

# APPENDIX E SUSTAINABLE COMMUNITIES

## Policy Framework to Advance Sustainable and Equitable Communities

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## 1. Introduction

California has a major opportunity to support climate, equity, and public health goals by making better places for everyone. This requires advancing regions across the state that provide access to affordable homes in high-opportunity locations that invite walking, bicycling, and taking transit rather than making it necessary for people to drive ever-increasing distances to key services.

This appendix articulates how taking advantage of this opportunity can serve as an essential strategy to meet California's greenhouse gas (GHG) reduction targets, and also help dismantle entrenched social inequities. It describes the potential benefits of this approach, then proposes a series of strategies that the State should undertake to better align with this vision and achieve California's carbon neutrality goal no later than 2045 and advance equity goals.

The first section of this appendix demonstrates the opportunities California can unlock by moving away from a driving-first model by building communities and infrastructure that enable a wider range of choices. Indeed, even with improvements in vehicle technology and fuels, it is still necessary to reduce driving to meet climate commitments. This section further identifies how strategies to support more compact development and increase transportation choices can support other climate strategies, improve air quality and public health, promote land conservation that supports carbon sequestration, and also result in equity-related benefits.

The second section of this document presents a policy framework that identifies four strategy areas for action and articulates how the State can promote more sustainable and equitable communities. The State can begin implementing policy actions in these strategy areas immediately; indeed, many are already underway at various levels of implementation. Though it will take time to wholly seize the opportunities before us, the State is already actively investing in these new strategies, realigning projects and plans, and working on complementary policy areas. This document maps out ways to build on this progress. For each strategy area, the section identifies the vision, objectives, and potential actions to be considered for further public processes and potential implementation. These four strategy areas include transportation planning and funding, transportation system management, new mobility, and land use and development. Though there is much to do, across many venues, this framework for action can guide efforts in the near- and longer-terms, pivoting California towards a better future as each piece cumulatively falls into place.

## 2. The Case for Sustainable and Equitable Communities

Californians deserve great places to live – inclusive urban, suburban, and rural communities throughout the many regions of California – that provide for a range of affordable housing and transportation options, efficient access to a variety of jobs and services, clean air quality, opportunities to safely walk and bike, and open space and recreational opportunities. Current and future generations have the right to a healthful

natural environment, protected natural and agricultural working lands that support carbon sequestration and enhance climate resilience, and reduced overall demand for energy and other natural resources. These are the core tenets of sustainable and equitable communities and are achieved, in part, through the combination of more compact development and enhanced transportation options that together reduce the need to drive as measured by vehicle miles traveled (VMT).

Building more sustainable and equitable communities in this way can help California address two of its greatest challenges. The first is meeting the State's goal to achieve carbon neutrality no later than 2045 to prevent the adverse impacts of climate change and provide Californians healthier air to breathe. The second challenge is repairing the harms caused by decades of discriminatory transportation, land use, and housing practices to people of low-income and Black, Indigenous, and People of Color (BIPOC) populations, and building more inclusive and equitable places that prioritize providing vulnerable communities all the necessary opportunities to thrive.

## 2.1 The status quo perpetuates unsustainable outcomes.

California can enjoy more pleasant, inclusive, and efficient places to live if it breaks away from a status quo mindset that no longer reflects their aspirations for their future – and the reality of climate change that has contributed to drought, tree mortality, wildfires, and other negative environmental, economic, and social impacts. Efforts to advance more sustainable and equitable communities that reduce the need to drive have been ongoing in California for many years, most prominently under the State's 2008 Sustainable Communities and Climate Protection Act or Senate Bill 375 (SB 375) (Steinberg, Chapter 728, Statutes of 2008). However, California's change has been difficult to achieve; individuals are driving more miles per day than ever before, and, as a result, California is not on track to meet its associated climate commitments.<sup>1</sup>

California's cities, towns, suburbs, and rural areas were all designed and built primarily around car travel, and the legacy of that vision has been codified in public policies, business practices, and cultural and often nostalgic expectations of what an ideal life ought to look like. For most communities, the fact that many daily needs are located far from each other, and their streets are designed for high-speed driving is due to choices made in the past and perpetuated for decades. California has increasingly widened highways and roadways in an effort to address congestion but, counterproductively, has just facilitated more car dependence and increased congestion by inducing greater demand. More gravely, far too often in California's history new highway and major roadway infrastructure displaced BIPOC communities, increased division in communities, and intensified noise, traffic, and air pollution in already impacted communities.

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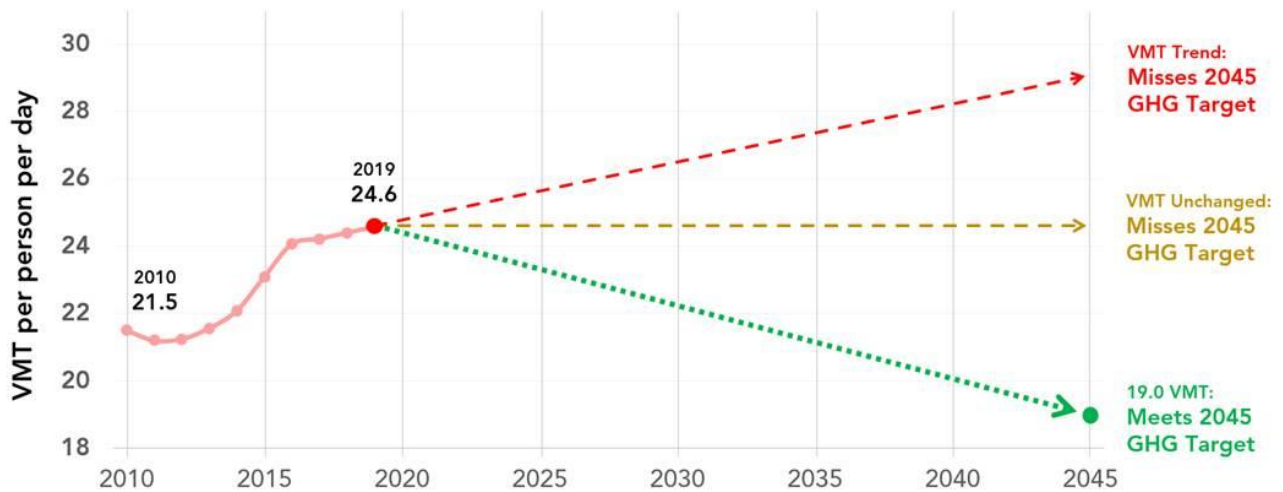
<sup>1</sup> California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf)

## 2.2 ZEVs are not enough to solve the climate crisis.

Despite cleaner vehicles and low-carbon fuels, efforts to meet California’s climate goals will be hampered by the ongoing increase in vehicle travel. Even with Executive Order N-79-20 phasing out the sale of internal combustion engine (ICE) vehicles by 2035, 30 percent of light-duty vehicles on the road in 2045 will be older and still burn fuel. Driving, regardless of vehicle technology, also produces particulate emissions from brake and tire wear. All of which will impact communities where those vehicles are driven long into the future.

The latest Scoping Plan scenario modeling show California will not meet its climate goals without reducing the amount people drive on a daily basis. This reduction is measured in daily VMT, as shown in Figure W below. The green line shows the necessary reduction in future per capita daily driving, which must decline from 24.6 miles in 2019 to no more than 19.0 miles by no later than 2045 to support California’s climate goals. The red line, however, illustrates a VMT trajectory whereby average per capita daily driving continues to increase.<sup>2</sup> From 2000 to 2019, per capita VMT increased by just over 1 percent per year. The yellow line shows a case where average per capita daily driving remains unchanged from the 2019 level. Neither the historic growth trend nor a flat line VMT future will allow California to meet its climate goals. Per capita VMT must decline to achieve California’s carbon neutrality goal no later than 2045.

**Figure W. VMT and California GHG reduction goals**



<sup>2</sup> The figure is intended to convey recent VMT per capita levels and the 2045 VMT per capita target. Other information, such as the different future trend lines, are not meant to represent specific forecasts or trajectories and are for illustrative purposes only.

## 2.3 This is not just about reducing GHG emissions from the transportation sector. Sustainable and equitable communities support other measures to reduce GHG emissions, too.

Beyond having a direct impact on GHG emissions from cars, reducing individuals' need to drive to fulfill daily needs by shaping transportation options and moving away from low-density, auto-oriented residential and commercial development, can also support emissions reductions in other sectors. This could include reducing energy demand from buildings and infrastructure and supporting carbon sequestration in natural and working lands. The Proposed 2022 Scoping Plan Update identifies strategies in these areas as necessary for California to achieve carbon neutrality.

- **Buildings & infrastructure:** More compact infill development generally generates lower emissions because attached building types and smaller residential unit sizes require fewer emissions to construct and less energy to heat and cool.<sup>3,4</sup> Studies have estimated that infill development uses 10 to 20 percent less residential energy due to changes in unit types, sizes, and locations. Additional benefits include reduced heat island effects from paved surfaces like parking lots, which increase long-term building energy use, and reduced emissions from the construction of infrastructure.<sup>5</sup>
- **Natural and agricultural lands:** The conversion of natural and agricultural lands to residential or commercial development would cause emissions from loss of carbon stored in these systems, as well as reduce the capacity of these lands to sequester carbon from the atmosphere.<sup>6</sup>

## 2.4 Departing from the status quo would ease inequitable burdens on California's low-income and BIPOC communities.

California can offer accessible, engaging, and safe landscapes and communities for all by moving away from transportation and land use patterns that have marginalized all too many. Past practices around building and expanding the transportation system divided communities of color and primarily served white suburban commuters.<sup>7</sup> Discriminatory

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<sup>3</sup> Elkind, E. N., Galante, C., Decker, N., Chapple, K., Martin, A., & Hanson, M. 2017. "Right Type, Right Place: Assessing the Environmental and Economic Impacts of Infill Residential Development through 2030." Available at: <https://turnercenter.berkeley.edu/research-and-policy/right-type-right-place/>

<sup>4</sup> Ewing, Reid & Rong, Fang. 2008. "The impact of urban form on U.S. residential energy use." *Housing Policy Debate*, 19(1), 1-30. Available at:

<https://www.tandfonline.com/doi/abs/10.1080/10511482.2008.9521624>

<sup>5</sup> Ford, Jonathan. 2010. "Smart Growth & Conventional Suburban Development: An infrastructure case study completed for the EPA." Adapted from "Comparative Infrastructure & Material Analysis" under EPA contract EP-W-05-25. Available at:

<https://archive.epa.gov/epa/sites/production/files/2014-07/documents/mbd-epa-infrastructure.pdf>

<sup>6</sup> California Air Resources Board. Accessed May 5, 2022. California Natural & Working Lands Inventory. Available at: <https://ww2.arb.ca.gov/nwl-inventory>.

<sup>7</sup> See the equity and VMT policy discussion beginning on page 107 of the California Air Resources Board's 2020 Mobile Source Strategy, available at: [https://ww2.arb.ca.gov/sites/default/files/2021-12/2020\\_Mobile\\_Source\\_Strategy.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf).

land use, lending, and real estate practices excluded BIPOC households and led to lasting inequality. Racial and social segregation; underinvestment in minority areas; decisions to annex some county lands and exclude others with BIPOC communities; and unequal displacement pressures have resulted in disinvestment in BIPOC communities and suburbanization.

These injustices can – and must -- be reversed. Low-density housing development is often strictly divided by income and housing type, leading to residential segregation<sup>8</sup> and reduced household income and social mobility.<sup>9</sup> Those who do settle in spread-out, low-density communities face lower access to jobs and services, and have limited choices other than driving, which brings about the financial burden of vehicle ownership (particularly heavy for low-income households), increased risk of job loss in the case of a vehicle breakdown for those that work on a strict schedule, and added exposure to traffic violence for those traveling along high-speed roadways.

Rather than continuing these practices, California can make better choices that allow for integrated, high-density communities rich with services and experiences.

Shifting California’s development patterns and transportation systems is an opportunity to address existing injustices by making livable, affordable homes with multi-modal connections to jobs, services, open space, and education available to all Californians, not just the white and the wealthy.

### **The Burden of Housing and Transportation Cost**

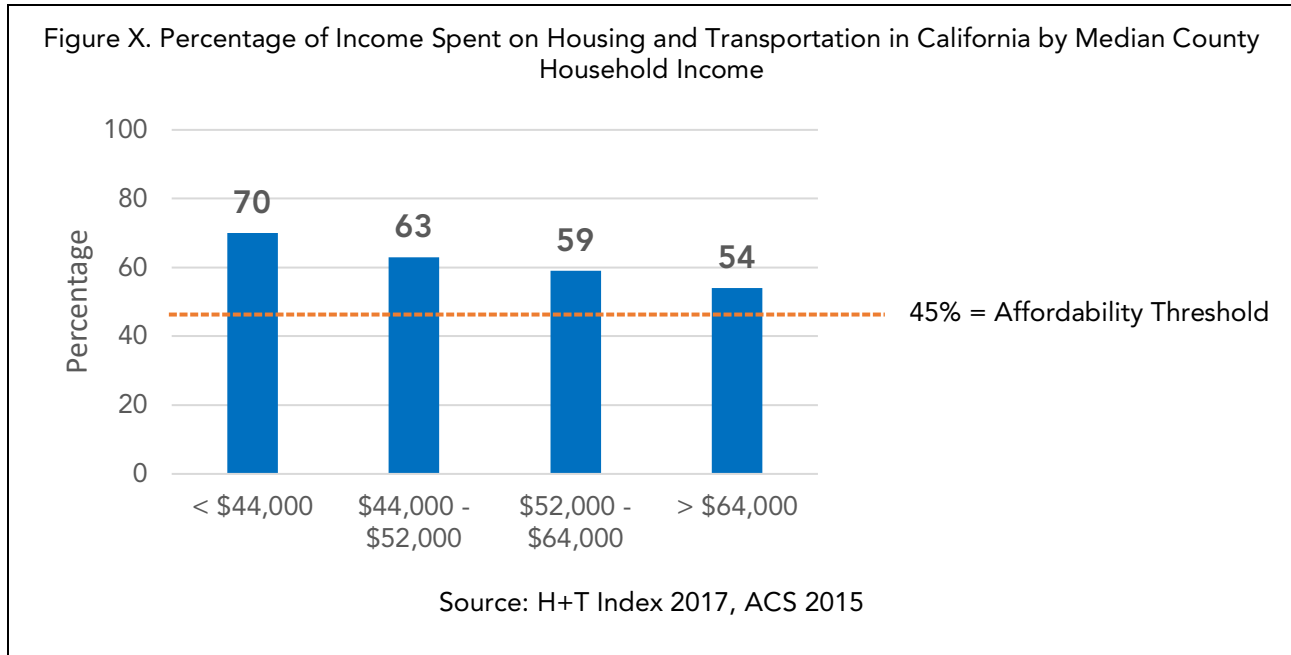
One telling measure of these racial and social inequities is the unequal impact of housing and transportation costs. Low-income households pay a significantly higher portion of household income for housing and transportation, with median county households making \$44,000 or less paying over 70 percent of their income, when the recommended affordability threshold is 45 percent (Figure X).<sup>10</sup> Given the high cost of auto ownership and operation, this housing and transportation burden falls particularly hard in communities where people have few options but to drive.

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<sup>8</sup> Lens, Michael C. & Monkkonen, Paavo. 2016. “Do Strict Land Use Regulations Make Metropolitan Areas More Segregated by Income?” *Journal of the American Planning Association*, 82(1), 6-21. Available at: <https://www.tandfonline.com/doi/full/10.1080/01944363.2015.1111163>

<sup>9</sup> Ewing, Reid, Hamidi, Shima, Grace, James B., & Wei, Yehua Dennis. 2016. “Does urban sprawl hold down upward mobility?” *Landscape and Urban Planning*, 148, 80-88. Available at: <https://www.sciencedirect.com/science/article/pii/S016920461500242X>

<sup>10</sup> Center for Neighborhood Technology. Accessed May 5, 2022. Housing + Transportation Index. Available at: <https://cnt.org/tools/housing-and-transportation-affordability-index>.



## 2.5 Reducing the need to drive advances other quality of life outcomes and opportunities.

Communities with shorter driving distances and more options for active travel also produce benefits beyond the environment and equity, including reduced financial burden, better access to opportunities, and improved public health.

- Reduced financial burden:** Reducing the need to drive saves households substantial sums of money. U.S. households spent an average of nearly \$10,000 in 2019 on vehicles and fuel.<sup>11</sup> Driving fewer miles reduces fuel and maintenance expenses and may even allow a household to reduce the number of vehicles.
- Better access to opportunities:** Changes to the built environment that increase alternatives to driving give households more and cheaper options to access services, jobs, and other activities, and thus expands economic and social opportunities.<sup>12</sup> These changes empower people who do not own cars and people who cannot drive, such as seniors, children, and people with disabilities, protecting their ability to hold a job, run errands, or meet up with others.
- Economic efficiency:** A development pattern that enables the same level of economic interaction with less dependence on driving can sustain the economy at a far lower cost to the public by decreasing highway maintenance costs, which have ballooned to

<sup>11</sup> U.S. Department of Transportation, Bureau of Transportation Statistics. Accessed May 5, 2022. Transportation Economic Trends. Available at: <https://www.bts.gov/product/transportation-economic-trends>.

<sup>12</sup> Lucas, K. 2012. "Transport and social exclusion: Where are we now?" *Transport Policy*, 20, 105-113. Available at: <https://www.sciencedirect.com/science/article/pii/S0967070X12000145>



over \$500 million per year in California.<sup>13</sup> Infill development can also reduce road and utility line lengths, as well as the travel distances needed to provide public services like police, garbage collection, and emergency response.<sup>14,15,16</sup> Across the U.S., congestion cost the equivalent of \$190 billion in 2019 in fuel costs and lost time.<sup>17</sup> Being able to travel more efficiently will reduce this drag on the economy.

### People want to drive less!

While many Californians find traveling by car a necessity, many would also prefer to drive less. A survey in Santa Clara County in 2020,<sup>18</sup> just before the effects of the Covid pandemic were felt, showed that 89 percent of people believed they had to drive for daily needs, but fully half wanted to drive less. Twenty percent of respondents said owning a car was a financial strain, creating a burden on disadvantaged groups. Cars also create higher levels of stress, with 41 percent of drivers reported finding their daily travel stressful, but only 35 percent of bicyclists and 28 percent of transit riders feeling the same.

Furthermore, Public Policy Institute of California polls in 2019 and 2020 found that fully three quarters of respondents favored encouraging local governments to change land use and transportation planning so that people could drive less.<sup>19</sup>

<sup>13</sup> U.S. Department of Transportation. Accessed May 5, 2022. Highway Statistics 2015. Available at: <https://www.fhwa.dot.gov/policyinformation/statistics/2015/sf12.cfm>.

<sup>14</sup> Burchell, Robert W., & Mukherji, Sahan. 2003. "Conventional Development Versus Managed Growth: The Costs of Sprawl." *American Journal of Public Health*, 93 (9), 1534-1540. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448006/>

<sup>15</sup> Busch, Chris, Lew, Erika, & DiStefano, Joe. 2015. "Moving California Forward: How Smart Growth Can Help California Reach Its 2030 Climate Target While Creating Economic and Environmental Co-Benefits." Joint report by Energy Innovation Policy and Technology LLC, and Calthorpe Analytics. Available at: <https://energyinnovation.org/wp-content/uploads/2015/11/Moving-California-Forward-Full-Report.pdf>

<sup>16</sup> Litman, Todd. 2016. "Understanding Smart Growth Savings: Evaluating Economic Savings and Benefits of Compact Development." Victoria Transport Policy Institute. Available at: <https://trid.trb.org/view/1685041>

<sup>17</sup> Texas A&M Transportation Institute. 2021 *Urban Mobility Report*. Available at: <https://mobility.tamu.edu/umr/report/>

<sup>18</sup> Fang, Kevin. 2020. "Surveying Silicon Valley on Cycling, Travel Behavior, and Travel Attitudes." Mineta Transportation Institute. Available at: <https://transweb.sjsu.edu/research/1947-Survey-Silicon-Valley-Cycling>

<sup>19</sup> Baldassare, Mark, Bonner, Dean, Dykman, Alyssa, & Lawler, Rachel. 2019 and 2020. "Californians and the Environment." Public Policy Institute of California. Available at: <https://www.ppic.org/publication/ppic-statewide-survey-californians-and-the-environment-july-2019/> and <https://www.ppic.org/publication/ppic-statewide-survey-californians-and-the-environment-july-2020/>

## 2.6 Building sustainable and equitable communities has been challenging.

California's predominant development patterns and transportation systems are not geared toward building sustainable and equitable communities that reduce VMT. The adoption of SB 375 identified the need to reduce VMT to meet the State's climate goals under Assembly Bill 32 (AB 32) (Núñez, Chapter 488, Statutes of 2006) through integrated transportation, land use, and housing planning as far back as 2008. However, as CARB's latest work reporting on implementation of SB 375<sup>20</sup> and the California Transportation Assessment under Assembly Bill 285 (AB 285) (Friedman, Chapter 605, Statutes of 2019) show, the historic momentum of legacy land use and transportation policies and institutions has proven to be more powerful than the tools of SB 375 and other federal, State, and local programs to reduce VMT. Reversing the current VMT growth trend will take substantial investments and time. Immediate action is urgently needed to be within striking distance of achieving carbon neutrality no later than 2045. The challenge before us is to take decisive steps to address the core issues that give individuals no choice but to drive. Accordingly, the policy actions detailed in the next section aim to offer a set of key policy objectives that can be attained within the lifespan of the 2022 Scoping Plan Update to effectively support more compact development and increase transportation options and reduce VMT no later than 2045.

## 3. Framework for Action

Actions to advance sustainable and equitable communities must be centered on delivering two priority outcomes of equal importance: achieving California's carbon neutrality goal no later than 2045 while improving air quality and improving transportation and housing conditions for vulnerable communities. There is no single, or immediate solution to transform the ways California builds and connects communities; instead, as all available models demonstrate, though much can be done to begin the process of transformation.<sup>21,22</sup> Though each step California takes in this transformation will be important, a full transformation will only be possible by implementing a broad range of concurrent actions in transportation, land use, and housing across all levels of government.

This framework is structured around the following four strategy areas central to reducing the need for driving and building more sustainable and equitable communities.

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<sup>20</sup> California Air Resources Board. 2018 Progress Report: California's Sustainable Communities and Climate Protection Act. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf)

<sup>21</sup> California Department of Transportation. California Transportation Plan 2050, pages 97-98. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

<sup>22</sup> Brown, A. L., Sperling, D., Austin, B., DeShazo, JR, Fulton, L., Lipman, T., et al. 2021. "Driving California's Transportation Emissions to Zero." UC Office of the President: University of California Institute of Transportation Studies. Available at: <https://escholarship.org/uc/item/3np3p2t0>

1. **Plan and invest in a sustainable transportation system.** Identifying policies to address the way California plans, invests in, and funds its transportation system to curb the need to drive and provide high-quality alternatives.
2. **Manage the use of the transportation system to advance climate and equity goals.** Considering policies to optimize the use of California's transportation infrastructure by prioritizing the movement of people over vehicles.
3. **Shape the deployment of new mobility options.** Exploring policies to leverage the potential of new mobility options to increase transportation choices, enable car-light lifestyles, mitigating inherent risks.
4. **Improve alignment of land use planning and development with climate and equity goals.** Considering policies to accelerate infill development, affirmatively further fair housing, and increase natural and working lands protection, in furtherance of the State's Planning Priorities.

For each strategy area, this framework offers: i) a vision for the year 2045 that would be consistent with meeting California's carbon neutrality goal while advancing equity; ii) policy objectives that should be achieved to deliver the vision for that strategy area; and iii) actions that should be taken to implement those policy objectives. This Framework does not and cannot mandate any specific action or create any legal obligations – instead, it provides a menu of critical potential actions and approaches that would be further developed through appropriate public processes in each instance.

### 3.1 Strategy Area 1: Plan and Invest in a Sustainable Transportation System

The institutional framework for planning and funding California's transportation system has reflected and perpetuated a car-centric bias. For many decades, the majority of federal, State, and local transportation investments have been devoted to building, operating and maintaining a network of highways, roads, and streets, and while more recently other modes of transportation have received increased funding, the dominance of motor-vehicle-centric investments remains unchanged.<sup>23</sup>

Achieving carbon neutrality no later than 2045 requires a transportation system that works more efficiently for all Californians – regardless of their income, race, ability, or where they live – while helping the State meet its climate goals. This vision offers a future in which most individuals have access to high-quality rail and public transit services and high-quality active transportation infrastructure, so that driving is a choice, and not an obligation. However, this vision will not be possible without effecting a structural

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<sup>23</sup> Considering new capacity, operations, maintenance, and rehabilitation investments. For a historic review, see California Air Resources Board, *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*, available at [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf). The more recent data is documented in the California Transportation Assessment (pursuant to AB 285), specifically Barbour, Elisa, et al, *MPO Planning and Implementation of State Policy Goals*, UC Berkeley: Institute of Transportation Studies at UC Berkeley, page 4, available at <https://escholarship.org/uc/item/7p8096mh>.

realignment of the State's framework for planning and funding transportation to prioritize investing in rail, transit, active transportation, and building more sustainable communities.<sup>24</sup>

The most critical step of this realignment will be reimagining roadway projects that increase VMT in a way that meets community needs and reduces the need to drive. It has been long proven that adding highways, interchanges, and major roadways in densely populated, suburban, and rapidly growing areas only alleviates congestion in the short-term, while increasing VMT, congestion, far-flung development, and GHG emissions in the long-term.<sup>25,26</sup> Another reason to re-envision investments in highway and major roadway projects that induce VMT is that such investments take away resources from investments in high-quality rail, transit, bicycling, and walking in both the short- and the long-term.<sup>27</sup> In other words, beyond the direct impact of inducing VMT, such projects can limit government's ability to improve transportation choices that facilitate mode shift and help reduce VMT.

Another critical step is elevating the quality of rail, public transit services and active transportation infrastructure so that these modes become more efficient and attractive alternatives to driving for all. In order to meet the State's climate goals, the California Transportation Plan 2050 identifies the need to achieve a significant shift toward non-auto modes, amounting to 23 percent of trips occurring by bicycling, walking, transit, or other non-auto modes by 2050.<sup>28</sup> Accordingly, all levels of government need to work together to increase spending on rail, transit and active transportation to substantially expand the coverage, frequency, affordability, and overall convenience of these modes in a definitive and sustainable manner.

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<sup>24</sup> Governor Newsom's Executive Order N-19-19 and the subsequent development of the Climate Action Plan for Transportation Infrastructure (CAPTI) call for this change and provide a general framework to achieve it, respectively. See California State Transportation Agency, *Climate Action Plan for Transportation Infrastructure*, available at: <https://calsta.ca.gov/-/media/calsta-media/documents/capti-july-2021-a11y.pdf>

<sup>25</sup> California Department of Transportation. *Transportation Analysis Framework, First Edition*, pages 28-29. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-taf-fnl-a11y.pdf>

<sup>26</sup> Handy, Susan, & Boarnet, Marlon G. 2014. "Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions." California Air Resources Board Policy Brief. Available at: [https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact\\_of\\_Highway\\_Capacity\\_and\\_Induced\\_Travel\\_on\\_Passenger\\_Vehicle\\_Use\\_and\\_Greenhouse\\_Gas\\_Emissions\\_Policy\\_Brief.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf)

<sup>27</sup> Considering the budgetary impact of developing new highway infrastructure and the ensuing lifespan of operation and maintenance costs.

<sup>28</sup> California Department of Transportation. *California Transportation Plan 2050*, page 96. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

### 3.1.1 Vision

To meet the State's carbon neutrality goal no later than 2045, and advance equity, California will have:

- A. Transportation planning and funding frameworks that are clearly aligned and prioritize the State's climate, air quality, and equity goals at all levels of government.
- B. Affordable, accessible, and integrated rail and transit networks that deliver equal or higher levels of accessibility to key destinations as private cars.
- C. Complete networks of safe and accessible bicycle and pedestrian infrastructure that make active transportation the preferred travel mode for short distances.

### 3.1.2 Objectives

To achieve this vision, the State should lead efforts to:

1. **Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.** Current project pipelines, plans, regulations, and funding programs at all levels of government need to be reviewed to reimagine and rescope road projects that increase single-occupancy VMT. A first action on this front would be adjusting the present project pipeline of State transportation investments and reconfiguring Caltrans' planning processes to rescope VMT- and GHG-increasing projects (Action A). Caltrans and other State agencies have committed to working with stakeholders to evolve projects in their design and suite of investments to address access and connectivity challenges while ensuring their alignment with the State's climate and equity goals, and other key outcomes. More broadly, in order to advance this objective and others below, the State should implement the full suite of recommendations in the Climate Action Plan for Transportation Infrastructure (CAPTI)<sup>29</sup> and apply the CAPTI framework to other transportation investments to prioritize allocation of transportation funding based on projects' climate, equity, and safety impacts (Action B).
2. **Double local transit coverage and service frequencies by 2030.** In order to reach the target mode shifts necessary to meet the State's carbon neutrality goal, the CTP 2050 recommends increasing investments in transit at all levels of government to double current levels of local transit coverage and frequency by 2030.<sup>30</sup> This type of improvement will amount to having transit stops much closer to where people need to go and offering (on average) 15-minute frequencies in urban areas, 30-minute frequencies in suburban areas, and 60-minute headways in rural areas for all services. These improvements would need to be developed in

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<sup>29</sup> California State Transportation Agency. *Climate Action Plan for Transportation Infrastructure*. Available at: <https://calsta.ca.gov/-/media/calsta-media/documents/capti-july-2021-a11y.pdf>

<sup>30</sup> California Department of Transportation. *California Transportation Plan 2050*, page 85. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

close collaboration with underserved communities across local jurisdictions to prioritize improving local accessibility to jobs, education, and other key services where needs are greatest. Beyond increasing service, additional investments also need to be made to ensure affordability for vulnerable communities and other target populations. One key action to advance this objective is establishing climate and equity requirements for future locally funded transportation sales-tax measures and lowering the voter approval threshold for sales-tax measures that only fund transit and active transportation solutions (Action C). Another key action would be removing California Constitution Article XIX restrictions on using gas tax monies for transit operational funding or other sustainable transportation-related uses (Action D).

3. **Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.** Providing efficient alternatives to the car for intercity travel is another important element for enabling car-free and car-light lifestyles that reduce VMT and advance equity for those who do not have the means to own a car. The California Transportation Plan 2050 (CTP 2050) identified the completion of the full 2018 State Rail Plan<sup>31</sup> vision by 2040 as a requirement to achieve the State's carbon neutrality goal.<sup>32</sup> This vision includes: the main HSR line connecting San Francisco, the Central Valley, and Los Angeles, and HSR extensions to Sacramento, the Inland Empire, and San Diego; the San Francisco Downtown Extension and a new Transbay tube; key corridor investments in the Los Angeles Basin; new regional services in the Central Valley, on the Central Coast, and in the North Bay; and an overall intensification of services, with more frequencies and higher speeds.<sup>33</sup>
4. **Expand and complete planned networks of high-quality active transportation infrastructure.** The other piece of the puzzle to achieve the target mode shift away from auto travel are active transportation mode users, such as bicyclists and pedestrians. The vision is to ensure every city has fully realized networks of active transportation infrastructure that ensure coverage, connectivity, accessibility, and safety to all travelers, making active transportation the preferred choice for short distance travel, and improving access to public transit services. These improvements should be developed in collaboration with community-based organizations and local leaders in order to prioritize the needs and priorities of historically marginalized and underserved communities. One key action to achieve this objective would be to require complete street enhancements, including

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<sup>31</sup> California Department of Transportation. *California State Rail Plan*. Available at: <https://dot.ca.gov/programs/rail-and-mass-transportation/california-state-rail-plan>

<sup>32</sup> California Department of Transportation. *California Transportation Plan 2050*, page 86. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

<sup>33</sup> The 2040 Vision projects 88 million daily passenger miles diverted to rail from highways, and an increase of 92 million daily passenger miles on rail as a result of the investments outlined in the California Department of Transportation's California State Rail Plan, page 14, available at: <https://dot.ca.gov/programs/rail-and-mass-transportation/california-state-rail-plan>



minimum space allocations for bicycle and pedestrian infrastructure, in all State-funded transportation investments (Action E). Another key action would be expanding State funding for active transportation projects to support a broader set of project types and investments than currently funded through the Active Transportation Program (Action F).

5. **Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.** Another area of opportunity to increase access to opportunities and overcome the financial burden of driving or using transit and new mobility services is to increase vulnerable communities' direct access to bikes, e-bikes, scooters, and other alternatives to light-duty vehicles. Similar to existing rebate programs for electric vehicles, the State and other levels of government could subsidize discounts or the full purchase of these alternatives to light-duty vehicles, considering their potential contributions to both reducing VMT and advancing equity goals. As is the case with other objectives shared above, these programs should be developed in close collaboration with community-based organizations and community members to prioritize specific needs and priorities of vulnerable communities at the local level. The State could show leadership in this area by increasing funding and expanding eligibility of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles in State incentive/rebate programs (Action G).
6. **Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.** The need to implement a replacement to the gas tax was identified by the Legislature in 2014 through Senate Bill 1077 (SB 1077) (DeSaulnier, Chapter 835, Statutes of 2014), which described the gas tax as an "ineffective mechanism for meeting California's long-term revenue needs."<sup>34</sup> SB 1077 appointed the CTC in consultation with CalSTA to form a technical advisory committee to study mileage-based fees – a system in which all drivers, regardless of the fuel used by their vehicles, pay their fair share for the road maintenance and repair needs associated with their VMT – as an alternative to the gas tax. Since then, the technical advisory committee has developed recommendations and implemented a first pilot; a more comprehensive pilot is scheduled for implementation in 2022 and should be completed no later than by 2025 (Action H). Implementing an alternative to the gas tax by 2030 is imperative to ensuring the viability of transportation funding that can be reinvested in sustainable transportation options.

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<sup>34</sup> It was projected at that time that as much as half of the revenue that could have been collected by 2030 would be lost due to ever-increasing fuel-efficiency standards. Since then, zero-emissions vehicles have become a market staple and growing in market share, and Governor Newsom issued Executive Order N-79-20 phasing out the sale of internal combustion engine vehicles by 2035.

### 3.1.3 Actions

To implement the stated objectives, the State will need to take many actions. Most immediately, the State should lead actions to:

- A. Adjust the present project pipeline of State transportation investments and reconfigure Caltrans planning processes to reimagine and rescope VMT- and GHG-increasing projects.
- B. Implement the full suite of recommendations in the CAPTI and apply the CAPTI framework to other transportation investments to prioritize allocation of transportation funding based on projects' climate, equity, and safety impacts.<sup>35</sup>
- C. Establish climate and equity criteria for future locally funded transportation sales-tax measures and lower the voter approval threshold for sales-tax measures that only fund transit and active transportation solutions.
- D. Remove California Constitution Article XIX restrictions on using gas tax monies for transit operational funding or other sustainable transportation-related uses.
- E. Require complete street enhancements, including minimum space allocations for bicycle and pedestrian infrastructure, in all State-funded transportation investments.
- F. Expand funding for active transportation projects to support broader set of project types and investments than currently funded through the Active Transportation Program.
- G. Increase funding and expand eligibility of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles in State incentive programs.
- H. Complete mileage-based fee pilots by 2025.

## 3.2 Strategy Area 2: Manage Use of the Transportation System to Advance Climate, Air Quality, and Equity Goals

In California, most of the highways, roads, and streets are utilized by single-occupancy vehicles (SOV),<sup>36</sup> which take up the highest amount of road space of any transportation mode relative to the amount of people moved.<sup>37</sup> Accordingly, the outcomes of this SOV-centric travel pattern are ever-growing levels of congestion, increasing VMT, economic

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<sup>35</sup> Review program eligibility criteria accordingly, and advocate for legislation to support the CAPTI vision when necessary.

<sup>36</sup> California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf)

<sup>37</sup> This concept is best demonstrated through images comparing road space usage by mode. See a popular example developed by i-SUSTAIN for downtown Seattle, available at: <https://www.i-sustain.com/i-impact>. The National Association of City Transportation Officials makes a similar case comparing the carrying capacity of 10-foot lane by mode, as seen in their Transit Street Design Guide, available at: <https://nacto.org/publication/transit-street-design-guide/introduction/why/designing-move-people/>.



inefficiency, and inequity in terms of who has easier access to jobs, services, and key destinations.<sup>38</sup>

As detailed in Strategy Area 1, building more highway lanes is not an answer to these problems. Instead, the solution requires reframing the use of California's transportation infrastructure, and primarily its roadways, to maximize and prioritize getting more people where they need to go rather than prioritizing moving cars. This shift would be effectuated by leveraging the existing infrastructure to optimize for accessibility, equity, and climate outcomes through prioritizing the needs of more efficient modes of transportation, such as transit, bicycling, and walking.

Authorizing transportation pricing strategies is essential to promote more efficient use of cars and to improve the impact of transit and active transportation improvements. Pricing strategies present an opportunity to fund the transportation system in a more equitable and fiscally sustainable way than current funding sources, promote more efficient functioning of existing infrastructure, and fund new transportation options, especially for those who do not own a vehicle or do not drive. Some recent analyses indicate California will not meet its climate goals without implementing equitable roadway pricing strategies as these strategies are projected to achieve up to 27 to 37 percent of the needed per capita VMT reduction.<sup>39</sup> The four largest metropolitan planning organizations have included multiple pricing strategies in their adopted sustainable communities strategies (SCSs) to reduce regional GHG emissions.<sup>40</sup> Pricing strategies would be implemented with an emphasis to ensure equitable outcome, and in accordance to local needs and context. In particular, pricing strategies need to take into account the potential choices available for vulnerable communities to ensure they are not unduly impacted by the strategy. Pricing strategies take many forms and can include fees for miles driven, cordon fees for operating vehicles in designated areas, parking fees, fees on congestion impact of ride-hailing services, and dynamic fees on highway lanes and other strategic roads to manage congestion.

Another critical strategy to improve the use of California's transportation system and prioritize people movement is to provide transit users, bicyclists, and pedestrians is to provide the necessary road space for these modes to thrive and serve as high-quality alternatives to driving. While roadway pricing would reduce congestion and facilitate the flow of local transit in general purpose lanes, the capacity of major thoroughfares and other key corridors would be restricted unless dedicated bus lanes, transit signal priority

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<sup>38</sup> Namely, those that can afford cars for all members of the household or the cost of housing in high accessibility locations.

<sup>39</sup> See Brown, A. L., Sperling, D., et al, 2021, "Driving California's Transportation Emissions to Zero," pages 237-253, UC Office of the President: University of California Institute of Transportation Studies, available at: <https://escholarship.org/uc/item/3np3p2t0> and California Department of Transportation, *California Transportation Plan 2050*, page 86, available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>.

<sup>40</sup> These metropolitan planning organizations are the Metropolitan Transportation Commission (MTC), the Sacramento Area Council of Governments (SACOG), the San Diego Association of Governments (SANDAG), and the Southern California Association of Governments (SCAG).

schemes, and other measures that enhance transit operations are also implemented. Likewise, it is essential to prioritize the expansion of bike lanes, sidewalks, and other active transportation pathways in order to increase system capacity and improve and accessibility for all.

### 3.2.1 Vision

To meet the State's carbon neutrality no later than 2045, and advance equity, California will have:

- A. A transportation system that clearly prioritizes the movement of people over cars.
- B. A restructured monetary cost equation for all modes to clearly represent the costs and benefits that each mode represents to California.
- C. The necessary road space for transit and active transportation to thrive and offer high-quality services.

### 3.2.2 Objectives

To achieve this vision, the State should lead efforts to:

1. **Implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.** These strategies should be evaluated for potential implementation according to local needs, travel patterns, and availability of alternative travel options, as opposed to a "one-size-fits-all" approach. Planning and implementation of these strategies should also prioritize delivering equitable improvements in accessibility for vulnerable communities and addressing the needs of lower-income residents who must drive due to the nature of their job or other basic responsibilities. One key action to advance this objective would be permitting the implementation of roadway pricing strategies by 2025 in support of adopted Sustainable Communities Strategies (Action A)
2. **Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.** Offering high-quality transit services that represent a viable alternative to the car will be a multipronged effort. The proposed investments to expand service coverage and increase frequencies will be ineffective if those transit vehicles end up stuck in traffic or have limited space to operate efficiently. Transit agencies and local jurisdictions across California should come together to identify, plan, and implement strategies to prioritize transit speeds and reliability over general roadway level of service and private car needs. Those strategies, which include capital investments in the strategic redistribution of the right-of-way, signaling, and supportive traffic regulations, ought to be given preeminence in federal and State funding programs and local investment plans. The State could show leadership in this space by permitting the conversion of general-purpose lanes to transit-only lanes or toll lanes, and full facility tolling of state-owned facilities (Action B). Another sign of State leadership would be to establish

requirements to demonstrate that addressing transit bottlenecks and other transit efficiency investments are a priority in local jurisdiction and transit agency investment plans as a requisite for overall transportation project funding eligibility (Action C).

3. **Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.** The goal of TDM is to provide people with information, incentives, and other support programs that help them utilize alternatives to solo-occupant driving, such as transit, ridesharing, bicycling, and walking infrastructure and rely less on cars. A strategic point of focus for TDM program implementation could be large employers (>100 employees), which often incentivize SOV travel by offering free parking, gas stipends, and similar perks, and do not offer significant levels of support to employees to take transit, ride their bicycle, or walk. As the State of California employs over 200,000 people, it can lead by example by expanding its own TDM programs, which currently vary by agency and employee union. Another strategic point of focus for TDM programs could be large developments, particularly new ones, that through decisions such as their location, parking infrastructure, and their treatment and general interaction with their surrounding environment ingrain high or low VMT travel patterns for decades to come. A sign of leadership in this area would be for the State to end its subsidies for employee parking and to take additional actions to move away from subsidizing public spaces for car parking more generally, while expanding efforts to promote pedestrian, bicycle, and transit travel (Action D).

### 3.2.3 Actions

To implement the stated objectives, the State will need to take many actions. Most immediately, the State should lead actions to:

- A. Permit implementation of a suite of roadway pricing strategies by 2025 in support of adopted Sustainable Communities Strategies.
- B. Permit conversion of general purpose lanes to transit-only lanes or toll lanes, and full facility tolling.
- C. Establish a requirement to demonstrate that addressing transit bottlenecks and other transit efficiency investments are a priority in local jurisdiction and transit agency investment plans as a requisite for overall transportation project funding eligibility.
- D. End State subsidies for employee parking and take additional actions to move away from subsidizing public spaces for car parking more generally, while expanding efforts to promote pedestrian, bicycle, and transit travel.

### 3.3 Strategy Area 3: Shape the Deployment of New Mobility Options

In the last 20 years, California has been a hub for the development of new mobility services, new technologies, and new business models for how local transportation services can be both provided and consumed. These include, among others: shared-use mobility services, such as car-share, ride-hailing, and micromobility services; app-based services for integrated trip planning, booking, and payment; and new travel technologies such as automated vehicles (AVs) and delivery robots and drones. These services have significantly improved mobility and access to opportunities for some people that do not own or want to rely on cars. However, without additional State actions these services could also increase VMT and GHG emissions and exacerbate equity issues related to access and costs.

Achieving carbon neutrality no later than 2045 will require leveraging the virtues of new mobility to offer high-quality alternatives to driving that reduce overall VMT, while mitigating its risks and negative impacts. For example, rather than competing with public transit, new mobility services could complement transit services, providing flexible options in locations and times of the day where and when fixed-route transit is not efficient, and facilitating trip planning, booking and payment for multimodal trips. Under this vision, no single mobility service aims to be the answer for the diverse needs of any given community or individual; instead, the goal is to foster a rich ecosystem of strategically integrated mobility services that deliver high-quality solutions in accordance with travelers' needs.

A critical step to achieving this vision will be managing and regulating the use of private autonomous vehicles (AVs) and AV-based taxi services. AVs could offer important access, safety, and network performance benefits, such as opening the use of private cars for people who cannot drive. However, if not properly regulated, they could increase VMT significantly<sup>41</sup> and compromise State climate and equity goals. According to modeling efforts conducted for the CTP 2050 and the University of California's "Driving California's Transportation Emissions to Zero" report, the arrival of AVs will be one of the main sources of VMT increase in California during the lifespan of this Scoping Plan update – the only question is by how much. Because AVs eliminate the need for a dedicated driver, they eliminate the labor costs of taxis and ride-hail services and enable individuals to conduct any number of activities (from working to resting) while traveling. This could make auto travel more convenient, cause people to shift away from public transit and non-motorized modes, and encourage people to live further from their destinations. Lastly, whether privately owned or as taxi services, AVs will have the ability to drop off passengers and either return to their owner's garage or roam around looking for new

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<sup>41</sup> Dennis, Eric Paul, Spulber, Adela, Kuntzsch, Rachel, & Neuner, Rory. 2017. "Planning for Connected and Automated Vehicles." Report for Greater Ann Arbor Region Prosperity Initiative. Available at: <https://www.cargroup.org/wp-content/uploads/2017/03/Planning-for-Connected-and-Automated-Vehicles-Report.pdf>

passengers with zero occupants, further increasing congestion and all its adverse impacts.

Another critical step is ensuring equitable access and equitable impact of new mobility options. So far, new mobility's track record on equity is mixed. On the one hand, new mobility has made new forms of travel more readily available for numerous people, increasing access to key destinations for communities with limited travel options. On the other hand, new mobility services have catered to more affluent customers and have been slow to offer special provisions for low-income customers, people with disabilities, low-English proficiency populations, leaving many behind from benefiting.

### 3.3.1 Vision

To meet the State's carbon neutrality goal no later than 2045, and advance equity, California will have:

- A. A transportation system that leverages the combined potential of new mobility, transit, and active transportation to offer efficient travel alternatives that enable car-free or car-light lifestyles for all.
- B. Seamless integration in trip planning, booking, and payment systems across all mobility providers, both public and private.
- C. A new mobility ecosystem that, as a whole, offers equitable access to all Californians regardless of race, income, age, disability, or language proficiency to live, work, and play with ease.

### 3.3.2 Objectives

To achieve this vision, the State should lead efforts to:

1. **Prevent an uninhibited growth of autonomous vehicle VMT, and particularly zero-passenger miles.** As detailed above, AVs may increase VMT significantly and pose a clear risk to meeting the State's climate goals. In response to this risk, the CTP 2050 recommends channeling the deployment of AVs to ensure that they are shared, electric, support efficient land use, and are aligned with key principles for healthy and sustainable communities.<sup>42</sup> This will require decisive action by the State, working with industry, to implement regulations, including pricing policies, that drive a more efficient use of AVs and limit their potential negative impacts. For example, the State could authorize pricing of empty/zero-passenger miles at higher rates than for other levels of occupancy (Action A).
2. **Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.** The State has demonstrated leadership in this area by implementing Senate Bill 1014 (SB 1014) (Skinner, Chapter 369, Statutes of 2018) and its associated Clean Miles Standard and

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<sup>42</sup> California Department of Transportation. *California Transportation Plan 2050*, page 120. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

Incentive Program,<sup>43</sup> which encourages ride-hail services to provide pooled services<sup>44</sup> and enable connections to transit. Additional funding and synergistic policy initiatives could help strengthen those use cases through lower rates, integrated fares, and strategic fleet deployments. Other new mobility options, such as carshare and micromobility services, among others, could also be encouraged to pursue partnerships with transit providers, as well as to curb the VMT impact of their operations (Action B). Similarly, there could also be opportunities to optimize the VMT impact of delivery service providers while upholding service quality.

**3. Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.**

While the arrival of new mobility services has increased access to destinations for certain populations, their potential to contribute system-wide impacts that reduce VMT relies on their ability to operate in an integrated manner with public transit services, as well as amongst each other. The foundation for this integration is customers' ability to review schedules and availability, plan multimodal trips, book rides, pay fares, and access discounts in integrated platforms that bring together the universe of mobility services in any given region. Caltrans, through the California Integrated Travel Project (Cal-ITP),<sup>45</sup> aims to develop a statewide system that enables those multimodal connections, while some transit agencies are also conducting their own pilots on this front. These initiatives need to receive all the necessary resources to continue building and aligning their visions, to ultimately break down existing silos between providers and regions, create a consistent statewide structure, and ensure easy access to a multimodal ecosystem of mobility services for all (Action C).

**4. Provide financial support for vulnerable communities' use of transit and new mobility services.**

Transit agencies throughout California offer reduced fares for low-income people and other disadvantaged populations; however, no matter the location, or the quality of the local public transit system, transit services cannot offer an efficient solution to all travel needs for any individual. This is particularly true for low-income people that often have less traditional work schedules or work or reside in places that do not align with high-quality public transit services, and commonly forces people to travel by car even though they cannot easily afford it. New mobility could be the solution for many of these people, given service availability during extended hours and their potentially larger geographic reach. Unfortunately, the cost of new mobility services can be prohibitive, especially if used frequently. The key to unlocking this potential will

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<sup>43</sup> California Air Resources Board. Accessed May 5, 2022. Clean Miles Standard. Available at: <https://ww2.arb.ca.gov/our-work/programs/clean-miles-standard>

<sup>44</sup> Pooled is an industry term used to refer to when multiple passengers that are not traveling together share a ride-hail vehicle.

<sup>45</sup> California Department of Transportation. Accessed May 5, 2022. CAL-ITP: A modern and consistent transportation experience throughout California. Available at: <https://www.calitp.org/>



be to develop and scale up programs to subsidize free or reduced fares on new mobility services to vulnerable communities. Some jurisdictions in California are already piloting this idea, by extending a “mobility wallet,” which provides a monthly budget that eligible users can apply to transit and new mobility services. The State could demonstrate additional leadership on this front by increasing funding to support vulnerable communities’ use of transit and new mobility services and streamlining its operational support for “mobility wallet” programs (Action D).

5. **Expand universal design features for new mobility services.** There is a large community of Californians with disabilities that cannot drive, jump on the passenger seat of a regular car without assistance, operate a regular bike, or use conventional smart phone applications; yet, the new mobility industry, with some exceptions aside, seems to be growing without addressing the needs of these members of the state’s population. For example, micromobility services lack inclusive alternatives such as tricycles, hand-pedaled cycles, or recumbent bicycles; ridehail services do not offer equivalent quality of service on wheelchair accessible vehicles; mobile phone apps may not be Americans with Disabilities Act (ADA) compliant. Addressing these issues and more is a crucial goal to advance equity and a more inclusive society and may also reduce reliance on often-strained paratransit services and costly private vehicles. New regulations, incentive programs, and pricing strategies could elevate universal design standards for new mobility providers, including support of and access to adaptive modes that are designed for people with disabilities and that can carry equipment like wheelchairs (Action E).

### 3.3.3 Actions

To implement the stated objectives, the State will need to take many actions. Most immediately, the State should lead on actions to:

- A. Authorize pricing of empty/zero-passenger miles at higher rates than for other levels of occupancy
- B. Develop and adopt regulations and incentive programs that encourage new mobility providers to prioritize higher occupancy use, transit partnerships, and lower VMT impact.
- C. Develop and adopt strategies to develop a statewide open system architecture for trip planning, booking, payment and user accounts that is adopted by all mobility providers.
- D. Increase funding to support vulnerable communities’ use of transit and new mobility services and streamline operational support for “mobility wallet” programs.
- E. Require all new mobility providers to meet minimum fleet percentages of adaptive devices and placement requirements.

### 3.4 Strategy Area 4: Improve Alignment of Land Use Planning and Development with Climate and Equity Goals

Achieving carbon neutrality no later than 2045 requires land use planning development activities that are consistent with and advance the State Planning Priorities<sup>46</sup> by significantly augmenting growth in transportation-efficient, resource-rich, accessible, and inclusive communities for all Californians. This vision is aligned with the CTP 2050's and University of California researchers' latest modeling and analyses,<sup>47</sup> which indicate that California would not meet its climate goals without future growth in population and employment happening primarily within the state's most dense areas, and improving the balance of housing, employment, shopping, and other key services within any given community. Although regional metropolitan planning organizations (MPOs) create SCSs pursuant to SB 375 that identify how the region may accommodate its growth in patterns that help meet GHG reduction targets set by CARB, these plans are not being fully implemented.<sup>48</sup>

Implementing SCSs and moving towards improved planning frameworks would address the fact that local land use policies and development practices across California have often favored low-density, single-family zoning, and auto-oriented development patterns, and carry the legacy of racist covenants and lending practices from the past.<sup>49</sup> These practices have resulted in restricted infill development, limited access to opportunity, and

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<sup>46</sup> The State Planning Priorities generally include (1) promoting infill development, (2) protecting natural and working lands, and (3) encouraging efficient development patterns and investments that are consistent with adopted plans in areas appropriately planned for growth. The State Planning Priorities are "intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety in the state, including in urban, suburban, and rural communities" The full text of the State Planning Priorities is defined in California Government Code §§ 65041.1. "Statewide Environmental Goals and Policy Report." Available at:

[https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1)

<sup>47</sup> See Brown, A. L., Sperling, D., Austin, B., DeShazo, JR, Fulton, L., Lipman, T., et al. 2021. "Driving California's Transportation Emissions to Zero." UC Office of the President: University of California Institute of Transportation Studies, page 236. Available at: <https://escholarship.org/uc/item/3np3p2t0> and California Department of Transportation. *California Transportation Plan 2050*, page 287. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>

<sup>48</sup> California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf)

<sup>49</sup> California Environmental Protection Agency. 2021. *Pollution and Prejudice: Redlining and Environmental Injustice in California*. Available at: <https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5>.



disinvestment in existing neighborhoods for decades.<sup>50,51,52</sup> As such, they have played a key role in furthering auto-dependence, rising GHG emissions, and growing inequity in California's communities.

The dynamics at play, and hence the opportunities for improvement, are far reaching. For example, barriers to infill development have been a key factor fueling California's housing crisis, now a half century in the making. After decades of underproduction, supply is far behind need, and housing and rental costs are soaring. Today, more than a third of households in the state cannot afford their housing costs,<sup>53</sup> forcing a growing number of households to either end up in more remote locations with more affordable housing but more limited access to jobs, shopping, and other regular destinations, or to live in overcrowded conditions.

To deliver an alternative vision, the first critical step is to implement tools and resources that accelerate infill development. Notwithstanding the recent passage of laws that expand property owners' ability to create multiple units on single-family lots and limit local government's ability to block new housing in certain circumstances, many barriers to infill development remain in place. One critical barrier is the high cost of infill development, considering the high costs of urban land prices, parking requirements, construction costs, and the necessary infrastructure upgrades to make sites development-ready.<sup>54</sup> Local jurisdictions – particularly since the elimination of redevelopment agencies in California<sup>55</sup> – do not have the fiscal capacity to take on these costs at the required scale. Insufficient land may be zoned for housing, and developers may have to navigate a variety of numerous and opaque regulatory hurdles in the local approval process.<sup>56</sup> Implicit and covert biases in real estate practices, and deliberate action from incumbent residents who are resistant to new residents and neighborhood change, also represent important obstacles to infill development, and perpetuate present-day neighborhood disparities.

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<sup>50</sup> California Air Resources Board. 2020 *Mobile Source Strategy*, page 107. Available at: [https://ww2.arb.ca.gov/sites/default/files/2021-12/2020\\_Mobile\\_Source\\_Strategy.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf).

<sup>51</sup> Jaffe, E. 2016. "Where Sprawl Makes It Tougher to Rise Up the Social Ranks." Bloomberg. Available at: <https://www.bloomberg.com/news/articles/2016-01-27/where-urban-sprawl-makes-it-tougher-for-the-poor-to-rise-up-the-social-and-economic-ranks>.

<sup>52</sup> Lucas, K. 2012. "Transport and social exclusion: Where are we now?" *Transport Policy*, 20, 105-113.

<sup>53</sup> One in three households in the state doesn't earn enough money to meet their basic needs, per the Statewide Housing Plan. California Department of Housing and Community Development. 2022. *Statewide Housing Plan*. Available at: <https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf>

<sup>54</sup> California Department of Housing and Community Development. 2022. *Statewide Housing Plan*. Available at: <https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf>

<sup>55</sup> There are replacements to redevelopment, such as Enhanced Infrastructure Financing Districts (EIFDs), the Infill Infrastructure Grant Program (IIG), and impact fees; they are just much smaller, not widely utilized, and may offer their own barriers.

<sup>56</sup> California Department of Housing and Community Development. 2022. *Statewide Housing Plan*. Available at: <https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf>

Another critical step is to accelerate production of a greater diversity of housing types in climate-smart locations. According to the latest Statewide Housing Plan (SHP), California must build more than 2.5 million new homes in the current eight-year housing need cycle, and no fewer than one million of those homes must meet the needs of lower-income households.<sup>57</sup> The State's vision, as articulated in the SHP, is to provide these homes in climate-smart areas, areas with high access to opportunities and services that reduce the need to drive and mitigate climate change, while also reducing costs to government in infrastructure development, operations, and maintenance. Efforts to accelerate housing production should be complemented with bold initiatives to preserve existing affordable housing and protect vulnerable communities through continuation of expiring affordability covenants, anti-displacement and tenant protection services and resources, and climate adaptation upgrades to existing affordable housing.<sup>58</sup>

### 3.4.1 Vision

The vision for meeting the State's carbon neutrality goal no later than 2045, and advance equity, California will have:

- A. Future growth focused on infill sites and other climate-smart, transportation-efficient areas appropriately planned for growth.<sup>59</sup>
- B. The ability for every Californian to live, work, and play in climate-smart, transportation-efficient communities that provide travel choices and access to opportunity.<sup>60</sup>

### 3.4.2 Objectives

To achieve this vision, the State should:

1. **Accelerate infill development in existing transportation-efficient places, and deploy strategic resources to create more transportation-efficient infill locations.** To increase investment in under-resourced communities, and expand access to high-resource neighborhoods, a combination of the following actions should be pursued: i) providing financial and educational tools, resources, and

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<sup>57</sup> California Department of Housing and Community Development. 2022. *Statewide Housing Plan*. Available at: <https://www.hcd.ca.gov/docs/statewide-housing-plan.pdf>

<sup>58</sup> Potential conversion of affordable housing to market-rate housing is an ongoing and critical statewide problem. In California, there are approximately 149,000 units of privately owned, federally assisted, multifamily rental housing, plus additional tax-credit and mortgage-revenue bond properties, many with project-based rental assistance. A large percentage of these units may convert to market rate as subsidy contracts or regulatory agreements expire. These at-risk units are home to seniors and families with lower incomes who cannot afford to pay market-rate rents and who could be displaced if the developments convert. More info: <https://www.hcd.ca.gov/policy-research/preserving-existing-affordable-housing.shtml>.

<sup>59</sup> Building on the State's Planning Priorities as defined in California Government Code §§ 65041.1. "Statewide Environmental Goals and Policy Report." Available at: [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1)

<sup>60</sup> Building on California Department of Housing and Community Development's vision statement. Available at: <https://www.hcd.ca.gov/about/mission.shtml>.

incentives; ii) streamlining review processes; iii) strengthening regulations protecting natural and working lands; iv) facilitating collaboration with key partners; and v) providing and requiring anti-displacement protections for existing residents and businesses. The State could show leadership in this area by committing more State funding for existing and new programs supporting predevelopment work and infrastructure improvements that accelerate climate-smart and equitable infill development (Action A), while also eliminating State funding of infrastructure, development, or leases outside of infill areas that do not demonstrate clear alignment with State guidelines on VMT, climate, and equity outcomes. (Action B). Additionally, the State could expand tax increment financing options and other financing tools for infill-supportive infrastructure (Action C). Finally, the State could encourage the utilization of underutilized public sites for mixed-use development or multi-modal transportation facilities (Action D).

2. **Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).** SCSs illustrate future land use and transportation changes that would lead to reductions in VMT and GHG emissions to meet the regional GHG emission reduction targets set by CARB. However, as noted earlier, SCS implementation is lagging significantly across the state. As detailed in the California Transportation Assessment Report (pursuant to AB 285), metropolitan planning organizations, who develop the SCS plans, do not have adequate instruments to implement them and ensure alignment of local land use decisions – as reflected in cities’ and counties’ general plans – with the SCSs. The goal of this objective is to strengthen regional plan implementation and the ability to achieve regional GHG targets. Advancing California’s regions’ vision for accelerating infill development and housing production will require a collective discussion about establishing more coordinated MPO-local government relationships that lead to codifying those regional visions into land use plans and regulations at the local level.<sup>61</sup> The State could support those efforts by establishing a requirement that all local general plans demonstrate consistency with the assumptions and growth allocations in regional RTP/SCSs at least every 8 years consistent with existing RHNA and housing element update timelines (Action E). Another key action by the State could be to explore measures to ensure or require greater consistency and alignment between regional RHNA allocations, SCSs, and regional plans such as strategic planning that prioritizes green space and conservation, and encourage greater integration of state housing and conservation policy priorities to minimize/prevent conflict (Action F).
3. **Accelerate production of affordable housing in forms and locations that advance VMT reduction and affirmatively further fair housing policy objectives.** Key actions will include easing local and State barriers to increasing density,

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<sup>61</sup> This type of coordination would also address the need for continued accountability in existing housing laws regarding additional density, affordability, and infill under the purview of California Housing and Community Development Department’s Housing Accountability Unit or the Department of Justice.

encourage greater diversity of housing types in existing neighborhoods. For example, the State could lead the way by further easing California Environmental Quality Act (CEQA) barriers to increasing density and streamlining affordable housing development, especially in transportation-efficient areas, and establishing protections in law against local actions to prevent developments that advance State equity and climate goals, including preemption of voter initiatives (Action G). Similarly, the State could support scaling up production of factory-built housing to reduce the time and costs to build, including investing in workforce development, boosting participation in the construction industry, and establishing labor standards, in order to reduce the time and cost of delivering multifamily infill housing and accelerate the infill housing pipeline (Action H). Another key action would be leveraging the State's Prohousing designation by expanding incentives in State funding programs – including transportation and other non-housing programs – for local jurisdictions to adopt prohousing policies to increase infill housing and VMT reduction (Action I). Affordable housing should be prioritized in many types of communities, including those that are already resource-rich and transportation-efficient. Additionally, affordable housing should be coordinated with supportive community investments in under-resourced communities.

4. **Reduce or eliminate parking requirements (or enact parking maximums, as appropriate) and promote replacement of excess parking in infill locations.** Building parking for infill development makes infill costs more prohibitive, considering parking can increase costs by up to \$100,000 per stall, which takes away both physical space and budget from the construction of housing and other needed services and amenities. Yet requirements for parking in new developments are regularly set by local jurisdictions, financiers, or others. Particularly where viable transportation alternatives are available, eliminating parking requirements and/or providing a "cap" on allowable parking can make infill development more financially feasible and also more conducive to lowering VMT. Measures to reduce parking in new developments can also be paired with funding or incentives for car share, electric vehicles, electric bikes and scooters, and other driving alternatives. Additionally, financing and incentives can facilitate conversion of excess parking to housing and other strategic uses for communities (Action J).
5. **Preserve and protect existing affordable housing stock, and protect existing residents and businesses from displacement and climate risk.** Identifying and preserving the existing affordable housing stock – both subsidized and "naturally occurring" affordable housing – is key to maintaining the accessibility and vitality of existing communities while investing in new development, and ensuring that vulnerable communities are not displaced when new infill development occurs. Additionally, preserving all types of affordable housing requires climate mitigation and adaptation improvements to ensure the future safety and viability of those residences. One action the State could undertake could be to identify potential changes to federal and State policies to increase incentives to preserve existing affordable housing, implement climate adaptation improvements to existing

affordable housing, and reduce and mitigate displacement of existing vulnerable communities (Action H).

### 3.4.3 Actions

To implement the stated objectives, the State will need to take many actions. Most immediately, the State should lead on actions to:

- A. Commit more State funding for existing<sup>62</sup> and new programs supporting predevelopment work and infrastructure improvements that accelerate climate-smart and equitable infill development.
- B. Eliminate State funding of infrastructure, development, or leases outside of infill areas that do not demonstrate clear alignment with State guidelines on VMT, climate, and equity outcomes. (For examples of this, see Appendix D (Local Actions)).
- C. Expand tax increment financing options and other financing tools for infill-supportive infrastructure (e.g., water, sewer, electrical, telecommunications, active transportation, urban greening, and parks). These financing tools should be directed to support affordable housing, local businesses, neighborhood services and amenities, and other community-identified priority projects, with a focus on under-resourced and disinvested communities.
- D. Encourage the utilization of underutilized public sites for mixed-use development or multi-modal transportation facilities.
- E. Establish a requirement that all local general plans demonstrate consistency with the assumptions and growth allocations in regional RTP/SCSs at least every 8 years consistent with existing RHNA and housing element update timelines.<sup>63</sup>
- F. Explore measures to ensure or require greater consistency and alignment between regional RHNA allocations, SCSs, and regional plans such as strategic planning that prioritizes green space and conservation, and encourage greater integration of state housing and conservation policy priorities to minimize/prevent conflict.
- G. Further ease local regulatory and California Environmental Quality Act (CEQA) barriers to increasing density and streamlining affordable housing development, especially in transportation-efficient areas, and establish protections in law against

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<sup>62</sup> Examples of existing programs: <https://www.hcd.ca.gov/infill-infrastructure-grant>, <https://hcd.ca.gov/regional-early-action-planning>, and <https://www.hcd.ca.gov/transit-oriented-development>.

<sup>63</sup> Note that this requirement should not preclude a local government from having a more compact development pattern in its general plan than the one included in its regional plan (so long as the local government is accommodating its expected share of regional growth). Instead, the requirement is about restricting a local government from assuming growth into new areas beyond what is assumed in an adopted regional plan. If the community is not located in an area with an MPO, the consistency requirement should be interpreted as consistency with the State's Planning Priorities as defined in California Government Code §§ 65041.1. "Statewide Environmental Goals and Policy Report." Available at: [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV&sectionNum=65041.1)

obstruction tactics to prevent developments that advance State equity and climate goals, including preemption of voter initiatives.<sup>64</sup>

- H. Scale-up factory-built housing production, including investing in workforce development, boosting participation in the construction industry, and establishing labor standards, in order to reduce the time and cost of delivering multifamily infill housing and accelerate the infill housing pipeline.
- I. Expand incentives in State funding programs – including transportation and other non-housing programs – for local jurisdictions to adopt prohousing policies to increasing infill housing and VMT reduction.
- J. Develop financing and incentives programs that facilitate conversion of excess parking to housing and other strategic uses for communities.
- K. Identify potential changes to federal and State policies to increase incentives to preserve existing affordable housing, implement climate adaptation improvements to existing affordable housing, and reduce and mitigate displacement of existing vulnerable communities.

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<sup>64</sup> Building on concepts set by Senate Bill 9 (SB 9) (Atkins, Chapter 162, Statutes of 2021) and Senate Bill 10 (SB 10) (Wiener, Chapter 163, Statutes of 2021) regarding ministerially approving urban lot splits, second dwelling units, and the increasing density around transit-rich areas.