

San Francisco Transportation Plan 2050

Final Report: December 2022



San Francisco County Transportation Authority

SFTP₂₀₅₀

ConnectSF

Acknowledgments

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Executive Summary

The San Francisco Transportation Plan (SFTP) is the blueprint for San Francisco’s transportation system development and investment over the next 30 years. The SFTP covers all transportation modes, networks, and operators that serve the city and establishes long term investment priorities. The plan is updated every four years in coordination with Plan Bay Area 2050, the regional long-range plan. Through detailed analysis, the ConnectSF long-range planning effort, interagency collaboration, and listening to the public, the San Francisco County Transportation Authority (SFCTA) evaluated ways to improve the transportation system with existing and potential new revenues. The SFTP recommends a balanced Investment Plan that makes meaningful progress towards the ConnectSF vision and goals – equity, safety and livability, sustainability, economic vitality, and accountability and engagement. The SFTP also recommends a set of policy initiatives to support these goals and make the most of our investments.

SFTP AT A GLANCE

The SFTP includes:

- An Investment Plan to guide the allocation of \$80 billion in existing and anticipated transportation revenues through 2050
- A Vision Plan to guide the allocation of an additional \$15 billion potential new transportation revenues through 2050
- Policy initiatives to complement the Investment Plan and Vision Plan
- Guidance for implementation and monitoring

SFTP REVENUES

Through 2050, San Francisco can expect to have about \$80 billion in funding available to support the transportation system; this funding makes up the Investment Plan. Most of these funds are already committed to specific projects or purposes. About \$13 billion of the expected revenues are discretionary, meaning there is more flexibility in how they can be allocated.

WHY DOES THE SFTP MATTER?

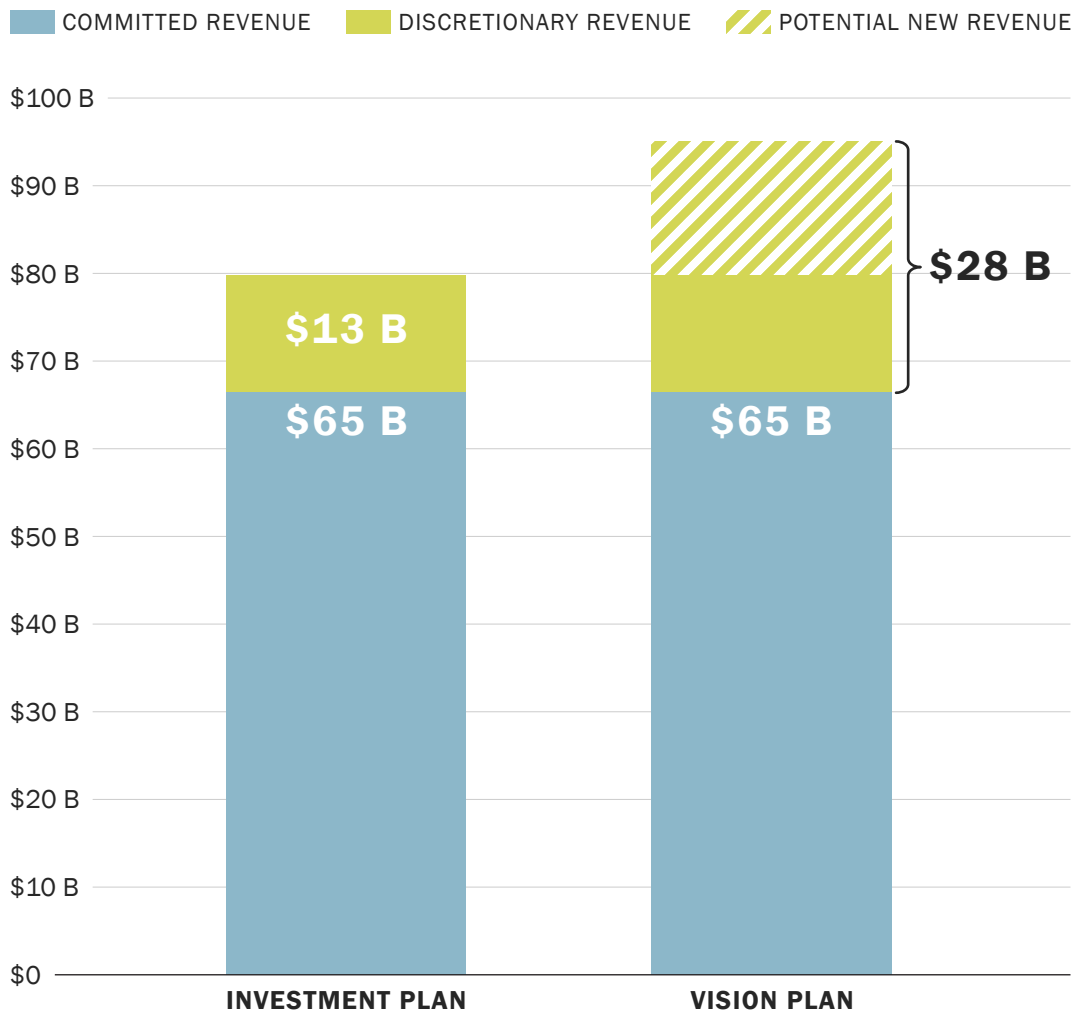
Like many counties in California, San Francisco is a “self-help” county where local revenues make up the majority of transportation funding (Figure 7). Local “matching” funding is often necessary to access federal, state, and regional funds to deliver the projects and services that are essential to meeting our goals.

The SFTP will make the city more competitive for transportation funding at the regional, state, and federal level, including for opportunities made possible by the Bipartisan, Federal Infrastructure Law that was enacted in 2021. Transportation projects seeking this funding must be consistent with the SFTP and the region’s long-range transportation plan, Plan Bay Area 2050.

The SFTP also ensures that San Francisco's transportation investments and advocacy are well coordinated and effective in achieving citywide goals.

The 2022 Transportation Sales Tax Expenditure Plan¹ revenues – resulting from a 30-year continuation of San Francisco’s existing half-cent transportation sales tax to 2053 – are included in the Investment Plan’s discretionary revenues. The Vision Plan assumes additional revenues to help move the city closer to the long-term goals for San Francisco’s transportation system. The Vision Plan totals about \$95 billion dollars in revenues, which includes all the Investment Plan revenues plus an additional \$15 billion in potential new revenues. In total, the Vision Plan includes \$28 billion in discretionary revenues. Though the plan does not identify specific sources for this new revenue, sources may include, but are not limited to, local and regional measures, as well as increased federal and state funds. Figure 1 shows the SFTP revenue forecasts in the Investment Plan and Vision Plan.

Figure 1: SFTP 2050 Investment Plan and Vision Plan Revenues, in Billions of Dollars, 2020



¹ <https://www.sfcta.org/ExpenditurePlan>

SFTP INVESTMENT PLAN AND VISION PLAN SUMMARY

The Investment Plan and Vision Plan are organized into six primary categories, consistent with the 2022 Transportation Sales Tax Expenditure Plan approved by San Francisco voters in November 2022, plus the addition of a Transit Operations category. Table 1 shows categories of major investments and funding levels recommended by both the Investment Plan and Vision Plan.

Table 1: Investment Levels by Category, in Billions of Dollars, 2020

CATEGORY	INVESTMENT PLAN	VISION PLAN
Major Transit Projects Includes transit reliability, speed, and capacity capital improvements to support local and regional operators providing more frequent bus and rail service, running longer trains, and extending Caltrain in San Francisco.	\$10.37	\$10.37
Transit Maintenance and Enhancements Includes transit maintenance, rehabilitation, and replacement of local and regional transit infrastructure serving San Francisco, and enhancements such as stop/station access improvements, new stations, and planning for the next generation of transit projects.	\$10.88	\$15.86
Paratransit Includes door-to-door van, taxi, and other transportation services for seniors and people with disabilities who are unable to use fixed route transit service.	\$1.27	\$1.27
Streets and Freeways Includes pedestrian and bicycle safety and traffic calming, maintenance, rehabilitation, and replacement of road infrastructure, streetscape improvements, and freeway safety and operational improvements.	\$5.38	\$7.23
Transportation System Development and Management Includes neighborhood and equity planning to create a pipeline of projects across the city, and Transportation Demand Management strategies – cost-effective projects that support shifting when, how, and where people travel.	\$4.00	\$4.00
Transit Operations Includes transit operations for Muni and San Francisco’s share of regional transit services, except for Muni paratransit operations which is shown in a separate category.	\$46.47	\$52.93
Existing Obligations Remaining balances on Prop K grants and debt service.	\$0.55	\$0.55
TOTAL	\$78.92	\$92.21

ACCOMPLISHMENTS SINCE SFTP 2040

The 2013 SFTP (SFTP 2040) outlined specific recommendations and priorities to improve the transportation system¹. System monitoring is part of the long-range planning cycle. San Francisco accomplished and advanced many of the recommendations in the past decade, though many remain relevant as we plan for the next 30 years. SFTP 2040 policy recommendations and an overview of accomplishments and current progress are listed in Table 2.

Table 2: Summary of SFTP 2040 Accomplishments

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Prioritize revenues to fully fund timely transit vehicle replacement and rehabilitation	The city made a major investment in transit to buy and fully replace Muni buses, light rail, and paratransit vehicles, help rehabilitate existing Caltrain diesel vehicles, and purchase the new Caltrain electric fleet.
Expand transit service while supporting steps to stabilize costs	Prior to the COVID-19 pandemic (pandemic), there was a Muni service expansion of at least 12%. Unfortunately, those gains were eroded by the pandemic. SFTP 2050 is the first time the Investment Plan will not be able to meet transit operating needs. Decreased ridership and the associated loss of fare revenue (caused by the pandemic and persistent today), along with increases in operating costs that exceed the growth in revenues, have created unprecedented financial deficits for all transit operators in the region. See page 20 and page 37 for a discussion of the fiscal cliff transit operators are facing.
Achieve city goals for average pavement condition	In 2020, the city achieved pavement quality goals (Pavement Condition Index 75/100) ² through coordinated investment from San Francisco's General Fund, the Prop K half-cent transportation sales tax, Prop AA Vehicle Registration Fee ³ , the 2011 Road Repaving and Street Safety Bond, and Senate Bill 1. ⁴
Build the pedestrian and bicycle strategies to establish safer neighborhood networks citywide	The separated bikeway network increased by 34 miles and there was rapid growth in the active transportation network, particularly during the pandemic.
Create more complete streets (at lower cost) through coordination with repaving	The city adopted Vision Zero in 2014. The SFCTA established the Vision Zero Committee which met quarterly from 2014 to 2020, after which point regular Vision Zero updates have been presented to the full SFCTA board. The city has implemented quick-build projects on the on the High Injury Network ⁵ that allowed for quick and innovative improvements to our streets. About 31 miles (19%) of improvement are complete, 22 miles (13%) under construction, and 29 miles (17%) are in design.

¹ <https://www.sfcta.org/projects/san-francisco-transportation-plan#panel-reports-documents>

² <https://www.sfcta.org/blogs/milestone-smoother-streets-san-francisco>

³ <https://www.sfcta.org/funding/prop-aa-vehicle-registration-fee>

⁴ <https://dot.ca.gov/programs/sb1>

⁵ <https://www.visionzerosf.org/maps-data/>

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Increase investment in employer, school, and community trip reduction programs	The San Francisco Department of Environment, San Francisco Planning Department, SFCTA, and San Francisco Municipal Transportation Agency (SFMTA) jointly developed the 2017 – 2020 Citywide Transportation Demand Management (TDM) strategy ⁴ , but many recommendations still need to be implemented. To encourage transit ridership, BART piloted the BART Perks ² program and BART, the SFMTA, and Samtrans launched the Gator Pass ³ to provide free or reduced fares to San Francisco State University students. The Metropolitan Transportation Commission, in partnership with Bay Area transit agencies, launched the Bay Pass ⁴ pilot program, which will provide free transit access to about 50,000 Bay Area residents.
Increase transparency and promote public involvement by sharing agency prioritization and development processes	The ConnectSF process brought together the SFCTA, the SFMTA, San Francisco Planning Department, and the Office of Workforce Development to jointly form a long-range transportation planning effort, rooted in community engagement. The SFCTA also developed the Neighborhood Program ⁵ for community transportation planning in response to mobility and equity findings from the SFTP 2040, which found that walking, biking, and transit reliability initiatives are important ways to address socio-economic and geographic disparities. The SFCTA continued to invest in Community Based Transportation Plans and implement their recommendations in Equity Priority Communities. MyStreetSF, an online tool, was created for community members to track transportation projects funded by the SFCTA. ⁶
Continue to develop pricing approaches to congestion management	The city developed and implemented SFPark to improve parking availability, the SFCTA began developing an equity-first congestion pricing strategy, ⁷ and the Planning Department established developer TDM programs ⁸ to reduce new driving trips associated with new development. The Treasure Island Mobility Management Agency (TIMMA) is implementing a comprehensive multimodal TDM program to support growth on Treasure Island. ⁹
Continue rapid transit network development, including bus rapid transit	The city installed nearly 80 miles of transit upgrades since 2014 through the Muni Forward program, implementing a range of elements from the Transit Preferential Streets toolkit. The city now has approximately 70 miles of dedicated transit lanes, along with many other elements to improve reliability such as signal priority, stop rebalancing, and more. Recently, the city completed the Van Ness Bus Rapid Transit and Geary Rapid Phase 1 Projects and installed transit signal priority on the entire Muni bus rapid network. The Muni Service Equity Strategy ¹⁰ focuses on improving transit performance in San Francisco neighborhoods with high percentages of households with low incomes and people of color. This strategy is an ongoing effort to improve service performance in eight Equity Strategy neighborhoods, with annual monitoring.

1 <https://sfplanning.org/transportation-demand-management-program>

2 <https://www.BART.gov/guide/perks>

3 <https://bursar.sfsu.edu/students/campus-fees/gator-pass>

4 <https://mtc.ca.gov/news/clipperr-baypass-sets-sail-unlimited-transit-access>

5 <https://www.sfcta.org/policies/neighborhood-program>

6 <https://mystreetsf.sfcta.org>

7 <https://www.sfcta.org/downtown>

8 <https://sfplanning.org/transportation-demand-management-program>

9 <https://www.sfcta.org/projects/treasure-island-transportation-program>

10 <https://www.sfmta.com/projects/muni-service-equity-strategy>

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Continue to coordinate transit investment with land use development plans	The city adopted the Transportation Sustainability Program ¹ to ensure new growth contributes to improving and expanding the transportation system. The regional One Bay Area Grant (OBAG) program, administered in San Francisco by the SFCTA, directs transportation funding to the city's adopted Priority Development Areas. ² The SFCTA continues to support the Caltrain Downtown Extension (DTX) and the redevelopment of Treasure Island, ³ the area around Balboa Park Station, and the redevelopment of Treasure Island, as well as numerous development sites citywide.
Set a vision for managing the city's freeway network	The SFCTA completed the Freeway Corridor Management Study in 2017 and began follow-on work to analyze managed lanes and express bus on US-101/I-280 and coordinate regional express lane strategic planning. ^{4,5} The SFCTA also completed the SoMa Vision Zero Freeway Ramp Safety Study. The ConnectSF Streets and Freeway Strategy identified priorities for addressing key challenges within the freeway network and is an input to SFTP 2050. ⁶
Identify the next generation transit network priorities for BART, Caltrain, and Muni	Through ConnectSF, the Transit Strategy provides a vision for regional and local bus, rail, and ferry and is an input into SFTP 2050. ⁷ Caltrain developed the Caltrain Business Plan to define how the Caltrain service and corridor should grow and change in the future. ⁸
Consider all options for delivering projects	Caltrans, in partnership with the SFCTA, successfully delivered Presidio Parkway as a Public Private Partnership. The TJPA, in collaboration with funding partners, is exploring delivery options for the Caltrain Downtown Extension (DTX) by modeling best practices for governance. The SFMTA is pursuing a joint development method for Potrero Yard and the SFCTA is delivering the Westside Bridges using the Construction Manager/General Contractor process to adapt early construction related learnings. There have also been challenges with project delivery (e.g., Van Ness Improvement Project and Central Subway), resulting in significant delays and cost increases. City agencies are incorporating lessons learned on 19th Avenue and Taraval Improvement projects. The SFCTA is leading an effort to recommend project delivery best practices for major capital projects, in coordination with other city agencies.

1 <https://sfplanning.org/transportation-sustainability-program>

2 <https://www.sfcta.org/funding/one-bay-area-grant-program>

3 <https://www.sfcta.org/projects/treasure-island-transportation-program>

4 https://www.sfcta.org/sites/default/files/2019-03/FMCS_PH2_Report_FINAL_1.pdf

5 <https://www.sfcta.org/projects/101280-express-lanes-and-bus-project>

6 https://connectsf.org/wp-content/uploads/FINAL_SFS_Report.pdf

7 <https://connectsf.org/transit-strategy/>

8 <https://caltrain2040.org/>

In addition to making progress in the policy recommendations, new needs arose in the areas of emerging mobility and climate since the last major SFTP update in 2013. The city was able to fund additional efforts to advance:

- **Emerging mobility and technology:** San Francisco worked to understand the impacts of Transportation Network Companies (TNCs) such as Uber and Lyft, which provide ridehail service, on the transportation system through a series of analysis and reports including TNCs Today,¹ TNCs & Congestion,² TNCs & Land Use,³ and TNCs & Disabled Access.⁴ Proposition D,⁵ a voter approved ordinance that collects a tax on fares charged to rides provided by TNCs, autonomous vehicles (AVs), and private transit services passed in 2019. The SFCTA and the SFMTA also adopted 10 guiding principles⁶ for new mobility in San Francisco and is actively advocating at the state and federal level to ensure autonomous vehicles support long term transportation goals.
- **Climate:** San Francisco updated its 2021 Climate Action Plan, which is a roadmap for meeting the City's emissions reduction goal to have net-zero emissions by 2040.⁷ The Climate Action Plan lays out a path to meet this goal with interventions in five sectors: energy supply, building operations, transportation, housing, responsible production and consumption, and healthy ecosystems. The Department of Environment, the SFCTA, the SFMTA, and the San Francisco Planning Department collaborated to develop the transportation strategies and actions. The SFCTA provided analytical support to forecast the effectiveness of the transportation strategies and the San Francisco Department of Environment and the SFMTA are leading implementation.

1 <https://www.sfcta.org/projects/tncs-today>

2 <https://www.sfcta.org/projects/tncs-and-congestion>

3 https://sfplanning.org/sites/default/files/documents/citywide/TNCs-land-use/TNC_Land_Use_Study_2022.pdf

4 https://www.sfmta.com/sites/default/files/reports-and-documents/2019/05/tnc_and_disable_access_whit_paper-rev11_2.pdf

5 <https://www.sfcta.org/funding/tnc-tax>

6 <https://www.sfcta.org/policies/emerging-mobility#panel-guiding-principles>

7 <https://sfenvironment.org/climateplan#The%20Plan>

SFTP 2050 Plan Development

REGIONAL TRANSPORTATION PLAN ALIGNMENT

Plan Bay Area (PBA 2050) is the long-range transportation plan and the Sustainable Communities Strategy for the San Francisco Bay Area.¹ PBA 2050 demonstrates how the transportation network and land use development can work together to reduce greenhouse gas emissions and create more complete, livable, and sustainable communities with sufficient affordable housing, more transportation choices, and easier access to vital services and amenities. The SFCTA coordinates San Francisco's input to PBA 2050, including the list of specific transportation projects and programs to be included in the PBA 2050's transportation investment strategy. Inclusion of projects and programs in PBA 2050 is a prerequisite for receiving some state and federal transportation grants, as well as a requirement for securing a project's federal environmental document approval.

The SFCTA works closely with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), which lead the regional process, to ensure consistency between PBA 2050 and the SFTP. Because SFTP 2050 follows regional guidelines, the draft Investment Plan and its project priorities served as San Francisco's primary input into the PBA 2050 update, adopted in October 2021.

Through PBA 2050, the SFCTA and partners advocated for inclusion of critical regional and local priorities such as the Muni and BART Core Capacity projects, local safety and transit reliability improvements, and the Downtown Extension.

EMERGING FROM CONNECTSF

ConnectSF is San Francisco's multi-agency long range transportation planning effort to help build an effective, equitable, and sustainable city. There are three phases in ConnectSF to establish a long-term transportation vision, understand needs, and plan to support future implementation. The three phases of ConnectSF are shown in Figure 2 below. SFTP 2050 is part of Phase 3:

¹ <https://www.planbayarea.org>

Figure 2: ConnectSF Phases of Work

- Phase 1 began by asking, as a city, where have we been, where are we now, and where do we want to go. A vision for San Francisco emerged through extensive community engagement that was guided by five goals: equity; economic vitality; environmental sustainability; safety and livability; and accountability and engagement. The ConnectSF Vision has been used to guide the subsequent phases.
- Phase 2 developed a Statement of Needs, which described San Francisco’s pre-pandemic conditions and future needs that would arise without transportation investments. Phase 2 also included the Transit Strategy and Streets and Freeways Strategy, which offer strategic direction for the future transit system and major streets and freeways within San Francisco.
- Phase 3 includes plans that support future implementation of transportation investments – the SFTP defines investment priorities, and the Transportation Element of the General plan codifies transportation policies.

CONNECTSF VISION

The vision that emerged from Phase 1 of ConnectSF was one of a growing, diverse, and equitable city. Participants in the outreach process envisioned a transportation system with many reliable ways to get around that are available and affordable to all. This multi-faceted transportation system would be planned and built in a timely manner – a result of strong civic and government engagement.

As part of ConnectSF, the SFTP and builds on previous efforts and uses the ConnectSF goals, shown in Figure 3 below.

Figure 3: ConnectSF and SFTP Goals



PUBLIC OUTREACH

ConnectSF was informed by a robust, continuous outreach process that included focus groups, online surveys, and targeted outreach to community-based organizations. The SFTP brought together the community outreach findings and feedback collected throughout ConnectSF and sought additional community priorities through a multilingual online survey, meetings with community based organizations, and townhall events. The SFTP survey and events were promoted through partnerships with community based organizations. The project team spoke with groups across the city, prioritizing community groups in Equity Priority Communities. In total, there were over 500 survey responses and 15 community meetings. See Appendix E for additional information. The 2022 Transportation Sales Tax Expenditure Plan outreach process also supported the development of the SFTP 2050.¹ This process particularly focused on low-income communities, communities of color, and monolingual communities across the city, to help advance the project's equity goals.

¹ https://www.sfcta.org/sites/default/files/2022-02/Enclosure%201_Reauthorization_Outreach_Summary.pdf

Through the public outreach process, the project team heard investment themes that were used to guide the prioritization of discretionary revenues and policy themes to guide the identification/development of policy initiatives.

Investment Themes Include:

- Transit investments are important to expand service to pre-pandemic levels and improve reliability
- Street safety is important across the city to reduce conflicts and collisions that harm the most vulnerable road users
- There is a need to start considering the next generation of transportation projects, including new major rail and freeway transformations, to plan for and accommodate future growth in San Francisco, close equity gaps, and repair past harms

Policy Themes Include:

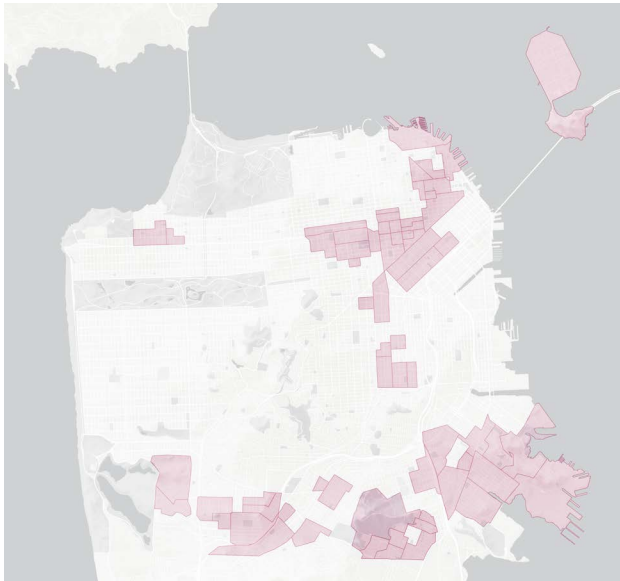
- The need to improve personal security by addressing actual and perceived safety risks on city streets and on transit to promote a greater sense of safety on all modes of travel
- Equity and affordability are important across all modes to reduce barriers and increase access for low-income and vulnerable residents
- The need to improve project delivery and accountability and to create a more transparent planning process
- The need to create a more integrated regional transit system to make trips easier and more reliable

TRANSPORTATION CHALLENGES

The ConnectSF Streets and Freeways Strategy and the Transit Strategy documented San Francisco’s needs and identified solutions to overcome challenges and advance ConnectSF goals. The SFTP brings together these two strategies and prioritizes funding for projects and programs which address San Francisco’s most pressing challenges, outlined below.

The SFTP also recognizes that transportation needs can vary between neighborhoods.¹ San Francisco uses a designation called Equity Priority Communities for neighborhoods with high levels of households that could be considered disadvantaged or vulnerable (Figure 4). The SFTP considers outcomes for these neighborhoods alongside citywide outcomes.

Figure 4: San Francisco Equity Priority Communities



EQUITY PRIORITY COMMUNITIES

The Metropolitan Transportation Commission (MTC), the Bay Area’s regional transportation planning agency, has designated a set of census tracts as Equity Priority Communities (EPCs). EPCs include census tracts that either have both a concentration of people of color and low-income households or have a concentration of low-income households and three of the remaining six factors – people of color, low incomes, limited English proficiency, zero-vehicle households, seniors 75 years and older, people with disabilities, single parent families, or cost burdened renters.

In San Francisco, vulnerable communities are often located in the same census tracts with more affluent neighborhoods. Because of this proximity, the SFCTA conducts an analysis similar to the MTC’s at a more fine-grained level to capture San Francisco’s EPCs more accurately, shown in Figure 4.

¹ https://www.sfcta.org/sites/default/files/2021-09/SFCTA_Equity-Assessment-for-New-Sales-Tax-Expenditure-Plan_2021-09-17_FINAL.pdf

Infrastructure Maintenance and Rehabilitation

Keeping the existing transportation system in a state of good repair is essential to providing safe and reliable transportation options for residents, workers, and visitors in San Francisco and the region. The SFMTA has a state of good repair backlog that requires replacing obsolete equipment and strengthening critical infrastructure and facilities to handle the increased demands of San Francisco's continued growth. Prior SFTPs and the SFMTA's 2020 State of Good Repair Report¹ highlight the important need to address a backlog in vehicle, facilities, and guideways maintenance. Keeping the transit system in a state of good repair is essential to support safe and reliable transit service. Deferred maintenance not only decreases service reliability but increases maintenance costs to keep old assets functional. Regional transit operators serving San Francisco such as BART and Caltrain also lack the budget to replace, repair, and rehabilitate assets in a timely fashion. This has led to a significant backlog in necessary repairs and leads to increased frequencies of breakdowns, including elevators, faregates, and tracks, resulting in less reliable transit service.

San Francisco recently achieved a city goal by raising the average pavement condition of city roads. Newly repaired and resurfaced pavement benefits all road users from bicyclists to motorists to bus riders. In addition, maintaining roads in a timely fashion, before they fall into poor condition, is less costly. Ongoing investment is needed to maintain this good pavement status and to ensure other roadway infrastructure such as signs, signals, sidewalks, and bicycle facilities are maintained. Climate and earthquake resilience continue to present significant needs and planning is underway to identify and prioritize these.

Transit Service and Reliability

Transit service levels and ridership demand declined dramatically at the beginning of the pandemic. The ridership demand that remained was overwhelmingly travelers reliant on transit for basic mobility, not the traditional downtown-centric commute, underscoring the lifeline role that transit plays for these populations. Although regional rail service has been restored to near pre-pandemic level and some Muni bus routes have fully recovered or exceeded their pre-pandemic ridership, especially during weekend/off-peak periods, overall ridership demand remains significantly below 2019 levels despite substantial restoration of most service hours. The pandemic also caused a steep drop in revenue associated with reduced ridership. BART, Caltrain, and the SFMTA all suffered significant losses in fare revenues and parking fees. In addition, for the SFMTA, the steep drop in daily commuters and visitors, as well as tourists, led to significant declines in other revenue sources from parking garage revenues to General Fund support. During fiscal years 2021 and 2022, this drop in revenues was mitigated by federal COVID relief funds. When federal relief funds are exhausted in 2025, the SFMTA risks entering a continuous cycle of service

¹ https://www.sfmta.com/sites/default/files/reports-and-documents/2021/07/7-20-21_mtab_item_17_state_of_good_repair_-_report.pdf

cuts, reduced ridership, and further reductions in revenues that lead to more cuts, unless additional funding sources are secured. Regional transit systems such as BART and Caltrain face similar challenges. The situation is such that the MTC, the nine-county Bay Area's federally designated metropolitan planning organization, has identified finding solutions to avert the transit fiscal cliff a top priority for its state and federal legislative advocacy in the upcoming legislative session.

Even prior to the pandemic, the SFMTA had a growing structural budget deficit. Transit fares and parking revenues declined as a share of the overall budget, from 58% in 2013 to 47% in 2018. During this period, deficits were filled by one-time sources as escalating costs outpaced revenues. Solving this structural problem and expanding transit service will be critical to sustaining essential transportation services, reducing transit crowding, and serving communities reliant on transit.

Safety

In 2014, San Francisco adopted a Vision Zero policy and set the goal of eliminating traffic deaths by 2024. Currently, Vision Zero includes education programs, street improvements, focused enforcement of the most significant causes of traffic fatalities, and ongoing evaluation. While the framework is robust, more progress is needed to meet this goal: In 2021, there were 27 traffic-related deaths in San Francisco ; so far, in 2022 there have been 30 traffic-related deaths. The Vision Zero Task Force and the SFMTA's Vision Zero Action Strategy focus on multiple efforts from reducing speeds and re-designing streets to pursuing automated enforcement. The recent passage of Prop L provides important funding for Safe Routes to School programs and investment in safe and complete streets.

Inefficient Use of Limited Street Space

Street space in San Francisco is limited and, in the future, streets need to move more people and goods through the same space there is today. About 45% of all trips to, from, and within San Francisco are made by driving, and roughly half of these are drive alone trips. The city needs to manage this valuable public resource to make the most sustainable and space-efficient modes more effective, and to maximize accessibility for all.

Climate and Emissions

The world is in a climate crisis and transportation comprises 46% of GHG emissions in San Francisco. San Francisco's climate goals include achieving net zero emissions by 2040. Private transportation makes up almost half of the city's greenhouse gas emissions, most coming from cars and trucks.¹ To meet these goals, transit, walking, biking, and carpooling need to be more convenient for more people. This is especially true for local trips. Currently, more than 40% of car trips in San Francisco are three miles or

¹ <https://sfenvironment.org/climateplan>

less. Improvements to transit reliability and street safety can help people choose transit, walking, and biking more often. While the SFMTA has one of the greenest transit fleets, doing its part to switch to zero emission buses involves significant costs with procurement of new vehicles and the retrofit and construction of maintenance facilities for the new fleet. The city is also preparing for e-bike adoption and private vehicle fleet transitions by planning for secure bike parking and Electric Vehicle charging facilities citywide.

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Transportation is San Francisco's biggest source of greenhouse gas emissions, at 46%. San Francisco's Climate Action Plan sets a target to achieve net-zero emissions citywide by 2040 and highlights the need for significant investments throughout our transportation and land use efforts to reach the climate goals. It also sets a goal to have 25% of all registered vehicles be electric vehicles (EVs) by 2030 and 100% by 2040. At the state level, California's Advanced Clean Cars II rule sets a path for 100% of new cars and trucks sold in California to be electric vehicles by 2035.

The City needs to advance local policies and investments to make this possible, while at the same time working to shift as much travel as possible to transit, walking, and biking. To support the transition to EVs for those who need to drive, the city needs more infrastructure to ensure the widespread availability of electric charging and establish programs and policies to improve affordability of owning and maintaining these vehicles in place of internal combustion engine vehicles. In a dense urban environment where many residents live in multi-unit buildings, one challenge is that a significant share of drivers do not have off-street parking and will require charging opportunities elsewhere. The cost of this infrastructure is beyond the funding ability of local revenue sources. The city needs to encourage private investment while at the same time seeking regional, state, and federal funding opportunities to expand EV charging infrastructure.

Electric bikes (e-bikes) are important to help shift trips from driving and have the potential to enable new types of trips, compared to standard bicycles. However, there are similar challenges for e-bike adoption as EV adoption – parking in residential buildings, access to charging, and affordability.

In recognition of the benefits of e-bikes, jurisdictions across the country, including Contra Costa and San Mateo Counties, have introduced e-bike purchase incentive programs and the California Air Resources Board is also developing a \$10 million e-bike subsidy program at the state level.¹

¹ <https://ww2.arb.ca.gov/news/nonprofit-administrator-selected-implement-new-statewide-income-based-electric-bicycle>

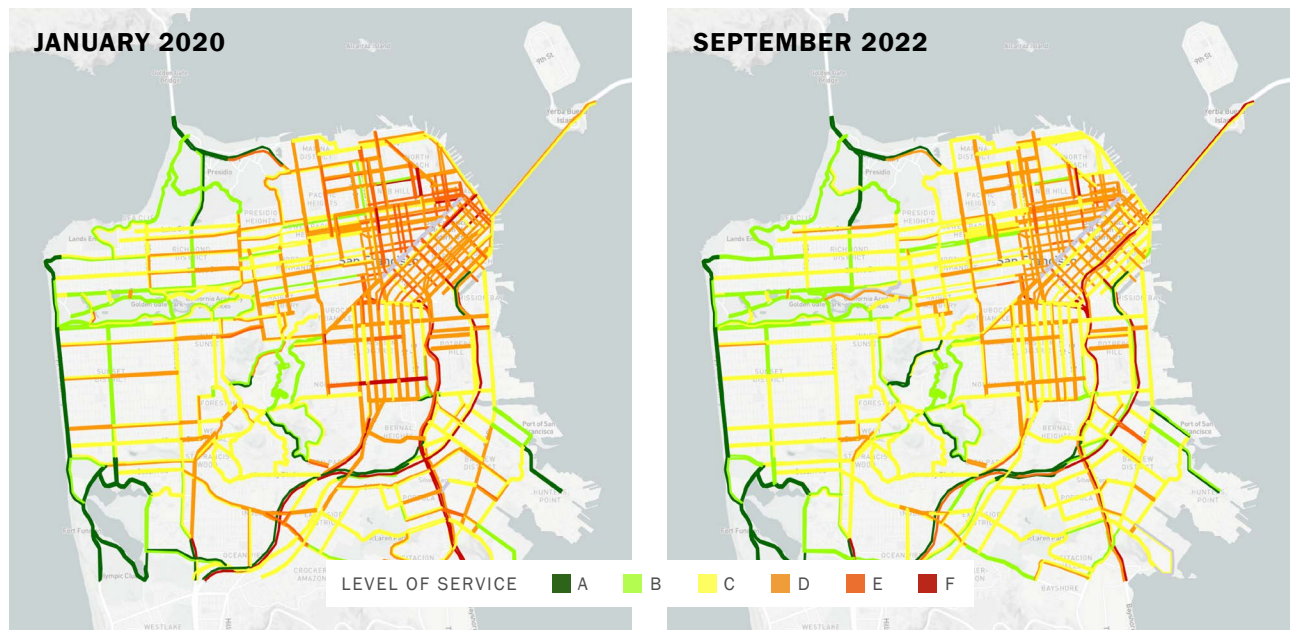
Repairing Harms and Reconnecting Communities

Past investments in San Francisco’s freeways and major roads have displaced communities and divided neighborhoods, many of which are historically low-income and communities of color. These freeways and roads are now significant paths of travel but remain transportation barriers in the neighborhoods where they are located, contribute to poor air quality, and create safety challenges, especially for people walking and biking. As efforts advance to redesign our streets, the city needs to work with communities to repair the harms created by past investments through concepts that combine transportation and land use opportunities. Repairing past harms will require extensive community engagement to identify and shape transformative projects across the city.

The COVID-19 Pandemic

The SFTP 2050 was developed during unprecedented times when travel behaviors, San Francisco’s transit network, and the transportation funding ecosystem all changed because of the pandemic. Congestion precipitously dropped early in the pandemic but has gradually returned and now rivals 2019 levels in some areas. The congestion patterns are different than before the pandemic began (see Figure 5). For example, in the AM peak period, freeway speeds have declined since shelter-in-place orders but remain above pre-pandemic speeds. However, this is not true everywhere. The Bay Bridge, I-80, Central Freeway, and northbound US-101 are more congested than they were before the pandemic in both the AM and PM periods. In the PM peak period, freeway congestion has returned to pre-pandemic levels, and the Bay Bridge, I-80, and parts of northbound US-101 are more congested. Arterial speeds remain slightly higher than pre-pandemic levels.

Figure 5: San Francisco Congestion Pre-pandemic and 2022

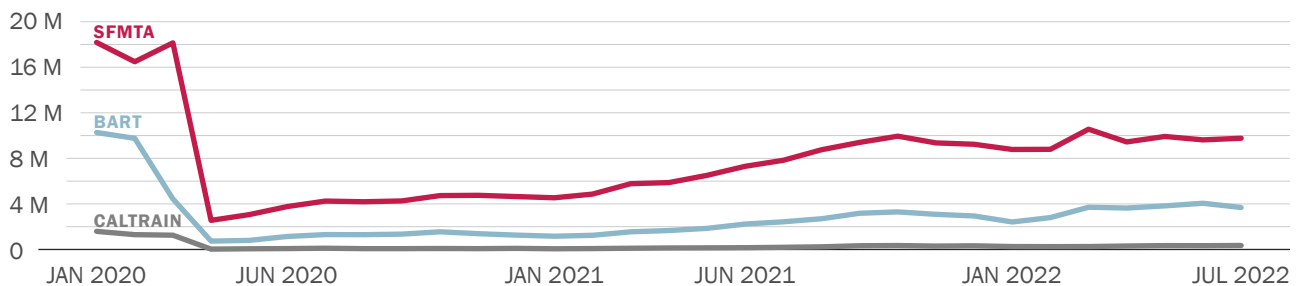


Source: COVID congestion tracker, (AM Peak Auto Level-of-Service)

In early 2020, transit ridership across the region dropped drastically because of the pandemic, and transit service was reduced. Muni carries more low-income riders than all area operators combined.¹ As San Francisco began to gradually reopen from shelter-in-place orders, the SFMTA Muni service was increased with a focus on serving communities most dependent on transit and essential workers and ridership began to gradually rise. Though federal COVID-relief funding helped avoid mass layoffs and worse service cuts, staffing shortages and structural budget deficits have kept transit service from being restored to pre-pandemic levels. By September 2022, Muni ridership reached about 57% of pre-pandemic ridership, with some lines exceeding 2019 levels. During this same time, San Francisco was able to make quick progress on transit priority projects to improve speed and reliability along critical bus routes while expanding the active transportation network to create space for people to safely walk and bike.

Regional rail operators (BART and Caltrain) also reduced service early in the pandemic to match employee availability and passenger demand. These regional railways have high fixed costs. Reduced service led to somewhat reduced operational expenses, but not enough to offset the agencies’ lost fare and parking revenues. Federal COVID-relief funds helped sustain regional transit service and avoid layoffs. As the region began to reopen, BART and Caltrain restored service on these systems close to pre-pandemic levels to attract back ridership. Ridership levels have increased, but remain far below pre-pandemic levels. BART is an essential service for regional trips and, during the pandemic, the demographics of riders changed including an increase riders who do not own a vehicle, identify as non-white, and have annual household incomes under \$50,000.² By September 2022, BART weekend ridership ranged from 60 - 70% of pre-pandemic projections, while weekday ridership reached 38%. By July 2022, Caltrain monthly ridership reached about 25% of pre-pandemic ridership (see Figure 6). Both agencies, like the SFMTA, are facing fiscal cliffs with respect to operations funding, when the federal relief funds run out as soon as 2025. The fiscal cliff means that all three operators will not have sufficient operating funds to continue providing current service levels, and will need to make service cuts unless new funding is identified after federal relief funds run out.

Figure 6: Monthly Passenger Boardings, January 2020 through July 2022



Source: <https://mtc.legistar.com/View.ashx?M=F&ID=11347247&GUID=B7212F8D-6BDA-419E-B27D-D9ADE63CF2B2> (page 2)

1 <https://transit-riders.sfcta.org>

2 https://www.bart.gov/sites/default/files/docs/BARTFacts2021_2.pdf

The SFTP recommendations were developed during this time of dramatic change. As the pandemic and transportation funding circumstances continue to evolve, the plans and recommendations developed in the SFTP 2050 will guide investments to support equitable recovery and advance the city’s transportation goals. The SFTP is updated every four years, which provides the chance to make refinements and account for new and emerging issues and opportunities.

TRANSPORTATION FUNDING

The SFTP Investment Plan includes about \$80 billion in revenues for transportation in San Francisco through 2050, including about \$2.8 billion in anticipated new federal, state, and regional funds consistent with assumptions in the region’s PBA 2050. Most of this revenue (about 85%) is already committed to specific projects and purposes like local streets operations and maintenance, the Mission Bay Ferry Landing, and programs like transit operations. About 15% of the expected revenues are discretionary, meaning that there is flexibility in how they can be invested to improve the transportation system. The SFTP captures these commitments and, through the Investment Plan, proposes how to invest the discretionary revenues most effectively to make progress toward our goals.

The SFTP also includes a Vision Plan because the transportation needs are greater than the expected revenues for transportation. The Vision Plan imagines how to get closer towards city goals with significant new revenue sources. The Vision Plan totals about \$95 billion. It assumes all of the Investment Plan revenues and layers on an additional \$15 billion in potential new revenue sources. The plan does not specify what these new revenue measures should be; they could be a combination of local, regional, state, and federal revenues. The Investment Plan and Vision Plan allocate the discretionary revenues based on the priorities identified through public outreach, technical analysis, and known city and regional priorities.

Figure 7 compares transportation revenues assumed in the Investment Plan and Vision Plan. Figure 8 shows the revenue sources. Most of the revenues are local, which are increasingly important for leveraging regional, state, and federal funding opportunities.

Figure 7: Committed, discretionary, and vision revenues in the SFTP, in Billions of Dollars, 2020

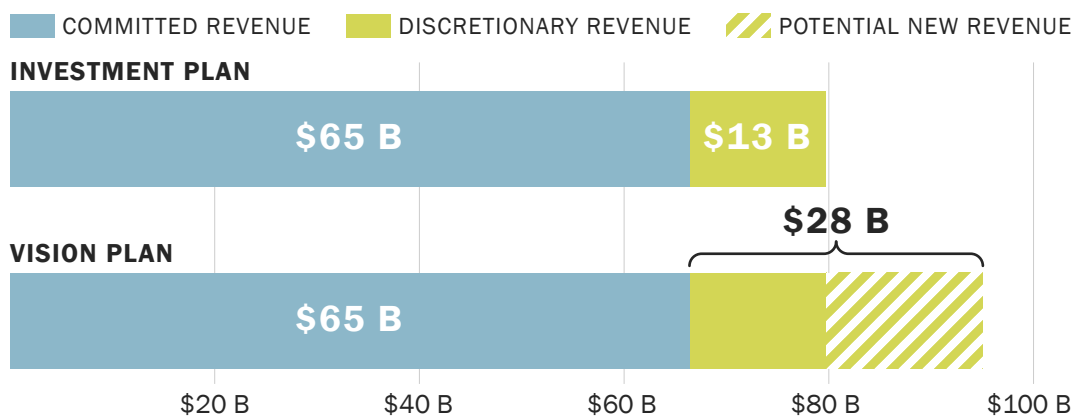
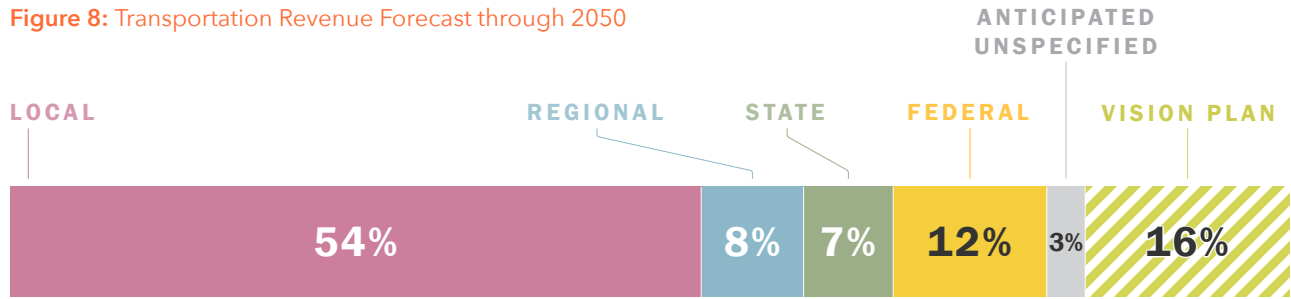


Figure 8: Transportation Revenue Forecast through 2050



Appendix B includes the assumptions used to estimate expected revenues in more detail.¹ All revenues are shown in 2020 dollars.

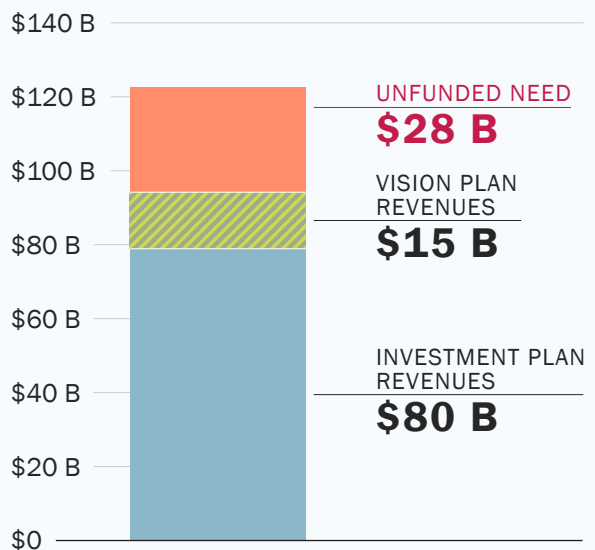
The transportation needs exceed the revenues in the SFTP. For example, if all discretionary revenues were put towards transit maintenance, there would still not be enough revenues to eliminate the maintenance backlog. The SFTP includes needs beyond transit, which means that revenues need to be prioritized across the entire multi-modal transportation in order to achieve a balanced system.

¹ See Revenues strategic topic paper

UNDERSTANDING OUR NEED

The SFCTA issued a call for projects to all the transportation agencies and departments that serve San Francisco. This call asked for all capital and operating funding needs for the 2021 - 2050 period. Agencies were asked to draw on operating budgets, capital plans, PBA 2050 project lists, and other planning documents to provide this information. SFCTA staff compiled this information to inform the development of the Investment Plan and Vision Plan for the SFTP 2050, as well as the 2022 Transportation Sales Tax Expenditure Plan.

Figure 9: San Francisco's Transportation Needs through 2050



SFTP 2050 Recommendations

PROGRAMS AND PRIORITIES

Investments in complementary projects and programs will be needed to address San Francisco's transportation challenges and realize the ConnectSF vision. A key role of the SFTP is to prioritize expected and potential new revenues through 2050 to create an investment blueprint for San Francisco's comprehensive transportation system. The SFTP presents two funding plans: the Investment Plan and the Vision Plan. The Investment Plan matches expected and available revenues to future investments, and the Vision Plan demonstrates how additional potential new revenues could be used to further fund outstanding transportation needs.

The SFTP built on previous phases of ConnectSF, including the vision and goals stages, and draws from two modal plans: The Transit Strategy, and The Streets and Freeways Strategy. It was informed by community engagement throughout these processes as well as the development of the 2022 Transportation Sales Tax Expenditure Plan, San Francisco's 2021 Climate Action Plan Update, and multiple neighborhood, citywide, and regional transportation plans. Input from all these sources was used to define priorities for strategic investment.

Based on these inputs, the below guiding principles were used to develop the Investment Plan, each with a focus to address known transportation inequities:

- Invest to maintain transportation infrastructure in overall good condition and reduce the maintenance backlog to improve safety and reliability
- Invest to improve transit reliability and efficiency, particularly on the busiest lines and to reduce equity disparities
- Invest in core capacity and rail modernization to allow for more frequent and reliable Muni and BART train service and improve safety across the system
- Invest in street safety improvements across the city
- Invest in the walking and bike network to close gaps and improve connections to transit

The additional revenues in the Vision Plan will enable further progress toward the SFTP goals. Based on outreach findings and known transportation goals and priorities, the below guiding principles were used to guide investments for the additional Vision Plan revenues:

- Increase funding levels for Muni operations to meet or exceed pre-pandemic service levels

- Support Muni transit reliability and metro modernization by focusing on state of good repair
- Invest in street safety for all travelers
- Advance transformative transportation projects to add rail capacity and reconnect communities and repair past harms of past investments in our major roads and freeways

The 2022 Transportation Sales Tax Expenditure Plan – a recently passed 30-year continuation of San Francisco’s existing half-cent transportation sales tax to 2053 – helps to implement the SFTP by making up a portion of the discretionary revenues that are used to leverage federal, state, and other revenues. The 2022 Transportation Sales Tax Expenditure Plan anchors the SFTP Investment Plan, which uses the investment categories of the 2022 Transportation Sales Tax Expenditure Plan plus one additional category for transit operations. These categories are summarized below.

1. **Major Transit Projects** includes transit reliability, speed and capacity capital improvements to support local and regional operators providing more frequent bus and rail service, running longer trains, and extending Caltrain in San Francisco.
2. **Transit Maintenance and Enhancements** includes transit maintenance, rehabilitation, and replacement of local and regional transit infrastructure serving San Francisco, and enhancements such as stop/station access improvements, new stations, and planning for the next generation of transit projects.
3. **Paratransit** includes door-to-door van, taxi, and other transportation services for seniors and people with disabilities who are unable to use fixed route transit service.

NEXT GENERATION REGIONAL PROJECTS AND INITIATIVES

Partner transportation agencies are advancing projects and initiatives that the city supports but whose costs aren’t accounted for in this plan’s funding envelope. Most are in the early stage of development, with only preliminary cost, schedule, scope details, and significant funding gaps. This includes major projects such as Link21, which will include a new transbay passenger rail crossing between Oakland and San Francisco; the Bay Skyway project, which will construct a bicycle and pedestrian pathway on the west span of the San Francisco-Oakland Bay Bridge; the regional express lane network; and the California High Speed Rail project.

PBA 2050 also includes regional initiatives consistent with the SFTP’s objectives, such as the implementation of regionwide transit fare integration, robust demand management strategies, and the expansion of resilience and electrification programs. The SFCTA will continue to coordinate with sponsors of these projects and policy initiatives and provide input to planning, development, and as appropriate, implementation, as additional details emerge.

- 4. **Streets and Freeways** includes pedestrian and bicycle safety and traffic calming, maintenance, rehabilitation and replacement of road infrastructure, streetscape improvements, freeway safety, and operational improvements. Expansion of the active transportation network is also included with a focus on achieving Vision Zero.
- 5. **Transportation System Development and Management** includes neighborhood and equity planning to create a pipeline of projects across the city and Transportation Demand Management strategies that include cost-effective projects that support shifting when, how, and where people travel.
- 6. **Transit Operations** includes transit operations for Muni and San Francisco’s share of regional transit services, except for Muni paratransit operations, which is shown in a separate category.

INVESTMENT PLAN AND VISION PLAN

Figure 10 and Table 3 present SFTP investment categories with the total need, Investment Plan funding, and Vision Plan funding. See Appendix A for more details of the needs and investment levels.

About \$2 billion of the new local/regional discretionary revenue in the Vision Plan is set aside as a placeholder for transit system investments. Given the uncertainty the city faces, this allows flexibility for future new revenue to be directed towards transit operations to further increase service levels, transit capital maintenance and/or priority and rehabilitation to improve reliability, and/or to capital projects to further expand bus or rail in San Francisco. The SFCTA will continue to work closely with local and regional stakeholders to identify which new revenue sources to pursue and when and how to best allocate the resources.

Figure 10: Investment Categories, Total Needs, and Investment Levels, in Billions of Dollars, 2020

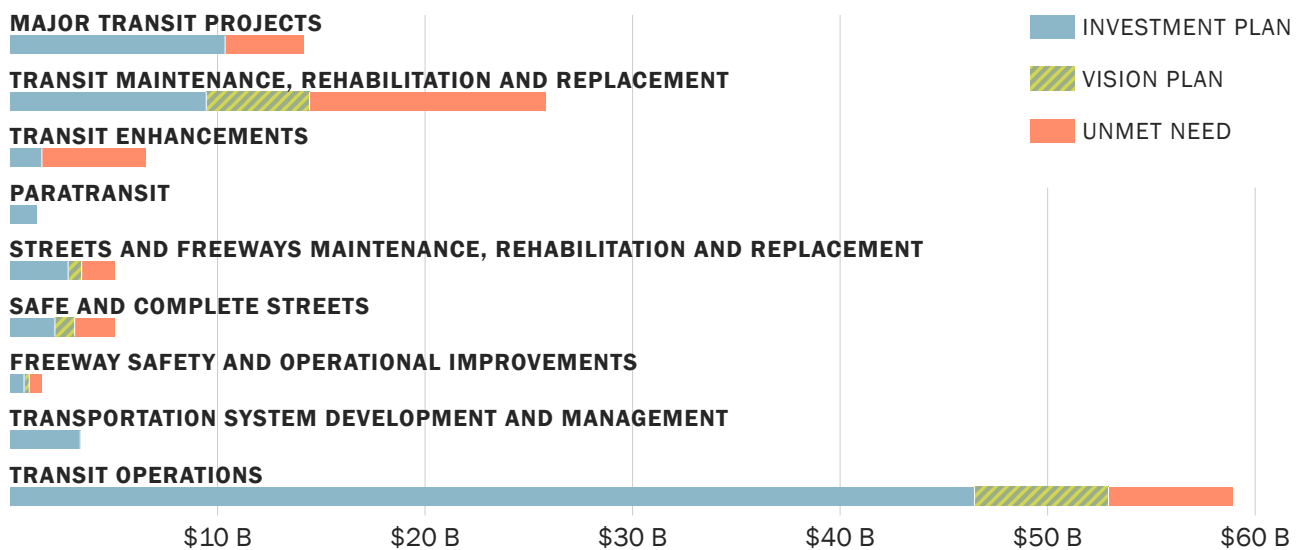


Table 3: SFTP Investment Categories, Total Needs, and Investment Levels, in Billions of Dollars, 2020

NAME	DESCRIPTION	NEED (B)	INVESTMENT PLAN (B)	VISION PLAN (B)
Major Transit Projects	Funding for Muni reliability and efficiency projects in addition to major system enhancements and capacity expansions such as BART and Muni Core Capacity and the Caltrain Downtown Extension	\$14.15	\$10.37	\$10.37*
Transit Maintenance and Enhancements				
Transit Maintenance Rehabilitation and Replacement	Vehicles, guideways, and facilities maintenance for Muni, BART, and Caltrain	\$20.85	\$9.39	\$14.37*
Transit Enhancements	Customer-facing improvements that promote system connectivity, accessibility, and improve transit service experience for riders	\$6.51	\$1.49	\$1.49*
Paratransit	Door-to-door van, taxi, and other transportation for seniors and people with disabilities who are unable to use fixed-route transit service	\$1.27	\$1.27	\$1.27
Streets and Freeways				
Maintenance, Rehabilitation and Replacement	Funding to prevent the deterioration of roadways and maintain pavement, sidewalks, signs, signals, and bike lanes	\$8.76	\$2.79	\$3.44
Safe and Complete Streets	Programmatic improvements to the transportation system to make it safer for all road users, to help achieve Vision Zero, and to expand the active transportation network	\$7.43	\$2.10	\$3.05
Freeway Safety and Operational Improvements	Improvements to the freeway network to improve transit speeds and promote carpooling, improve safety for all travelers at on- and off-ramps, and improve connectivity	\$1.26	\$0.49	\$0.74
Transportation System Development and Management				
Transportation Demand Management	Cost-effective projects intended to shift trips to more sustainable modes like transit, walking, and biking, and to shift travel to less congested times	\$2.86	\$2.82	\$2.82
Transportation, Land Use, and Community Coordination	Citywide and community-based planning to improve equity-focused planning and identify transportation improvements that support increased housing density in existing low-density neighborhoods.	\$1.18	\$1.18	\$1.18
Transit Operations	Local and regional transit operations and fares, plus the extension of the SFMTA's Free Muni for Youth program through 2050	\$57.75	\$46.47	\$52.93*
Existing Obligations	Existing Prop K sales tax debt obligations	\$0.55	\$0.55	\$0.55
Total		\$124.63	\$78.9	\$92.2

* Programs where about \$2 billion of the new local/regional discretionary revenue in the Vision Plan is set aside as a placeholder for transit operations/transit capital investments could be allocated

The following pages show what specific achievements that San Francisco could see from the Investment Plan and Vision Plan. Achievements are organized by categories in the table above.



Core Capacity and Transit Priority

From Major Transit Projects in Table 3

The Investment Plan funds the SFMTA’s Muni Metro Modernization/ Subway Modernization Program and BART’s Core Capacity Program – packages of strategic investments that will safely and reliably move more people along San Francisco’s rail system. Upgrades to both the Muni and BART train control systems and facilities will allow both agencies to run more frequent trains; the SFMTA will be able to run longer trains. These upgrades will reduce transit crowding and increase frequency and reliability along San Francisco’s rail network.

The SFTP also funds transit priority on streets with the busiest bus lines.¹ Improvements include transit-only lanes, signal improvements to reduce the time buses wait at red lights, and transit stop improvements like longer and accessible boarding islands.

¹ <https://connectsf.org/transit-strategy>



photo courtesy of the Port of San Francisco

Mission Bay Ferry Landing

From Transit Enhancements in Table 3

The Investment Plan fully funds a Mission Bay Ferry Landing, which will provide regional ferry service to and from the Mission Bay, Potrero Hill, and Dogpatch neighborhoods with an estimated capacity of 6,000 passengers per day. The landing will alleviate current regional transportation crowding, provide transportation resiliency in the event of an earthquake, BART or Bay Bridge failure, or other unplanned events, and will reduce San Francisco’s carbon footprint.



Downtown Rail Extension

From Major Transit Projects in Table 3

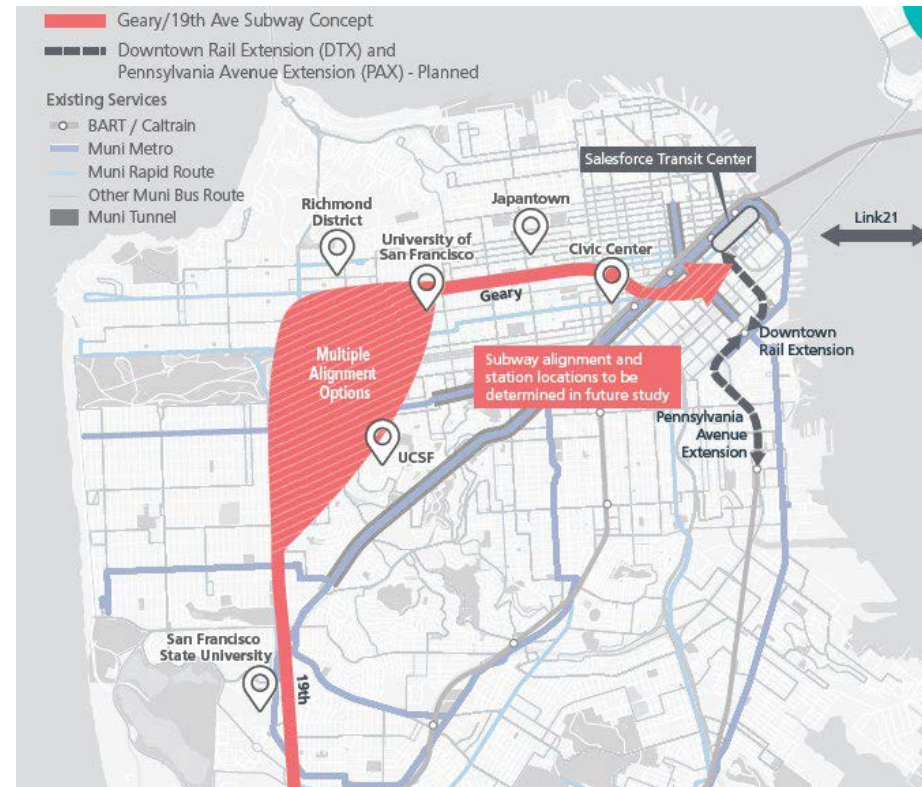
The Investment Plan fully funds the Downtown Rail Extension, which will extend Caltrain and future California High-Speed Rail service from the existing 4th and King rail yard to the newly constructed Salesforce Transit Center. The project will ultimately connect 11 Bay Area transit systems from San Francisco to the East and North Bays, and the Peninsula and South Bay, providing a one-seat ride from the Bay Area to Los Angeles through the California state rail system.



Southeast Caltrain Station

From Transit Enhancements in Table 3

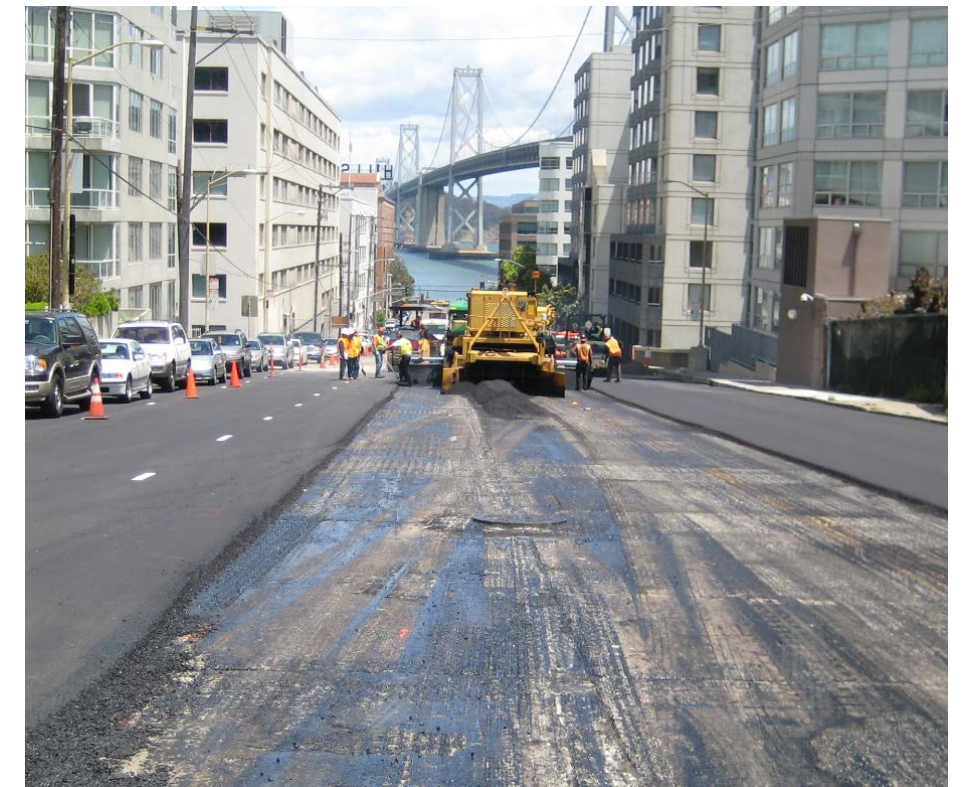
The Investment Plan fully funds a new Caltrain station in the Bayview neighborhood which will restore regional rail service that was lost when the Paul Avenue station closed in 2005. The new station will ensure Bayview residents have better access to the regional transit system and benefit from planned investments in high-speed rail and the Downtown Rail Extension.



Next Generation Transit

From Transit Enhancements in Table 3

The SFTP Investment Plan funds preliminary planning work and has room for implementation for San Francisco’s next generation of transit investments envisioned in San Francisco’s Transit Strategy, including a subway line on Geary and 19th Avenue, a new transbay rail crossing (Link 21), and an extension of the Central Subway to Fisherman’s Wharf. Additional investments in preliminary planning and implementation could be made in the Vision Plan, depending on how the potential \$2 billion in local/regional discretionary revenue that is set aside a placeholder for transit operations/transit capital investments is allocated.



Repaving

From Street Maintenance in Table 3

The SFTP Investment Plan funds ongoing street maintenance, which will maintain San Francisco’s recently attained 10-year pavement quality goal and improvements and upgrades to signs, signals, and pavement markings. Well-maintained streets are less expensive to repair. Road maintenance and repairs also support safe and efficient travel for all street users and reduce vehicle repair costs and transit vehicle maintenance costs.



Safe Routes to Schools

From Safe and Complete Streets in Table 3

The Investment Plan and Vision Plan maintain and expand the San Francisco Safe Routes to School program. This program aims to make walking and bicycling to school safer and more accessible for all children through educational programming and infrastructure improvements around school sites.



Vision Zero and Pedestrian Safety

From Safe and Complete Streets in Table 3

San Francisco adopted a Vision Zero policy in 2014, committing to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and adopt policy changes that save lives. The Investment Plan and Vision Plan fund investments to make streets safe and address the leading causes of serious injuries and death on our roadways. Improvements include about 200 miles of improvements to the pedestrian and bike network,¹ new crosswalks, curb ramps, traffic calming to slow speeds, and complete streets efforts to create dedicated space for transit, walking, and biking.



Vision Zero Ramps

From Freeway Safety and Operational Improvements in Table 3

The Investment Plan funds near-term safety improvements to freeway on- and off-ramps where they intersect with local streets. These investments will improve safety for all road users and can help close gaps in the walking and biking network. New and upgraded traffic signals, pavement markings, crosswalks, and sidewalk extensions are examples of Vision Zero ramp improvements.

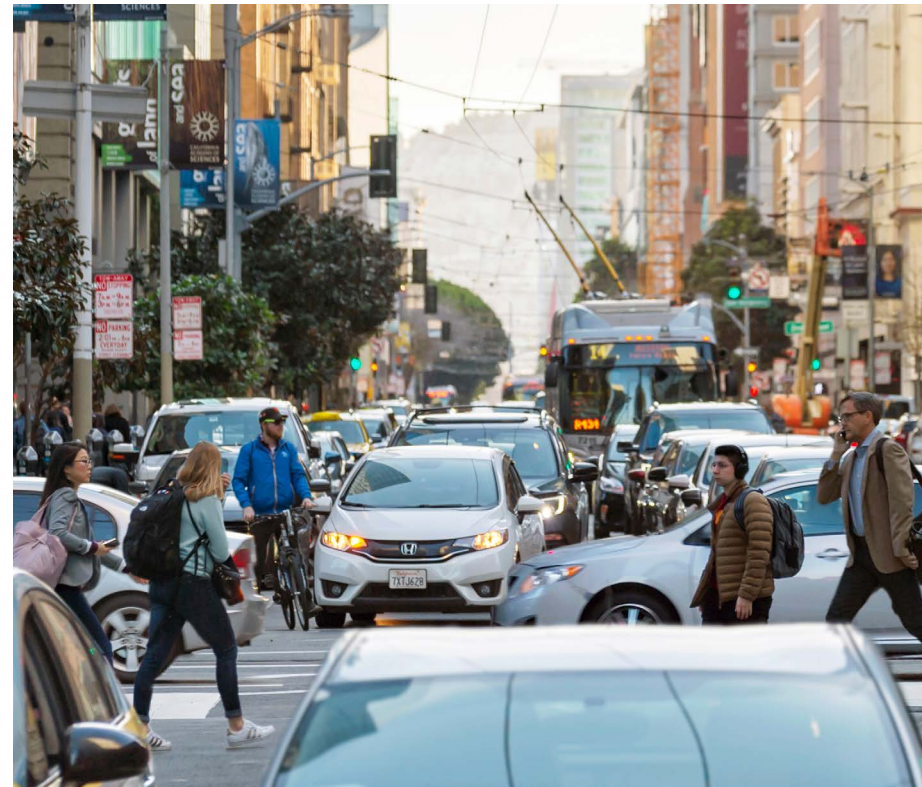
¹ Streets and Freeways Strategy and Active Transportation Study; <https://connectsf.org/about/resources-and-media>



Managed Lanes on Freeways

From Freeway Safety and Operational Improvements in Table 3

Managed lanes (e.g., carpool lanes and express lanes) allow for more efficient use of the freeway network by moving more people in fewer vehicles along San Francisco's congested freeways. The Investment Plan includes funding for managed lanes along portions of I-280 and US-101, plus capital improvements for new express buses that can reduce driving trips, increase transit reliability, and enhance travel options for underserved communities.



Downtown Congestion Pricing

From Transportation Demand Management in Table 3

The Investment Plan funds a congestion pricing program with the goals of getting traffic moving, improving safety, improving air quality, and advancing equity by improving health and transportation for historically underinvested communities. The congestion pricing program uses a means-based system to charge drivers a fee to drive into congested areas of northeast San Francisco during the most congested times. Revenues from the program are reinvested into the transportation system to increase transit service to the downtown core with 170 new local and regional bus trips and 15 light rail trips daily, improve pedestrian and bicycle connectivity and safety, and repair streets within the pricing zone.



Treasure Island Transportation Program

From Transportation Demand Management in Table 3

By 2036, the Treasure Island neighborhood will grow by up to 8,000 homes, 27% of which are affordable, and housing more than 20,000 new residents, bringing tens of thousands of new trips to and from the Island each day. The Investment Plan funds a comprehensive transportation program for the Island, creating a means-based toll for vehicle trips on the Island, an affordability program to ensure transportation options are affordable and accessible to all residents, and many sustainable transportation options for new and existing residents to meet the Island's transportation goal to have at least 50% of trips made by walking, biking, bus, and ferry.



Neighborhood and Equity Priority Transportation Programs

From Transportation System Development and Land Use in Table 3

The Investment Plan funds the SFCTA's Neighborhood Transportation Program which supports neighborhood-scale transportation planning and provides local match to advance plan recommendations in each supervisorial district. Neighborhood transportation plans establish a pipeline of grant-ready projects throughout the city that reflect community priorities, such as street safety, mode shift, transit accessibility, and mobility. Similarly, the Investment Plan creates a new Equity Planning Program to fund community-based planning in Equity Priority Communities and equity studies citywide, with matching funds to implement recommendations.



Free Muni for Youth

From Transit Operations in Table 3

The SFMTA Free Muni for Youth is a pilot program that allows free trips on Muni to all youth 18 years or younger regardless of household income with no application required. The pilot will conclude in 2024 based on current funding. The Investment Plan funds this program through 2050.



Transit Operations

From Transit Operations in Table 3

The Investment Plan funds Muni light rail service in San Francisco to operate at 2019 investment levels. Muni bus service is funded to the equivalent of 2022 investment levels. The Vision Plan includes potential new revenues to help meet the regional transit operating needs and increase Muni transit operations investment levels beyond 2019 levels. Additional investments to further fund Muni transit operations could be made to in the Vision Plan, depending on how the potential \$2 billion in local/regional discretionary revenue that is set aside a placeholder for transit operations/transit capital investments is allocated.

INVESTMENT PLAN BENEFITS

To understand the benefits of the Investment Plan, the SFCTA evaluated the impacts of the SFTP 2050 investment scenario through a technical modeling process. Key metrics from the SFTP Investment Plan scenario compare a future year 2050 scenario, with and without the SFTP Investment Plan projects and programs.

MODEL SCENARIO DETAILS






The impacts of the SFTP Investment Plan on transportation goals are analyzed with the San Francisco Chained Activity Modeling Process (SF-CHAMP). The future year (2050) baseline allows for a comparison of the SFTP investments. The future year baseline includes future growth represented by the MTC's PBA 2050 growth projections and the San Francisco Planning Department's land use distributions; transit service represented by summer 2022 Muni transit service, 2019 BART frequencies, and Caltrain post-electrification service; and projects that will soon be open or are already fully committed such as Muni's Central Subway. The Investment Plan scenario has identical land use assumptions to the baseline scenario,

all projects in the baseline scenario, and additional projects which can be funded through the Investment Plan detailed in Appendix A. The Vision Plan was not modeled due to the assumption of flexibility in the investment choices described above. The full modeling methodology and results can be found in Appendix C.

The SFTP also conducted an equity evaluation to measure the impacts of the Investment Plan on each Equity Priority Community area. This analysis, detailed in Appendix D, provides insight into equity impacts of the Investment Plan. It found that Investment Plan projects address many of the needs of equity priority communities.

Taken together, and despite the significant financial challenges triggered by the pandemic, the investments outlined in the SFTP will create positive impacts in San Francisco and advance ConnectSF goals. Planning for our next generation of transportation investments will require additional revenues to implement. Figure 11 shows how the SFTP investments, rooted in ConnectSF goals, support positive outcomes for San Francisco.

Figure 11: Investment Plan Impacts

	 EQUITY	 ECONOMIC VITALITY	 ENVIRONMENTAL SUSTAINABILITY	 SAFETY AND LIVABILITY	 ACCOUNTABILITY AND ENGAGEMENT
Shift in Driving Mode Share	+	+	+	+	
Vehicles Miles Traveled/GHG	+		+	+	+
Job Access	+	+			
Commute Time		+			
Safety	+			+	+
Affordability	+	+		+	

CLIMATE ACTION PLAN

The San Francisco Climate Action Plan sets a goal to have 80% of trips in San Francisco be made by non-driving modes by 2030.¹ The SFTP Investment Plan will help shift modes across the city through capital investments and policy initiatives such as TDM. Of trips to, from, and within San Francisco on a typical pre-pandemic weekday, 45% are taken by driving modes, and roughly half of those are drive-alone trips. Of trips entirely within the city, about 40% are taken by driving modes. More than half of those driving trips are under two miles in length. For trips less than one mile, there are more than 10 times as many driving trips as there are bike trips. These short driving trips present an opportunity for TDM strategies to shift neighborhood-based driving trips to more environmentally friendly options.

¹ <https://sfenvironment.org/climateplan>

The SFTP Investment Plan will:

- **Fund safer streets** with over 200 miles of pedestrian and bike improvements. Street safety investments will advance a range of Vision Zero priorities such as traffic calming, Safe Routes to School, and pedestrian improvements like sidewalk extensions and crosswalks. Investments in safer streets will advance equity by reducing the rates of traffic violence, which disproportionately affect seniors, people with disabilities, and people of color. Safety improvements are especially critical to advancing equity in San Francisco because a disproportionate share (29%) of the city's High Injury Network are located in Equity Priority Communities.¹
- **Maintain smooth streets** through regular and timely maintenance. Keeping streets smooth and in good condition benefits all travelers. Plan investments include the maintenance, replacement, and/or upgrade of sidewalks, signs, signals, and pavement markings (including crosswalks and bike lanes) to support safety and accessibility. The Investment Plan funds street maintenance for San Francisco to maintain the current average pavement quality of 75, or "good", through 2050. Smooth streets are less expensive to repair and reduce the amount of maintenance required for both private and public transit vehicles, which can burden low-income households.
- **Support reliable, accessible transit** by funding both operations and capital improvements to make the transit system operate more reliably, safely, and efficiently. Transit capital maintenance is essential to a functional system. Capital improvements such as Muni Forward transit priority enhancements and Core Capacity improvements for BART and Muni will reduce crowding and improve transit reliability. The Investment Plan further advances equity by funding Paratransit operations and Free Muni for Youth.



Photo by SFMTA Photography Department

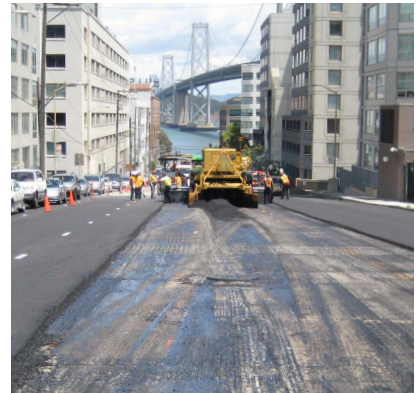


Photo by SFMTA Photography Department

¹ https://www.sfcta.org/sites/default/files/2022-11/SFCTA_Board_SFDPHHighInjuryNetwork_2022-11-15.pdf

- **Reduce congestion and improve accessibility** with investments to use street space more efficiently and prioritize transit. These investments would lead to an 8% increase in job access by transit. Residents of Equity Priority Communities in many parts of the city would see an even greater benefit than the city average. Transit priority on the busiest bus lines, where transit is currently mixed with general traffic, and Downtown Congestion Pricing would improve transit speeds by 15% citywide, dropping transit commute times and saving transit commuters about seven hours per year; commute times would also fall for people who drive. Transit commute times would improve most for San Francisco’s low-income residents.
- **Improve air quality** by shifting some trips away from driving and to other modes. The Investment Plan would reduce the daily vehicle miles traveled of San Francisco residents by an average of 4%. Equity Priority Communities that currently have elevated health risks due to exhaust and pollution in their neighborhoods would benefit from fewer vehicles traveling through their neighborhoods. The reduction in vehicle miles traveled and investments to electrify the transit fleet and ferries will help reduce greenhouse gas emissions in the city.

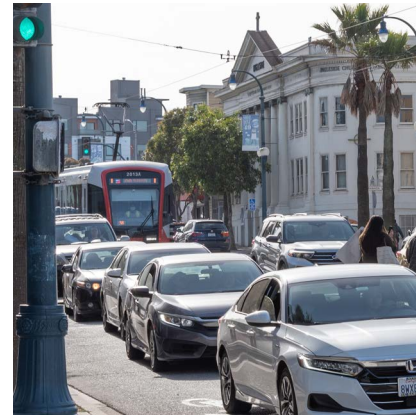


Photo by SFMTA Photography Department



Photo by Sergio Ruiz, flic.kr/p/25zXP6y

VISION PLAN

Though the Investment Plan is a robust funding strategy that will deliver tangible transportation improvements for San Franciscans, there are additional needs beyond what can be funded with the Investment Plan. The Vision Plan includes about \$15 billion in additional, new revenues. While the types of revenues are not specified, there would likely need to be some combination of new local, regional, state, and/or federal revenues, some of which would likely need voter approval. Appendix A includes a detailed list of the revenue allocation in the Investment Plan and Vision Plan.

The Vision Plan builds on the Investment Plan and describes the investment priorities for potential new revenues to close gaps and further advance transportation goals. Like the Investment Plan, the Vision Plan recommends how potential funds be allocated based on city, regional, and community priorities. See pages 28 - 32 for an overview of how revenues in the Vision Plan are prioritized and how San Francisco can benefit from the SFTP 2050 investments. The additional revenues would provide:

- Additional funding for transit operations to close funding gaps for San Francisco’s share of BART and exceed pre-pandemic investment levels for Muni.

-
- Additional investment to reduce the capital maintenance backlog for all operators – BART, Caltrain, Muni – to improve transit reliability and safety.
 - Additional investment in pedestrian safety improvements, including traffic calming, new street signs and signals, an expansion of the Safe Routes to School program, and additional investments to expand and close gaps in the pedestrian and bike network.
 - Further advancement of transformative transportation projects to the transit system and to our major streets and freeways.

About \$2 billion of potential new revenues in the vision plan is set aside as a placeholder for Muni transit operations or maintenance and capital investments that further advance the next generation of transit projects. This allows flexibility for this future new revenue to increase transit service levels, reduce the transit maintenance backlog and increase on-street priority to improve reliability, and/or to capital projects to further expand bus or rail in San Francisco. The SFCTA will continue to work closely with local and regional stakeholders to assess these revenue and investment options.

POLICY INITIATIVES

In addition to the projects and programs advanced in the Investment Plan and Vision Plan, the SFTP identifies policy initiatives for further study and advancement. These policy initiatives address transportation trends and larger needs that require further exploration and advancement to strengthen investment priorities and their impacts on transportation goals. Some of the policy initiatives identified are continued from SFTP 2040 and some are new for SFTP 2050.

Transit

Transit Funding for Operations and Maintenance

The available revenues in the SFTP cannot meet the long-term needs for transit operations and maintenance. It has been the case for previous SFTPs and previous versions of PBA 2050 that costs to maintain the transit system in a good condition (e.g., where assets are replaced at the end of their useful life and regularly maintained) outpaced available revenues. This forced prioritization of certain investments, typically urgent needs like bus and train replacement and track repair, while other preventative or lifecycle maintenance needs were partially addressed or deferred. Of note, this SFTP cycle is the first time the SFTP could not identify sufficient operations funding to maintain or grow transit service levels from the base year over the life of the plan. Significantly lower ridership demand and corresponding loss of fare revenue, declines in other key revenues like parking revenues, and increased operating costs have created unprecedented financial deficits for all transit operators in the region. BART, Caltrain, the SFMTA, and other operators are all facing an estimated \$2-billion five-year transit fiscal cliff for operations when federal relief funds that kept agencies afloat during the pandemic run out as soon as 2025.

Underfunding vehicle and infrastructure maintenance will lead to less reliable service. The Investment Plan provides funding for fleet replacement and guideway and facility improvements for all transit operators. Local funds prioritized for this purpose will leverage significant regional and federal monies. The Vision Plan provides additional revenues to further close the funding gap. However, it is not enough to fully fund all of the anticipated transit system maintenance needs. The SFCTA will continue to collaborate with the SFMTA, regional transit operators, and MTC to seek additional funding to maintain transit infrastructure in a state of good repair.



Photo by SFMTA Photography Department

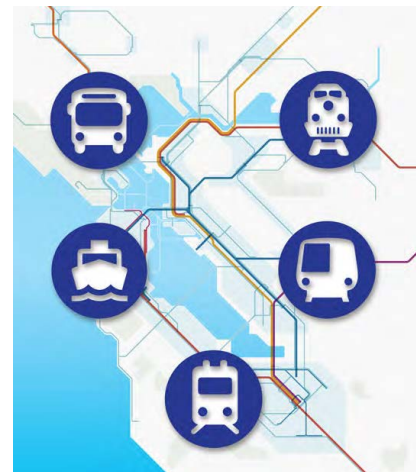
With respect to transit operations, the SFTP Investment Plan can maintain 2022 funding levels to Muni and San Francisco's share of 2019 regional rail operations investments, leaving inadequate funds to meet anticipated increases in costs such as operator pay raises, supply chain impacts, or to expand service hours beyond current levels, with the exception of existing commitments such as the Central Subway. New funding will be needed just to maintain current transit service levels in the long term. This structural deficit creates financial obstacles to improving service to underserved communities and addressing future growth. Regional rail ridership demand is recovering slower than local bus and metro service. However, compared to local bus service, regional rail service is less conducive to downscaling to meet lower demand and the available budget given the relatively high fixed costs of providing service. It is clear that additional local and regional funding, along with state and federal transit operating support or other private contributions, will be needed to sustain the level of transit services needed to meet the region's climate targets and other goals. MTC has made seeking transit operation funding a top legislative priority for the upcoming legislative session.

Beyond the need to secure new funding to just maintain current operating budgets, additional new funding will be necessary to increase transit service hours to meet or exceed pre-pandemic levels, reduce crowding, and support future growth. The SFTP Equity Analysis (Appendix D) can be used to understand how new transit funding can help meet the needs of Equity Priority Communities and parts of the city where there is more limited transit frequency, access, or service (like the western and southern sectors of the city). Additionally, if new stable sources of revenues for transit operations can be secured, this could reduce pressure on fare increases and/or support expanded transit affordability programs in the future.

Given the unprecedented changes brought about by the pandemic and the still-evolving travel patterns and financial conditions, it will be critical for local and regional transit agencies to continue to closely monitor conditions, track system performance, and update cost and ridership projections. That data can be used to inform service planning and help prioritize capital maintenance and enhancements. The SFCTA can support these efforts through its data warehousing and reporting efforts, including regular biennial updates to its Congestion Management Program (CMP).

Regional Transit Coordination

As the city and region grow and seek to meet climate goals, the Bay Area needs to continue efforts to improve coordination among its 27 regional transit operators to create a more connected and customer-focused system with easier transfers and integrated fares. This has been the focus of a number of recent regional efforts that the SFCTA, the SFMTA, and other regional transit agencies have been engaged in, stemming from MTC's convening of the Blue Ribbon Transit Recovery Task Force in 2020, and the approval of the region's Transit Transformation Action Plan in 2021. The Action Plan outlines several areas for the region to improve transit connectivity in the near term: integrated transit fare and transfer policies; universal mapping and wayfinding; and bus transit priority on roadways. The region is also studying whether to designate an entity to serve as a network manager, tasked with performing centralized planning, implementation, and oversight of regionwide transit system coordination. Work is currently underway to advance these initiatives, as is a two-year pilot of BayPass. This single pass will provide about 50,000 Bay Area residents free access to all bus, rail, and ferry services in the nine-county region, with the exception of special event services.¹ Some of these areas, in particular fare integration and transfer policies, warrant pilots to evaluate effectiveness and cost impacts. Expanding these policies will likely require a significant, ongoing new revenue source. Looking forward, the city supports these important efforts but also wants to ensure that the tradeoffs are well understood, that there are not negative budget impacts for San Francisco transit operators, and that the SFMTA sees its fair share of new revenue in light of the city's historic high level of investment in transit subsidies (e.g., discounts and keeping fares low) and large share of low-income and transit-dependent riders, which contrasts with many other Bay Area transit systems with relatively low levels of public transit operating subsidies. In the meantime, since the beginning of the pandemic, the region's transit operator chief executives and staff have been meeting weekly to coordinate and improve the rider experience by providing unified and transparent communication to build confidence in the transit network, making riding transit easier and more affordable, improving connections to make riding between systems easy



¹ <https://mtc.ca.gov/news/clipperr-baypass-sets-sail-unlimited-transit-access>

and convenient, providing real time information for riders, improving the paratransit experience, and planning for a more connected network to improve mobility.

The Transit Transformation Action Plan also calls for the development and adoption of a Bay Area Connected Network Plan to include transit service and mobility hub categories, core service networks, funding requirements, and next steps. MTC plans to kick off the next update to the regional transportation plan, PBA 2050, in 2023 and proposes to integrate the Connected Network Plan into that work. The city will engage with this planning work, ensuring that the needs of San Franciscans are represented in this network planning and that future investments in the city's transit system are addressed in the plan.

Safety

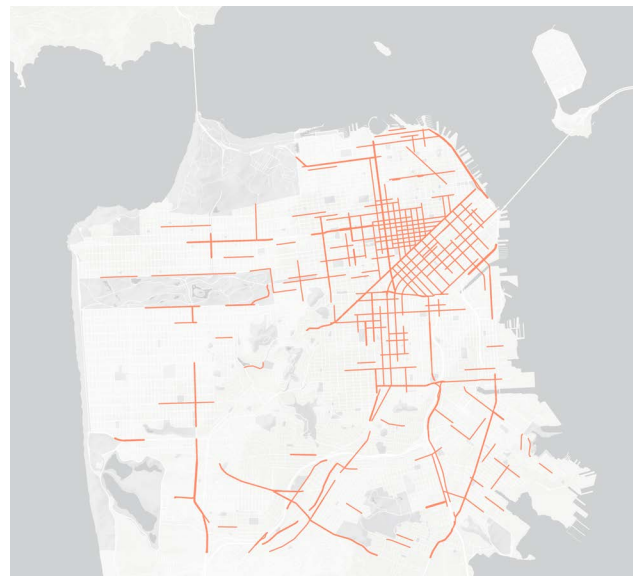
Street Safety

Vision Zero was adopted in 2014 with a goal to eliminate traffic fatalities by 2024. At the end of 2021, there were 27 traffic fatalities on San Francisco's streets; so far, in 2022, there have been 30 fatalities. The city's two-year action strategy prioritizes speed management, re-designing streets, and seeking automated speed enforcement tools. The San Francisco Public Health Department and the SFMTA recently updated the High Injury Network, which continues to describe a majority of severe and fatal collisions (68%) occurring on a small share (12%) of the city's overall road network. A comprehensive street safety strategy will help to mitigate high speeds and near misses across the city and reduce the likelihood of crashes, while an update to the High Injury Network will identify specific corridors with a history of collisions. The Streets and Freeways Strategy outreach process revealed that preferences for specific traffic safety improvements vary throughout the city (see Appendix F). Community engagement will be an important aspect to identify immediate and long-lasting street safety mitigations that reflect community transportation needs.

To further support safety efforts, the city should continue to advocate for the authority to use speed cameras¹ for enforcement, which requires state legislation, in particular on streets with a higher share of vulnerable users, such as near schools, commercial areas, and locations that serve seniors and people with disabilities. Implementation of speed cameras should be paired with community engagement to ensure that the use of cameras is designed to address equity, affordability, and privacy concerns.

¹ <https://www.sfmta.com/projects/speed-safety-cameras>

Figure 12: San Francisco's 2022 High Injury Network



Personal Security

During public outreach for ConnectSF and the 2022 Transportation Sales Tax Expenditure Plan, community members often raised concerns about personal safety while taking transit. Though reported crime on Muni¹ is below historic levels,² perceptions of safety risks are heightened, particularly for women and the Asian American and Pacific Islander community. BART and Muni are expanding ambassador programs and surveillance and planning new equity and safety initiatives to reduce harassment on transit. Improving personal security will require upgrading transit facilities and the public realm to create active spaces with more eyes on the street, as well as increased ambassador presence such as the city is undertaking downtown and in neighborhood commercial corridors during the 2022 holiday season. The SFCTA's ongoing School Transportation Access Study also found that personal security is a high priority for families and caregivers for the school trip. The SFTP includes investments in safety elements like lighting, security cameras, and elevator attendants. In addition, investments in Muni bus shelters across the city would not only help create consistency in transit facilities across the city, but would also help address personal security concerns for all travelers and improve equitable transit access.



Photo by SFMTA Photography Department

Neighborhood Planning and Equity

The 2022 Transportation Sales Tax Expenditure Plan includes a subcategory of Transportation, Land Use, and Community Coordination to advance this work in Equity Priority Communities. This includes dedicated funding for equity planning within San Francisco. Programs in this category fund community-based planning for each supervisorial district, underserved neighborhoods and areas with vulnerable populations (e.g., low income communities, seniors, children, and/or people with disabilities), citywide equity evaluations and planning efforts, and transportation efforts to support increasing housing density in existing, primarily low-density neighborhoods.



Photo by SFMTA Photography Department

¹ <https://www.sfmta.com/reports/sfpd-reported-muni-related-crimes-100000-miles>

² <https://sfgov.org/scorecards/transportation/crimes-muni>

These investments create a pipeline of grant-ready projects across the city that reflect community priorities. Improved coordination between transportation and land use planning will bring new opportunities to provide more reliable and efficient transportation options for all people regardless of how they travel, paired with new land use opportunities for community priorities to address past displacement, support transit-oriented development, prevent future displacement, and address negative impacts of major streets and freeways like poor air quality and safety.

Transportation Demand Management

Planning for Mode Shift

As a result of the pandemic, travel patterns are changing in San Francisco and the region. Congestion on city streets dropped in early 2020 but has increased steadily as people return to work and the tourism industry recovers.¹ By June 2022, the number of vehicles crossing the Bay Bridge was within 5% of pre-pandemic levels, despite work-from-home rates remaining high. As the region continues to recover and employees return to San Francisco, vehicle trips will reach and may exceed pre-pandemic levels. Transit ridership, however, has not recovered as quickly, with ridership at about 50% of pre-pandemic levels (see the pandemic discussion on page 20).

Though congestion is returning, travel patterns have shifted away from the downtown core; however, it remains a major activity hub. Even before the pandemic, an increasing number of jobs and services were located outside the downtown financial district, yet much of San Francisco's transit system reflects a historic focus on bringing people to daytime jobs downtown. San Francisco's transportation systems needs to adapt to changing travel patterns, where the focus of activities is increasingly in the neighborhoods.

Transportation Demand Management (TDM) is a systematic approach to shift how, when, and where people travel through programs and policies. TDM is an effective tool that San Francisco and other cities use to address the rise in congestion associated with population and job growth. TDM was included as a policy initiative in the SFTP 2040 and is included in long-range plans for cities across the country because it is a proven tool to decrease the dependence on driving and maximize the efficiency and effectiveness of the transportation system.

To support more strategic investments in TDM, the SFTP recommends that San Francisco establish a vision and measurable goals for the future TDM strategy to guide development, implementation, and monitoring; identify priority geographic areas, trip types, travel markets, traveler types, and success metrics to guide program selection and implementation details; and provide guidance for how to incorporate ongoing

¹ <https://covid-congestion.sfcta.org>

evaluation to track impacts on modeshift and cost effectiveness and guide future TDM investments.¹

Equity-Focused Pricing and Incentives

Equity-focused pricing and incentives charge a fee to drivers who can afford it, provide discounts and exemptions for those who can't, and include incentives for choosing non-driving options that can help reduce the overall cost of transit. Pricing efforts are being considered at the state, regional, and local level because of the proven effectiveness in reducing congestion, addressing climate risks, and generating sustainable revenue sources to fund transportation programs. San Francisco will continue to actively participate in these broader discussions to provide city input. Within the city, the Investment Plan and Vision Plan support demand management activities including on Treasure Island, downtown congestion pricing, and transportation demand management programs like parking management and transportation incentives like rewards for using non-driving options. Key to each of these is centering the decision-making process and program design on equity.

Equitable road pricing programs can reduce private vehicle trips and traffic congestion to allow the limited road and freeway space to be used more efficiently. The implementation of a successful program would allow transit vehicles to move more quickly and reliably and reduce travel times for people who must or choose to continue to drive and would otherwise be traveling on congested roadways. Pricing programs can also help to reduce emissions, traffic fatalities, and serious injuries, and wear and tear on the roadways.

SAN FRANCISCO AND BAY AREA REGIONAL PRICING EFFORTS

In 2021, amid the uncertainties and economic challenges of the pandemic, the SFCTA paused the Downtown Congestion Pricing Study in response to public feedback and to observe return to work and congestion trends. Working in the SFCTA's role as the Treasure Island Mobility Management Agency, the SFCTA continued to conduct outreach and develop tolling and affordability policies as part of the comprehensive mobility and congestion management program for Treasure Island. These strategies seek a balanced design to ensure an outcome that is both fair and effective.

At the regional level, a strategy calling for the implementation of per-mile, all lane tolling on congested freeways with transit alternatives was adopted by MTC as part of PBA 2050, with the primary objective of reducing greenhouse gas emissions in the region to state-mandated targets. MTC is currently engaged in pre-implementation work, including its Next-Generation Bay Area Freeways Study, a multi-pronged effort to explore freeway pricing mechanisms and complementary strategies through a robust technical and public engagement process. This study is expected to conclude in 2023 and recommend potential pathways for implementation.

¹ See Transportation Demand Management (TDM) and Long Range Planning strategic topic paper

Pricing for Infrastructure Funding

Pricing programs can also serve as user fee-based revenue mechanisms to fund transportation infrastructure of services. The State of California is studying how a road user charge (RUC) could replace the existing gas tax model as a major source of road funding, both due to declining gas tax revenues and to advance equity. Historically, gas taxes were meant to capture revenues to pay for maintenance and repair of roads and highways that gas-powered vehicles were driving on. The gas tax has become a declining revenue source as the fuel efficiency (e.g., miles per gallon) of vehicles improved and more electric and other clean fuel vehicles hit the roads. California has set a path for 100% of new cars and trucks sold in California to be electric vehicles by 2035 and road maintenance costs have increased at a far greater rate than the state and federal gas taxes, which demonstrates the long-term need. Hybrid and electric cars are currently more expensive than gas-powered cars and drivers of these vehicles pay little or no gas tax though they contribute to wear and tear on the roads, while those who drive older and less fuel efficient vehicles pay more because they purchase more fuel.

For these reasons, governments across the country (e.g. Washington, Oregon, and New York) and in Europe have become increasingly interested in the potential for a RUC as a more sustainable revenue source to replace or supplement the existing gas tax model. RUCs are designed to have drivers pay to maintain the roads based on how much they drive rather than how much gas they purchase. While gas taxes may still have a role to play as a disincentive for fossil fuel consumption and to fight climate change, alternative revenue sources are required to be able to fund our transportation systems.

Project Delivery

Capital Project Delivery

To support effective delivery of transportation improvements described in the SFTP, the SFCTA is leading an effort in collaboration with city agencies to uncover barriers to efficient project delivery for major capital projects, identify opportunities for improvement, increase collaboration across stakeholders, and improve accountability.¹ Case studies, workshops, and surveys of key project staff will culminate in the Transportation Capital Projects Delivery Study and a series of recommendations that San Francisco can use to effectively deliver projects over the life of this plan.

Shared Station Development and Improvements

There are six rail stations in San Francisco that are shared between BART and Muni. Certain aspects of station capital maintenance and customer-facing enhancements are the shared financial responsibility of both operators, while others are independent. Maintaining these stations in good condition, improving safety and security, increasing accessibility, and making enhancements to wayfinding and other station features are part of ensuring that transit is safe, convenient, and reliable. To this end, because the

¹ <https://www.sfcta.org/blogs/lessons-learned-approach-improve-delivery-large-scale-transportation-projects>

SFCTA funds station improvements at shared stations, the SFCTA will work with BART and the SFMTA to develop a mid- to long-range set of capital project priorities for the shared San Francisco stations and an accompanying funding strategy. Closer, more proactive coordination and shared station improvement plans can make it easier to secure funding for projects in a timely fashion and can lead to lower costs, fewer customer facing impacts of construction and implementation, enhanced connectivity, and a more seamless customer experience.

The Downtown Rail Extension (DTX) will bring Caltrain and future California High-Speed Rail trains into the Salesforce Transit Center in the heart of downtown San Francisco.¹ The DTX project is utilizing an integrated, multi-agency approach to project development and delivery. In 2019, the SFCTA Board considered the results of a comprehensive expert peer review of the DTX project. The peer review recommended that the DTX partner agencies work together to deliver on a comprehensive work program to prepare the project for procurement and construction. This peer review led to the formation of the San Francisco Peninsula Rial Program Memorandum of Understanding, which established an integrated staff team and management governance that brings together six agencies, including DTX lead agency TJPA, to jointly develop the project. This best practice has led to the successful advancement of the complex procurement-readiness work program, and positioning of the project for major federal investment through the Federal Transit Administration's "New Starts" capital investment grant program.

New Mobility and Autonomous Vehicles

New transportation technologies can fundamentally change the way residents and visitors get around San Francisco. In 2018, the SFCTA and the SFMTA adopted guiding principles for new mobility to serve as a framework for evaluating these services and technologies, identifying ways to meet city goals, and shaping future areas of studies, policies, and programs.²

Recently, autonomous vehicle (AV) development and testing has picked up momentum with the first AV permit for commercial passenger services granted to Cruise to operate in San Francisco. AVs are vehicles that can operate without a human driver, to varying degrees. As of 2022, there are 49 AV companies with permits from the California Department of Motor Vehicles (DMV) to test on public roads in California. Between November 2020 through November 2021, there were over 4 million miles driven by AVs in California, 78% of which was by only two companies.³ However, the future of AV technologies and business models is constantly evolving and warrants research and policy attention. How AVs are used in San Francisco and their potential effects depends

¹ <https://www.sfcta.org/projects/downtown-rail-extension>

² <https://www.sfcta.org/policies/emerging-mobility#panel-guiding-principles>

³ 2021 Autonomous Mileage Reports and 2020-21 Autonomous Mileage Reports (driverless). DMV. <https://www.dmv.ca.gov/portal/vehicle-industry-services/autonomous-vehicles/disengagement-reports/>

on further development of the technology, federal and state regulatory actions, consumer adoption, and operational assessments.

Automated vehicle safety is regulated at the federal level, but operational regulations are primarily set at the state level. In California, regulations for commercial passenger and goods movement services are set by the California DMV and the California Public Utilities Commission who have permitting authority over automated driving and its use for passenger services. Currently, San Francisco roles are limited to regulating curb access (SFMTA), collecting ridehail fees (Prop D), and funding or leading pilots. The SFCTA's Treasure Island AV Shuttle Pilot project is demonstrating a shared-use application of driverless technology as a first/last mile service and opportunity for community partnerships. However, through pilot programs and other efforts, San Francisco may be able to gain insights into how AV deployment may be shaped by local plans and policies (e.g., San Francisco's curb and parking management plans). Insights from these early activities can help shape the pace and trajectory of this new technology. A spirit and practice of collaboration and transparency among all parties – public, private, regulatory and academic – is needed to help guide the development of the technology in alignment city goals and policies.

The availability of AVs could have a range of potential effects on San Francisco's transportation system, built environment, and residents, workers, and visitors. It is important that if AVs become more widely used, they support San Francisco's transportation goals and policies. The following efforts are suggested for further study as potential ways to mitigate negative impacts: continue to participate in AV regulatory proceedings at the state and federal level; continue to engage with AV developers, AV service providers, other stakeholders, and the public; assemble and analyze data to understand how the AV market evolves and to assess impacts on congestion, transit, environment, equity, etc.; provide insights to decision-makers on the AV impacts at a local level to encourage collaboration between the city and AV industry at the highest level; and identify and implement policies and investments that can mitigate the potential increases in vehicle travel.

Climate and Resilience

Resilience efforts in San Francisco address sea level rise, earthquakes, natural disasters, and other climate-related risks. The SFCTA reviewed current climate resiliency planning efforts in SF to assess how best to support climate change adaptation needs assessment, strategy and mitigation development and funding plans for implementation of these. This research focused on identifying opportunities related to transportation infrastructures' resilience to sea level rise and other natural hazards such as flooding and seismic events.

There are a number of resiliency efforts that address our transportation system. Staff documented many resiliency efforts in the city that include the development of

transportation projects. The transportation-related projects typically fall under one of two types: 1) projects that protect transportation infrastructure or 2) larger resilience projects that also provide opportunities to rethink our built environment to provide more transportation benefits. While most of these resiliency efforts are still in initial stages, three efforts for Ocean Beach,¹ Islais Creek,² and The Embarcadero Waterfront Resilience Program³ are the farthest along and identify specific projects that will need funding in the next several years. Beyond these major efforts, other resilience needs can be addressed through state of good repair efforts like San Francisco Department of Public Works' roadway repaving programs, the SFMTA's subway renewal efforts, and the SFCTA's Yerba Buena Island ramp rebuilds.

As part of the continued resilience planning happening in the city, the Office of Resilience and Capital Planning is leading an effort to update the City's Capital Plan for San Francisco to include climate resilience. The Capital Plan update, which will be complete by early 2023, will better identify the transportation-related resiliency projects that are most needed in the years to come, and San Francisco can position itself to take advantage of the new transportation resilience funding opportunities as they become available.

One such funding source is the Infrastructure Investment and Jobs Act's Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) program through which California is expected to receive \$630 million over the next five years. The California Transportation Agency is currently deciding how these funds will be distributed. The 2022 state budget also included \$400 million for climate adaptation projects that support climate resiliency and reduce infrastructure risk. The SFCTA will seek to support San Francisco resilience efforts through coordinated planning, funding and delivery activities.

1 <https://sfplanning.org/ocean-beach>

2 <https://sfplanning.org/project/islais>

3 <https://sfport.com/wrp>

Monitoring and Reporting

Performance measurement is one of the SFCTA's statutory functions in its capacity as Congestion Management Agency, and as administrator of the San Francisco's half-cent transportation sales tax. The SFCTA will focus on performance tracking and evaluation in the following areas, spanning the monitoring of system needs and trends, project delivery, and project effectiveness. This work can also inform many of the previously mentioned strategic initiatives.

SYSTEM PERFORMANCE

Through biennial monitoring at the Congestion Management Agency (CMA), the SFCTA will track and provide information to the public on changes in congestion on San Francisco's major streets and freeways; transit ridership, speeds and reliability; bicycle and pedestrian counts; collision data; etc. Regular monitoring will help keep the city on track to meet long-term transportation goals and understand whether progress is being made. The SFCTA will also undertake or fund regular evaluation activities – such as the SFMTA's recent Vision Zero Quick Build evaluation studies or our own San Francisco Growth and Investment Strategy Study – that can inform future funding decisions and SFTP updates.

Documenting the Cost Effectiveness of Transportation Investments

The SFCTA will work with implementing agencies to evaluate the effectiveness of new projects and programs to inform future project prioritization and scoping, especially in the areas of transit speed and reliability, travel demand management, pedestrian and bicycle safety, and traffic calming. Two major projects underway include the Presidio Parkway P3 (Public-Private Partnership) Study and planned Van Ness BRT evaluation study.

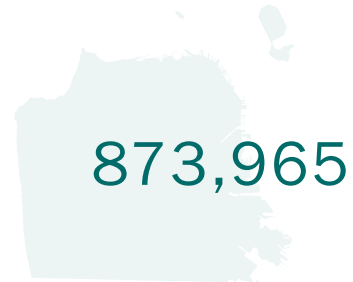
DEMOGRAPHICS AND TRIP-MAKING TRENDS

During the pandemic, the SFCTA created the COVID-Era Congestion Tracker to understand how travel patterns associated with recovery impact the transportation network. The SFCTA will continue to monitor post-pandemic travel patterns and how recovery impacts the transportation system. As the CMA, the SFCTA will also continue to monitor demographic and travel behavior trends including remote work trends, and the effect of new growth on the transportation system.

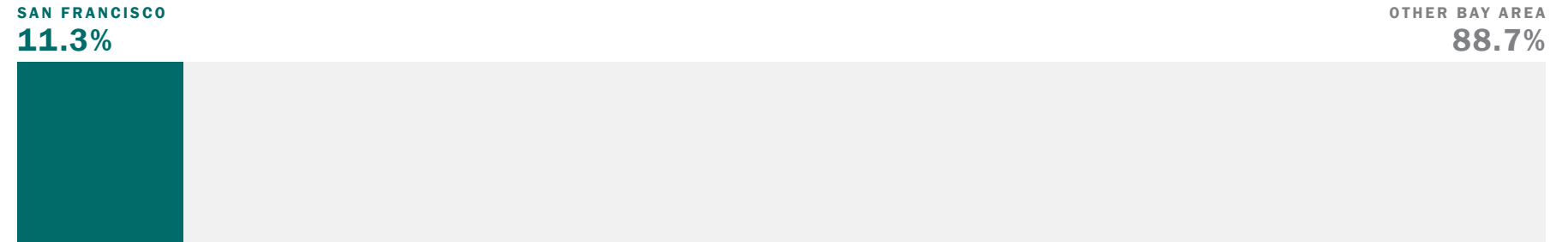
San Francisco at a Glance

POPULATION

2020 San Francisco population:



San Francisco share of regional population:

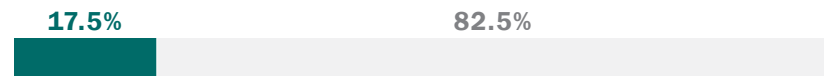


DEMOGRAPHICS

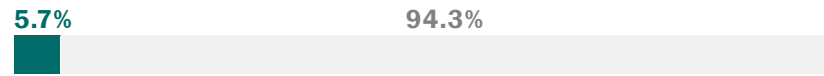
People of color



Older adults (65+) - 17.5%



People with a disability, under 65



Persons in poverty



Median household income



Per capita income (2020 dollars, 2016 - 2020)



2050 PROJECTED POPULATION

San Francisco population (2015)



San Francisco population (2050)



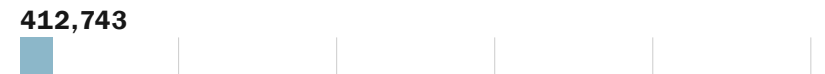
Regional population (2015)



Regional population (2050)



San Francisco population growth (2015 - 2050)



Regional population growth (2015 - 2050)



San Francisco share of regional population growth (2015 - 2050)



2050 PROJECTED JOBS

San Francisco employment (2015)



San Francisco employment (2050)



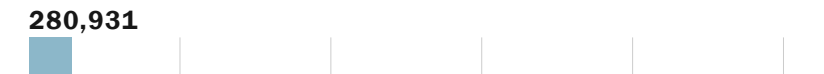
Regional employment (2015)



Regional employment (2050)



San Francisco employment growth (2015 - 2050)



Regional employment growth (2015 - 2050)



San Francisco share of regional employment growth (2015 - 2020)



San Francisco At a Glance (continued)

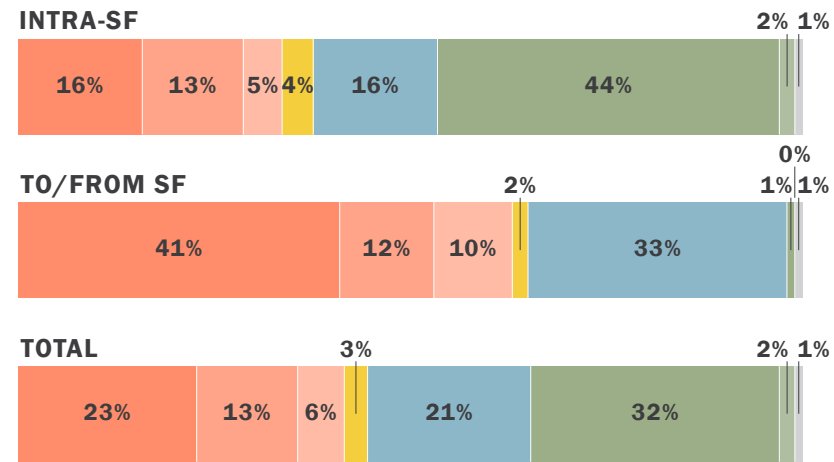
TRANSPORTATION

Weekday trips to/from/within San Francisco

4,563,805

San Francisco mode share by travel market in 2019

DRIVE ALONE HOV 2 HOV 3+ TAXI/TNC TRANSIT WALK BIKE OTHER



San Francisco share of regional weekday transit trips



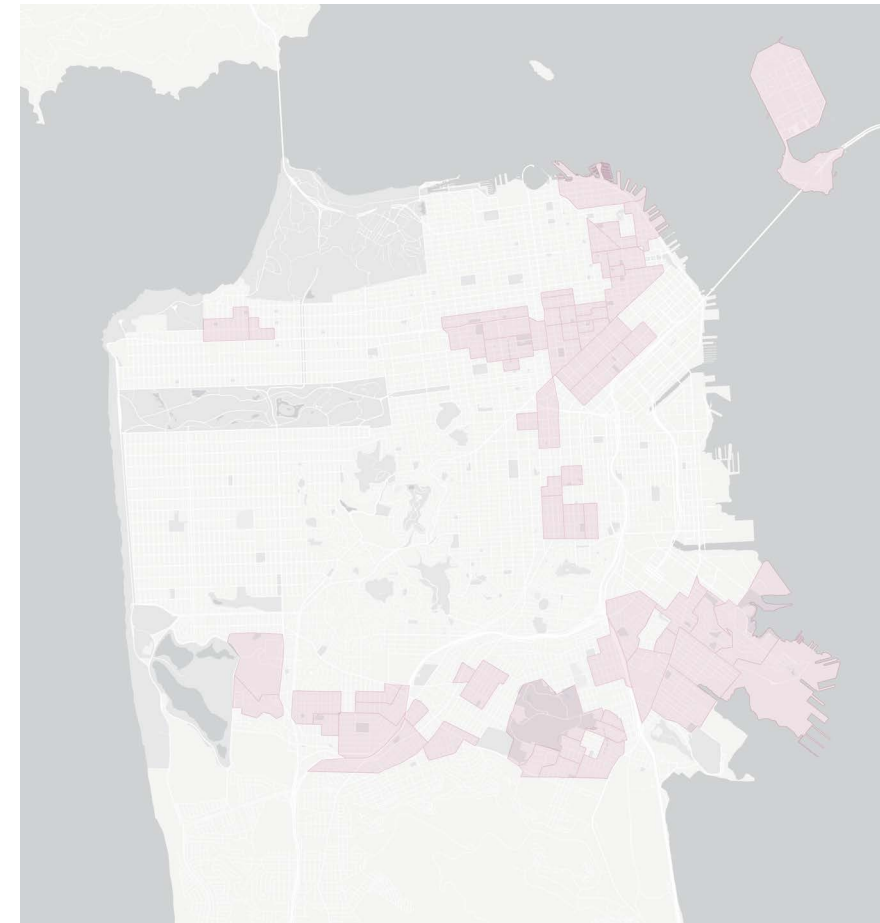
Muni share of regional weekday low income transit trips



Sources:
 Census 2020, <https://www.census.gov/data.html>;
 Plan Bay Area 2050, <https://www.planbayarea.org>;
 SFMTA Transit counts, <https://www.sfmta.com/reports/passenger-counts>;
 MTC and SFCTA 2018-2019 Bay Area Transportation Study, <https://mtc.ca.gov/planning/transportation/regional-transportation-studies/bay-area-transportation-study>

MAPS

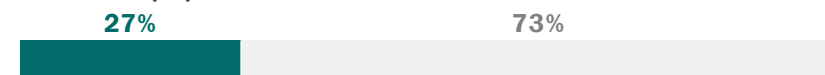
San Francisco Equity Priority Communities (EPCs)



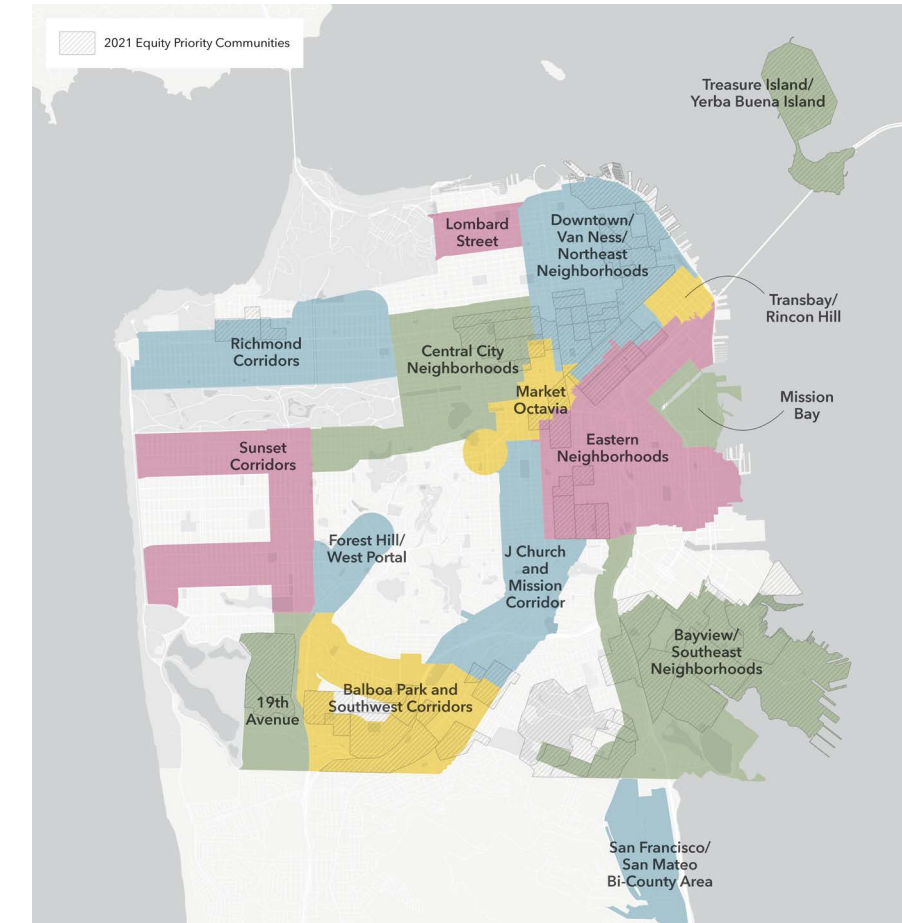
Population in EPCs

235,763

Percent of population in EPCs



San Francisco Priority Development Areas (PDAs)



Population in PDAs


708,390


Percent of population in PDAs



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