)	(24,131)	(28,925)	(36,026)	(14,826)	(21,793)

Exhibit 22: Ten-Year Operating Budget and Capital Contribution

(\$ thousands)



5.6 Ten Year Operating Financial Outlook

Summary

The operating projection is based on current service and known changes, and otherwise assumes there will be no substantial changes in service or headcount in the projected years. The largest confirmed service change is the new East Bay Bus Rapid Transit (BRT) line, which will open in FY2019/20.

AC Transit will phase out Route 1 and replace it with BRT. Over time, the BRT system will be more cost effective than Route 1 because it will have more reliable and frequent service, primarily due to its bus-only travel lane. Travel times along the Route 1 corridor are projected to be reduced by 20 to 22% once the BRT system has been calibrated. Ridership along this corridor alone is expected to increase by as much as 34% to approximately 5.1 million annual riders, producing additional revenue for AC Transit.

To counter the deficits shown in the projection after the first couple years, AC Transit is developing strategies both to increase revenue and to decrease expenses to reduce the projected deficits.



5.6.1 Revenue

AC Transit has little direct influence over most of its revenue, as over 80% of its revenue comes from revenues other than fares, including taxes. Conversely, AC Transit can influence its fare revenue via its fare policy. Over the past two years AC Transit has worked to update all three parts of the District's fare structure: local, Transbay, and EasyPass. By the end of calendar 2019 there will be updated policies and fare schedules in place. By having consistently planned and manageable fare increases, the District can help offset rising expenses while not overly affecting the majority lower-income ridership on its local lines.

The Board adopted a schedule of Transbay fare increases in FY2017/18. The initial increase of \$1.00 coincided with when service began for the new Salesforce Transit Center and the introduction of double-decker buses for Transbay service. Fare increases will be every two years and Transbay fares will no longer be twice the local fare. The Transbay fare schedule also has the goal of funding the payoff of AC Transit's remaining capital contribution to the new Salesforce Transit Center (STC) in San Francisco, which opened in FY2018/19.

The Board adopted a schedule of local service fare increases in FY 2018/19. The increases were calculated to approximate Consumer Price Index (CPI) for the San Francisco Bay Area increases over a five-year period through 2023.

Revenue increases have beat expectations in recent years, but with increasing signs of a slowing economy and the economy's connection to subsidy revenue, the rate of growth in revenues is expected to slow. Sales tax based subsidies, such as Transportation Development Act (TDA) funds, are directly linked to economic growth. To the degree that the economy will potentially slow, so too will revenue from AC Transit's sales tax-based sources. Other operating revenues like those received for contracted services, advertising, and other miscellaneous revenues will aid relatively minor growth.

AC Transit's property tax subsidy has experienced above average growth in recent years, due primarily to rising housing prices. Staff does not anticipate high growth levels will be sustained over the next few years. Property tax revenue responds more slowly to changes in the economy than does sales tax revenue, as property tax changes more slowly than does sales tax.

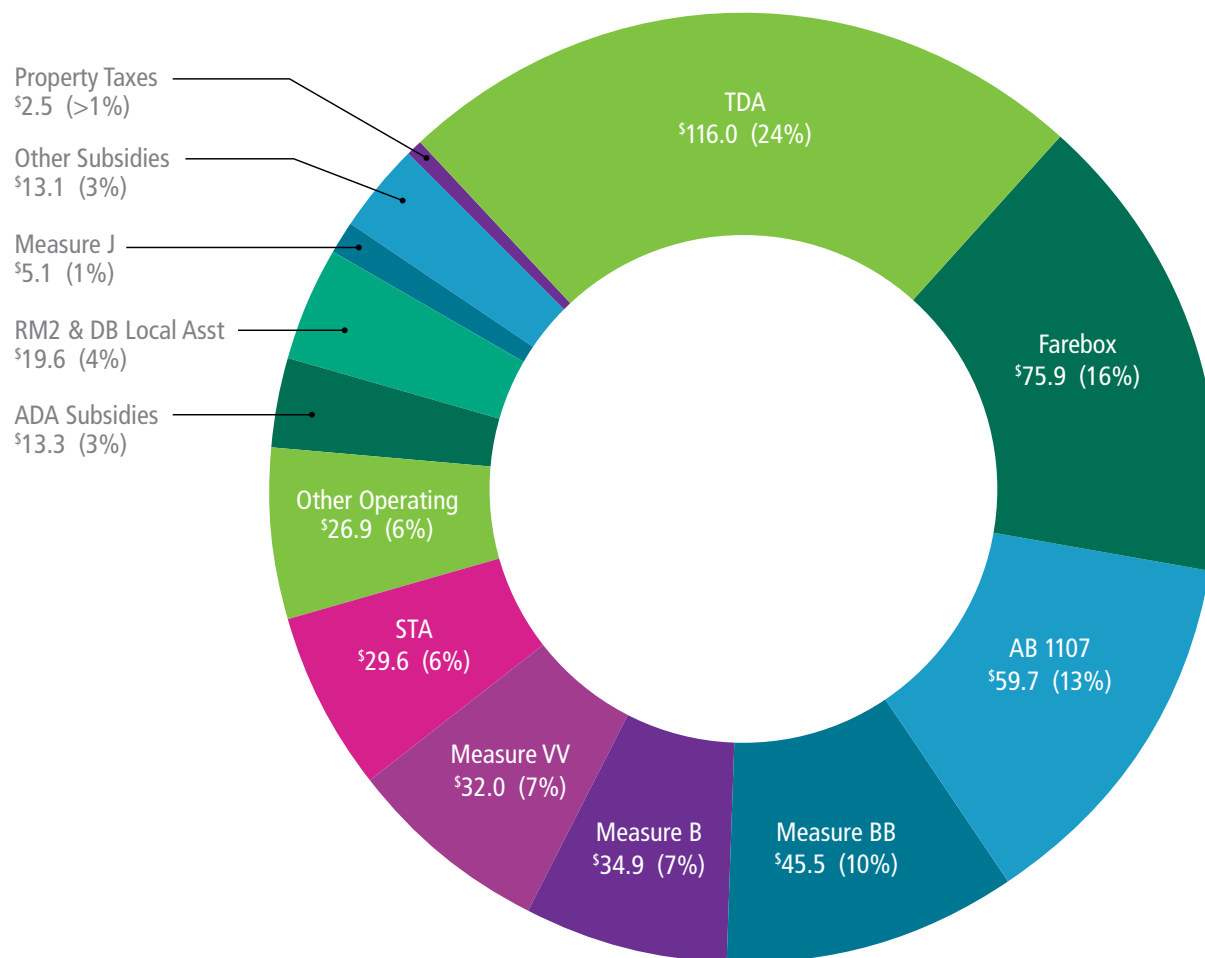
AC Transit's parcel tax revenue is the most stable funding of all the revenue sources, as it is based on the number of parcels within the District's territory, which grows very slowly over time.

Fuel tax subsidies will stabilize after the increases brought about by Senate Bill 1 (Beall). The revenue level from fuel is expected to stay flat through the projection. Political uncertainty may affect fuel costs, which will affect taxes received. Regional Measure 3 (RM3) is another potential revenue source to be used for a possible expansion of Transbay service. However, due to ongoing repeal efforts, AC Transit is awaiting a legal decision before including it as a definite revenue source in the 10-year projection.

Other potential new revenue sources are not included in the projection, as AC Transit is primarily seeking ways to lessen the rate of expense growth as it has limited options for new revenue sources. One option for increased revenue in the nearer-term is a possible Bay Area-wide "mega-measure" for transportation. The District is also considering longer-term solutions such as the possible introduction of a parcel tax in Special Transit Service District 2, the portion of AC Transit's service area not covered by the existing parcel tax (Measure VV/C1).

Exhibit 23: FY2019-2020 Adopted Revenue Budget

(\$ millions)



5.6.2 Operating Expenses

AC Transit's 10-year projection does not account for any major increases in service or headcount aside from costs associated with the improved BRT services. Again, a potential Transbay service expansion was not included due to the RM3 legal issues mentioned previously. Salaries and wages increase at rates based on existing labor agreements and then are projected to increase at a rate commensurate with the CPI for the San Francisco Bay Area. Increased healthcare costs are also a significant factor in overall labor cost increases.

In the initial years of the projection, pension costs will grow at an estimated 4% per year due to the lowered discount rate being phased in by the Pension Board. Pension costs will drop significantly in the final year of the projection due to the payoff of a significant amount of the unfunded liability amortization from the 2008 financial crisis. Other fringe benefit costs grow at a rate of three percent per year.

Fuel costs are projected to grow at an average rate of three percent per year. AC Transit is also mandated by state legislation to use renewable diesel starting in 2020 which will increase fuel costs in the near term. In the long-term AC Transit will have a growing fleet of cleaner, zero-emission buses. This will affect fuel costs as more electricity and hydrogen are brought in to the mix. Staff is still analyzing how this will affect overall "fuel" costs, and the projection assumes fuel costs overall will match what would be spent on a diesel-fueled fleet.

Over the past few years, AC Transit has been successful in containing non-labor expense growth by reducing discretionary spending such as travel, training, and office supplies. Four non-labor expenses make up nearly 60% of the entire non-labor costs, these include contracted paratransit services (28%), diesel fuel (12%), security services (11%) and insurance (8%). The costs for all four of these expenses are projected to have an annual increase ranging between 3–5% over the next ten years.

AC Transit strives towards financial stability and resiliency as this is one of the agency's core strategic goals. A balanced budget is necessary

to achieve this goal but will become increasingly difficult to maintain as increases from core costs could outpace revenues over the next ten years (see Ten-Year Projection, p. 55).

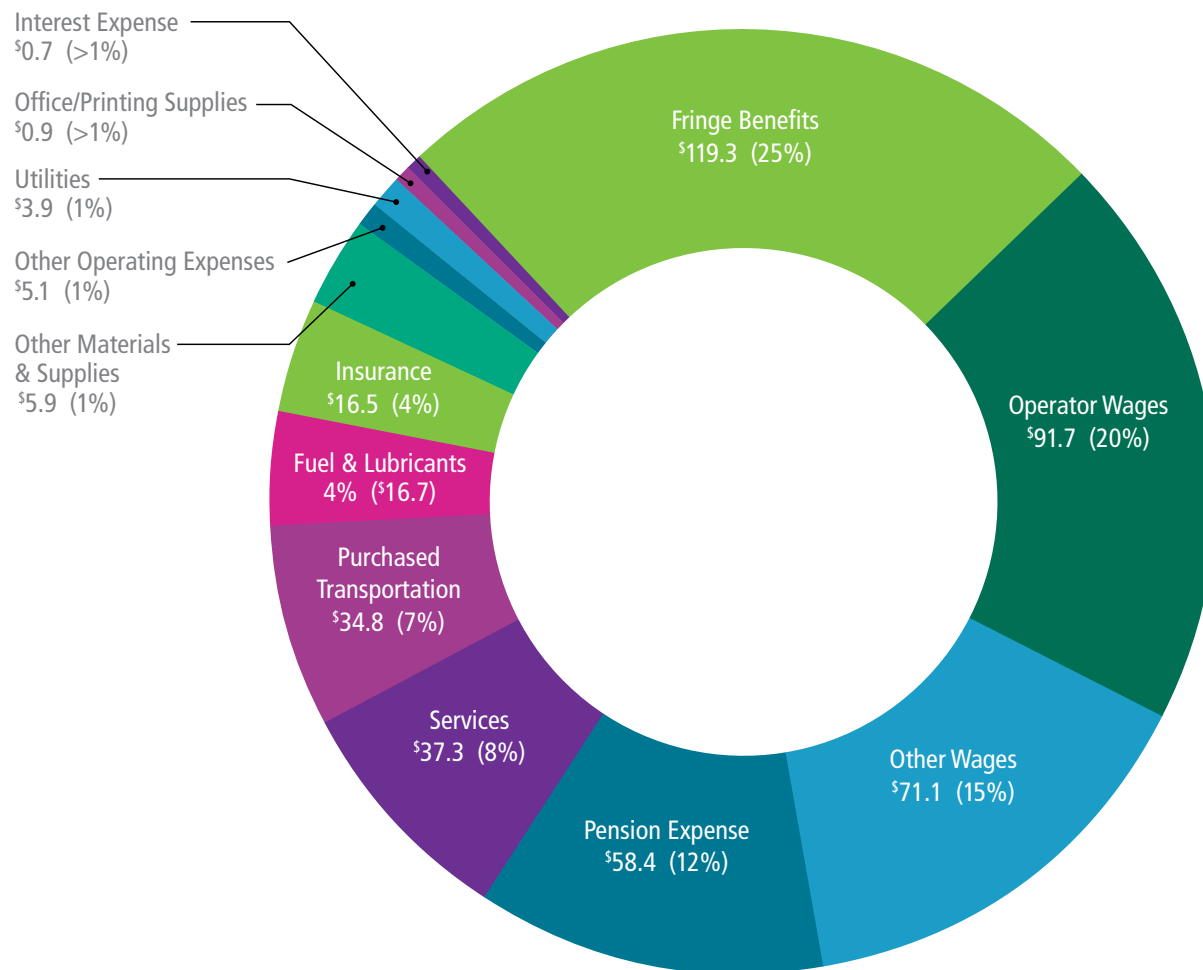
Maintaining a balanced budget over time requires stable revenue sources since less than 20% of operating revenues come from the farebox. The District has been successful in gaining funding through recent voter-passed revenue measures. These include Measure BB (Alameda County sales tax increment) and Regional Measure 3 (state-owned bay bridge toll increment). However, much of AC Transit's funding comes from sales taxes, which can rise and fall dramatically during economic cycles. Some funding sources are only available in parts of our district and/or for certain purposes. Measure BB half cent sales tax passed by the voters in Alameda County in 2014 with a significant amount of operating and capital funding for AC Transit is not applicable in Contra Costa County. AC Transit's own Measure C1, passed in 2016, is a special parcel tax with revenues dedicated to the District but not applicable to Fremont and Newark, also known as Special District Two. Contra Costa County is currently proposing a transportation sales tax measure which would fund service in the Contra Costa County portion of our district.

For the District to seek its own new funding source would almost certainly require a vote of the people in the AC Transit district. Currently most such measures would require a two-thirds affirmative vote.

Labor (people) accounts for roughly 70% of AC Transit's operating costs. Controlling costs will ultimately require reducing or reversing the growth of labor costs. The District is pursuing various programs to attempt to control labor costs. Most of AC Transit's employees are covered under one of three union collective bargaining agreements, so part of this effort is effected through labor negotiations. The District is currently in negotiations with ATU over its collective bargaining agreement.

Exhibit 24: FY2019-2020 Adopted Operating Budget

(\$ millions)



5.6.3 Potential Challenges

The United States economy has had economic growth for more than 10 years, the longest period since World War II. The big question is how long this current growth period can continue, and how will it reverse or slow down. A slowing economy will affect revenues and cause AC Transit to have fewer opportunities to grow and develop. As AC Transit continues to operate and maintain services over the next ten years, operating expenses will increase with inflation and revenues will slow, generating a deficit. In developing the FY2018/19 and FY2019/20 budget, AC Transit initially faced a deficit but was able to produce a balanced budget by focusing on decreasing costs.

Passenger fares account for less than 20% of AC Transit's revenues. Ridership levels have risen in recent years and are expected to grow after the launch of BRT in FY2019/20. However, the District expects the recent non-BRT-related increase in ridership to slow. Although the recent economic growth in the East Bay has allowed the District to grow, it has also led to increased traffic congestion, which in turn causes bus services to be slower, less reliable, and less attractive. There are also other transportation methods that are being utilized such as scooter-share, bikeshare, and rideshare services (e.g. Uber and Lyft) that compete with the bus for various trips. While the future of new modes is uncertain, they represent a challenge to the way American transit agencies operate.



Chapter 6:

Capital Improvement Program

Introduction

This chapter presents AC Transit's Capital Improvement Plan (CIP). The CIP is a medium range view of AC Transit's capital needs and potential capital funding sources. The purpose of the CIP is to provide an overview of the capital projects that are needed to meet AC Transit's goals of maintaining a state of good repair and providing an efficient and financially sustainable service. The CIP is not financially constrained, so it should not be considered a capital budget. Instead, it is an overview of projected needs against reasonable funding forecasts. AC Transit maintains the flexibility to prioritize various aspects of the CIP based on timing, funding, impact on overall agency goals, and capacity for project delivery. While AC Transit has identified capital funding that it could reasonably expect to access over the next ten years, there is still a significant shortfall between projected need and available funding. Additional funding will be needed to fully fund AC Transit's capital program.

The CIP implements other AC Transit planning documents. The Strategic Plan sets the overall framework and goals for capital expenditures. The Strategic Plan highlights Initiatives which are key for the District. All capital expenditures brought to the Board of Directors must identify which Strategic Plan Initiatives they are supporting. The CIP is fundamental to achieving many of the Strategic Plan's Initiatives. The CIP also encompasses the Transit Asset Management (TAM) Plan. The TAM Plan outlines how the District will manage its physical assets across

their life cycle, in accordance with federal asset management regulations. Buses and facilities make up the largest portions of the District's assets, there is also equipment and electronic and fare collection systems. equipment and electronic and fare collection systems.

One of the key components of the CIP is the capital contribution from the operating budget. This contribution represents the most direct relationship between the CIP and the Operating Plan. Each year AC Transit contributes funding from the operating budget for capital projects, to fulfill local match requirements of grant funds and to fund projects that do not qualify for grant funds. The capital contribution averaged \$10 million from FY 2011/12 through FY 2015/16 but has grown to nearly \$20 million for FY 2016/17 and has stayed at that level through FY 2018/19. In addition, service enhancements or cost efficiencies identified in the Operating Budget may need to be supported by associated capital investments. For example, an Operating Budget that calls for the expansion of service would require a capital investment in expansion transit vehicles.

6.1 Overview of Capital Needs and Financial Outlook

As in Plan Bay Area 2040, the SRTP also distinguishes between committed and discretionary funding. Committed funding has already been allocated or programmed to AC Transit, identified in an agreement or resolution, or can be reasonably assumed to be available to AC Transit. Discretionary funding is more speculative as it may require voter approval, legislative action or is part of a highly competitive funding program. AC Transit used Plan Bay Area 2040 as a source to identify discretionary revenues. Therefore, this estimate includes a new regional bridge toll; a regional gas tax; and other anticipated, but unidentified revenues. The sources and methodology for the funding assumptions are detailed later in the chapter.

Capital cost projections in this SRTP are carried out to the 2025/26 Fiscal Year, as in the previous SRTP. Most capital planning in the District covers a span of 5 years or less.

AC Transit has identified \$1.6 billion in capital project needs to FY 2025/26 to support service. There is \$624.6 million in committed funding and \$649.8 million in identifiable discretionary funding. If the District only receives committed funding, there is a \$999 million (61%) shortfall against the full CIP. Assuming the District receives all committed and discretionary funding listed there is still a \$350 million (21.5%) shortfall. This further highlights the need for new funding sources at the federal, state, and local levels.

6.2 Chapter Overview

The remainder of the CIP chapter is organized around AC Transit's major capital program categories: Fleet, Facilities, Corridors, Customer Service, and Information Services and Communications. Each of those sections will discuss existing conditions of that program, pertinent agency policies and/or plans governing the implementation of the program, and the recommended CIP projects and associated cost projection for the program. The final section of the chapter will discuss the financial assumptions and provide an overview of all the capital funding sources.

AC Transit's capital needs are ultimately derived from the service the District provides and the bus fleet that service requires. If service—especially Transbay service—expands and requires more buses, the District is likely to need to build a new or expanded operating and maintenance division in an efficient location (see discussion below). Existing divisions have significant repair needs, and in some cases (such as Division 2 in Emeryville and Division 3 in Richmond), city governments have asked the District to move the division. There are service improvements from AC Go which are yet to be implemented due to lack of funding, buses, and operators. Improving service as outlined in the Major Corridors Study (e.g. from trunk to rapid) could also require additional buses.

6.3 Fleet

AC Transit is currently expanding its fleet and currently has 637 revenue vehicles. These include ten cutaway vehicles of less than 30 feet, 90 30' vehicles, 402 40' vehicles, 36 45' vehicles, 84 60' vehicles, and 15 double-decker vehicles (see Exhibit 26 for more details). AC Transit maintains a spare ratio of 19.0% of its maximum service need.

AC Transit has a fleet of 154 on-revenue vehicles: 104 cars and 42 other vehicles, including vans, trucks, and maintenance vehicles.

Exhibit 25: Non-Revenue Fleet Overview

	Type	Qty	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	TBD	Line Total
Car	Full Size Car	46	\$99,867.71	\$155,978.76	\$88,829.16	\$85,496.37	\$45,660.36	\$79,608.57	\$76,446.91	\$74,414.97	\$121,001.16	\$17,554.48	\$47,688.00		\$14,879.48	\$907,425.93
	Full Size Car (Hybrid)	2										\$54,549.16				\$54,549.16
Truck	Heavy Duty Truck	9						\$121,596.72		\$242,607.63	\$223,888.29	\$121,596.72	\$55,975.94			\$765,665.30
	Light Duty Truck	9				\$10,972.32	\$18,664.76	\$14,027.04					\$85,045.00			\$128,709.12
	Mid Duty Truck	18		\$16,352.79	\$17,735.22	\$50,656.13	\$49,165.75	\$40,985.75	\$57,388.75	\$16,403.00	\$15,698.51	\$65,568.50	\$24,582.75			\$354,536.90
SUV	Sport Utility Vehicle	19	\$70,466.25	\$23,488.75	\$45,387.72		\$68,876.47	\$21,378.29						\$184,040.00		\$436,581.34
Van	Light Duty Van	16	\$14,329.00	\$35,685.70		\$17,842.85	\$18,474.12	\$39,273.55	\$18,279.21	\$52,278.31	\$18,051.01	\$39,943.05	\$21,913.00	\$21,913.00		\$297,982.80
	Mid Duty Van	5			\$19,6654.95				\$16,352.79			\$63,432.99	\$49,155.00			\$148,595.73
Sport Equip.	Forklift	18													\$492,176.52	\$492,176.52
	Scrubber	2													\$168,369.30	\$168,369.30
	Sludge Removal	2													\$45,197.82	\$45,197.82
	Trailer	3													\$30,752.15	\$30,752.15
	Yard Tug	5													\$108,349.18	\$108,349.18
Total		154	\$184,662.96	\$231,506.00	\$171,607.05	\$164,967.67	\$200,841.21	\$318,435.49	\$189,845.95	\$385,703.91	\$378,638.97	\$362,644.90	\$284,359.69	\$205,953.00	\$859,724.45	\$3,938,891.25

The current average revenue fleet age is 5.1 years, compared to the target average age of between 6–7 years. The target average age is based on an optimal average age that is half the useful life of the buses in the fleet. This is based on the federal standard useful life of 12 years for urban transit buses and 14 years for over-the-road commuter buses. The average age of AC Transit's fleet has decreased by nearly 2 years (or 27%) since FY 2015/16. This is due to large vehicle replacement purchases in FY 2016/17 and FY 2017/18 as well as expansion fleet purchases associated with AC Go and Bay Bridge Forward. Full implementation of AC Go required 32 40' buses and Bay Bridge Forward provided five additional double-deck buses. Exhibit 27 shows the revenue vehicle replacement plan over the ten-year life of the SRTP (FY 2016/17 to FY 2025/26) and the District's vehicle expansion plan.

The current average age of the non-revenue fleet is 11.8 years. The target average age for the fleet can vary a bit more with non-revenue vehicles, as the types and mix of vehicles can vary based on District needs. The lack of external funding available for non-revenue vehicles is the biggest impediment to implementing a regular replacement program. Exhibit 27 also shows the non-revenue vehicle replacement plan over the ten-year life of the SRTP (FY 2016/17 to FY 2025/26).



Exhibit 26: Revenue Fleet Overview

Make	Series	Series Range	Year of Make	Length of Bus	Seating Capacity	Vehicle Type	Power Type	Service Type	Year of Retirement*	Number of Buses
Eldorado	3500	3501-3510	2014	26 ft.	14	Small bus	Diesel	Flex	2028	6
Van Hool	5000	5001-5051	2006	30 ft.	25	Urban bus	Diesel	East Bay	2020	51
Van Hool	5100	5101-5139	2009	30 ft.	25	Urban bus	Diesel	Broadway Shuttle & East Bay	2023	39
Van Hool	FC	4-16	2010	40 ft.	30	Urban bus	Fuel Cell	East Bay	2024	13
Van Hool	1000	1004-1110	2003	40 ft.	37	Urban bus	Diesel	East Bay	—	49
Van Hool	1200	1201-1227	2008	40 ft.	37	Urban bus	Diesel	East Bay	2022	27
Van Hool	2100	2101-2110	2006	60 ft.	47	Articulated	Diesel	East Bay	2020	10
Van Hool	2150	2151-2165	2006	60 ft.	47	Articulated	Diesel	East Bay	2020	13
Van Hool	2190	2191-2199	2009	60 ft.	47	Articulated	Diesel	East Bay	2023	9
Gillig	1300	1301-1365	2012	40 ft.	37	Urban bus	Diesel	East Bay	2026	65
Gillig	1400	1401-1468	2014	40 ft.	37	Urban bus	Diesel	East Bay	2028	68
Gillig	1500	1501-1555	2016	40 ft.	37	Urban bus	Diesel	East Bay	2030	55
Gillig	1550	1556-1580	2016	40 ft.	37	Urban bus	Diesel	East Bay	2030	25
Gillig	1580	1581-1590	2017	40 ft.	37	Urban bus	Diesel	East Bay	2031	10
Gillig	1600	1601-1635	2018	40 ft.	37	Urban bus	Diesel	East Bay	2032	35
Gillig	6100	6101-6154	2014	40 ft.	36	Commuter Bus	Diesel	Transbay	2028	54
MCI	6000	6000-6040	2002	45 ft.	57	Over the Road	Diesel	Transbay	—	36
New Flyer	2200	6041-6079	2013	60 ft.	52	Articulated	Diesel	East Bay	2027	23
New Flyer	2220	2224-2252	2017	60 ft.	52	Articulated	Diesel	East Bay	2031	29
Alexander Dennis	6200	6201-6215	2018	42 ft.	78	Double Decker	Diesel	Transbay	2032	15

*Assumed to be 14 years from date of purchase unless otherwise noted.

Exhibit 27: Vehicle Replacement and Expansion Cost

All costs in are in thousands.

Vehicle Replacement Cost												
Type	Qty	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Bus - 42.5' Double-Deck Diesel	10		\$10,380									\$10,380
Bus - 60' Articulated Diesel	19	\$16,568										\$16,568
Bus - 40' Diesel	20	\$10,740										\$10,740
Bus - 40' Urban ZE Battery	5	\$6,250										\$6,250
Bus - 40' Urban Diesel (repl 30')	27		\$34,155									\$34,155
Bus - 40' Suburban Hybrid	12	\$6,444										\$6,444
Bus - 40' Suburban Diesel	12		\$6,528									\$6,528
Bus - 60' Articulated Hybrid	24			\$25,256								\$25,256
Bus - 40' Urban Hybrid	27				\$21,870							\$21,870
Bus - 30' Urban Hybrid	39					\$30,069						\$30,069
Bus - 60' Articulated Hybrid	9					\$10,089						\$10,089
Bus - 40' Urban ZE FC	13						\$17,277					\$17,277
Bus - 40' Urban Hybrid	65								\$55,250			\$55,250
Bus - 40' Suburban Hybrid	54									\$46,440		\$46,440
Bus - 60' Articulated Hybrid	23									\$27,071		\$27,071
Bus - 40' Urban Hybrid	68										\$80,988	\$80,988
Cut-Away - Under 26' 5-Year Gasoline	10			\$910					\$960			\$1,870
Cut-Away - Under 26' 5-Year Gasoline	6								\$576			\$576
Non-Revenue Vehicles	154	\$400	\$400	\$400	\$410	\$410	\$410	\$420	\$420	\$420	\$420	\$4,110
Total	597	\$40,402	\$51,463	\$27,566	\$22,280	\$40,568	\$17,687	\$420	\$57,206	\$73,931	\$81,408	\$412,931

All costs in are in thousands.

Vehicle Expansion Cost												
Type	Qty	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Bus - 40' Urban Hybrid	10	\$12,500										\$12,500
Bus - 42.5' Double-Deck Diesel	5	\$6,250										\$6,250
Bus - 60' Articulated Diesel	5	\$3,675										\$3,675
Bus - 40' Urban Diesel	30		\$37,950									\$37,950
Cut-Away - Under 26' 5-Year Gasoline	6			\$546								\$546
Bus - 40' Suburban Hybrid	3	\$1,611			\$3,891							\$5,502
Bus - 40' Urban Hybrid (return-to-fleet remaining)	26					\$34,138						\$34,138
Total	85	\$24,036	\$37,950	\$546	\$3,891	\$34,138	—	—	—	—	—	\$100,561

The vehicle replacement plan shown in Exhibit 27 is based on the simple assumption of replacing vehicles at the end of their mandated useful life. This is separate from any need for vehicles to expand service that the District may have. AC Transit regularly evaluates the fleet mix and needs of current and planned service and makes required changes in fleet replacement projects.

6.4 Facilities

Existing Conditions

AC Transit has the following seven operating and administrative facilities in regular use and seven transit centers that are utilized in regular service:

- Four open Operating facilities (Emeryville Division, Richmond Division, East Oakland Division, Hayward Division)
- One Maintenance facility (Central Maintenance Facility)
- One Administrative facility (General Office)
- One Training facility (Training and Education Center)
- Seven Transit Centers (Salesforce Transit Center, Ardenwood Park & Ride, Richmond Parkway Transit Center, Eastmont Transit Center, Contra Costa College, San Leandro BART Terminal, and Uptown Transit Center)

6.4.1 Stations and Transit Centers

AC Transit does not currently maintain transit stations. AC Transit Transbay service is a major user of the Salesforce Transit Center in Downtown San Francisco, which is owned and operated by the Transbay Joint Powers Authority (TJPA). Thirty-four (34) median and curbside stations will be built and maintained by AC Transit as part of the East Bay BRT service. Most bus stops in the AC Transit system are on-street and owned and maintained by local jurisdictions. The less common off-street stops are primarily located at the 11 BART stations.

The BART stations with off-street transit centers served by AC Transit are: Richmond, El Cerrito Del Norte, El Cerrito Plaza, Fruitvale, Coliseum, San Leandro, Hayward, South Hayward, Union City, Fremont, Warm Springs and Castro Valley. AC Transit also serves VTA's Great Mall (Milpitas) and Palo Alto transit centers. Off-street stops are also used at the Ardenwood Park-and-Ride and at transit centers at Richmond Parkway, Contra Costa College, Chabot College, Union Landing, Ohlone College Fremont, Ohlone College Newark, and Eastmont.

Most of AC Transit's major operating facilities were built in the 1980s and have reached the point of needing major rehabilitation, including replacement of major subsystems.

Facilities State of Good Repair: Most of AC Transit's operating and maintenance facilities are 30 years old or more and need significant rehabilitation and replacement of systems. Isolated projects to replace the most aged components such as roofs and yard paving/concrete have been completed in recent years, and a systematic rehabilitation schedule to address obsolete and aged components is currently in process through the State of Good Repair Asset Management Project.

Facilities Relocations: AC Transit conducted a Facilities Utilization Plan to guide the future reconstruction of our facilities. The Plan determined that the greatest need for increased bus parking is in the core of the District. This area is primarily served by Division 2 in Emeryville and Division 4 in Oakland. The Plan calls for a full redevelopment of D4 and a relocation of D2. The current D2 site is relatively small and is located in a busy mixed residential and commercial area of Emeryville.

Exhibit 28: Facilities Rehabilitation/Expansion Cost

All costs in are in thousands.

Projects	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028 and beyond
Div. 4 Redevelopment			\$10,500	\$10,500	\$10,500	\$41,300	\$51,600	\$51,600	\$51,600	\$51,600	\$49,207
Div. 2 Relocation			\$64,700	\$15,700	\$15,700	\$15,700	\$88,100	\$112,200	\$88,100		
Other Facility SGR	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000/yr

6.5 Technology

AC Transit is currently undertaking some major technology upgrades. The District must continue to plan for replacement and upgrading of these systems due to their relatively short useful life. New technologies can also bring efficiencies and opportunities. Major systems upgrades in progress include:

- Computer Aided Dispatch/Automatic Vehicle Location/Radio System (CAD/AVL/Radio)
- PeopleSoft financials tracking system
- Hastus Integrated Operations (HIOPS bus scheduling system)

The CAD/AVL/Radio project is AC Transit's largest and most costly system and provides schedule adherence information for the bus operator, real-time vehicle location and schedule adherence information for the controllers. It also includes automatic data collection of the date, time, and location of many onboard events. These include door openings, wheelchair ramp/lift use, and dwell times at service stops. The system provides an effective means for operators and controllers to share information on the current status of service. The current project is budgeted at over \$39 million and was implemented in March 2019.

Exhibit 29: Technology Cost

All costs in are in thousands.

Project	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Systems (CAD/AVL + other)	\$500		\$500		\$500		\$500		\$500		\$2,500
Transbay Terminal & BSF IT Equipment	\$1,000										\$1,000
Hastus, DailyOps Upgrade		\$2,000					\$2,000				\$4,000
Electronic Fare Media Usage Promotion			\$5,000								\$5,000
PeopleSoft Upgrade (post 9.2)						\$2,000					\$2,000
Storage Area Network Replacement				\$2,000							\$2,000
Off Board Fare Payment											\$5,000
Misc Upgrades (LAN, WAN, Firewall, etc)	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$750	\$7,500
Total	\$2,250	\$2,750	\$6,250	\$2,750	\$6,250	\$2,750	\$3,250	\$750	\$1,250	\$750	\$29,000

6.6 Corridor Upgrades and Improvements

AC Transit service is most frequent and heavily used on a small number of major transit corridors where most investment would be concentrated. The agency therefore implements corridor enhancement projects to improve efficiency and reliability of its service. Corridor enhancements include a range of treatments, including physical adjustments like bus bulbs and queue-jump lanes to traffic signal modifications that support bus priority. “Rapid Bus” improvements package the physical and signal enhancements with service redesign of a specific line that reduces the number of stops to speed travel time and often includes special branding. At the high end (in terms of cost and degree of improvement) of corridor enhancements is Bus Rapid Transit (BRT), which the District is implementing on East 14th/International Boulevard between Downtown Oakland and the San Leandro BART Station. The East Bay BRT project includes all the elements of the “Rapid Bus” projects as well as buses specially built to allow level boarding, raised platform center-median and side stations with enhanced lighting and security, off-board fare collection and vending, bus-only lanes, and further enhanced branding.

AC Transit also operates Rapid Bus service on the San Pablo Corridor (72R). As noted above, the Alameda County Transportation Commission is leading a multi-jurisdictional plan to support improved transit facilities on San Pablo Avenue. The completed Line 51 Corridor project included improvements such as Traffic Signal Priority (TSP) and queue jump lanes to increase performance along the 51A/B route from Berkeley to Alameda through Oakland. The District recently completed a project including TSP and bus stop re-locations for the Line 97 Corridor (San Leandro-Hayward-Union City). The East BRT project, when it opens for service in December 2019, will be the region’s first intensive and FTA Small Starts funded BRT project. Other BRT projects are underway in San Francisco and San Jose. In 2016, AC Transit has completed a Major Corridors Study to identify the appropriate level of improvements for the District’s top ten corridors to build support for their implementation.



6.7 Transit Centers/Park and Rides

Transit centers are focal points of District service, often at route terminals or inter-modal connections.

AC Transit makes more limited use of park-and-ride facilities than other comparable transit agencies. The District's use of park-and-ride lots at transit centers is guided by Board Policy 432: District Operated Park and Ride Lot Pricing and Cost Recovery Policy. The policy states that park-and-ride facilities are not a part of the District's primary on-street pickup service design and therefore should be used when walk up service is impractical. Any such facilities must have a thorough planning process and must be supported by user (parking) fees. However, there are locations, particularly around the edges of the AC Transit district, where walk up service is not currently practical. Over time some areas may become more pedestrian-friendly, as has occurred in parts of Emeryville. Through the Bay Bridge Forward project initiated by MTC, AC Transit will serve more park-and-ride lots in the future to provide additional relieve to Bay Bridge congestion.

6.7.1 Salesforce Transit Center

AC Transit is also a member of the Transbay Joint Powers Authority (TJPA), an agency formed to develop and operate the new (Salesforce) Transbay Transit Center in downtown San Francisco. AC Transit currently operates 27 Transbay lines to San Francisco. The District moved into the Terminal on August 12, 2018 and then subsequently moved out on September 25, 2019 when structural issues were identified with a beam in the facility. AC Transit returned to the Salesforce Transit Center in August 2019. In 2008, the District signed a Lease and Use Agreement with the TJPA, which includes a capital commitment of \$57 million in 2011 by 2050, and an operating cost commitment for the terminal. The District has contributed nearly \$34 million of the total capital funding commitment through FY 2016-17. The remainder of the capital commitment may be funded by a passenger facility charge to be added to the standard rider fare, but the exact mechanism is still being vetted through the board and the public hearing process.

6.7.2 Park & Rides

The Capital Improvement Plan provides for the rehabilitation and maintenance of current transit and park-and-ride locations. A potential expansion project in this category is an additional District 2 park-and-ride capacity based on the success of the Ardenwood facility in Fremont. In addition, much of the area has poor conditions for traditional walk up service. Additional park-and-ride capacity in this area could support additional service in the fast-growing Dumbarton Bridge corridor. Amtrak is also pursuing plans to shift its Fremont station to Ardenwood.

6.8 GHG Reduction Initiatives

AC Transit is an international leader in the effort to bring fuel cell powered transit to widespread use. The District has been operating buses powered by hydrogen fuel cells for nearly 16 years, with the current fleet of 13 fuel cell buses in their sixth year of operation. By the end of 2018 the District should have an additional 11 fuel cell buses in service. The District is also purchasing 45 “Zero Emission” fuel cell and battery electric buses with funds from the Transit and Intercity Rail Capital Program.

As part of this effort, the District has built two hydrogen fueling stations and converted two maintenance bays to handle the fuel cell buses. Both fueling stations feature on-site hydrogen generation to meet the California State SB 1505 renewable hydrogen generation requirements. To meet the requirement, the electrolyzer at Division 2 is solar powered while at Division 4, a renewable biogas fed solid-oxide stationary fuel cell is used. The District has additionally installed solar power generation at two additional facilities to reduce both power costs and greenhouse gas emissions. This on-site carbon-neutral hydrogen generation allows the District to generate credits through California’s Cap & Trade system.

AC Transit pursues zero emission vehicles for both environmental and regulatory reasons. The California Air Resources Board (CARB) issued its Innovative Clean Transit Rule in 2018. It requires all public transit agencies in the state to be zero-emissions by 2040. The District is developing a strategy to meet expected zero-emission regulations, and projects in this category will pursue that end. Most of the funding for these projects is anticipated to come from grant sources and agencies such as CARB, the California Energy Commission (CEC), or the Cap & Trade grant programs. In the near term the District is investing in the expansion of its zero-emission bus fleet with both fuel cell and battery-electric vehicles to allow for comparison of the various technologies.

To help determine the longer term path, AC Transit is conducting a unique, rigorous test of different fueling systems. The “5x5x5” study will test five bus types: an existing hydrogen fuel cell bus, a new hydrogen fuel cell bus, a battery electric bus, a diesel/electric hybrid bus, and a conventional diesel bus. The buses will be operated on the same routes, at the same times of day, by the same drivers, to minimize the possibility of confounding conditions. This experiment will generate operating data, such as miles per gallon equivalent and cost per mile, as well as data on environmental impacts. To our knowledge, no other American transit agency has conducted a similar comparison.

Exhibit 30: GHG Reduction Initiatives Cost

Project	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
GHG Reduction Initiative	\$2M	\$2M	\$2M	\$2M	\$2M	\$2M	\$2M	\$2M	\$2M	\$2M	\$20M
Alternate Fuel Enhancement Program		\$800K		\$800K		\$800K		\$800K		\$800K	\$40M
Total	\$2M	\$10M	\$2M	\$10M	\$2M	\$10M	\$2M	\$10M	\$2M	\$10M	\$60M

6.9 Overview Of Funding Sources

Funding Sources

AC Transit receives grant funds from Federal, State and Regional/Local organizations. The following are the most common and/or current grants that fund our capital projects:

Federal

Section 5307: These funds are distributed by formula to large and small urban areas for a variety of transit planning, capital and preventive maintenance needs.

Section 5309 Bus Discretionary: These funds are for bus purchases and bus support facility projects. These funds are specifically earmarked by Congress each year.

Section 5309 Small Starts: These funds are for fixed guideway projects requesting under \$75 million in Section 5309 Capital Investment Grant funding with a total cost of less than \$250 million.

Section 5337 State of Good Repair: grant program to maintain public transportation systems in a state of good repair. This program replaces the fixed guideway modernization program (Section 5309). Funding is limited to fixed guideway systems (including rail, bus rapid transit, and passenger ferries). Projects are limited to replacement and rehabilitation, or capital projects required to maintain public transportation systems in a state of good repair.

Section 5339 Bus and Bus Facility Program: formula grant program is established under Section 5339, replacing the previous Section 5309 discretionary Bus and Bus Facilities program. This capital program provides funding to replace, rehabilitate, and purchase buses and related equipment, and to construct bus-related facilities. Highway Discretionary Funds: These funds are distributed for a variety of transportation planning, construction and equipment acquisition needs. Projects are

approved for funding by local agencies and forwarded to appropriate state and federal agencies for funding authorization. Funds in this category include Regional Surface Transportation Program (STP) and Congestion Mitigation/Air Quality (CMAQ) Program.

State

Proposition 1B (PTMISEA) Funds: These are state funds for Public Transportation, Modernization, Improvement, and Service Enhancement Account (PTMISEA). These funds are for transit capital projects including 1) rehabilitation and safety improvements, 2) capital service enhancements or expansions, 3) new capital projects, 4) bus rapid transit improvements.

Proposition 1B (Transit Security) Funds: These are state funds for transit capital projects that 1) provide increased protection against a security threat, or 2) increase the capacity of transit operators to develop disaster response transportation systems.

Cap and Trade Programs

Affordable Housing and Sustainable Communities

(AHSC): The AHSC Program funds land-use, housing, transportation, and land preservation projects to support infill and compact development that reduce greenhouse gas emissions.

Low Carbon Transit Operations Program (LCTOP): The LCTOP provides operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities. Approved projects in LCTOP will support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, with each project reducing greenhouse gas emissions.

Transit and Intercity Rail Capital Program (TIRCP): The TIRCP funds transformative capital improvements that modernize California's intercity, commuter, and urban rail systems, and bus and ferry transit systems to reduce emissions of greenhouse gases by reducing congestion and vehicle miles traveled throughout California.

SB1 Programs

Local Partnership Program (LPP): The LPP Program provides local and regional transportation agencies with funding to improve aging infrastructure, road conditions, active transportation, and health and safety benefits.

State Transit Assistance State of Good Repair (STA-SGR): STA-SGR is a program that provides revenues for transit infrastructure repair and service improvements.

Regional/Local

Alameda County Transportation Commission

Measure B/BB: Measure B and its extension, Measure BB, is a half-cent transportation sales tax administered by the Alameda County Transportation Commission to deliver essential transportation improvements and services. These include capital projects to expand transit and provide traffic relief by improving local streets and highway corridors.

Bay Area Air Quality Management District

Carl Moyer Program: The Carl Moyer Program provides funds for hybrid, zero- or near-zero-emissions equipment or vehicle replacements and charging or fueling infrastructure for such equipment or vehicles.

Transportation Fund for Clean Air (TFCA): TFCA funds come from vehicle registrations and are for projects that reduce on-road motor vehicle emissions, such as trip reduction programs, and clean air vehicles and infrastructure.

Metropolitan Transportation Commission

Regional Measure 2 (RM2) and Regional Measure 3 (RM3):

RM2 and RM3 are voter-approved measures that raised the toll on the region's seven state-owned bridges. These funds are used to help finance highway, transit, bicycle and pedestrian projects in the bridge corridors and their approaches, and to provide operating funds for key transit services.

AB664: Toll revenue funds collected from the three southern bridges, San Francisco-Oakland Bay Bridge, Dumbarton Bridge and San Mateo Bridge that are used for capital projects that further the development of public transit in the vicinity of these three bridges.

State Transit Assistance (STA): STA funds derived from state sales tax on fuel and are used for transit and paratransit operating assistance as well as transit capital projects.

6.9.1 Regional Measure 3

Regional Measure 3 was passed on June 5th, 2018 with approval by a majority of voters in all nine counties in the Bay Area. Legal challenges to the measure have held up the distribution of funds so far. The measure will fund critical investments in transit operations and capital projects. These would directly benefit AC Transit's efforts to expand Transbay service and invest in capital facility needs. AC Transit is eligible to receive:

\$100 million for "Rapid Bus Improvements"

AC Transit is expected to directly receive funds for "Rapid Bus Improvements" to make transformative improvements to address congestion relief.

\$20 million in operating funds for "Regional Express Bus"

These funds will be allocated in proportion to Transbay bus ridership. AC Transit is the only provider of 24-hour Transbay service.

\$140 million will be distributed for "Core Capacity Transit Improvements"

The project description for "Core Capacity Transit Improvements" states that funds are for AC Transit projects identified in the Metropolitan Transportation Commission's Core Capacity Study, which includes new buses, a new bus facility, and other priority improvements required to expand Transbay service.

\$25 million will be distributed for "Interstate 80 Transit Improvements"

The project description for "Interstate 80 Transit Improvements" states that AC Transit is eligible for funds to expand bus service in the I-80 corridor in Contra Costa County through the purchase of new Transbay buses, expansion of bus facilities, and improvements of the San Pablo Avenue Corridor.

Chapter 7: Resolution 3434 Projects—BRT and Major Corridors

Resolution 3434 is MTC's program of major transit expansion projects for the Bay Area, most recently amended and adopted in 2008. MTC focuses its transit development work on these projects. The Regional Transit Expansion Program approved by Resolution 3434 will, when fully built, provide 140 additional miles of rail service, 600 miles of new express bus routes, and a 58% service increase on certain existing transit corridors. Ferry facilities will also be expanded.

AC Transit has two projects included in Resolution 3434. One is the East Bay BRT line from Downtown Oakland to the San Leandro BART Station. The second Resolution 3434 project is the Major Corridors improvement project, described in the Resolution as "AC Transit Enhanced Bus -Hesperian/Foothill/MacArthur corridors," with a cost to MTC of \$41 million. In Attachment C to the Resolution: Funding Strategy, the same \$41 million is designated for "AC Transit Enhanced Bus Grand/MacArthur Corridor." Taken together, along with Telegraph Avenue, these corridors make up most of the Major Corridors study area.

The Salesforce Transit Center is also part of Resolution 3434. However, because the Transbay Joint Powers Authority, not AC Transit, is the sponsor of project, it is not included in this chapter.

East Bay Bus Rapid Transit

Capital Cost: The capital cost to construct the East Bay BRT is currently estimated at \$174 million project budget, plus a \$39 million contingency budget, for a total of \$213 million in year of expenditure dollars.

Resolution 3434 estimated the cost as \$250 million. At the time of that estimate, the planned BRT extended to Berkeley on the north end and Bayfair BART on the south end. The current project is roughly two-thirds the length of the original one.

Capital Funding: The Small Starts Grant Agreement (SSGA) portion of the BRT project is fully funded. The remaining Small Starts Grant funds were awarded in September 2017, adding \$27,589,999 in FTA Small Starts funds granted via an earmark. The total FTA funds in the grant are now \$49,999,999. AC Transit is in the process of securing an additional \$39 million over the SSGA budget of \$174 million to account for possible risks and delays to complete the project. The \$39 million contingency fund is partially funded. The District has secured approximately \$9 million of the total required funding. It is in the process of securing an additional \$5 million each from ACTC and MTC and financing the remaining \$20 million.

Construction Schedule: The completion of the BRT project and start of revenue service is forecasted to be over two years behind the SSGA scheduled date of November 2017. The key projected dates are:

- **Completion of Final Design** – November 2015
- **Start of Major Construction** – January 2017
- **Completion of Major Construction**—December 2019
- **Start of Revenue Service** – March 2020

BRT Related Land Use: The BRT project will continue to be a catalyst for transit-oriented development along the BRT corridor. AC Transit participated actively in the development of TOD strategies in both Oakland and San Leandro. The project will deliver improved bicycle routes, replacement parking for business development, traffic calming features and ADA upgrades to make the corridor more pedestrian friendly. Several new developments along the BRT corridor have been launched since the start of the BRT construction project, notably the Affordable Housing Sustainable Communities projects at 2300 and 9400 International, Phase 2 of the Unity Council's Fruitvale Village Expansion project and other mixed-use developments along the Broadway corridor in downtown Oakland.

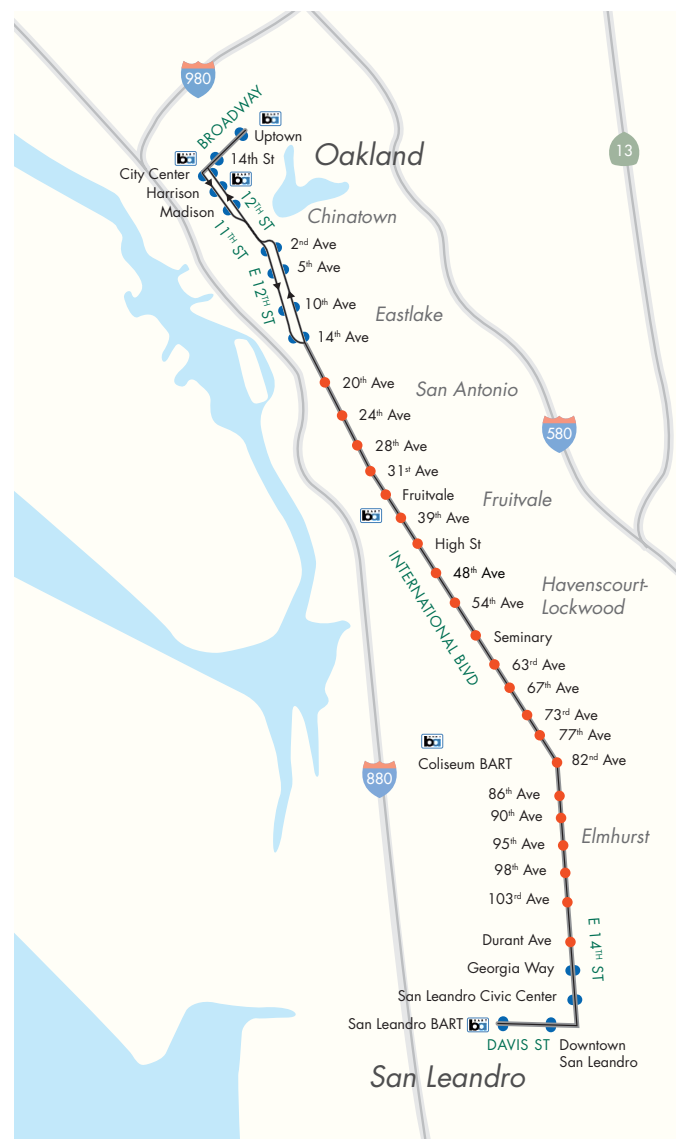
BRIDGE Housing has started construction on a 115-unit affordable housing development directly across from the San Leandro BART Station, the terminus of the BRT.

BRT is also a model for improved transit connectivity: it connects the central business districts of Oakland and San Leandro. In addition, various stops among the 34 stations in the system are within walking distance of six BART stations and offer opportunities to transfer and connect to more than 40 other local bus routes. These include but are not limited to major entertainment and transportation hubs like the Oakland Airport, Greyhound Bus Station, Oakland Coliseum and Oracle Arena.

AC Transit completed its Major Corridors Study in August 2016. The study proposed short- and long-term capital improvement strategies for the three Resolution 3434 corridors: Foothill Boulevard in Oakland, Hesperian Boulevard in San Leandro and Hayward, and Macarthur Boulevard/Grand Avenue in Oakland and Emeryville. The Major Corridors Study was conducted in conjunction with the Alameda County Transportation Commission's Countywide Transit Plan, which outlined a countywide transit service strategy. ACTC has also conducted a countywide Multimodal Arterials Plan which sets a framework for developing conceptual designs on major arterials—including provisions for transit. The Hesperian project was recently completed at a cost

of \$6.1 million. It includes signal, roadway, and stop improvements between San Leandro and Union City.

Map 4: BRT Lines



Chapter 8: SRTP Vision 2050

Most of the SRTP is concerned with AC Transit's plans and finances for the next ten years. However, this chapter takes a longer look, considering possible land use, transportation, and transit developments over an approximately 30-year period, to 2050. The Regional Transportation Plan/ Sustainable Communities Strategy now being developed by MTC and ABAG also looks to a 2050 horizon. This chapter identifies trends and directions but seeks to avoid false certainty about an evolving future. While some expect immediate transformations ahead, the history of Bay Area transportation suggests that change usually takes longer than expected.

The other chapters of the SRTP are required by MTC. This chapter is not required but has been requested by the AC Transit Board of Directors.

AC Transit's Role Today

Considering AC Transit's future requires clarity about our role and purpose. AC Transit was formed, over 60 years ago, to assure the continuation of surface public multi-passenger transportation for the East Bay. The District has, despite some criticism of this approach, continued to focus on this mission. This chapter assumes that focus will continue for AC Transit.

AC Transit provides "surface" transportation because our service thus far has been on land, not in the water or in the air. The system is "multi-passenger" in being designed to carry large groups of passengers in a single vehicle. This is what distinguishes AC Transit from a taxi

service. "Public" because AC Transit buses are open to all members of the public who can pay the fare, unlike subscription or "pool" services, or company buses. There are also many modes of passenger transportation, which may be operating in 2050, that "are part of our context but do not share one or more of these characteristics. The term "surface multi-passenger transportation" can include both road and rail transit. We believe that there will still be a critical role for surface transit in 2050—as there was in 1950 and in 1850—though that role will likely continue to evolve.

The Context for East Bay Surface Public Multi-Passenger Transportation in 2050

"It's tough to make predictions, especially about the future"
—Yogi Berra

The development pattern of the East Bay and the Bay Area will guide the overall shape of future transit service here. The AC Transit district has been on a development path of slowly increasing densities in almost every city. This pattern is likely to continue. As of 2019, Downtown Oakland appears to be evolving from a major employment center towards a mixed-use district with numerous high-density residential buildings. Commercial development in the Inner East Bay has been limited of late, especially given an increasing glut of retail space. Downtown San Francisco employment and job density have grown for over 100 years.

Barring economic collapse, or massive natural disaster, the AC Transit district and the Bay Area are expected to have continued population growth up through 2050, though perhaps at a slower rate than previously. Plan Bay Area 2040 projected 33% population growth over its 30-year life. 33% growth would increase the population of the AC Transit district by some 470,000 people (or more than “another Oakland”) by 2050. As a result, most existing developed areas will continue to be occupied. Most of the over 250,000 single family detached houses (roughly half the housing stock) in the district will remain, although some will be subdivided into, or replaced by, multiple units.

As of 2019, major growth poles in the AC Transit district include Downtown Berkeley, the Emeryville core, Downtown Oakland, and the Warm Springs BART area of Fremont. By 2050, new growth poles may emerge, as East Bay locales rarely have strong, sustained growth over such a long period. Fremont, the district’s largest city in area, has prepared a plan to “strategically urbanize” key nodes within that city. Districtwide, BART stations—in locations where development is allowed—are likely locations for growth nodes to emerge. At the same time, some young people are finding that it is possible to live a full life in the East Bay without owning a car.

AC Transit is now and has been part of a broader network of transit services in the East Bay and the Bay Area, as is discussed in Chapter Two. This network is likely to be larger and simpler to use by 2050. New fare structures will allow passengers to treat AC Transit, BART, and other agencies as a single system. Ongoing developments in information technology should make both fare payment and trip planning easier.

There is planning underway for building a second BART crossing between the East Bay and San Francisco, although there has not been a definite decision on that megaproject. A second tube would allow BART to serve new communities in the East Bay, such as Emeryville and Alameda. There may be commuter rail in that second tube and/or across the Dumbarton Bridge corridor (this could also be BRT). Water transit could expand its role, particularly if waterfront areas are more

intensely developed (which could be challenged by expected sea level rise) We can only assume that AC Transit’s service area will remain roughly the same geographically, within jurisdictions with approximately the same powers and legal framework.

The governance of Bay Area transit services may well change over the decades, as has often been suggested. It has changed over time, though not greatly in the last 30 years. Today there are five large area transit systems: AC Transit, Golden Gate, SamTrans, San Francisco MTA, Muni and VTA. There are two major intercounty rail systems: BART and Caltrain. Between them these seven systems receive over 90% of transit boardings, although there are numerous other transit agencies. Barring administrative changes, these agencies must continue to serve their communities’ needs. The “color of the buses” may change, but the need for transit will remain.

Today’s seven major Bay Area transit systems could be consolidated down to fewer agencies, without creating an unduly large and unwieldy regionwide organization. Smaller transit agencies and local shuttles may be merged into larger agencies, although this would affect relatively few passengers and little spending). Transit could be organized through separate urban and regional carriers (as in Seattle) or separate commuter rail and suburban bus agencies (as in Chicago and New York). Many regions (including Sonoma County) have transit carriers focused on a single city but this has not been the primary approach in the East Bay.

In terms of physical transit facilities, fixed guideways (rail tracks and BRT roadways) tend to remain in place and in use over long periods. Line haul bus lines, carrying large numbers of passengers along dense, often congested corridors have also shown strong longevity. Some imagine a world of endless cars in 2050, but the road space and material resources required make that future neither plausible nor desirable. Its environmental impact in a world of accelerating climate change is unacceptable. Some railroad tracks near San Francisco Bay may be endangered by the sea level rise which is expected to occur in coming decades.

The Role of Surface, Multi-passenger transportation in 2050

People will still need and want to move themselves around the East Bay in 2050, even if more and more goods and services are brought to their homes, even if more of their lives are lived “virtually.” People will still need and want to reach workplaces, schools, medical facilities and recreation sites, the homes of friends and family, if perhaps retailers not so much (American retail space having bloated up in the latter 20th /early 21st Century). Some trips will still be too long for walking or other human powered transportation. If East Bay development patterns gradually concentrate destinations in central areas, transit can be a more attractive competitor (if this pattern stalls, transit will be weakened). People will also live in more compact areas, as the long run desirability of central locations continues to reemerge.

Transit service is likely to increasingly focus on longer distance and line haul trips. Transit’s comparative advantage versus other modes comes from hauling large numbers of people along dense corridors. The moderate densities of Inner East Bay communities—many of them originally built around Key Route streetcars—are a good fit for line haul bus service.

These corridors often serve destinations which simply could not physically absorb everyone arriving by car and claiming street space. This is true whether those cars are privately owned or part of a fleet. Downtown San Francisco has seen an intensification of job densities in recent years and an explosion of TNC vehicles, both worsening already serious congestion. Downtown Berkeley, core Emeryville, and Downtown Oakland are developing into car-challenging places, and will likely become more so.

At the same time, “crosstown” routes have often had increasing difficulty attracting enough passengers. Nonetheless, line haul services will need a variety of services to feed them passengers. People in residential neighborhoods away from trunk line corridors will need to reach those corridors. Over a 30-year time frame, a safe and economically

efficient model for neighborhood transit services can be developed. Non-transit vehicles such as scooters or bicycles can also serve as feeders for some people, particularly the physically able. Neighborhood services could continue to have human drivers, or they may be at least in part driven by computers (“autonomous vehicles”). People can of course walk to transit and are more likely to do so if walking conditions are good. This array of feeders can provide “first mile” service to transit and “last mile” service from transit.

If a “Rip Van Winkle” from 2019 awoke in the East Bay in 2050, she would find a metropolitan landscape which was in many ways familiar, in some ways strikingly different. Such will inevitably be the case with the East Bay’s transit service and AC Transit.

