Transportation and Land Use

Addressing climate change means addressing San Francisco's transportation and land use issues head on. At nearly 50% of total city emissions, the transportation system must be transformed to reduce overall reliance on cars and equitably and efficiently connect people to where they want to go by transit, walking, and biking. All remaining vehicles must steadily transition to zero emissions.

SECTOR GOALS:

By 2030, 80% of trips taken by low-carbon modes such as walking, biking, transit, and shared EVs.

By 2030, increase vehicle electrification to at least 25% of all registered private vehicles, and to 100% of all vehicles by 2040.

CONTEXT

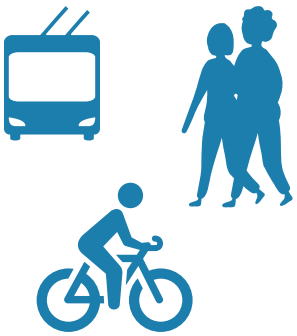
Transportation and land use policies are an essential part of San Francisco's plan to reach net-zero emissions by 2040. Getting the city on a path to a healthier, cleaner and more equitable future will require significant investments in reducing emissions from transportation. Climate action through transportation and land use means reversing the deliberate failures of past policies that heavily prioritized automobiles over modes that are safer, healthier, less carbon intensive, and more efficient. Ensuring that these low-carbon modes are less costly and more convenient to use than higher-carbon modes is key to achieving our climate goals and creating a socially equitable and environmentally sustainable future.

San Francisco has a goal that by 2030, 80% of trips are taken by low-carbon modes such as walking, biking, and transit.[32] Strategies to help people make more trips without a car and reduce emissions include: improving transit service, expanding bicycle lanes and safe places for people to walk, increasing housing production density and development that puts people closer to destinations, and implementing pricing policies and parking management programs that better align with climate goals. While these investments will create many quality-of-life benefits for the city, they will not be enough to adequately cut emissions, so shifting remaining cars to electric vehicles that run on renewable electricity, will be necessary to meet the City's climate goals. San Francisco has set a goal that by 2030, vehicle electrification will increase to at least 25% of all registered private vehicles, and to 100% of all by 2040. Expanding access to affordable and convenient charging options will be primary way the City supports these goals.

Eliminating emissions from transportation will require a fundamental change in how people move around and how transportation and land use efforts are prioritized, funded, and implemented. Major adjustments will be required at all levels: citywide, neighborhood, and

Accomplishments

Market Street
significantly reduced traffic to enable safer use of low-carbon modes by banning private vehicles in 2019



Completed

42 **total miles**

of protected bike lanes in 2019, with 49 targeted by 2022

50%

low-carbon mode share goal reached, new target set for **80% by 2030**

Slow Streets
program dedicated more than

20 corridors

to active transportation, with four being made permanent so far

individual. Continuing down the same path of over-using single-occupancy private vehicles is the wrong direction, and will only exacerbate existing climate, health, equity, and transportation problems.

To meet San Francisco's climate action goals, policymakers and the public will need to evaluate significant trade-offs and then agree on and implement actions that go beyond the status quo. For example, acknowledging the total societal costs–on health, congestion, and climate–of planning cities around automobiles, and then taking strong action to prioritize people over cars. Such trade-offs may mean changing expectations about time devoted to commuting and running errands, adjusting subsidized parking and residential permits fees to create funding for new public spaces, more housing, and improved transit services.

Transportation Impacts

San Francisco faces many transportation challenges: safely and efficiently moving people around the city and region; serving the mobility needs of individuals with disabilities; managing, repairing, and expanding aging infrastructure; and responding to new mobility technologies and related regulatory issues. At the same time, people of color and low-income communities have been underserved by existing transportation infrastructure, which has prioritized costly private cars over lower emissions alternatives such as public transit.

The transportation sector currently creates 47% of San Francisco's emissions. That share is rising due to meaningful advancements in the building and energy sectors and a comparative lack of progress in confronting automobile dependency and fossil fuels used for transport. As San Francisco prepares for rapid changes to reach net-zero emissions, it must ensure that costs and other burdens do not disproportionately fall on low-income people, people of color, and other populations that have faced a history of marginalization.

The transportation policies of the 1950s-1980s negatively impacted the wealth of BIPOC families and individuals and isolated entire communities from opportunity. Highway and transit investments scored better for federal funding when they removed "blight," defined as areas with more BIPOC communities. Policies of the time then began to promote automobile dependency and petroleum consumption, resulting in streets that made walking, biking, and taking transit more difficult. Even though these overtly racist policies have been rescinded, lower-income and BIPOC populations continue to face disproportionate harm.

Examples of these inequitable outcomes include:

- Lower income households have been forced into long commutes from auto-dependent places, greatly increasing time spent commuting.[33]
- While Muni is the top carrier of low-income riders in the region and key to providing access to jobs and livelihoods for San Franciscans, bus speeds and reliability continue to be hindered by congestion from private vehicles.[34]
- Residents living in proximity to freeways suffer disproportionately higher rates of cancer and respiratory diseases with larger racial and ethnic disparities.[35]
- People of color are more likely to die of traffic-related crashes because streets in formerly redlined neighborhoods were built to accommodate faster car traffic, resulting in less safe conditions for non-motorists.

Past efforts to manage the City's limited street space and achieve better outcomes for travelers have led to stalemates, inaction, and the maintenance of the status-quo. Meanwhile, the costs of driving and car-dependence — including air pollution, traffic collisions, decreased mobility for low-income and communities of color, wasted time stuck in traffic — have gone unaddressed and in many instances have worsened. In most cases, these external costs are drastically underrepresented in the actual cost of owning a car, especially when compared to less harmful methods of transportation. For example, a monthly transit pass costs almost as much as what a residential parking permit costs for an entire year in San Francisco.

The City's efforts to decarbonize the transportation system must not repeat the mistakes of the past, but rather correct for past injustices and create a future that is safer, healthier, and more equitable. Transportation and land use investments that create the greatest benefits for historically marginalized people need to be prioritized, including:

- Reducing noise and air pollution in lower-income neighborhoods.
- Improving safety outcomes, especially for vulnerable populations, including travelers with disabilities.
- Expanding access to jobs, services, and education by increasing reliability of low-carbon transportation modes and reducing their financial and time cost.

The COVID-19 pandemic has exacerbated existing challenges with our transportation system and highlighted the major class and race divides in how we commute and work. It also forced agencies to quickly adapt. The City added new bike and pedestrian networks, modified transit service, added new transit-only lanes, and did more to meet the needs of essential workers and individuals who rely on transit. Many of these emergency efforts have been successful.

Even before the pandemic, San Francisco began to transform some of its streets. For instance, the downtown section of Market Street prohibits private vehicle use and speed limits were lowered in the Tenderloin to improve safety. Additionally, newly implemented transit-only lanes on Geary Boulevard, one of the busiest transit corridors in San Francisco, improved bus travel time with minimal traffic impacts to that corridor and surrounding streets.[36] As the City recovers from the pandemic, there is an opportunity to build on these successes to improve our non-driving travel options and enable transportation choices that address long-standing challenges, reduce emissions, and advance equity.

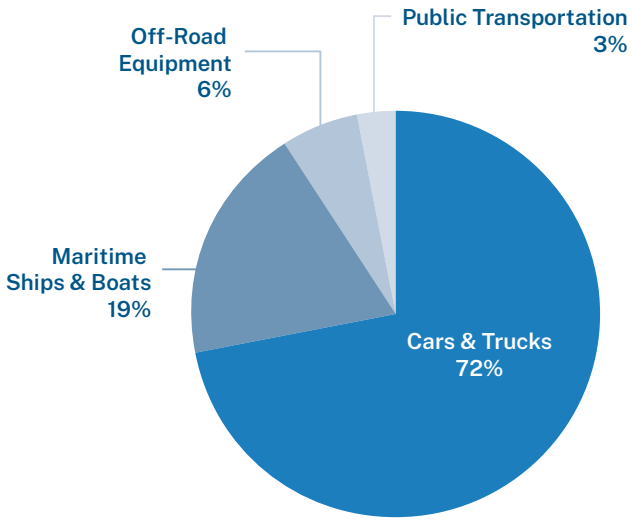


FIGURE 18: 2019 SAN FRANCISCO'S GHG INVENTORY - TRANSPORTATION SECTOR EMISSIONS[38]

Increasing transit, biking, and walking

San Francisco has set a target of 80% of trips to, from, and within San Francisco to be made by low-carbon modes by 2030. In 2019, approximately 45% of all trips in, to and from San Francisco were made by driving.[37] Achieving San Francisco's climate goals for transportation will require a dramatic and sustained shift away from driving as the main travel choice. Of the 47% of total city emissions attributed to transportation in 2019, cars and trucks were responsible for the supermajority of emissions (72%), while local and regional public transportation contributed just 3% (Figure 18).

Often, people travel by car because it is their only practical option or is simply more predictable and time-efficient than the alternatives. Despite investments by the City, some transit routes can be slow and unreliable, and biking and walking are more dangerous on streets designed for motor vehicles. Successfully shifting trips to transit, walking, and biking means making these choices safe, convenient, reliable — and even fun. This can be done by redesigning streets to prioritize efficient movement of transit vehicles and reimagining streets as places for people of all ages and abilities. Examples of this include transit-only lanes, protected bikeways, HOV/carpool lanes, shared spaces, car-free roads in parks, and slow streets.

Integrating Transportation and Land Use

Land use refers to the location and intensity of "uses" such as housing, retail, open space, and commerce. Land use decisions directly affect people's travel choices, since how people get around depends on where and how far they need to go, and the effectiveness of available travel options. Cities like San Francisco that were originally built before the popularization of the automobile often have denser development patterns that are well suited to travel by foot or transit. As automobiles gained prominence, streets and buildings were increasingly redesigned to serve cars over pedestrians. In recent years, San Francisco has reversed that trend by removing parking requirements and revising density controls to enable the denser housing more reflective of older San Francisco construction. Still, much more can be done in San Francisco to further coordinate transportation and land use.

Through comprehensive area plans, improved street designs, and enhanced transit service, San Francisco is starting to shift back towards people-centered neighborhoods, with recent examples found in the Mission, Hayes Valley, and South of Market districts. There are many opportunities to create more of these amenity-filled areas and to enhance existing ones in a manner that benefits current residents and welcomes new neighbors. Neighborhoods that are further from the city core with less transit access end up experiencing higher driving rates; it is critical that new housing in the outer neighborhoods has access to additional transit service to support the use of non-driving modes.

Neighborhoods built with a mix of housing, services, and amenities close together, especially those with reduced or priced parking, encourage and allow people to walk, bike or use other zero-emissions means of travel for everyday needs. On the other hand, car-dependent neighborhoods take space from people and give it to roads and parking spaces. Suburban-style land use is hard to serve by transit, which leads to an increase in driving and climate pollution. Therefore, regional collaboration, creating new housing, and investing in regional transit continue to be major strategies for the CAP and Plan Bay Area 2050.

Housing, and where it is located, also plays a critical role in determining transit choices. As discussed in Section 5.4: Housing, substantially increasing housing near services, jobs, and other activities helps with shifting people's decisions to walk, bike, or take transit, rather than to drive.

While the San Francisco has made progress in developing more affordable housing, the production of new affordable units is not equitably distributed across neighborhoods. Affordable units tend to be concentrated in areas of the city with higher levels of environmental pollution and greater rates of poverty. Land use policies that encourage more transit use could include engaging with communities to strategically rezone high-opportunity areas to accommodate new multi-family housing, specifically in places that currently have strong economic, environmental, and educational outcomes including more parks, better air quality, and higher performing schools.[39] [40]

PURSUING SHARED GOALS

San Francisco's Transit First policy, which was added to the city charter in 1973, prioritizes land uses and street space for transit, walking, and explicitly discourages inefficient cars and parking. A vigorous, renewed commitment to implementing the Transit First policy directly supports climate action.

Vision Zero (adopted in 2014) commits resources to eliminate traffic fatalities, the vast majority of which occur due to interactions between large motorized vehicles and pedestrians and cyclists. Reducing car travel and car speeds will greatly reduce injuries and deaths on our roads.

Transit, walking and biking improve local air quality for everyone, especially people who suffer from respiratory illnesses like asthma. Similarly, low-carbon modes increase physical activity which can reduce the likelihood of health problems like diabetes and depression.

Car ownership, including loan payments, insurance, and fuel costs, creates significant financial burdens. Allowing people to meet their daily needs without having to own a personal vehicle lessens this financial burden and can give time back to families by shortening commute times and reducing car congestion.

Switching from Fossil Fuels to Renewable Electricity

Investing in transit system improvements and making land use changes will have long lead times before impacts are felt and measurable. Even with significant investments in transit and policies that encourage people to get out of their cars, reaching zero emissions by 2040 will also require an accelerated transition away from gasoline and diesel-fueled cars and trucks to zero-emission vehicles (ZEVs), primarily electric vehicles (EVs) that run on renewable electricity. By 2030, 25% of all registered private vehicles in San Francisco need to be zero emission, and by 2040, 100% of vehicles need to be zero emission.

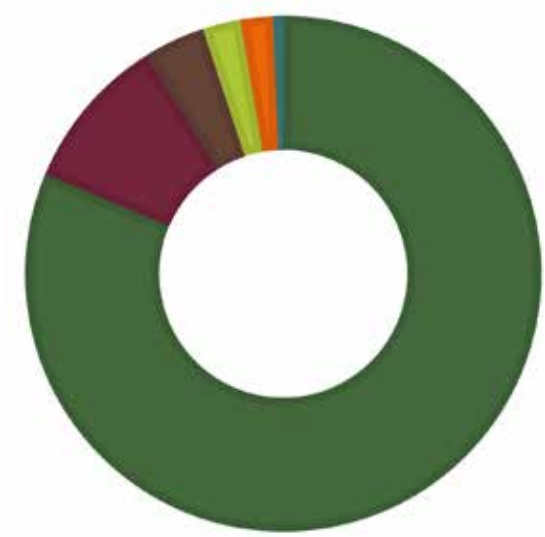
As is the case today, cars and trucks will still be needed in the future. With our current transportation infrastructure, private vehicles are often the best option for people with limited mobility such as youth or seniors, or people with disabilities. Support for transitioning to EVs should focus on these types of trips and drivers. As in any dense city, there are challenges to broad adoption of EVs in San Francisco. These include currently limited charging infrastructure, the unique challenges of multi-unit residential buildings such as limited parking, common garage meters, landlord-tenant "split incentives", as well as a general lack of off-street parking where charging is easier to install and access. These issues must be addressed for people to feel comfortable switching to EVs. San Francisco will continue to invest in expanding the network of public charging infrastructure, promote the adoption of zero emission vehicles, and make progress transitioning the City's non-revenue fleet to zero emission vehicles, among other policies.

While expanding vehicle electrification is essential to reducing emissions, there are uncertainties around the travel behavior associated with their use. For example, if EV adoption is led by those with higher incomes, it will worsen existing socio-economic disparities in the transportation sector. If not well managed and mitigated, these impacts could move San Francisco away from its long-range transportation and equity goals and result in increased congestion, unsafe roadways, and more inequity. Another specific challenge to address is that there are currently no wheelchair-accessible electric vans, which calls on San Francisco to develop solutions to this problem. Policies such as "Transit First" and principles such as "equitable access" in the "Electric Vehicle Roadmap for San Francisco" are aimed to safeguard against the potential unintended consequences of rapid electrification.

GHG Pathways for Emission Reductions and Co-Benefits

The pathways for projected emissions reductions from ground transportation are shown in Figure 19. Major changes to emissions result from actions affecting vehicle miles travel (VMT), and from the further adoption of EVs. See **Appendix C-3** for a technical

FIGURE 19: 2050 GHG REDUCTION POTENTIAL PATHWAYS (MTCO2E) BY FOCUS AREA FOR THE TRANSPORTATION AND LAND USE SECTOR[41]



Strategy	Focus Area	GHG Reduction (MTCO2e)
TLU 7	Clean Vehicles (EVs)	-766,726
TLU 3	Road Pricing	-92,082
TLU 4	Parking Pricing	-36,545
TLU 5/6	Land Use	-22,350
TLU 1	Transit	-19,169
TLU 2	Biking/Walking/TDM	-5,917

overview. Figure 19 shows the projected emissions impact of each individual TLU strategy compared to the 2050 baseline scenario. When all strategies are implemented simultaneously, each strategy's individual effectiveness is impacted by others, therefore the total reduction does not equal the exact sum of all strategies. Furthermore, the City will play a major role in integrating the shift to low-carbon modes with major transit improvements and land use strategies that can create significant regional emission reductions not included in the analysis.

With cars and trucks contributing such a large portion of sector emissions, electrifying private vehicles is projected to have a significant impact on emissions reductions. However, this focus does not reflect the full range of potential benefits that could come from transforming the transportation sector. To have a holistic approach to transportation policy, a co-benefit framework is critical to understand the synergies between current local impacts along with emissions reductions. This approach encourages decision making to account for multiple benefits and may assist with funding efforts and garnering public support. Table 7 depicts six transportation co-benefits (emissions, congestion, equity, public health, safety, and economic vitality) and the alignment with each transportation action. This co-benefits framework acknowledges the multiple indirect climate change benefits that are clearly important as additional or primary motivations for adopting or implementing many of the transportation strategies and actions. It is essential to examine Figure 18 along with Table 7 to understand the total impact of each transportation action. For example, the actions in strategy TLU 2 that support walking, biking, and transportation demand management have lower emission reduction potential, but substantially align with important co-benefits and should still be considered an important climate mitigation strategy.

TABLE 7: CO-BENEFITS OF LOW CARBON TRANSPORTATION[42]

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 1: Build a fast and reliable transit system that will be everyone's preferred way to get around.						
TLU 1.1	✱	✱	✱	✱	✱	✱
TLU 1.2	✱	✱	✱	✱	✱	✱
TLU 1.3	✱	✱	✱	✱	✱	✱
TLU 1.4			✱	✱	✱	
TLU 1.5	✱		✱	✱	✱	✱
TLU 1.6	✱	✱	✱	✱	✱	✱
TLU 1.7			✱			
TLU 1.8	✱	✱	✱	✱	✱	✱

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 2: Create a complete and connected active transportation network that shifts trips from automobiles to walking, biking, and other active transportation modes.						
TLU 2.1	✱	✱	✱	✱	✱	✱
TLU 2.2	✱	✱	✱	✱	✱	✱
TLU 2.3	✱	✱	✱	✱	✱	✱
TLU 2.4	✱	✱	✱	✱	✱	✱
TLU 2.5	✱	✱	✱	✱	✱	✱
TLU 2.6	✱	✱	✱	✱	✱	✱
TLU 2.7	✱	✱		✱	✱	

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 3: Develop pricing and financing of mobility that reflects the carbon cost and efficiency of different modes and projects and correct for inequities of past investments and priorities.						
TLU 3.1	✱	✱	✱	✱	✱	✱
TLU 3.2	✱	✱	✱	✱	✱	✱
TLU 3.3	✱	✱			✱	✱
TLU 3.4	✱	✱	✱	✱	✱	✱
TLU 3.5	✱	✱	✱	✱	✱	✱
TLU 3.6	✱	✱	✱			

✱ = Alignment with co-benefit

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 4: Manage parking resources more efficiently.						
TLU 4.1	✱	✱	✱	✱	✱	✱
TLU 4.2	✱	✱	✱	✱	✱	✱
TLU 4.3	✱	✱	✱	✱	✱	✱
TLU 4.4	✱	✱	✱	✱	✱	✱
TLU 4.5	✱	✱	✱	✱	✱	✱
TLU 4.6			✱	✱	✱	

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 5: Promote job growth, housing, and other development along transit corridors.						
TLU 5.1	✱	✱	✱	✱	✱	✱
TLU 5.2	✱	✱	✱	✱	✱	✱
TLU 5.3	✱	✱	✱	✱	✱	✱

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 6: Strengthen and reconnect communities by increasing density, diversity of land uses, and location efficiency.						
TLU 6.1	✱	✱	✱	✱	✱	✱
TLU 6.2	✱	✱	✱	✱	✱	✱
TLU 6.3	✱	✱	✱			✱
TLU 6.4	✱	✱	✱	✱	✱	✱
TLU 6.5	✱	✱	✱	✱	✱	✱
TLU 6.6	✱	✱	✱	✱	✱	✱
TLU 6.7			✱	✱	✱	

CO-BENEFIT	EMISSIONS	CONGESTION	EQUITY**	PUBLIC HEALTH	SAFETY	ECONOMIC VITALITY
TLU 7: Where motor vehicle uses or travel is necessary, accelerate the adoption of zero-emissions vehicles (ZEV's) and other electric mobility options.						
TLU 7.1	✱		✱			
TLU 7.2	✱		✱	✱		✱
TLU 7.3	✱			✱		✱
TLU 7.4	✱			✱		
TLU 7.5	✱	✱		✱	✱	✱
TLU 7.6	✱			✱		✱
TLU 7.7	✱	✱	✱	✱		✱

Photo Credit: SFMTA

Strategies Overview

The seven Transportation and Land Use strategies, and their supporting actions, must be implemented together to advance San Francisco's vision for a transformed, low carbon, healthy, and equitable city. Implementation will require public engagement and support, significant funding, and in the case of some policies, formal adoption. New concepts will require technical studies, planning, and extensive outreach.

To produce equitable outcomes, public engagement must include robust multilingual public outreach and education campaigns that help communities understand, contribute to, and navigate the transition to a low carbon system. Implementation of actions must consider and proactively strive to prevent displacement. Integral to building a robust, efficient, and safe transportation system means building one that is accessible and useful to everyone, including people with disabilities, low-income households, and marginalized communities.

Top Climate Solutions:

- **Invest in public and active transportation projects**
- **Increase density and mixed land use near transit**
- **Accelerate adoption of zero emission vehicles and expansion of public charging infrastructure**
- **Utilize pricing levers to reduce private vehicle use and minimize congestion**
- **Implement and reform parking management programs**

Did you know?

Co-Benefits of Climate Action:[43] Creating an active transportation network to shift trips from driving to walking, biking, and other low-carbon modes could result in:

VALUE OF A LIFE YEAR (VOLY) FROM INCREASED ACTIVITY	REDUCED SOCIAL COSTS DUE TO REDUCED EMISSIONS
$258 M **2030 – 2050**	**$143,000** **2030 – 2050**
The mode shift toward active transport leads to significant positive health outcomes for new cyclists	Fewer cars on the road means reduced air pollution and improved health outcomes.

All figures in net present value


HOTEL
ZELOS
364
8658
BUS

Transportation & Land-Use

TLU.1

STRATEGY

Build a fast and reliable transit system that will be everyone's preferred way to get around.

WHAT WOULD SUCCESS LOOK LIKE?

San Francisco has a transportation system that is reliable and affordable and makes it easy to choose public transit.

GHG REDUCTION POTENTIAL BY 2030

100,000 - 250,000 mtCO2e

ESTIMATED COST BY 2030

$$$$$: 500 million+

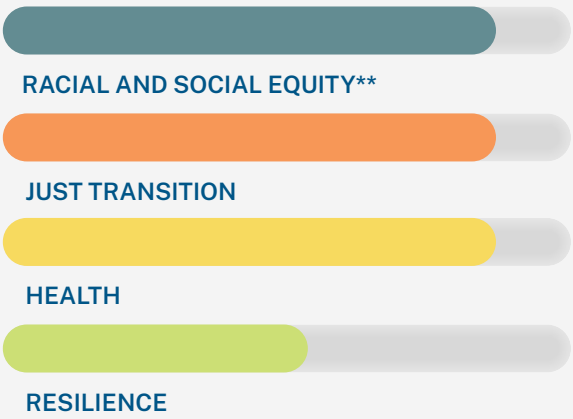
CLIMATE METRIC

Increase in transit mode share

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.1-1 Fund and implement the recommendations of the ConnectSF Transit Corridors Study and Muni Forward Plan, including taking steps to:

a) Identify and implement key transit corridors for service every 5 minutes or better all day long.

b) Ensure transit on frequent corridors is not delayed by recurring congestion by investing in transit-only lanes, signal management, queue-jump lanes and other transit priority treatments.

c) Retime traffic lights to minimize signal delay for frequent lines.

d) Optimize stop spacing on frequent lines to maximize transit ridership.

e) Advance major transit capital projects, including a new Westside Subway along 19th Avenue and Geary, the Caltrain Downtown Extension, Central Subway extension, and the Link21 new transbay tube.

TLU.1-2 Improve transit reliability by bringing infrastructure into a state of good repair. Adequately fund State of Good Repair with at least $300 million annually.

TLU.1-3 Greatly improve rider comfort, safety, and experience on transit across age, gender, race, and ability to encourage more people to ride transit. Example activities include data collection, reporting, sensitivity training of fare inspectors, and expanding the Muni Transit Assistance Program.

TLU.1-4 Implement Phase One of SFMTA's Racial Equity Action Plan to improve working conditions and initiate the development of Phase Two in 2021 and then implement Phase Two in 2022 to improve safety, access, and opportunities for the public.

TLU.1-5 While meeting transit ridership goals, prioritize services and reduce obstacles for more vulnerable populations, neighborhoods with fewest mobility options, and populations that have faced historic disinvestment.

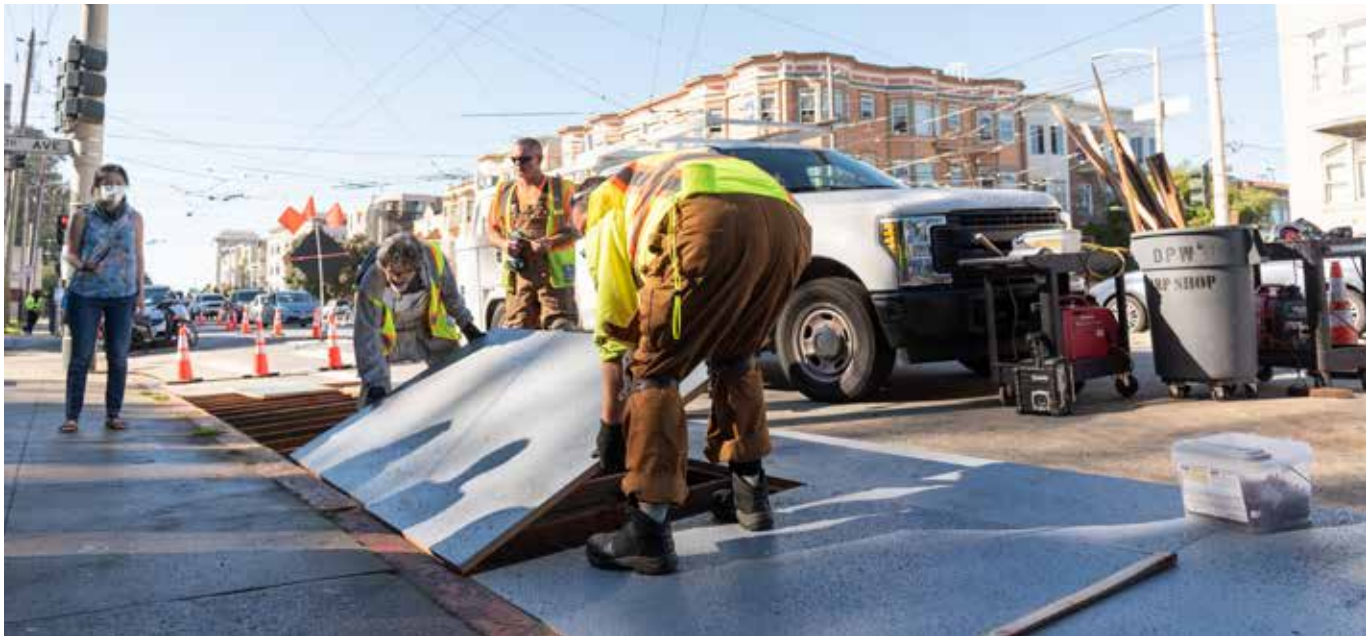
TLU.1-6 By 2025, implement 50 miles of Muni Forward transit priority improvements, including 30 miles of new transit-only lanes. to increase reliability, frequency and safety for riders.

TLU.1-7 By 2022, study the role of Muni fare programs on equity, climate, and mobility goals and adopt recommendations.

TLU.1-8 Improve connectivity between regional and local transit service by:

a) Funding targeted projects that improve physical connections and make transfers seamless between local and regional transit systems

b) Collaborating with regional partners to improve coordination between regional operators and secure funding for projects, including Caltrain Downtown Rail Extension, Caltrain Service Vision, Second Transbay Crossing, California's State Rail Plan, and ferry projects.



Fulton Bus Bulb installation. Photo Credit: SFMTA

Transportation & Land-Use

TLU.2

STRATEGY

Create a complete and connected active transportation network that shifts trips from automobiles to walking, biking, and other active transportation modes.

WHAT WOULD SUCCESS LOOK LIKE?

San Francisco has a transportation system that is reliable and affordable and makes it easy to choose active modes like walking and biking.

GHG REDUCTION POTENTIAL BY 2030

Less than 100,000 mtCO2e

ESTIMATED COST BY 2030

$$$: 10-100 million

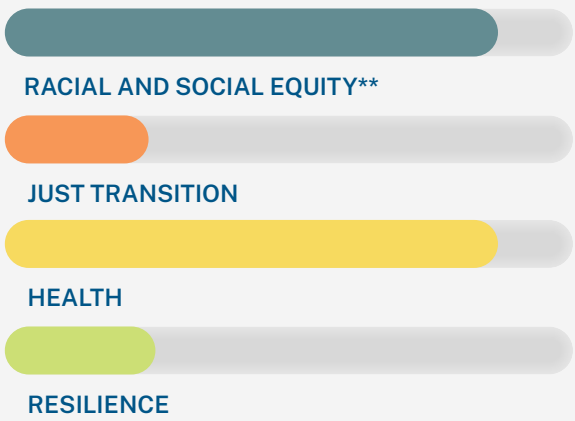
CLIMATE METRIC

Increase in walk and bike mode share

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.2-1 Continue to expand programs that provide corridors that are attractive to all demographics for walking, biking, and using scooters, wheelchairs, and other small mobility devices. Connect the Slow Streets network, car-free roads in parks, and the protected bikeway network to neighborhoods in San Francisco.

TLU.2-2 Expand community programs and partnerships to make biking more accessible, via safety and maintenance classes, community parking, and subsidies for electric bikes for low-income residents.

TLU.2-3 By 2022, establish a modal planning framework, placing transit and active modes at the forefront, that will guide decisions about design and utilization of the City's rights-of-way.

TLU.2-4 Expand the protected bikeway network by at least 20 miles by 2025.

TLU.2-5 Establish and utilize design guidelines to improve connectivity and access to active transportation options at major transit stops.

TLU.2-6 Update San Francisco's Bike Plan by 2023 to improve and expand the active transportation network with robust community input.

TLU.2-7 Encourage employers to further reduce auto commutes through incentives such as transit benefits and universal passes, e-bike incentives, active transportation support, telework policies, and carpool programs.

a) Continue promoting Transit First initiatives and incentives for all City employees

b) Integrate existing SFO Employee and Airline Employee BART Discount Programs

Photo Credit: SFMTA

Transportation & Land-Use

TLU.3

STRATEGY

Develop pricing and financing of mobility that reflect the carbon cost and efficiency of different modes and projects and correct for inequities of past investments and priorities.

WHAT WOULD SUCCESS LOOK LIKE?

Less congested streets and a more equitable transportation system through targeted re-investment of fees, discounts, and/or incentives to help disadvantaged travelers and advance the use of low carbon modes.

GHG REDUCTION POTENTIAL BY 2030

Greater than 400,000 mtCO2e

ESTIMATED COST BY 2030

$: 0-1 million

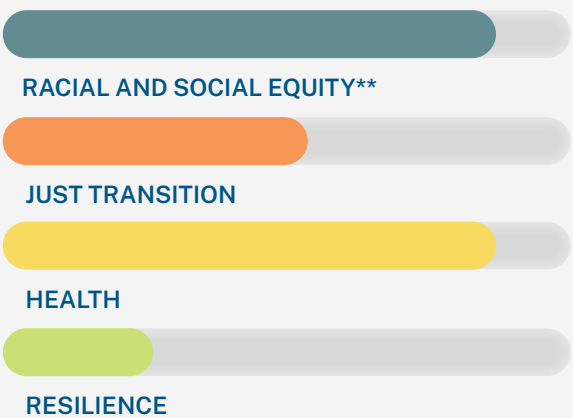
CLIMATE METRIC

Reduced vehicle miles traveled (VMT)

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.3-1 By 2022, develop recommendations for programs and policies that will advance equity (e.g., provide discounts and exemptions for low-income individuals), reduce vehicle traffic, and increase transit service to downtown. For example, complete the Downtown San Francisco Congestion Pricing Study recommendations, and by 2026, study and implement the appropriate pricing policies.

TLU.3-2 Advance local, regional, state, and federal opportunities to transition away from fossil fuels by increasing fees to drive.

a) By 2022, identify and consider pricing mechanisms that can be implemented locally (e.g. vehicle license fee).

b) By 2022, establish priorities to advocate for regional, state and federal legislation (e.g. increase gas tax, application of road user charges).

TLU.3-3 By 2023, introduce new tools to manage short-term curb uses, such as flexible regulations and pricing.

TLU.3-4 Develop and take all necessary steps to implement an integrated system of tolling for bridges and freeways and on Treasure Island to prioritize transit and higher occupancy vehicles.

TLU.3-5 Implement the Treasure Island Mobility Management Program including new ferry service, East Bay bus service, and island tolling.

TLU.3-6 Apply policy tools to reduce impacts on low-income and historically marginalized communities and ensure that money generated from pricing programs is invested in transportation improvements, especially for those communities.

Photo Credit: SFMTA

Transportation & Land-Use

TLU.4

STRATEGY

Manage parking resources more efficiently.

WHAT WOULD SUCCESS LOOK LIKE?

Parking resources in San Franciso are managed in a more efficient way that better reflects our climate and transit-first priorities.

GHG REDUCTION POTENTIAL BY 2030

Enabling/Accelerating
(no direct reduction)

ESTIMATED COST BY 2030

$: 0-1 million

CLIMATE METRIC

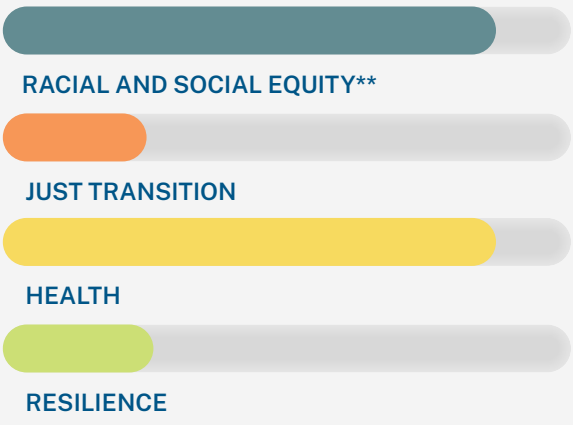
of parking spaces and amount of curbside that is actively managed

# of vehicles registered in San Francisco

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.4-1 Prioritize enforcement of parking and curb regulations that impact street safety and efficiency

TLU.4-2 Expand paid parking citywide, where appropriate Set prices at a level that reduces demand for parking so that drivers can always find a parking space near their destination.

a) Reinvent and expand the Residential Parking Permit program.

b) Expand paid hourly parking to Sundays and evenings, where appropriate.

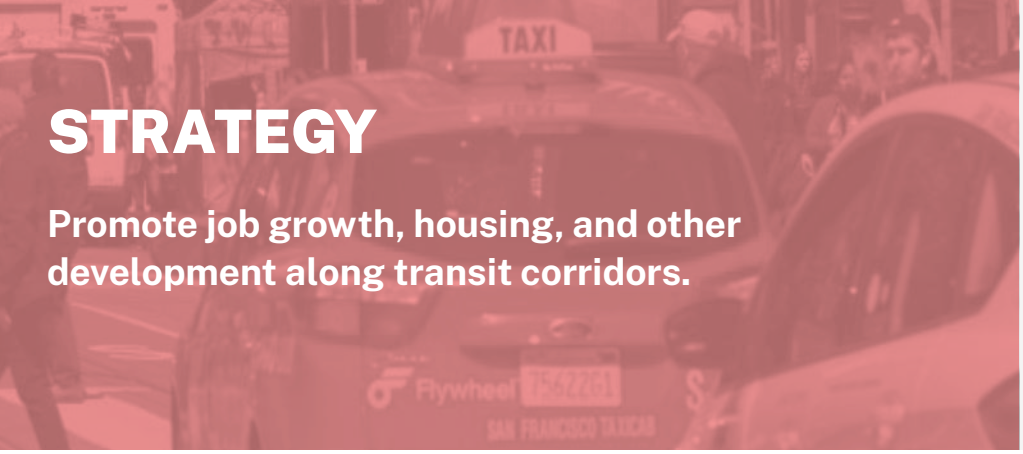
c) Expand demand-responsive parking meter and garage pricing.

TLU.4-3 Steadily reduce the City's overall parking supply in keeping with traffic reduction and emissions reduction goals, and convert underutilized public and private parking lots, parking spaces, and garages to more productive uses, such as housing and car-free roads in parks.

TLU.4-4 Reinvent and expand the parking tax on private parking to reduce congestion, air pollution and emissions.

TLU.4-5 While using pricing to balance parking supply and demand, develop programs to reduce impact on low-income, auto-dependent people and ensure net benefit to low-income individuals.

TLU.4-6 Implement a program to prioritize access and parking for people-with-disability parking placards.



STRATEGY

Promote job growth, housing, and other development along transit corridors.

Transportation & Land-Use

TLU.5

WHAT WOULD SUCCESS LOOK LIKE?

San Franciscans have access to good jobs, housing, services within a transit-accessible corridor.

GHG REDUCTION POTENTIAL BY 2030

Enabling/Accelerating
(no direct reduction)

ESTIMATED COST BY 2030

$$: 1-10 million

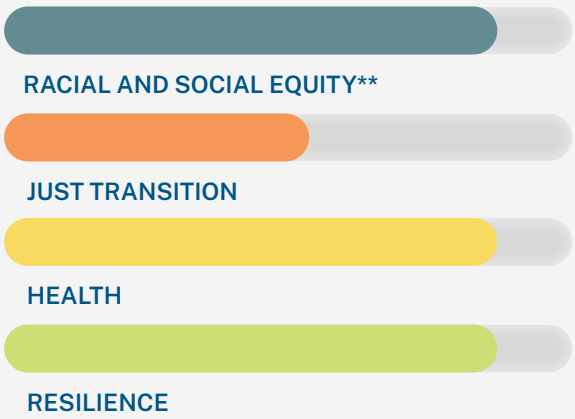
CLIMATE METRIC

Reduced vehicle miles traveled (VMT)

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.5-1 Expand housing capacity (for example, by increasing heights and removing restrictions on density) in areas where existing or new high-capacity transit is planned.

TLU.5-2 Locate jobs close to existing or new high-capacity transit corridors.

TLU.5-3 Use streamlined approval processes, such as Housing Sustainability Districts, in the 1/4-mile areas around major transit stations to build housing and mixed-use developments more quickly.

Transportation & Land-Use

TLU.6

STRATEGY

Strengthen and reconnect communities by increasing density, diversity of land uses, and location efficiency.

WHAT WOULD SUCCESS LOOK LIKE?

San Francisco neighborhoods are compact and have a variety of uses (stores, services, amenities) that residents can easily access

GHG REDUCTION POTENTIAL BY 2030

Enabling/Accelerating
(no direct reduction)

ESTIMATED COST BY 2030

$$: 1-10 million

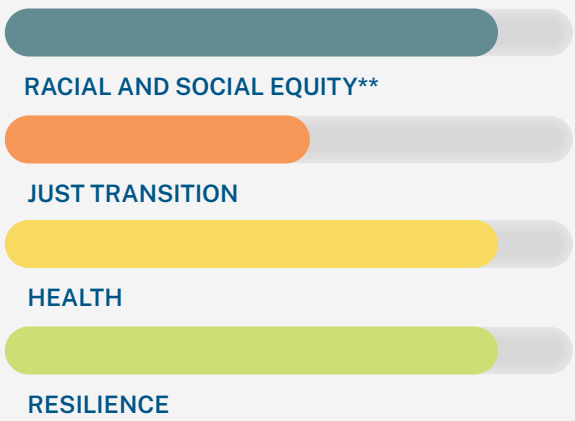
CLIMATE METRIC

Reduced vehicles miles traveled (VMT)

EQUITY METRIC

TBD

COMMUNITY BENEFITS



Supporting Actions

TLU.6-1 Facilitate the development of neighborhoods where people live within an easy walk or roll of their daily needs. Create a working group of City agencies and residents to plan and design for such neighborhoods.

TLU.6-2 Examine rezoning to allow for multi-family housing throughout San Francisco.

TLU.6-3 By 2023, increase the types of home-based businesses allowed in residential districts.

TLU.6-4 Identify and reimagine under-utilized publicly owned land and roadways that could be transformed or repurposed.

TLU.6-5 Design public space and the transportation system (including roadways) to advance racial and social equity by co-developing plans and projects with BIPOC community members and understanding their needs before designing the space.

TLU.6-6 Update the Transportation Element of the City's General Plan.

TLU.6-7 Design public space and the transportation system to advance disability justice by co-developing plans and projects with diverse elements of the disability community and understanding their needs before designs are complete.

Photo Credit: SFMTA

Transportation & Land-Use

TLU.7

STRATEGY

Where motor vehicle use or travel is necessary, accelerate the adoption of zero-emissions vehicles (ZEVs) and other electric mobility options.

WHAT WOULD SUCCESS LOOK LIKE?

100% car sales by 2030 are EV's without increasing number of vehicles in SF

GHG REDUCTION POTENTIAL BY 2030

Greater than 400,000 mtCO2e

ESTIMATED COST BY 2030

$$: 1-10 million

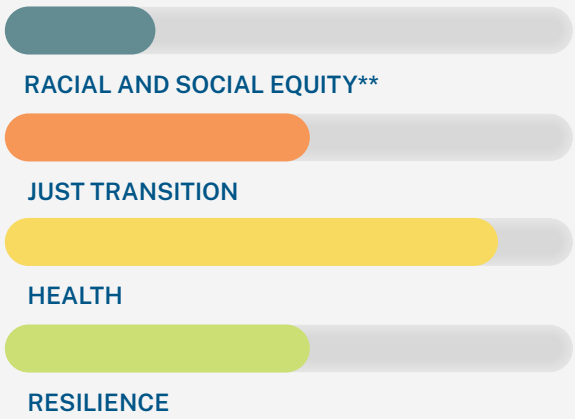
CLIMATE METRIC

% of electric vehicles in new vehicle sales

EQUITY METRIC

community-endorsed charging infrastructure projects in communities with environmental justice burden as identified in EJ Communities Map*

COMMUNITY BENEFITS



Supporting Actions

TLU.7-1 By 2023, launch a public awareness campaign, including messaging tailored to specific communities, with the goal of educating residents about the health, economic, and environmental benefits of transit, active transportation, and electric vehicles.

TLU.7-2 Expand publicly available EV charging across the city that is financially and geographically accessible to low-income households and renters.

a) By 2022, complete an evaluation framework to develop curbside charging pilots

b) By 2023, expand charging to 10% of spaces in municipally owned parking lots

c) By 2023, expand charging to 10% of spaces within privately owned large commercial garages

d) By 2023, create three "fast-charging hubs" with one serving a disadvantaged community within San Francisco.

e) By 2025, install charging to 10% of SFO-owned parking stalls supported by load management software.

TLU.7-3 By 2024, develop a plan to help the City's non-revenue fleet and small and locally owned businesses build infrastructure that allows for zero emission delivery, drayage, and longer haul trucks.

TLU.7-4 By 2023, establish a pathway to incentivize ZEVs for passenger service vehicles operating at the airport.

TLU.7-5 By 2024, launch a pilot to advance the use of ZEVs, e-bikes, and other low-carbon modes for door-to-door goods and meal delivery services.

TLU.7-6 By 2030, create incentives for the use of renewable diesel and emerging zero-emission technologies to reduce emissions from construction equipment at least 50% from 2020 levels.

TLU.7-7 Design by 2023 and launch by 2024 a pilot project to test the use of accessible bicycles, e-bicycles and e-scooters for commuting, as well as recreation.

Photo Credit: SFMTA