Ventura County Comprehensive Transportation Plan

FINAL DRAFT:
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EXECUTIVE SUMMARY

The Ventura County Transportation Commission (VCTC) is the regional transportation planning agency for Ventura County. A key element of fulfilling this responsibility is defining a vision and strategy for the long-term development of the transportation network. Access to convenient, safe, and affordable multimodal transportation options is crucial to the quality of life in Ventura County. The transportation network allows people to access employment, housing, education, shopping, and recreation opportunities. Ensuring the efficient and effective ongoing operation of this network is central to VCTC's mission.

The Ventura County Comprehensive Transportation Plan (CTP) establishes the vision for mobility in Ventura County to plan for the next 20 to 30 years. It identifies how VCTC and local agencies will respond to current and future transportation needs. The CTP is built on community engagement to ensure the transportation network will continue to evolve to serve the people of Ventura County.

This Executive Summary weaves together community input and technical analysis completed during the development of the CTP. It then highlights how these sources informed the development of the CTP's three future transportation network scenarios and their associated packages of projects to meet the goals of the CTP. Finally, it presents a path forward for implementation of the plan and pursuit of additional funding to advance the identified projects and programs.

Plan Purpose

VCTC adopted the county's first CTP in 2013 and in the past 10 years, Ventura County has seen numerous changes in how, when, and why people choose to travel. The COVID-19 pandemic had a profound impact on transportation and mobility, dramatically increasing telework and telecommuting activities, impacting transit ridership, and increasing demand for active modes of transportation. The share of people working from home more than doubled from 6.1% in 2019 to 14.2% in 2023 according to American Community Survey data from the US Census Bureau. Significant advancements in transportation technology, particularly with electric vehicles, transportation data sources, and mobility-as-a-service (MaaS), have changed how people choose to move. Altogether, these various influences require VCTC to think creatively and proactively about how Ventura County's transportation network needs to evolve to continue to serve mobility needs in the county. The CTP identifies the major challenges to meet the county's diverse needs and outlines potential solutions by presenting a detailed set of projects and programs designed to help address the community's transportation issues.

The CTP is a long-range planning document, and the projects identified are intended to be implemented over the next 20-30 years. The plan is a key input for VCTC and Ventura County to the Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS) prepared by the Southern California Association of Governments (SCAG). The RTP/SCS lays out the long-range plan for transportation for the six-county SCAG region and is the primary tool for pursuing and identifying funding for key transportation projects and documenting how the SCAG region plans to meet State-mandated goals and targets for reductions in emissions and vehicle miles traveled (VMT).

The CTP's purpose is aligned with regional and statewide goals centered on increasing access to multimodal transportation options, reducing reliance on single occupancy vehicle travel, reducing VMT, and providing residents in the region with more mobility choices. This approach will help ensure that Ventura County plays a part in helping the region achieve its mobility goals, while also better positioning projects in Ventura County for future funding opportunities.

Opportunities and Challenges

Opportunities

Changes in how people want to move and the technology available to facilitate and support movement have a profound impact on long-range transportation planning. New technologies provide people with access to more transportation choices. The future of mobility presents opportunities to reduce reliance on single occupancy vehicle trips and internal combustion engine technology, resulting in lower VMT and emissions reductions to help Ventura County play its role in meeting key State and regional targets related to climate change. Key opportunities in Ventura County related to transportation and mobility include:

- Increasing support for transit and active transportation – Through the community engagement effort conducted in support of the CTP, community members expressed strong interest in providing safer and better-connected infrastructure for walking and bicycling and making transit more convenient through the provision of faster, more frequent service. Chapter 4 highlights this input in more detail.

- Increasing State transportation funding levels – Funding transportation improvements through the State of California has increased over the past several years. This funding is targeted towards transit and multimodal transportation projects that are consistent with the State's climate change mitigation, safety, and mobility goals.

- Electrification of vehicle travel – The pace of adoption of electric vehicles in California is increasing and combined with State mandates related to the sale of new vehicles. There is a need to have the infrastructure available to support electric vehicle charging.

- Economic Opportunity – Ventura County is home to two large key employers with unique transportation needs – the Port of Hueneme and Naval Base Ventura County (NBVC). As these facilities evolve in the

future, the transportation network should incorporate improvements to better serve the mobility and goods movement needs of these facilities.

Meeting Challenges

Transportation challenges in Ventura County have evolved since the 2013 CTP was completed. The county is experiencing slowing population growth, an aging population, and funding limitations that will challenge the ability of VCTC and local agencies to not only enhance the transportation network, but also to maintain the existing network at a high-quality level. Key challenges are noted below:

- Slowing population growth – The overall population of Ventura County is forecast to remain relatively stable between now and 2050. This is a substantial change from previous forecasts that projected a significant population increase. This change has implications for travel demand, funding availability, and mobility needs.

- An aging population – By 2050, one in five Ventura County residents is forecast to be over age 70, up from the current one in ten. Shifting demographics will likely create new demands related to the use of transit and paratransit services and change how residents think about mobility choices.

- Declining transit ridership – Prior to the COVID-19 pandemic, bus transit ridership levels within Ventura County and on the Metrolink Ventura County Line were in decline. The pandemic accelerated these declines, and ridership has yet to fully recover from pandemic lows for some operators in the county. This creates a need to rethink how transit services are delivered in Ventura County and how transit can continue to fill a role in helping to meet future mobility needs.

- Limitations on local funding – Ventura County is the only county within the SCAG region without its own dedicated local transportation funding source. The absence of a local funding source dedicated to transportation creates three primary headwinds on improving the local transportation network. First, existing local funding for transportation must compete with other non-transportation priorities, and funding levels from year-to-year may not be consistent. Second, dedicated transportation funding from other sources – such as the gasoline tax – is declining due to changes in how much people are driving and increases in fuel efficiency and zero emission vehicles. Third, without a dedicated local funding source, VCTC and local agencies are likely less competitive when pursuing outside sources of funding. A dedicated local transportation funding source can help to make applications to pursue grant funding at the State and Federal level more competitive.

  Balancing VMT and intersection level of service – Implementation of SB 743 transitions away from Level of Service (LOS) to using VMT as the primary metric for evaluating the environmental impact of the transportation system. This separates the operational performance of roadways from its environmental impact. Because of this, improvements to roadway and freeway operations and reducing traffic delays cannot be justified as improving environmental conditions, and in many cases, can induce more vehicle travel and worsen environmental conditions.

Transportation System Efficiency

Improved transportation systems support faster, more reliable transportation from one place to another and reduce costs for personal travel and the delivery of goods and services.

Economic Role of the Transportation System

Investing in our infrastructure can strengthen our long-term productive capacity while creating opportunity in disadvantaged communities.[1]

[1] https://home.treasury.gov/news/featured-stories/infrastructure-investment-in-the-united-states

The transportation system is critical to the economy through infrastructure and sector output, economic diversification and technological innovation.[2] Infrastructure investment has perhaps the most dramatic effects on production costs and profitability in the agricultural sector, a major component of the economy of Ventura County.

Transportation improvements affect both economic development and productivity. Economic development results in improved access to labor pools, investment in new or expanded enterprises in the County, and access to larger markets. According to the US Census, in 2022, 200,000 workers lived and worked in the county, an equal number commuted to jobs outside of the county and approximately 115,000 workers commuted to the county.

Table ES-1: Worker Internal, Inflow and Outflow Commute Patterns in Ventura County

Internal, Inflow and Outflow Pattern	Employed in Ventura County / Live in County	Live in County but Employed Outside of County	Employed in Ventura County / Live Outside County
Daily Worker Commutes	201,000	202,000	117,000
Share of Workers	39%	39%	23%

Source: US Census, OnTheMap 2022 Inflow/Outflow

This intercounty flow, as compared to other counties in the greater Central Coast and southern California region, places Ventura County among the lowest for internal commuting. The County has similar travel patterns to the other counties adjacent to Los Angeles County, however, the topography of the Santa Susana Mountains and limited transportation connections as compared to other counties presents unique challenges to meet the needs of travelers.

In real terms, across the seven counties the flow of people is substantial with six million commuters staying within their counties and three million commuters leaving their counties to work in adjacent counties.

Table ES-2: Worker Internal, Inflow and Outflow Commute Patterns in Seven County Region

County	Internal Commute	Employed Outside County	Live Outside County
Ventura	39%	39%	23%
Los Angeles	63%	21%	16%
Santa Barbara	47%	24%	29%
San Luis Obispo	49%	27%	24%
San Bernardino	33%	37%	30%
Riverside	36%	41%	23%
Orange	42%	24%	34%
Average of Seven Counties	51%	26%	23%

Source: US Census, OnTheMap 2022 Inflow/Outflow

Environmental Role of the Transportation System

California's transportation sector accounts for about 50 percent of the state's greenhouse gas emissions, nearly 80 percent of nitrogen oxide pollution, and 90 percent of diesel particulate matter pollution.[3]

Balanced Investment in the Transportation System

Balancing investment in the transportation system can better serve travelers in the county by providing greater opportunities to historically disadvantaged communities, options for travel by different modes and support more livable communities.

Transportation System Safety

Mistakes and unforeseen events happen in a transportation system and human bodies have limited ability to tolerate crash impacts. A "Safe Systems" approach to transportation applies the following principles: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial. Application of these principles by federal, state and local transportation agencies has led to better crash outcomes. In the past five years, there were 270

[2] https://ops.fhwa.dot.gov/freight/freight_analysis/econ_methods/comp_lit/sec_2.htm

[3] https://www.energy.ca.gov/about/core-responsibility-fact-sheets/transforming-transportation

fatalities and 1,300 serious injuries to drivers, passengers, pedestrians and bicyclists on the county's roadway system—an average of 54 fatalities and 260 injuries per year. 30 percent of collisions occurred on the state highway system (US 101, State Routes 1, 23, 33, 34, 118, 126, 150 and 232). Collisions involving pedestrians and bicycles, often with severe injury outcomes, accounted for 12 percent of total collisions in the County.

The cost of these lost and changed lives is immeasurable to the individuals and their families. Using an economic quantification through the US Department of Transportation's Benefit/Cost Analysis Guidance[4], the annual economic loss due to these injuries is $1.7 billion per year in Ventura County.

Plan Goals/Vision

To respond to the opportunities and challenges noted above, the CTP development process included an extensive and inclusive community engagement effort to provide Ventura County residents with numerous opportunities to provide input and commentary about what issues were important to them regarding transportation and mobility and what the goals of the CTP should be to help address these needs. This engagement effort led to the identification of five goals, along with supporting objectives, for inclusion in the CTP.

The CTP goals and corresponding objectives include:

- **Goal 1: Balance Transportation and Land Use**
  - Principle 1.1: Foster a diversity of land uses that improve ease of access to housing, employment, recreation, and other needs
  - Principle 1.2: Integrate transportation and land use planning to encourage walking, cycling and transit
  - Principle 1.3: Enhance transit services to encourage growth to locate within high-quality transit areas (HQTAs)
  - Principle 1.4: Improve active transportation facilities and infrastructure between residential and commercial zones
- **Goal 2: Reduce Emissions and Improve Sustainability**
  - Principle 2.1: Ensure availability of electric vehicle (EV) supportive infrastructure
  - Principle 2.1: Reduce vehicle miles traveled per capita
  - Principle 2.3: Encourage travel using low or zero emissions modes for more trips
- **Goal 3: Foster Economic Prosperity**
  - Principle 3.1: Provide residents with affordable access to opportunities for employment, education, and social services
  - Principle 3.2: Improve the efficiency of freight movements while mitigating potential adverse impacts on local communities
- **Goal 4: Improve Multimodal Mobility Choices and Access to Destinations**
  - Principle 4.1: Provide integrated and seamless travel connections between modes
  - Principle 4.2: Reduce transit travel times, making them more competitive with private auto travel
  - Principle 4.3: Support a range of multimodal trip options to access key destinations
- **Goal 5: Enhance Transportation Safety to Eliminate Deaths and Serious Injuries**
  - Principle 5.1: Reduce the number of serious injury collisions year over year with a target of zero fatal or severe injuries from the transportation system
  - Principle 5.2: Improve design and operations to ensure people feel safe using the transportation system
  - Principle 5.3: Improve safety outcomes for vulnerable users of the transportation system

[4] USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs, November 2024. accessed January 2025

Shaping the Plan

Technical analysis of existing and future baseline transportation conditions in Ventura County was combined with review and analysis of input received from community members through the engagement process to shape an understanding of transportation needs within the county over the next 20 to 30 years. These two sources of information and input informed the development of the future scenarios, projects and programs presented in Chapter 7. Highlights of the technical analysis and community input are presented below.

Existing Conditions

The CTP includes a detailed analysis of existing conditions for transportation and mobility in Ventura County to inform future investment decisions.

Travel Patterns

Examining travel patterns and trip origins and destinations provides valuable input into understanding where and how people travel.

According to VCTC 2016 origin-destination data, approximately 2.1 million daily trips occur within Ventura County. Of these, 1.85 million daily trips (88%) are internal trips, meaning they start and end in Ventura County, and do not leave the county. The remaining approximately 260,000 daily trips (12%) are cross-border trips, or trips that cross the county border but originate or end inside Ventura County. Table ES-1 highlights the VMT generated by these internal and external trips, as well as the average length of trips during the different daily time periods.

A key observation in Table ES-1 is while trips to and from points external to Ventura County accounted for 12% of total daily trips, these trips are responsible for 40% of the daily VMT. This condition highlights a need to support use of regional commuter rail and transit options to reduce the reliance on automobile trips for intercounty travel and to provide access to housing near employment and other opportunities within the county.

Table ES-3: Daily Vehicle Miles Traveled for Trips to/from Ventura County

METRIC	INTERNAL	EXTERNAL	TOTAL
Total Daily Trips	**1.85 million**	**260,000**	**2.1 million**
Percent of Total Daily Trips	88%	12%	100%
Average Daily VMT	10.4 million	6.9 million	17.3 million
Percent of Daily VMT	60%	40%	100%

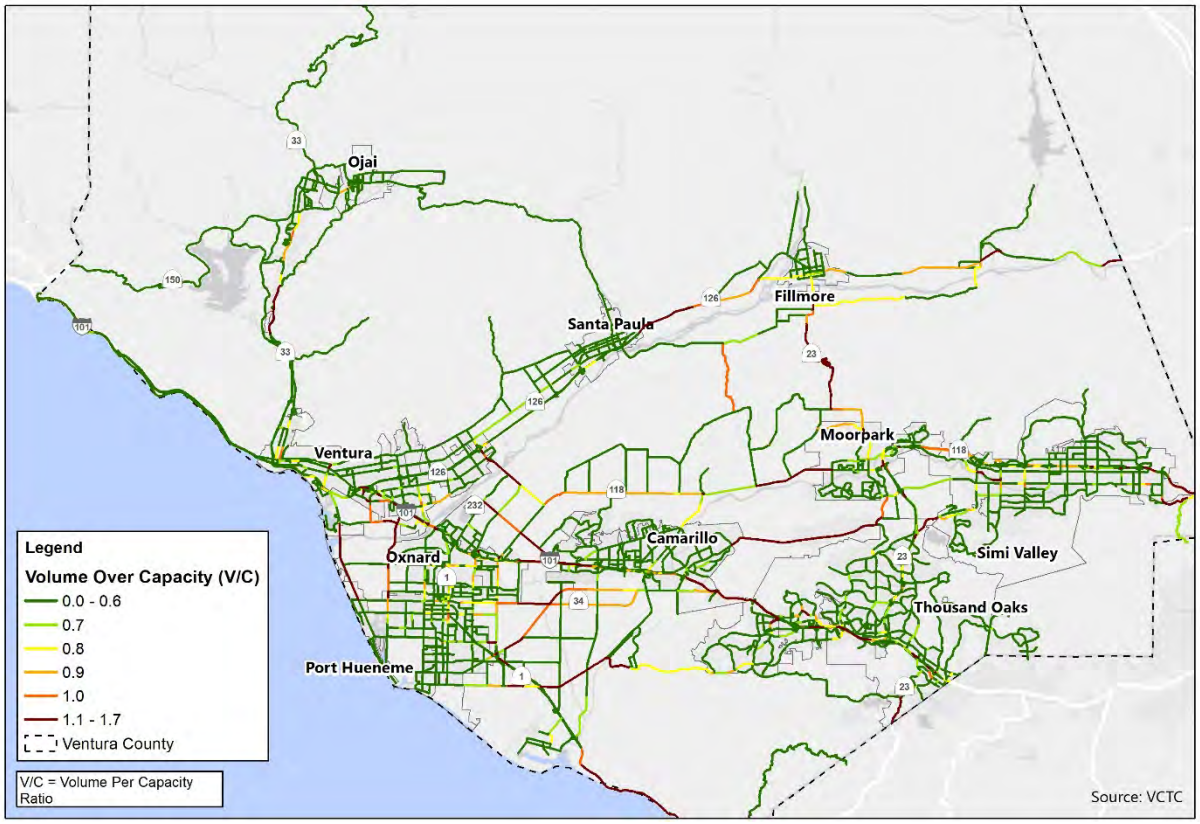
Vehicle Operation Conditions

With a relative few major through routes in Ventura County, traffic is concentrated on the State Highways, particularly on routes that connect urban areas of U.S. 101 corridor cities. Figure ES-1 below shows the estimated existing vehicle volume to vehicle capacity ratio for highways and major roadways in Ventura County during the afternoon peak period. This figure highlights that many highway and roadway sections with high volume to capacity ratios are those segments which serve as linkages among the cities.

Congestion in Ventura County is most prevalent in the morning and afternoon periods and concentrated on the limited roads and highways which connect the County's 10 cities. Since high volumes of traffic are concentrated on major roadways, smooth operations are sensitive to recurrent congestion at bottleneck points and non-recurrent congestion due to collision and emergency incidents. Recurrent congestion occurs along roadways where there are lane drops (reductions), a lack of auxiliary lanes, and ramp weaving during high peaks of demand. While lane capacity infrastructure is an important factor, the Transportation Disruption and Disaster Statistics dashboard (RITIS) indicates that 16% of highway congestion in Ventura County is incident related, such as disabled vehicles, collisions, and road obstructions.

Projects and programs which reduce or mitigate the impact of incidents, such as operational improvements or investments in expanding SAFE programs like Freeway Service Patrol, may have a substantial benefit for reducing congestion on Ventura County highways.

Figure ES-1: Existing Condition Afternoon Peak Period Vehicle Volume to Capacity Ratio

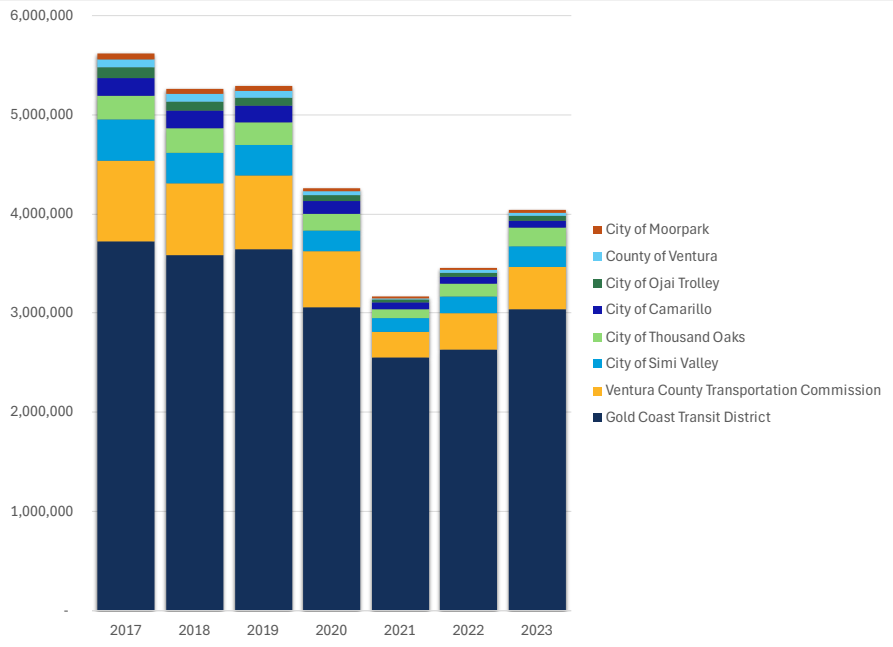


Transit Ridership

A challenging transportation trend is slow recovery of transit ridership in Ventura County since the COVID-19 pandemic. Transit ridership had a gradual decline trend prior to the pandemic, however disruptions during and after the pandemic accelerated the decline. Transit ridership has had a steady increase since the end of the pandemic, however changes in work patterns and shortages of transit labor have limited the rebound in transit ridership. Local trends mirror the trends occurring at the state and national level. Figure ES-2 illustrates the recent shifts across the various transit operators in the county.

Transit ridership is important in providing mobility options, reducing pollution, supporting activity centers, and improving the economy. The study *Economic Impact of Public Transportation Investment* demonstrated the economic value of investment in public transit can yield 49.7 jobs per $1 million invested. Investment offers 5 to 1 economic return based on productivity gains long after the short-term stimulative effect.[5] Therefore, investment in transit to improve the mobility and number of riders has a direct positive result on the economic health of the County.

Figure ES-2: Ventura County Transit Ridership (2010-2024)



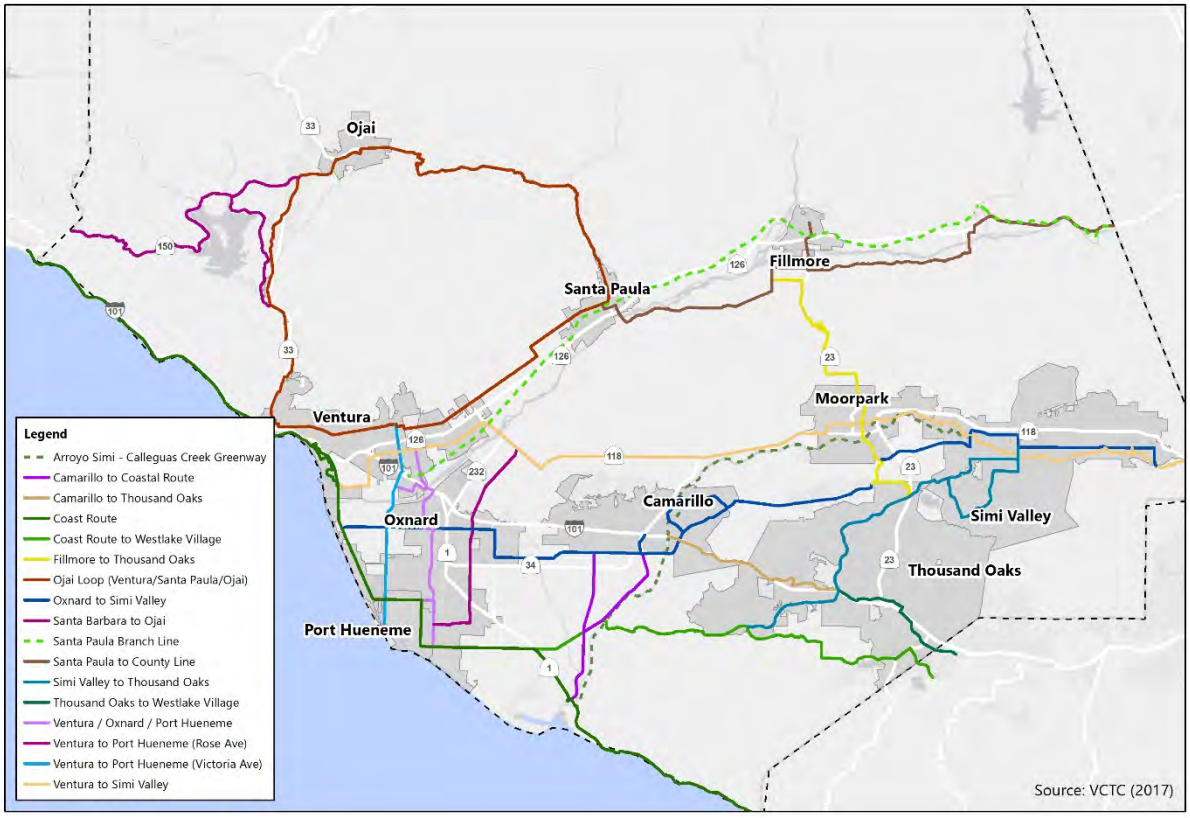
Source: National Transit Database (NTD) (2024)

[5] https://www.apta.com/wp-content/uploads/APTA-Economic-Impact-Public-Transit-2020.pdf

Active Transportation Connectivity

Many Ventura County cities and the County are actively planning and implementing local walking and biking infrastructure. This was a key need identified through the community engagement effort—highlighting the planning and investments being made locally. VCTC has also been active in planning for regional active transportation improvements, particularly those that would connect to different cities and communities. Figure ES-3 shows the regional active transportation wayfinding routes previously identified by VCTC as part of recent planning efforts.

Figure ES-3: Regional Active Transportation Wayfinding Routes



Community Engagement

The community engagement effort conducted in support of the CTP included a range of activities and tactics designed to involve a diverse number of Ventura County residents and to ensure that the input received shaped the development of the CTP and its recommendations. Engagement opportunities included participation in regional and topic-specific advisory committees, multiple community surveys, walk audits, and pop-up events. Events and survey distribution efforts occurred throughout the county, with at least one pop-up event scheduled in each city across the three rounds of engagement activities. All engagement was conducted with a bilingual approach to ensure Spanish-speaking residents had an equal opportunity to participate.

Key Takeaways

The following popular themes were conveyed during community engagement efforts:

- Coordinate future land use and transportation planning efforts to help new development be better connected to a multimodal transportation network
- Expand walking and bicycling infrastructure throughout the county, especially to improve network connectivity between cities, with an emphasis on protected facilities that separate pedestrians and bicyclists from automobiles
- Enhance existing walking and bicycling infrastructure, specifically through repairing broken and damaged sidewalks, adding landscaping and shade, and connecting these facilities to key destinations
- Expand transit services, including more routes, faster travel times, better frequencies, and extended hours of service
- Improve access to different modes of transportation to help people access employment, education, and recreation opportunities
- Identify strategies and programs to reduce emissions and improve air quality, including expansion of electric vehicle charging infrastructure and reducing automobile trips.

These comments, input, and feedback helped develop the goals and principles of the CTP and support the multimodal emphasis of the strategies and project scenarios presented in the CTP. Many of the new projects, particularly those involving walking, bicycling, and transit, proposed in the CTP Implementation Scenario are intended to respond to the themes identified above.

Advisory Committees

To guide the development of the CTP, VCTC formed two levels of advisory committees. These committees were engaged at key milestones throughout the preparation of the CTP. The Regional Advisory Committee (RAC) was composed of 17 community members selected to provide a countywide perspective on transportation, mobility, and land use issues in Ventura County. Six topic-focused Advisory Committees were also formed. These included a combined total of over 240 stakeholders and were organized around six key topics determined to be integral to transportation and mobility issues across Ventura County:

- Education, Youth and Families
- Active Transportation, Health, Wellness, Access and Equity
- Economic Resilience
- Climate Resilience, Wildlife and Conservation
- Transportation, Land Use and Housing
- Technical, Operations, and Transit Operators

Community Surveys

Two community surveys were conducted during the engagement effort. The first survey focused on identifying community needs related to transportation and mobility and included a map-based exercise where participants could mark the location of their transportation need or concern anywhere in Ventura County. This survey was available during Fall 2021 and resulted in over 2,300 data points reflecting transportation needs or concerns. A second survey in Spring 2022 focused on questions relating to the CTP goals and priorities, helping to inform the development of the three transportation scenarios presented in the CTP, as well as the supporting projects and strategies

contained in each scenario. The Spring 2022 survey had over 1,500 participants.

Figures ES-4 through ES-7 summarize the results of the Fall 2021 survey, identifying the types of improvements community members would like to see by mode.

Community Walk Audit

The Spring 2022 engagement effort included a community walk audit specifically targeted towards youth and non-English-speaking residents. A total of 180 participants submitted input on conditions related to walking and bicycling in their communities. The primary concerns noted by participants included:

- A lack of sidewalks or cracked/broken sidewalks
- Speeding cars
- Lack of trees/shade
- Lack of benches/places to rest

Pop-Up Events

Thirteen different pop-up events were completed to support the engagement effort. These pop-up events occurred across the three rounds of engagement activities, with events conducted in Fall 2021, Spring 2022, and Fall 2022. Events were scheduled in the following locations.

Fall 2021

- Thousand Oaks Street Fair
- Ventura Harbor Village Halloween Event
- Oxnard Peace Ride

Spring/Summer 2022

- Pleasant Valley Recreation & Park District Eggstravaganza (Camarillo Community Center)
- Moorpark Earth Day Festival
- Fillmore Health & Wellness Fair
- Channel Islands Farmers Market
- Children of Many Colors Native American Pow Wow
- Santa Paula Spring into Summer Event
- Ventura County Fair
- Spirit of Santa Paula Food distribution event

Fall 2022

- Port Hueneme Banana Festival
- Ojai Day
- Simi Valley Farmers Market

Each pop-up event was designed to provide participants with opportunities to give input and commentary for the CTP, with boards and activities that mirrored the concurrent community surveys.

CTP Implementation Scenario

Transportation Needs

The most recent demographic forecasts released by SCAG as part of the 2024 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) preparation effort forecast that population growth in Ventura County will slow and potentially decline, mirroring the overall trend in California with slowing population growth statewide. Along with slowing population growth, Ventura County's population is anticipated to become older due to longer lifespans, slowing natural population growth, and reduced inward migration to the county. Table ES-2 highlights forecast population change between 2019 and 2050 by city and for Ventura County as a whole. Figure ES-8 shows how the distribution of population by age in Ventura County is expected to change by 2050.

Limited population growth, combined with significant increases in the portion of the population aged 60 or older will create new challenges for the transportation network in Ventura County. Older residents would be expected to drive less and be more reliant on transit and paratransit services than the current population. Limited population growth also means that increases in funding for transportation improvements, as well as maintaining the existing transportation network, will also be limited assuming no new local sources of transportation funding emerge. Together, these demographic trends will create significant challenges for VCTC and local agencies to fund improvements and maintenance of infrastructure and operations to meet anticipated future travel needs.

In addition to the new and expanding mobility needs of an aging population, there is a greater interest in more diverse mobility options being available to residents of any age in Ventura County. Recent local planning investments in infrastructure for active transportation modes – primarily walking and bicycling – and expansion in the use of electric bikes and electric scooters is anticipated to further increase demand for active transportation. Given these trends, there is a need to plan for the expansion and enhancement of transit and active transportation infrastructure and services in Ventura County.

A key element in expanding transit and active transportation infrastructure is to ensure that residents can use this infrastructure in a safe and convenient manner. This means more active transportation facilities where users travel separately from automobiles, improved connections to transit stops and transit centers, more convenient transfers between transit services, and more flexibility in how transit services are delivered.

Finally, the CTP recognizes that automobile travel will remain the primary transportation mode in Ventura County. How automobiles are powered is rapidly changing and the pace of this change is anticipated to accelerate in the future. The CTP highlights the need to expand the electric vehicle charging network to ensure that adequate infrastructure is in place as the pace of electric vehicle adoption increases and state mandates related to the sale of new electric vehicles..

Commuting Travel Patterns

The COVID-19 pandemic has produced new travel patterns with a significant shift to work from home which may constitute a new normal.

As of the summer of 2022, highway VMT for Caltrans District 7, Ventura and Los Angeles County, has recovered to nearly pre-pandemic levels, however, highway delays remain down 30-40%. The highway delays are sensitive to small changes in overall levels of travel. Also, shifts in origins-destination patterns and time of day profile have been observed. Travel has shifted away from the historic AM and PM peak periods into the midday, maintaining similar rates of single occupancy vehicle (SOV) travel with less peak congestion.

The persistence of the work-from-home culture beyond the pandemic may have created a lasting reduction in travel patterns. If this pattern continues, it is also possible that the delay reduction will have a long run induced travel demand effect which may lead to greater overall VMT and a return to equilibrium congestion levels. The persistence of VMT and induced demand effects highlights the difficulty of reducing automobile travel and the need for land use and transportation planning integration.

The American Community Survey for 2023 indicates the percentage of Ventura County residents who worked from home more than doubled as compared to 2019. This increase in work from home largely shifted commutes from driving alone (11 percent

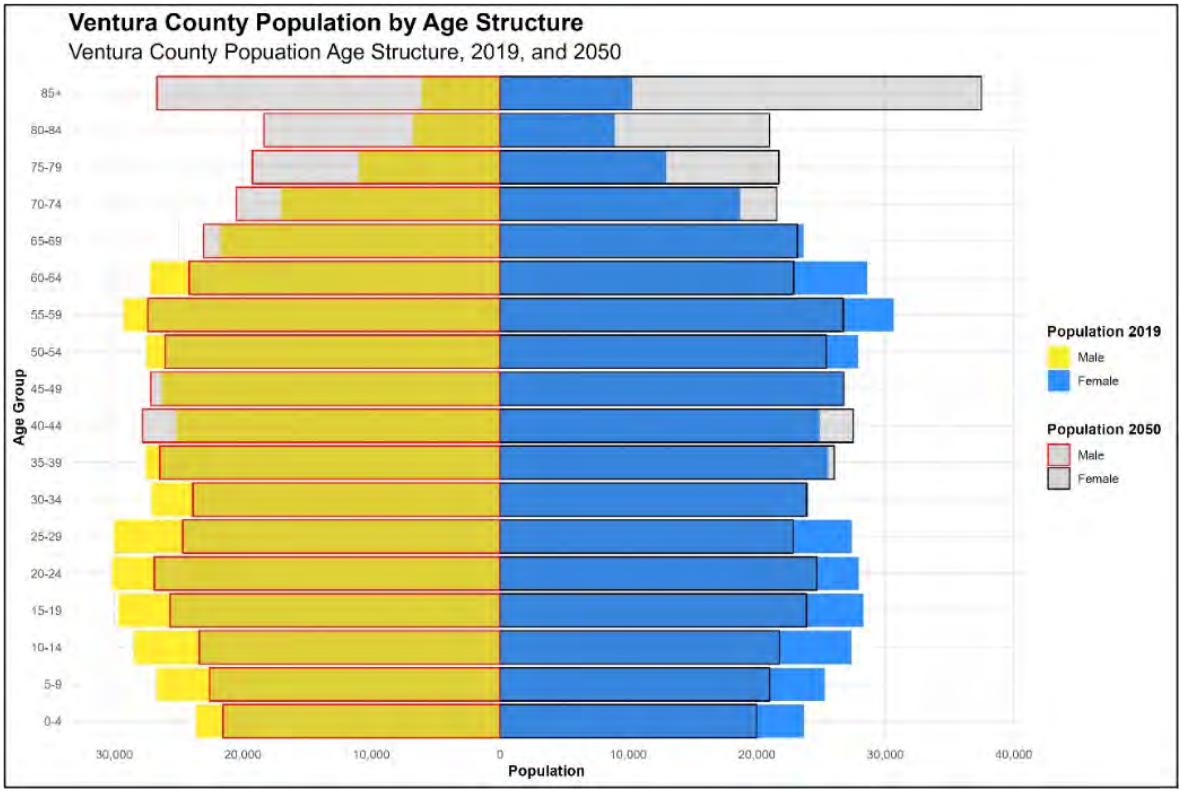
lower than 2019) and public transportation (54 percent lower than 2019). According to the Bureau of Labor Statistics North American Industry Classification System (BLS NAICS) data, about 20 percent of Ventura County residents are employed in job categories which can be performed from home.

Table ES-4: Ventura County Population Forecasts (2019-2050)

JURISDICTION	2019	2050	% CHANGE
Camarillo	71,027	68,694	-3.3%
Fillmore	16,502	17,986	9.0%
Moorpark	36,514	37,474	2.6%
Ojai	7,679	6,962	-9.3%
Oxnard	202,705	214,077	5.6%
Port Hueneme	21,944	19,439	-11.4%
Santa Paula	30,834	31,975	3.7%
Simi Valley	126,804	123,220	-2.8%
Thousand Oaks	127,255	122,118	-4.0%
Ventura	110,934	109,528	-1.3%
Unincorporated Areas	93,737	86,325	-7.9%
Ventura County	845,935	837,798	-1.0%

Source: SCAG 2024 RTP/SCS Population Forecasts

Figure ES-4: Population by Age Structure



Solutions

Scenario Overview

To address Ventura County's transportation needs over the next 20-30 years, VCTC has developed three packages of transportation improvements, each containing a diverse range of multimodal projects, programs, and strategies designed to provide Ventura County residents with more mobility choices, improved transportation infrastructure, and a transportation network that enhances access, equity, and safety for all travelers.

The three packages of improvements are grouped into scenarios and identified as a Baseline Future Project Scenario, a CTP Implementation Scenario, and a CTP Visionary Scenario. An overview of each scenario is provided below.

- Baseline Future Project Scenario: The baseline future condition for the transportation network in Ventura County. The Baseline Future Project Scenario includes projects that currently have an identified source of funding and are reasonably anticipated to be completed within the time horizon of the CTP. This includes all projects contained in the adopted Federal Transportation Improvement Program (FTIP).

- CTP Implementation Scenario: A multimodal package of projects that builds on the baseline condition presented in the Baseline Future Project Scenario and seeks to advance the goals and objectives of the CTP, as presented in Chapter 1. Projects in the CTP Implementation Scenario include projects previously contained in the 2020 SCAG RTP that are not yet fully funded, as well as new projects identified through recent planning efforts (101 Communities Connected, Ventura County Freight Study, etc.), the CTP development process, and those identified or proposed by local agencies in their local planning efforts.

- CTP Visionary Scenario: A set of transportation projects that would enhance the Ventura County transportation network beyond the package of projects, programs, and strategies contained in the CTP Implementation Scenario. This CTP Visionary Scenario builds on the CTP Implementation Scenario package of projects, identifying projects and improvements that either do not currently have a defined pathway to funding, the project specifics are not yet well-defined due to a need for additional study, or the project costs exceeds the capacity to be funded with expected funds prior to the Year 2040 horizon for this CTP.

The three scenarios progressively build upon each other, adding new projects and programs that would work together to help meet future mobility needs in Ventura County. Chapter 7 details the projects and programs proposed as part of each scenario.

Scenario Performance

The forecast performance of three CTP scenarios is evaluated across a range of metrics including automobile trips, congestion, air quality, mode share, economic access, connectivity to transit, and equity. These metrics align with the CTP goals and regional goals as identified in the RTP/SCS.

Change in Vehicle Miles Traveled (VMT)

The State of California and the SCAG region have defined targets for reducing VMT generated from transportation sources. The statewide and regional Southern California Association of Governments target for reduction in per capita GHG emissions reductions (and proportional reduction in VMT) relative to 2005 by 2035 from passenger vehicles is 19 percent.

The Baseline Future Project Scenario is composed of $340 million in transportation system investments over 30 years, as well as demographic and land use changes in response to local land use planning encouraging development in in-fill areas and areas served by transit. Based on a comparison to the 2010 VMT per capita as determined by the California Air Resources Board, the Baseline Future Project Scenario would result in a 19 percent reduction in VMT per capita—consistent with the statewide and regional VMT reduction target.

The CTP Implementation Scenario represents a further $3 billion in transportation system investment which would result in a 23 percent

reduction in VMT per capita—exceeding the CARB VMT reduction target.

The CTP Visionary Scenario includes further roadway system improvements and would result in more VMT through induced demand. However the VMT per capita would be similar to the Baseline Future conditions.

Table ES-5: VMT Change Across 2010, Future Baseline, and CTP Implementation Scenarios

Scenario	Daily VMT per Capita	Percent Reduction from 2010
2010 Conditions (per CARB)	23.0	-
Future Baseline	18.7	19%
CTP Implementation	17.8	23%
CTP Visionary	18.6	19%

Change in Vehicle Hours of Delay (VHD)

VHD highlights the time vehicles are spending in congested traffic conditions on a countywide level. Reductions in VHD correlate with reductions in overall traffic congestion. Figure ES-6 shows how VHD is forecast to change between existing conditions and conditions under each of the three future CTP scenarios.

Table ES-6: VHD Change Across Existing, Future Baseline, CTP Implementation, and CTP Visionary Scenarios

Scenario	VHD	Percent Reduction from Existing
Existing Conditions	57,614	-
Future Baseline	44,583	23%
CTP Implementation	49,482	14%
CTP Visionary	36,141	37%

Countywide VHD is forecast to decrease across all three modeling scenarios. Of note, while the CTP Visionary Scenario is forecast to experience the highest daily VMT due to roadway and freeway capacity enhancements, the daily VHD in that scenario would experience the greatest reduction with a forecast decrease of approximately 37% from existing conditions. The investment in improved roadway infrastructure would increase the amount and distance of travel but would also reduce the delay vehicles experience. In contrast, the forecast reduction in VHD under the CTP Implementation Scenario is the lowest among the three future CTP scenarios, illustrating the trade-off between advancing a greater number of non-vehicle infrastructure projects on vehicle operations. Nevertheless, the CTP Implementation Scenario still achieves a 14% reduction in VHD compared to existing conditions.

Change in Volume to Capacity (V/C) Ratio

This metric measures how much of a roadway's capacity is utilized by traffic volumes. This is a corridor-specific metric that allows for comparison among scenarios. Figures ES-5 and ES-6 illustrate V/C for highways and major roadways in Ventura County in existing conditions and under the CTP Implementation Scenario. Additional maps highlighting V/C conditions in existing conditions and for each scenario during both the AM and PM peak periods are presented in Chapter 7.

These results generally align with the forecasted decrease in VHD summarized in the previous section.

In the CTP Implementation Scenario, the afternoon peak period features percentage V/C changes from the existing network of:

- Up to a 77% decrease in V/C on segments of SR 23
- Up to a 58% decrease in V/C on segments of SR 34
- Up to a 50% decrease in V/C on segments of SR 118
- Up to a 24% decrease in V/C on segments of US 101

Figure ES-5: V/C in Existing: Afternoon Peak Period

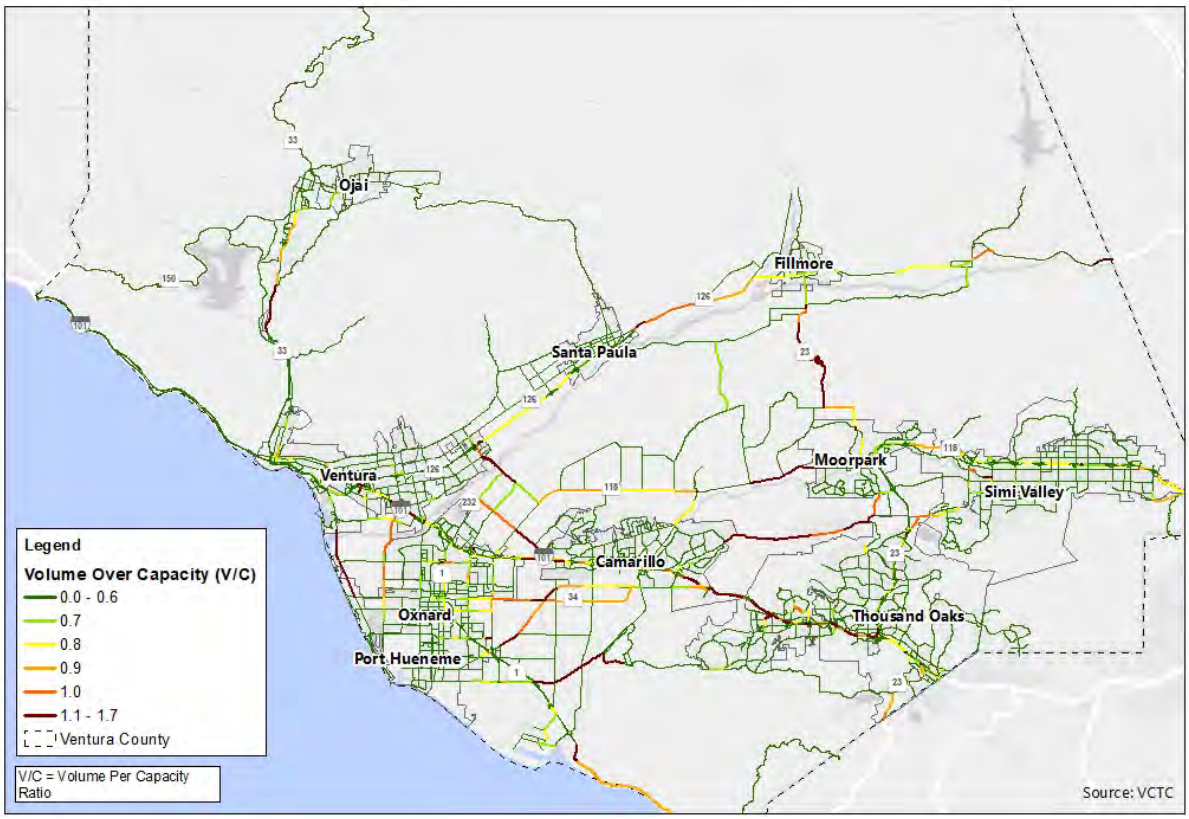
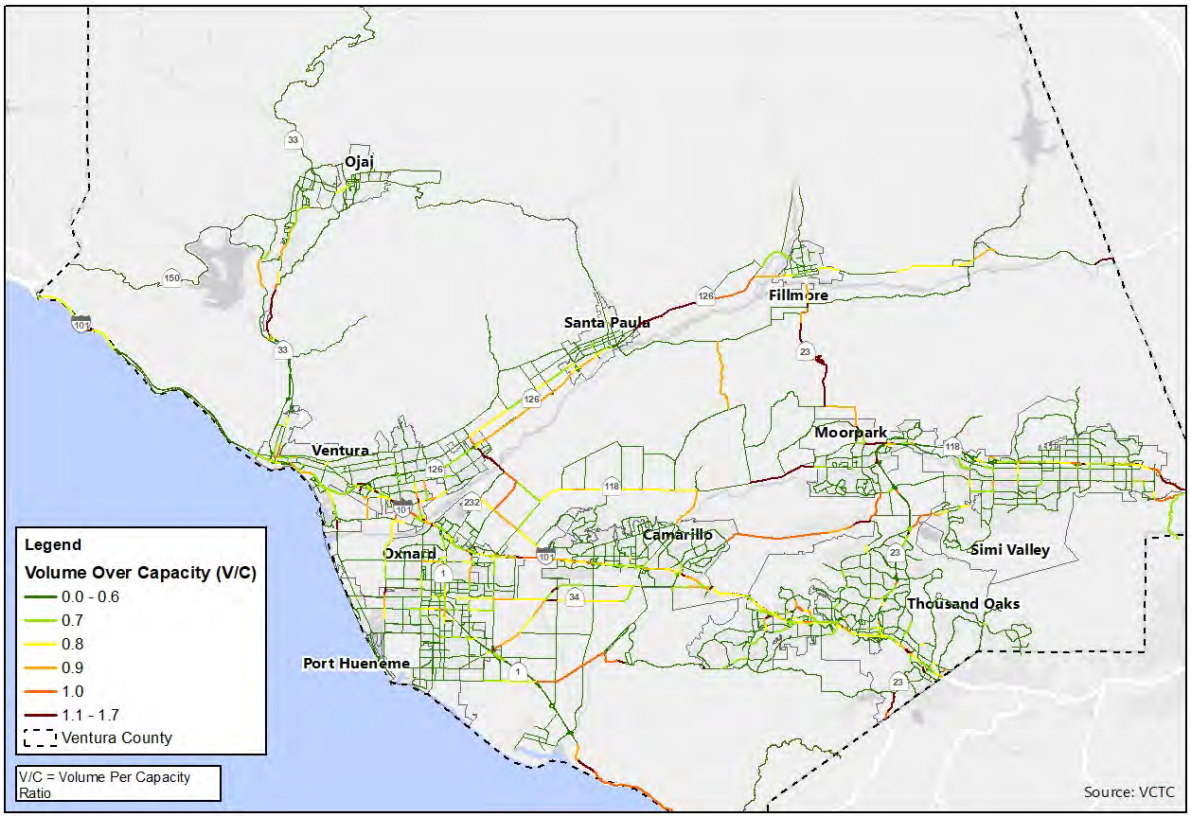


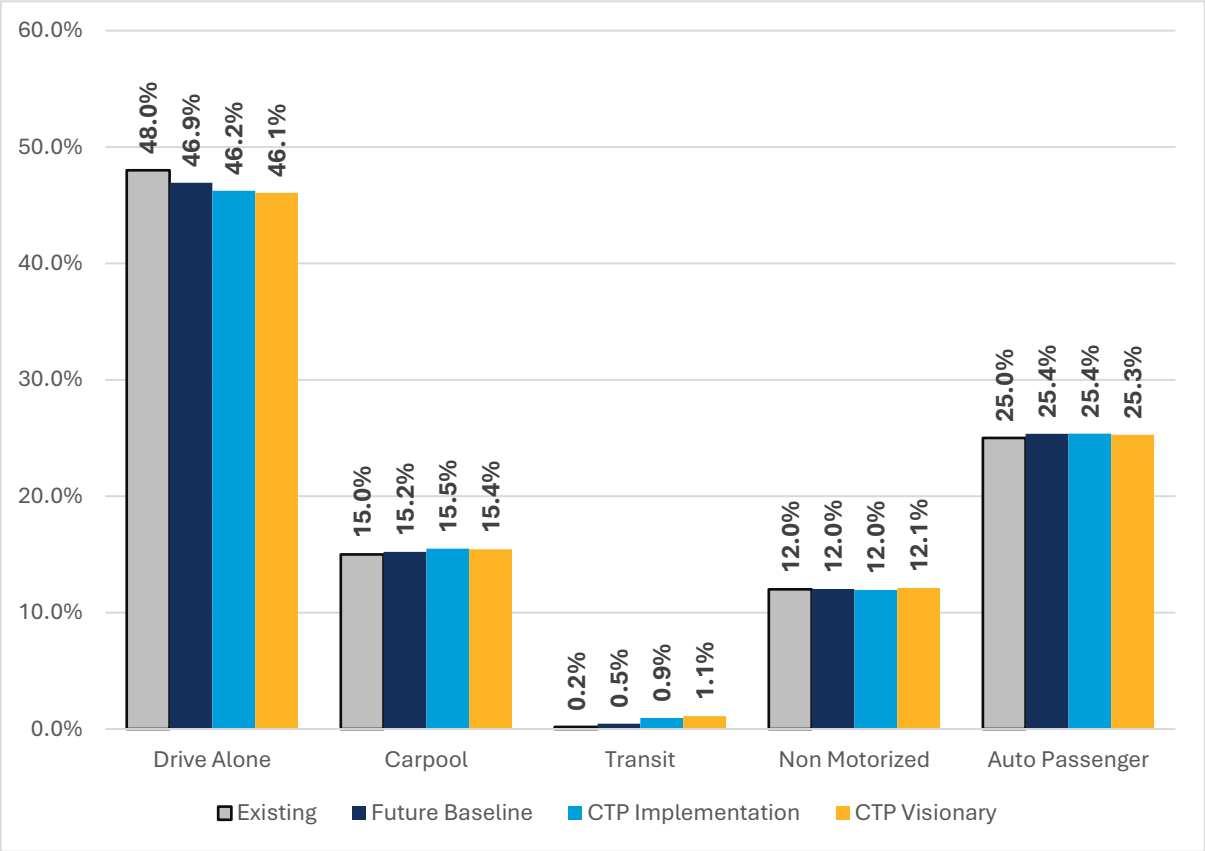
Figure ES-12: V/C in CTP Implementation Scenario: Afternoon Peak Period



Change in Mode Split

This metric refers to the travel mode individuals use for each trip. Travel modes include drive alone auto, carpool, active transportation, and transit. Higher mode splits for transit and active transportation would correlate with fewer automobile trips and potentially lower VMT and traffic congestion. Figure ES-13 illustrates the forecast percent mode share for driving alone, carpool, transit, non-motorized, and auto passenger trips in 2016 and across all three Scenarios in 2040. Changes in mode share are forecast to be minor across the three modeling scenarios.

Figure ES-13: Mode Split by Scenario



Change in Emissions

This metric looks at the amount of GHG emissions are forecast to be generated from transportation sources. Typically, higher VMT correlates with higher GHG emissions. Transportation source emissions are forecast to decrease between existing conditions and 2040 under future baseline conditions (the Baseline Future Project Scenario) by about two percent. Emissions are forecast to further decrease in the CTP Implementation Scenario by another eight percent compared to Future Baseline and ten percent from existing conditions. This is in line with the forecast decrease in VMT in the CTP Implementation Scenario. There is a forecast increase in emissions between the Baseline Future Project Scenario and the CTP Visionary Scenario in 2040. This is in line with the slightly higher VMT conditions observed in the CTP Visionary Scenario, resulting from the greater number of freeway and roadway capacity increasing projects contained in this scenario, again illustrating the trade-off

between achieving congestion relief and implementing other multimodal projects that reduce VMT.

Plan Implementation

Funding Challenges

Many new State and Federal transportation grant funding sources are highly competitive, and many traditional sources of transportation funding, such as gasoline taxes, are under pressure and in decline due to changes in how people travel and changes in vehicle technology, such as electric and plug-in hybrid and other more efficient vehicles. Further, new sources of transportation funding at the State and Federal level are becoming more tailored to support specific transportation and mobility objectives, making it more challenging and competitive to successfully receive funding. In the changing transportation funding environment, it would be prudent for VCTC and local agencies to consider pursuing a new Ventura County-focused local funding source in the future. Potential new sources of locally controlled funding for transportation improvements could include the following:

- Sales Tax – an increase in the local sales tax charged on purchases in Ventura County
- Gasoline Tax – an increase in the local gasoline tax for sales in Ventura County
- Payroll Tax – a tax placed on employee payrolls for individuals that work in Ventura County
- Hotel/Rental Car Tax – an increase in the local tax charged for hotel stays and car rentals
- Tolled/Managed Lanes – construction of new highway lanes or conversion of existing lanes to tolled facilities
- VMT Tax – a tax based on the number of miles that a vehicle drives per year

In addition to the local control benefits that would come with a new local funding source, an increase in local funding available for transportation would allow VCTC and local agencies to boost the amount of local matching funds available when pursuing State and Federal funding sources. This would help make Ventura County transportation projects more competitive in the pursuit of these outside funding sources. The Spring 2022 community survey included a question requesting participants to rank their potential support or preference for various programs that could create a locally controlled source of transportation funding in Ventura County. Out of 1,501 survey participants, 1,125 answered this question. Figure ES-25 summarizes the responses received.

Next Steps

The multimodal transportation improvements proposed through the CTP aim to address the current and future needs of residents in Ventura County. These improvements were developed after a thorough review of existing conditions and demographic forecasts, extensive community engagement, and analysis using VCTC's regional travel demand model. Improvements identified in the CTP Implementation Scenario are intended to respond to existing and future mobility needs of residents in Ventura County, and to place the county on a pathway towards creating a more resilient and equitable transportation network that provides the community with access to a range of mobility choices and opportunities.

Moving forward, VCTC will be completing a prioritization of the projects and strategies identified in this plan. VCTC will also continue to collaborate with local agencies in the county to complete the initial planning and pursuit of additional funding necessary for project implementation. The CTP is also intended to be a living document that will be updated and amended as needed to incorporate future planning efforts and projects identified for Ventura County.

Ventura County Comprehensive Transportation Plan

FINAL DRAFT:
AUGUST 2025

VENTURA COUNTY COMPREHENSIVE TRANSPORTATION PLAN

This study was prepared with financial support from the Caltrans Sustainable Transportation Planning Grant Program.
Ventura County Transportation Commission

Table of Contents

The Comprehensive Transportation Plan (CTP) describes the vision for transportation and mobility in Ventura County for the next 25 years and beyond. The Ventura County Transportation Commission (VCTC) is the agency responsible for long-range regional transportation planning in the county, which includes the responsibility for preparing the CTP.

1.1 Introduction

Ventura County is home to 850,000 residents and offers an unparalleled quality of life with access to job opportunities, recreation, quality education, agriculture, and extensive open space areas. Continued access to convenient and safe mobility options is an integral part of the high quality of life present in Ventura County and residents' ability to travel to their preferred destinations – for employment, education, shopping, or recreation – by whatever mode of travel
they choose.

The next 25 years are forecast to bring a range of changes, opportunities, and challenges for the mobility in Ventura County. The Comprehensive Transportation Plan recognizes this reality, and will help VCTC and local jurisdictions plan and provide a transportation system that meets the needs of residents of residents, businesses, and visitors, while maintaining the quality of life that Ventura County residents enjoy and meeting the needs of businesses to ensure a healthy local and regional economy.

Plan Purpose

VCTC adopted the first Ventura County Comprehensive Transportation Plan (CTP) in 2013. The 2023 update to the CTP includes a detailed listing of transportation projects, programs, and strategies that are planned or envisioned by VCTC and local agencies in the county. These projects, programs, and strategies are compiled from a range of sources, including community engagement, review of local agency plans and reports, and adopted local, regional, and State planning documents, such as the Federal Transportation Improvement Program (FTIP) and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), prepared by the Southern California Association of Governments (SCAG). The CTP will help guide countywide transportation planning decisions and serves as Ventura County's input into the 2024 RTP/ SCS, currently being prepared by SCAG. By documenting planned transportation projects, programs, and strategies in an adopted countywide and regional document, the CTP will also help VCTC and local jurisdictions to pursue funding to assist in project implementation. Many State and Federal funding resources and grant programs require that projects be documented in adopted regional transportation planning documents such as the RTP/SCS.

The CTP also prepares VCTC and local jurisdictions should a local source of transportation funding be approved in Ventura County in the future. Ventura County is the only county among the six-county SCAG region without a local sales tax dedicated to transportation. Currently, agencies in Ventura County rely on a variety of sources to fund transportation projects. These include State gasoline tax allocations, local agency general funds, and grants awarded by State and Federal agencies. Each of the sources presents challenges due to the potential uncertainty of receiving transportation funding in the future. State gasoline tax receipts are declining along with reductions in vehicle miles traveled statewide and the rising adoption of electric vehicles. Local agency general funds face competition from agency priorities other than transportation. Grant funds are becoming increasingly competitive and difficult to obtain as California continues to grow and competition increases for limited pools of funding.

While the CTP does not identify a preferred approach to establishing a locally controlled source of transportation funding, the plan – and specifically the CTP Implementation Scenario as described in Chapter 7 – lays a foundation for a program of multimodal transportation projects that could be funded and implemented if a locally controlled funding source emerges in the future.

Throughout this plan, individual chapters will highlight where input, interests, and needs identified by community members in Ventura County have shaped the projects, programs, and recommendations presented in the CTP. The CTP development effort featured extensive efforts to engage community members living across Ventura County. VCTC worked to reach community members through a variety of avenues, activities, and events that included:

- 13 In-Person Pop-Up Events
- Online and Print Surveys
- Five Regional Advisory Committee Meetings
- 18 Topic-Focused Advisory Committee Meeting
- One Countywide Walk Audi
- Numerous Social Media Post
- Presentations to Ventura County Transportation Commission, Transportation Technical, Advisory Committee (TTAC), Transit Operators Advisory Committee (TRANSCOM), and Community Transportation Advisory Committee (CTAC).

These engagement efforts helped VCTC to understand what the key transportation and mobility needs are of residents in Ventura County today and into the future. The feedback received from community members highlighted a strong interest in the following types of transportation and mobility improvements:

- Expansion of bicycle and pedestrian facilities across the county
- Enhance the safety of bicycle and pedestrian infrastructure to protect users
- Faster, more frequent transit service
- Reduce the cost of transit and other transportation modes
- Provide more infrastructure to facilitate a shift to electric vehicles
- Balance land use and transportation planning decisions to provide more mobility choice
- Encourage efforts to reduce emissions from transportation sources to combat climate change.

These inputs helped guide the development of the CTP, as well as the development of the projects, programs, and strategies identified in the document.

Figure 1-1 Ventura County Location

The Role of VCTC

VCTC is the regional transportation planning agency for Ventura County and is responsible for leading countywide transportation planning efforts. VCTC's mission is to improve mobility within the county and increase funding to meet transportation needs. To fulfill that mission, VCTC establishes transportation policies and priorities ensuring an equitable allocation of federal, state, and local funds for highway, transit, rail, aviation, bicycle, and other transportation projects. Within Ventura County, VCTC also operates intercity bus services, administers the Service Authority for Freeway Emergencies (SAFE), and is responsible for preparing the Airport Land Use Compatibility Plan as the Airport Land Use Commission (ALUC).
VCTC leads the preparation and update of the CTP to reflect the long-term vision for transportation and mobility of community members and agencies in Ventura County. Regular updates to the CTP also help to ensure that the plan includes recent transportation plans, studies, programs, and projects identified throughout Ventura County and makes these projects eligible for State and Federal transportation funding grant programs.

Related Ventura County Planning Efforts

The CTP consolidates current and past Ventura County planning documents. Recent planning efforts in the county provide a solid foundation for the development of the CTP and contain projects and programs incorporated into the CTP. These planning documents include the previous CTP prepared in 2013, the 101 Communities Connected Multimodal Corridor Study, the Ventura County Freight Corridors Study, and short-range transit plans prepared by VCTC and other transit operators in Ventura County.

2013 Ventura County Comprehensive Transportation Plan (CTP)

The 2013 CTP is a community-based policy document that provides a framework for Ventura County's long-range transportation decisions. The vision of the plan is to create "a connected and integrated transportation system that provides convenient, safe and accessible options. This system is inclusive of all community members and needs, balancing all interests. It is intended to be built from a sustainable plan that reflect local priorities."
The 2013 CTP developed a list of solutions for the future, including:

- Keep roads in good condition, develop complete streets, and add lanes on the busiest city streets;
- Create a more customer-focused transit system though sub-regional consolidation;
- Obtain supplemental revenue for arterials through adequate levels of developer fees and reciprocal traffic mitigation fees;
- Relieve US Highway 101, State Route 23, and State Route 118 peak period capacity pressure by availability of State and federal highway funds;
- Connect existing bicycle networks between cities though unincorporated areas on a regional scale;
- Implement pedestrian amenities and walkable communities through programs and projects;
- Implement environmental and mitigation programs to mitigate localized environmental impacts and encourage transportation-supportive land use and development;
- Sustain freight movement operations and connections while balancing their impact on local communities and;
- Introduce a Countywide Tax Measure to help fund future local transportation projects.

The 2013 CTP solutions are the basis for the new CTP solution development along with a comprehensive reassessment of needs and development of new solutions as needed.

US 101 Communities Connected

Initiated by SCAG, VCTC, and Caltrans, US 101 Communities Connected establishes the need for a shared vision and comprehensive plan for the US 101 corridor in Ventura County to connect the jurisdictions of Ventura, Oxnard, Camarillo, and

Thousand Oaks. The US 101 corridor plays a central role in the vitality of Ventura County, as it connects diverse communities and businesses with coastal portions of California to the north and south. 101 Communities Connected seeks to foster a resilient, sustainable, and efficient transportation future to meet the diverse needs of the adjacent communities. It also provides a roadmap for collaboration across jurisdictions and develops funding priorities for infrastructure investments to improve connectivity, reduce vehicle miles traveled, and better serve Ventura County.

101 Communities Connected introduces goals and guiding principles to improve the overall corridor mobility while balancing safety and environmental considerations:

- **Safety and Health**: Improve safety and health by reducing the frequency and severity of safety incidents and hazards for all modes, improve air quality, and provide safe routes for children to get to school.
- **Social Equity**: Be inclusive of all community members and their needs by ensuring a fair share of benefits of the transportation system for disadvantaged communities, provide viable transportation options for people who do not have cars and improve workers' access to jobs.
- **Multimodal Mobility**: Improve mobility and accessibility for a connected and integrated transportation system by reducing Vehicle Miles Traveled, congestion and delay, increasing throughput and reliability for all users, and increasing transit ridership and active transportation participation.
- **Robust Economy**: Improve freight movement while mitigating its impacts, manage curb demand, and improve access to jobs.
- **Environmental Stewardship**: Preserve and increase access to habitat and open space, reduce GHG emissions and improve air quality.

Ventura County Freight Corridors Study

The Ventura County Freight Corridors Study identifies and prioritizes the most significant freight corridors in Ventura County for safer, more efficient, and sustainable freight connections. The study also establishes an understanding for highway freight corridors in Ventura County to inform future highway planning and investment decisions. It will also assist the Port of Hueneme and Ventura County to move toward achieving state and regional emission reduction goals and increase social equity by planning for a transportation system that is efficient but not disproportionally centralized around disadvantage communities.

The long-range transportation infrastructure decisions identified in the study will ensure future investments yield the greatest sustainability benefit to the County's agricultural sector, economic competitiveness and growth, as well as human and environmental benefits.

The project objectives are to:

- Establish a thorough understanding of Ventura County's freight corridors and use the knowledge to inform future highway planning and investment decisions;
- Support cleaner freight, reduce greenhouse gas emissions, and improve air quality;
- Promote Ventura County's industry and agricultural economy;
- Plan a transportation system that does not disproportionally impact disadvantaged communities; and,
- Develop innovative solutions to benefit the economy and environmental health.

The study examined numerous elements, including:

- The importance of goods movement
- Goods movement in residential communities
- Safety in rail corridors, especially at highway/rail crossings
- Proximity of schools and parks to truck routes
- Availability of public truck parking
- A freeway connection from westbound SR 126 and southbound US 101, bypassing residential areas along Victoria Avenue
- Truck origin-destination analysis
- Zero-emission goods movement

- Transit Integration and Efficiency Study (TIES)

The Transit Integration and Efficiency Study identifies strategies to improve bus transit throughout Ventura County with a focus on improving passenger experience, reducing operating and capital costs, and better integrating the existing transit systems. Initiated in 2021 as part of VCTC and transit agency efforts to recover transit ridership in the wake of the COVID-19 pandemic, the TIES recommends a range of strategies to align and improve transit service across the nine transit operators serving communities throughout Ventura County. The TIES planning effort remains underway at the time of completion of the CTP Update. Adopted and endorsed strategies of the TIES will be integrated with efforts to implement the CTP.

Transportation Emergency Preparedness Plan (TEPP)

The TEPP was developed by VCTC and the Santa Barbara County Association of Governments (SBCAG), with funding from Caltrans, to address the transportation challenges related to disasters that affect one or both counties. VCTC and SBCAG developed the TEPP to provide an all hazards framework for collaborating among responsible entities and coordinating with these entities during emergencies that may require a deployment of transportation resources. It defines roles and responsibilities, provides communication procedures, identifies transportation vulnerabilities and resources during an emergency or disaster that may affect the counties of Santa Barbara and Ventura.

Short Range Transit Plans (SRTP)

In addition to the plans above, several bus and rail providers have transportation planning and strategic documents for their agencies. The Ventura County SRTP, developed with input from VCTC and its stakeholders, provides strategies for improved regional coordination and connectivity and provides a framework for future growth with the primary goals of enhancing customer experience and increasing the viability of transit. The SRTP examines service provided by all transit operators in Ventura County and includes regional analyses to identify service gaps and prioritize investments. The SRTP was developed in conjunction with the VCTC Intercity Five-Year Plan.

Additionally, other operators such as Gold Coast Transit District and Simi Valley Transit have also developed SRTPs that provide information about the service and operational plans for the transit service for the next 5-year period. Metrolink also prepares an SRTP, as well as a Strategic Business Plan detailing scenarios and strategies for transit service, policies, and expansion of their regional services. Similarly, the Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency (LOSSAN) North Strategic Plan identifies project opportunities to continue to improve the northern segment of the LOSSAN the corridor between Los Angeles and San Luis Obispo.

Other Agency and Entity Plans

Ventura County is home to two unique land uses and trip generators located in the southwest area of the county, both of which have unique mobility needs that were important considerations in the development of the CTP. These unique uses are the Port of Hueneme and Naval Base Ventura County (NBVC).

Port of Hueneme

The Port of Hueneme is the only deep-water port located between Los Angeles and San Francisco. The Port has utilized this distinction to carve out an important role in the movement of goods between California and across the United States and various foreign origins and destinations. Today, the Port serves several goods movement niches, with agricultural goods, fertilizer, and automobiles being the primary goods transported through the port. With capacity pressures projected to continue at the Ports of Los Angeles and Long Beach to the south and the Ports of Oakland and San Francisco in the north, the Port of Hueneme is anticipated to continue to fill an important role in the regional goods movement picture for Ventura County, Southern California, and the United States.

Naval Base Ventura County (NBVC)

NBVC is comprised of three separate locations – Point Mugu, Port Hueneme and San Nicholas Island – with the Point Mugu and Port Hueneme installations having the greatest interaction with the transportation network in Ventura County. Combined, the bases provide nearly 20,000 jobs in

Ventura County and are a major economic driver for the county. Ventura County is also home to the California Air National Guard's Channel Islands Air National Guard Station, located near Hueneme Road and SR-1 in unincorporated Ventura County.

The Navy has partnered with VCTC over the years to conduct collaborative planning efforts focused on land use and transportation issues in the areas surrounding the installation. Throughout the CTP development process, the project team coordinated with the Navy and reviewed these previous planning efforts to ensure that the projects and programs identified in the CTP did not conflict with any adopted plans.

The NBVC Joint Land Use Study (JLUS) created recommendations to address climate change, local housing availability, land use, and roadway capacity elements including gate queuing, mobilization corridors, public transit availability and access, and regional circulation through expansion. The military installations also have specific needs related to mobilization and the transfer of military equipment, which would be transported along roadways and freeways in Ventura County. Continued coordination and collaboration between VCTC and the Department of the Navy and Air National Guard is essential to ensure that these military installations have adequate access and are able to fulfill their missions.

Regional and State Planning Efforts

In addition to establishing the vision and program for regional transportation improvements in Ventura County, the CTP also aligns with other SCAG region and statewide transportation planning efforts and programs. This alignment helps to ensure that Ventura County transportation projects identified in the CTP are likely to be competitive when pursuing funding opportunities at the regional and state level. This alignment also helps to ensure that Ventura County is contributing to help the SCAG region and the state meet the ambitious emission reduction goals established through state legislation to help reduce the impacts of climate change on residents throughout California. Relevant regional plans, state plans, and state legislation are discussed below.

SCAG 2020-2045 RTP/SCS Connect SoCal (2020)

SCAG's RTP/SCS, also known as Connect SoCal, was developed to align and better connect transportation investments across the six-county region, including Ventura County. Connect SoCal builds upon and expands land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern to close the gap and reach greenhouse gas emissions reduction goals.

Connect SoCal lays out a path to greater access, mobility, and sustainability. The Plan calls for complete streets, center focused placemaking, active transportation improvements, transportation safety, and connected transportation networks, and encourage improved land use, mobility, transportation, and circulation to achieve the desired outcome.

California Transportation Plan

Caltrans adopted the California Transportation Plan 2050 (CTP 2050) in 2021. This statewide long-range transportation plan is prepared by the State Transportation Agency and reflects input received from metropolitan planning organizations and county transportation agencies from across the state. CTP 2050 identifies 14 primary recommendations to address the goals of the plan and meet the mobility needs of Californians by 2050.

These recommendations include:

- Expand access to safe and convenient active transportation options
- Improve transit, rail, and shared mobility
- Expand access to jobs, goods, services, and education
- Advance transportation equity
- Enhance transportation system resiliency
- Enhance transportation safety and security
- Improve goods movement systems and infrastructure
- Advance zero-emission vehicle technology and supportive infrastructure
- Manage the adoption of connected and autonomous vehicles
- Price roadways to improve the efficiency of auto travel
- Encourage efficient land use

- Expand protection of natural resources and ecosystems
- Strategically invest in state of good repair improvements
- Seek sustainable, long-term transportation funding mechanisms

Many of these recommendations align with the goals and recommendations contained in the Ventura County CTP, reflecting the alignment of this plan with state transportation goals.

California Freight Mobility Plan

Recognizing that California is the primary gateway for goods movement across the United States, the California Freight Mobility Plan, adopted by Caltrans in 2020, provides a vision to maintain a sustainable freight network in California and to ensure that this network provides for economic vitality, environmental stewardship, and equity.

The Freight Mobility Plan outlines recommendations to modernize the multimodal freight network, grow the economic competitiveness of the freight network, support strategies that reduce or avoid environmental impacts, enhance community health by reducing emissions impacts from freight movement, increase safety along goods movement corridors, and maintain and preserve goods movement infrastructure assets.

Climate Action Plan for Transportation Infrastructure (CAPTI)

This statewide climate action plan, adopted by the California State Transportation Agency in 2021, is intended to align future transportation investment in California with the state's climate, health, and social equity goals. CAPTI outlines a series of changes to how transportation planning, project scoping, project programming, and environmental mitigation are approached throughout the state. These changes are significant and will influence how transportation project development and implementation occurs in California and in Ventura County in the future. A primary example of this change is highlighted by this guiding principle outlined in the adopted CAPTI:

"Promoting projects that do not significantly increase passenger vehicle travel, particularly in congested urbanized settings where other mobility options can be provided and where projects are shown to induce significant auto travel. These projects should generally aim to reduce VMT and not induce significant VMT growth. When addressing congestion, consider alternatives to highway capacity expansion, such as providing multimodal options in the corridor, employing pricing strategies, and using technology to optimize operations." 1
The CTP intends to align long-range transportation planning in Ventura County with this guiding principle, while also acknowledging local mobility needs, travel demands, and long-term maintenance of the transportation system in the county.

Senate Bill 743

Senate Bill (SB) 743 is an amendment to the California Environmental Quality Act (CEQA) adopted by the State of California which attempts to balance the needs of congestion management to reduce greenhouse gas emissions, promote infill development, and improve public health though active transportation. SB 743 requires an adoption of vehicle miles travelled (VMT) as the most appropriate measure of transportation impacts, a departure from using vehicle delay or level-of-service (LOS) to determine transportation impact. LOS focuses on maintaining traffic speeds and minimizing delay, which often results in adding travel lanes, making it difficult to build infill housing and other land uses in denser areas. Using VMT addresses induced travel to reduce the amount of vehicle traffic. As of July 1, 2020, CEQA Guidelines Section 15064.3 requires that VMT is utilized during the preparation of CEQA documents to demonstrate the holistic impact of a project on factors associated with vehicle miles, such as greenhouse gas emissions.

In conjunction with State mandates, Ventura County has adopted strategies to utilize VMT as its leading metric to measure transportation impact. Local agencies have discretion to develop and adopt their own thresholds or rely on thresholds recommended by other agencies, such as the Governor's Office of Planning and Research (OPR) Technical Advisory for VMT thresholds.

Opportunities and Challenges

Planning for transportation and mobility needs over the next 30 years presents a range of challenges related to understanding forecasted changes in demographics and population, anticipating the availability of funding for transportation, and responding to the impacts of climate change on the environment and transportation infrastructure. Looking forward also allows us to consider a range of potential opportunities, technologies, and advances in mobility that could provide substantial benefits to transportation and mobility in Ventura County.

A variety of opportunities and challenges that will influence the evolution of how people move and travel in Ventura County were identified during the development of the CTP. These opportunities and challenges help guide the development of the plan, as well as its projects, strategies and programs.

Opportunities

Increasing support for transit and active transportation – There is strong interest among residents in Ventura County in advancing improvements to transit services and active transportation infrastructure for non-motorized forms of travel. While the relative number of transit trips in the county is very low compared to automobile travel, transit services fill a vital role in providing mobility to vulnerable populations and populations that have limited access to a vehicle. This includes low-income residents, youth, and seniors. For these residents, transit provides a vital service, offering access to employment, education, medical appointments, and shopping.

Interest in active transportation has continued as Ventura County has emerged from the pandemic. The community engagement efforts conducted in support of the CTP revealed strong interest from community members across the county in upgrading and repairing existing active transportation infrastructure, adding new active transportation infrastructure, and connecting these facilities to key destinations and transit stops.

Increasing State transportation funding levels – In 2017, the state legislature passed SB1, which created a significant new source of funding for the repair, maintenance, and enhancement of the transportation network in California. SB1 and other recent state legislation have not only increased the amount of funding available for transportation, but also placed an emphasis on funding multimodal transportation projects that seek to reduce reliance on automobile travel and help the state meet its climate-related goals to reduce emissions and vehicle miles traveled. These new funding sources create opportunities for VCTC and local agencies in Ventura County to fund multimodal transportation improvements.

Electrification of vehicle travel – In August 2022, the California Air Resources Board (CARB) issued a new rule requiring that all new cars sold in the state by 2035 be zero-emission vehicles. This rule also includes interim goals between 2022 and 2035, identifying minimum percentages of zero-emission vehicle sales. Increasing levels of zero-emission vehicle adoption in the state and in Ventura County will require a corresponding increase in infrastructure In the case of electric-powered vehicles, this infrastructure would be provided in a variety of forms, from public charging stations to charging stations integrated into new and existing private development, including single family and multi-family residential, commercial office, and commercial retail. As the regional transportation planning agency for the county, VCTC would assist in the planning for public electric and zero-emissions vehicle charging infrastructure countywide, while also working with local agencies to provide input, expertise, and guidance related to local land use policies and programs to encourage the implementation of this infrastructure with private development and private property.

There are numerous recent and ongoing zero-emissions vehicle planning efforts, such as the California Energy Commission Electric (CEC) Vehicle Readiness Plan for Ventura, Santa Barbara, and San Luis Obispo Counties; the Ventura County Electric Vehicle Ready Blueprint prepared by the Ventura County Regional Energy Alliance (VCREA), CEC, and EV Alliance, the Central Coast ZEV strategy; and VCTC's and GCTD's Zero Emission Bus Transition Plans. The recommendations from these plans should be considered in development of the strategy for the future of electric and other zero-emissions vehicles in Ventura County.

Continued growth of economic engines – Ventura County is home to several major employers that make substantial contributions to the county's

economy and job base. These include the Port of Hueneme, Naval Base Ventura County (NBVC), and California State University Channel Islands (CSUCI). Other industries, including agriculture, healthcare, and education also make substantial contributions to the county's economy. Each of these major employers and the major industries noted are all projecting future growth in their operations and employment levels, creating additional demand for transportation infrastructure and mobility options for their employees, students, visitors, and goods. During the development of the CTP, the project team coordinated with representatives of these organizations and facilities to ensure that the projects, programs, and strategies identified in the CTP enhance these facilities and help to support their continued growth and contributions to Ventura County's economy.

Challenges

Slowing population growth – The Southern California growth forecasts released by SCAG as part of the development of the 2024 RTP project that population in Ventura County is not projected to change between 2019 and 2050. Slowing population growth may help to reduce some travel pressures on the freeways and roadways in Ventura County, but limited growth also presents specific challenges. These include reductions in available local funding sources resulting from limited changes in tax receipts, changes in how and why people move, and potentially making Ventura County less competitive when pursuing outside sources of funding when compared to other counties that are growing. Table 1-1 illustrates these projections.

Table 1-1 Ventura County Population Forecasts (2019-2050)

JURISDICTION	2019	2050	% CHANGE
Camarillo	71,027	68,694	-3.3%
Fillmore	16,502	17,986	9.0%
Moorpark	36,514	37,474	2.6%
Ojai	7,679	6,962	-9.3%
Oxnard	202,705	214,077	5.6%
Port Hueneme	21,944	19,439	-11.4%
Santa Paula	30,834	31,975	3.7%
Simi Valley	126,804	123,220	-2.8%
Thousand Oaks	127,255	122,118	-4.0%
Ventura	110,934	109,528	-1.3%
Unincorporated Areas	93,737	86,325	-7.9%
Ventura County	845,935	837,798	-1.0%

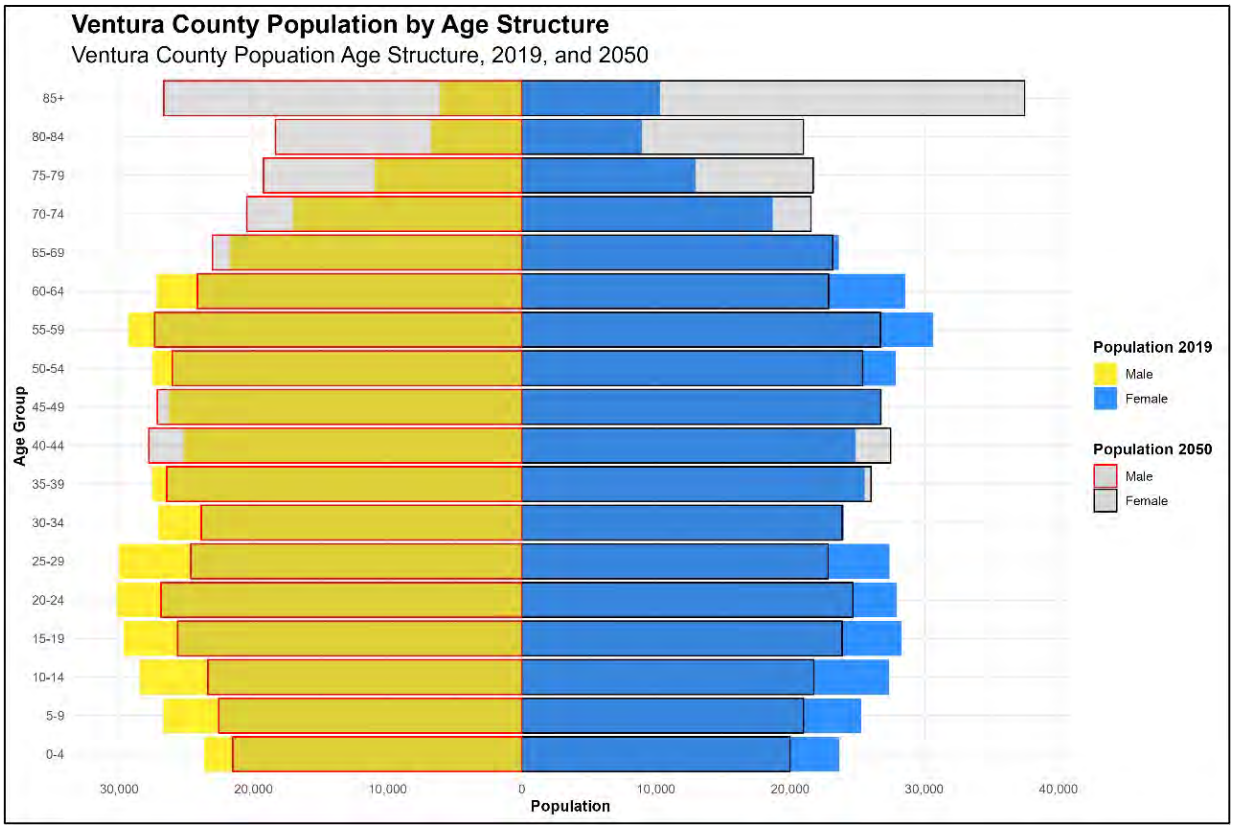
Source: SCAG 2024 RTP Population Forecasts

Another challenge with forecasted population growth is that many locations forecast to have positive growth (including Fillmore, Moorpark, and Santa Paula), are lower density communities, and this growth may result in land use development patterns that encourage greater levels of automobile use, resulting in higher levels of per capita VMT. Denser communities with more compact development patterns (such as Ventura, Simi Valley, and Thousand Oaks), are forecast to have small population declines through 2050, muting the potential positive impact of more compact and mixed-use development in these communities that would help to reduce VMT per capita on a countywide basis. Ongoing collaboration between VCTC and local cities will be important to encourage new development to locate near multimodal transportation services and infrastructure and to include design attributes that encourage multimodal travel.

An aging population – In addition to slowing growth, demographic shifts in Ventura County over the next 30 years will result in an aging population. Figure 1-2 illustrates the forecast change by age range between 2019 and 2050.

Significant increases in residents aged 70 years and older will create new demands and challenges for Ventura County's transportation systems, and in particular for transit and paratransit services that allow older adults to get around without a personal vehicle. Reductions in the size of the typical workforce age population (18-65 years) will also result in changes in how people travel, when they travel, and where they travel when they do make trips. Together, these demographic changes in Ventura County highlight a need for flexibility in the transportation system and a variety of multimodal solutions to meet future mobility needs.

Figure 1-2 Population by Age Structure



Source:

Declining transit ridership – Chapter 2 details the decade-long trend of declines in transit ridership both in Ventura County and nationwide. These declines accelerated during the COVID-19 pandemic, and even though the county is emerging from the effects of the pandemic, in general, transit ridership is not recovering quickly. While the county is faced with challenges that would suggest a greater demand and need for transit services – an aging population, large numbers of low-income workers – the current nature of transit services in Ventura County – numerous small operators, limited connections between cities, and low frequency of service – contributes to low ridership and discourages residents from trying the service. VCTC is actively studying opportunities to improve and better integrate transit services through the Transit Integration and Efficiency Study (TIES), and the California Transportation Plan (CTP) identifies a variety of flexible and creative transit solutions and programs for further study.

Limitations on local funding - Ventura County does not currently have a locally-generated and controlled source of dedicated transportation funding. All other counties in the SCAG region – Los Angeles, Orange, Riverside, San Bernardino, and Imperial – in addition to Santa Barbara County to the north, have a dedicated local transportation sales tax measure that serves as an ongoing source of funding for the repair, maintenance, and enhancement of the transportation networks in these counties. In addition to providing a locally controlled source of funding, the funds from these measures can help to serve as matching funds in the pursuit of additional State and Federal funding for transportation projects, compounding the benefits of these local funding sources. The absence of a locally controlled transportation funding source in Ventura County puts the county at a disadvantage when pursuing some State and Federal grants and in keeping pace with neighboring counties in making investments in the transportation network. This latter item can help to reduce Ventura County's competitiveness in attracting businesses, residents, and other investment.

While the CTP cannot identify a specific or preferred local funding source, the projects, programs, and strategies outlined as part of Scenario B in Chapter 7 assume that during the 25-year horizon of the CTP, some form of local transportation funding would become available in Ventura County. Scenario B contains a package of multimodal improvements that could serve as the foundation for a program of projects that could be funded should a new local funding source emerge.

Balancing vehicle miles traveled (VMT) and level of service – SB743 changed the metric used to determine the performance of the transportation system in California, shifting the emphasis from traffic level of service to VMT. This shift has created a substantial change in how long-range planning documents like the CTP examine the performance of the future transportation network. The 2013 CTP considered metrics like vehicle hours of delay and volume to capacity ratios to determine how the future transportation network would perform. In this version of the CTP, evaluation of the performance of the different future transportation network scenarios focuses on changes to per capita VMT metric. This shift helps to ensure that the CTP is in alignment with the SCAG RTP and other State planning documents mentioned previously, such as the California Transportation Plan and California Action Plan for Transportation Infrastructure (CAPTI).

Opportunities and challenges help to illustrate the importance of regular updates to long range planning documents like CTP. Many of these opportunities and challenges differ substantially from those identified in the 2013 version of the CTP. As the demographics, transportation network, economic environment, and climate of Ventura County continues to change, regular updates to the CTP are necessary to ensure that VCTC continues to plan for the future of transportation in Ventura County.

CTP Goals and Principles

Defining clear goals and objectives is key to the development of a meaningful transportation plan, informing the strategic narrative, alternatives evaluation and implementation framework. Throughout the CTP preparation process, the project team worked collaboratively with the project's Regional Advisory Committee (RAC) over the course of several meetings to formulate a set of goals, objectives, and key principles to guide the development of projects, programs, and strategies for inclusion in the CTP. Integral to this process is

review and consideration of goals and objectives expressed in previous VCTC planning efforts. This helps to ensure consistency with recent planning efforts and allows the CTP to build on and advance the transportation and mobility objectives that VCTC has identified as part of these recent plans.
The goals and their corresponding objectives identified for the CTP are the following:

- **Goal 1: Balance Transportation and Land Use**
  Principle 1.1 Foster a diversity of land uses that improve ease of access to housing, employment, recreation, and other needs
  - Principle 1.2 Integrate transportation and land use planning to encourage walking, cycling and transit
  - Principle 1.3 Enhance transit services to encourage growth to locate within high-quality transit areas (HQTAs)
  - Principle 1.4 Improve active transportation facilities and infrastructure between residential and commercial zones
- **Goal 2: Reduce Emissions and Improve Sustainability**
  - Principle 2.2 Ensure availability of electric vehicle (EV) supportive infrastructure
  - Principle 2.3 Reduce per capita VMT
  - Principle 2.4 Encourage travel using low or zero emissions modes for more trips
- **Goal 3: Foster Economic Prosperity**
  - Principle 3.1 Provide residents with affordable access to opportunities for employment, education, and social services
  - Principle 3.2 Improve the efficiency of freight movements while mitigating potential adverse impacts on local communities
- **Goal 4: Improve Multimodal Mobility Choices and Access to Destinations**
  - Principle 4.1 Provide integrated and seamless travel connections between modes
  - Principle 4.2 Reduce transit travel times, making them more competitive with private auto travel
  - Principle 4.3 Supports a range of multimodal trip options to access key destinations
- **Goal 5: Enhance Transportation Safety to Eliminate Deaths and Serious Injuries**
  - Principle 5.1 Reduce the number of serious injury collisions year on year
  - Principle 5.2 Improve design and operations to ensure people feel safe using the transportation system
  - Principle 5.3 Improve safety outcomes for vulnerable users of the transportation system

Figure 1-3 demonstrates how the selected goals (outlined in red) are in alignment with goals and objectives that have been identified in both Ventura County's transportation and planning documents, and statewide strategies and plans. Figure 1-3 also includes additional goals that are present in these plans but were screened out in the process of developing this CTP.

Figure 1-3 CTP Goal Alignment with Local and Statewide Plans

	Connect SoCal	Communities Connected	Ventura County Freight Corridors Study	California Transportation Plan 2050	California Freight Mobility Plan 2023	CAPTI 2.0
Goal 1: Balance Transportation and Land	G2					
Goal 2: Reduce Emissions	G3	G5	G3	G2/G7	G3	S2
Goal 3: Foster Economic Prosperity	G4	G4	G2	G6	G2	
Goal 4: Improve Multimodal Mobility	G1	G3	G1/G7	G4	G1/G7	
Goal 5: Enhance Transportation Safety		G1	G5	G1	G5	
Social Equity		G2		G3		S3
Healthy Communities			G4		G4	
Asset Mangement			G6	G8		S1
Transparancey and Accountability					G6	S4
Quality of Life				G5		

In addition to the CTP goals, the Plan also includes a set of three guiding principles, which build on these goals and provide guidance for how to align values into actionable objectives. These principles are a foundation for the CTP, as well as for the projects, programs, and strategies identified within the document.

- Transportation projects enhance the quality of life for Ventura County residents and visitors.
- Transportation investments are aligned with conservation priorities to reduce impacts on the natural environment and preserve agricultural and open space areas.
- Transportation investments are equitably planned and implemented to eliminate burdens of low-income communities, disadvantaged groups and people of color.

Ventura County Comprehensive Transportation Plan

Chapter 2 – EXISTING CONDITIONS

Ventura County is home to approximately 850,000 residents, who enjoy access to the Pacific Coast, abundant open space, and a wide range of community amenities, while living in proximity to the significant employment opportunities that exist in Southern and Central California.

To understand how mobility needs and challenges for Ventura County residents will change and evolve over the next 25+ years, it is essential to understand current conditions related to transportation and mobility. This chapter provides a high-level overview of existing conditions related to transportation, mobility, and demographics within Ventura County. Subsequent chapters will discuss how these conditions will change in the future, particularly with the improvement projects identified within the CTP.

2.1 Mobility in Ventura County Today

To inform development of the shared vision and priorities for the transportation system in Ventura County, the CTP compiles and shares a range of data and information that describe and characterize the existing state of the system. The following data regarding current demographics, land use policies, travel patterns, roadway conditions, public transit services, active transportation, and fund sources all contribute to how Ventura County's residents, businesses and visitors use and experience the transportation system.

Population and Employment

Ventura County's diverse geography covers 1,843 square miles and ranges from rugged mountain terrain to coastal plains. The county offers a range of attributes and amenities that contribute to the quality of life for its residents. These include convenient access to the coast and open space, significant amounts of preserved agricultural land, proximity to regional employment centers, and the benefits of the coastal climate in Southern California.

Population

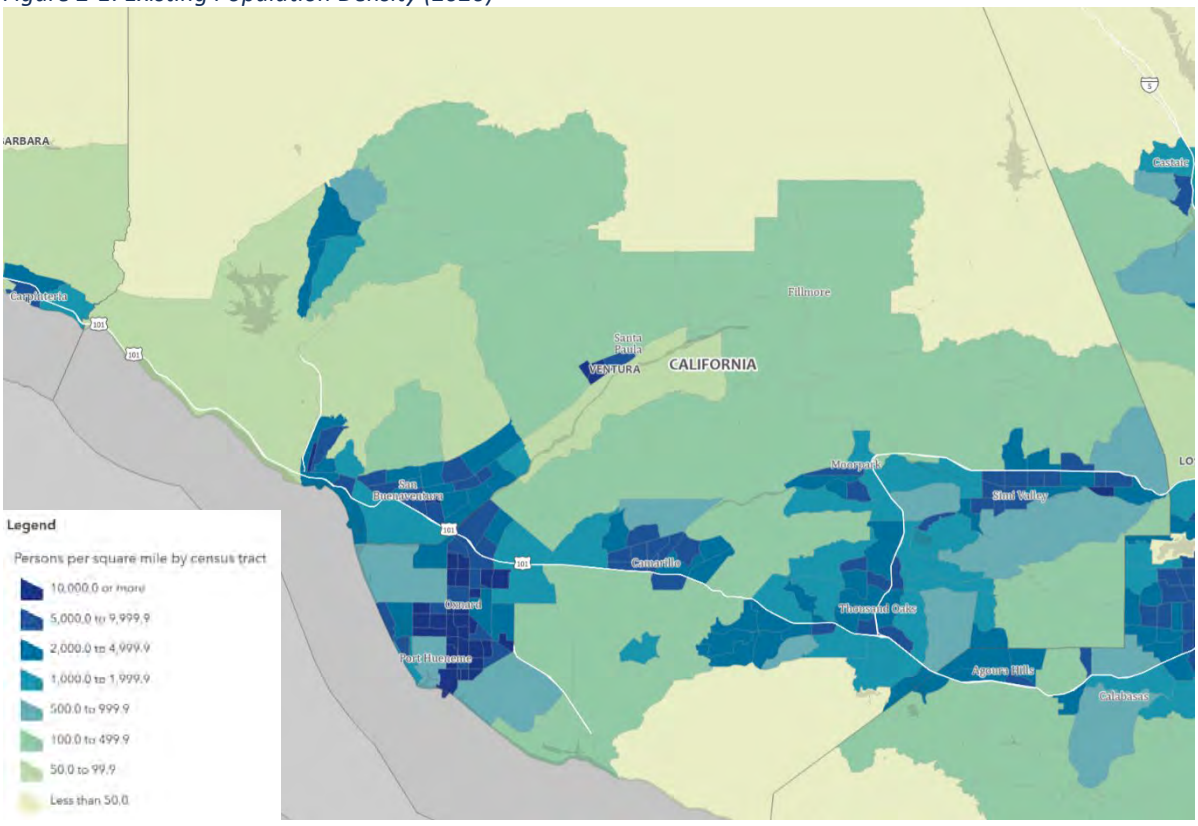
Approximately half of Ventura County's population lives in the cities surrounding the U.S. Highway 101 corridor within the cities of Ventura, Oxnard, Camarillo, and Thousand Oaks. The most densely populated areas are located in the ten cities in the county, particularly along SR 23 in Thousand Oaks, SR 118 in Simi Valley, SR 33 and SR 126 in the City of Ventura near the coast, SR 33 in Ojai, and U.S. Highway 101 and SR 1 in Oxnard.

Figure 2-1 illustrates existing population density across the county. In addition, in line with the national trend, Ventura County will be facing a significant uptick in the median age of the population in the county as the baby boomers enter their 70s and 80s. With lower rates of in-migration and seniors living longer, Ventura County will need to plan around the needs of an older population.

Employment

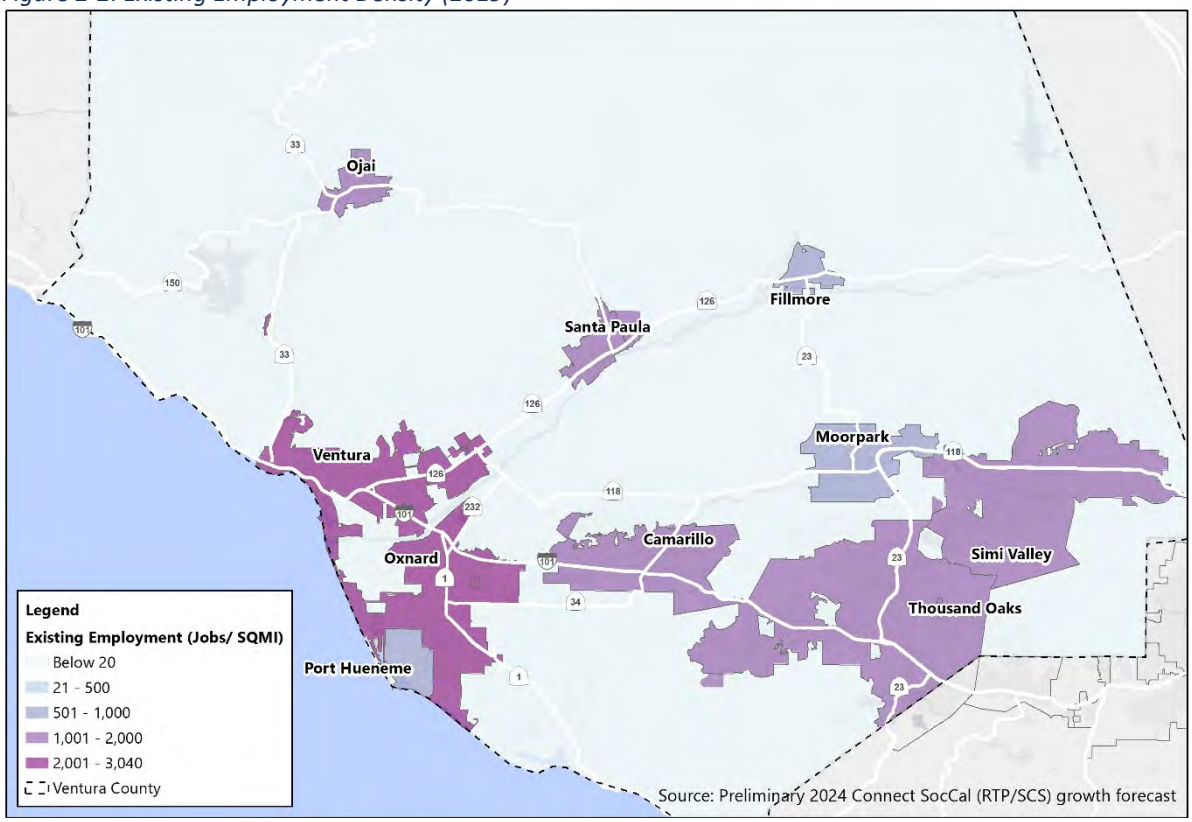
Another indicator that provides insight into where people travel is employment density. Employment density is calculated using the total number of jobs per square mile for each jurisdiction in Ventura County. Employment density data is derived from the latest projections for the preliminary 2024 Connect SoCal growth forecast.

Figure 2-1: Existing Population Density (2020)



Source: US Census Bureau - https://maps.geo.census.gov/ddmv/map.html

Figure 2-2: Existing Employment Density (2019)



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Land Use

This section includes a description of the land use characteristics present in the county, as land use is a key indicator for understanding travel patterns, traffic flows, and vehicle miles traveled (VMT). More detailed information regarding land use policies for each jurisdiction is provided in Section 2.4.

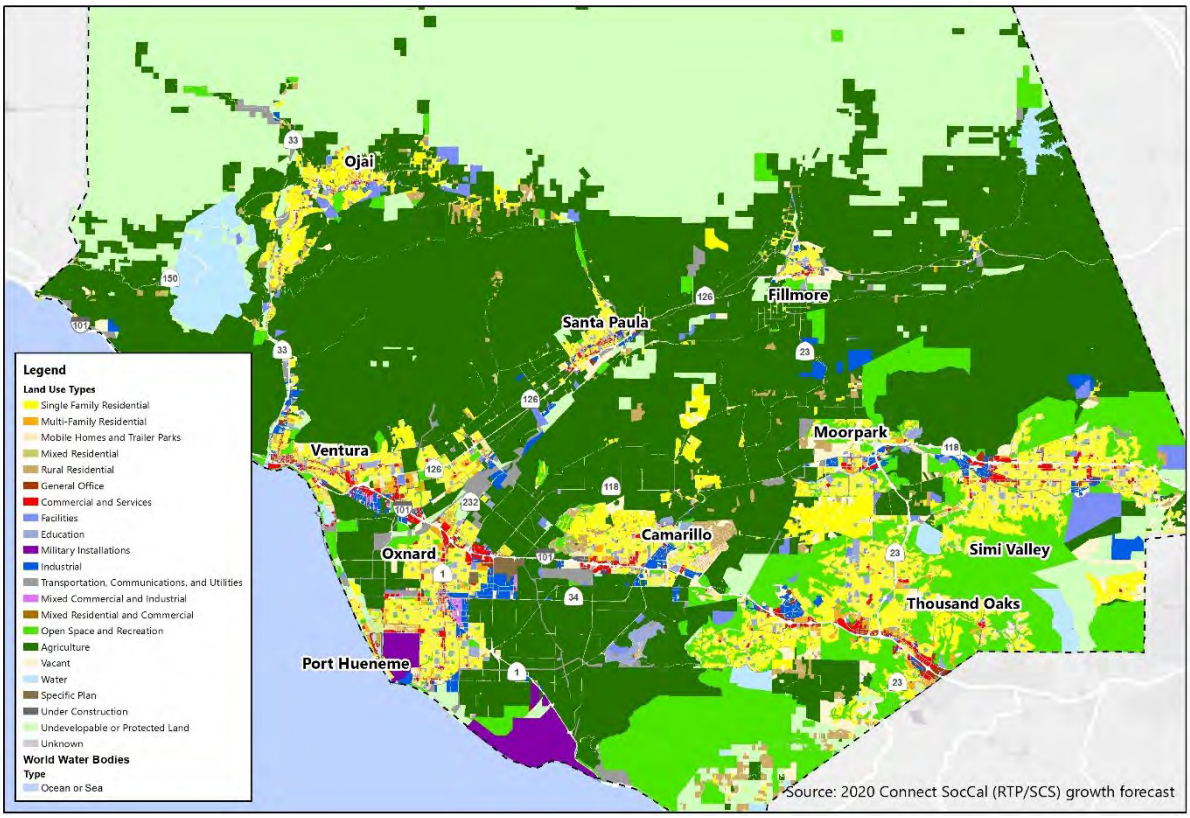
Existing Land Use

Development within Ventura County is concentrated within the ten incorporated cities. The Los Padres National Forest in the northern portion of Ventura County is classified as "undevelopable or protected land," contributing to its low population density. A significant portion of land to the south of the National Forest is also designated for agriculture. Pockets of residential and commercial development are located within this central portion of the county in the cities of Ojai, Santa Paula, and Fillmore.

Areas with some of the most diverse land use development in the county can be found generally concentrated along the coast. This includes a mix of single family residential, multi-family residential, commercial, and industrial land uses. The southern portion of Ventura County is primarily comprised of agricultural, residential, and commercial land uses. A mix of commercial development and multi-family residential land uses can be found along U.S. Highway 101 and SR 1 as well. Residential, industrial, and commercial are the primary uses in the eastern areas of the county, along with agricultural, open space, and rural residential land uses. Existing land use patterns are further highlighted in Figure 2-3 below.

Land use development within Ventura County is guided by policies that protect agriculture and open space between more urbanized areas. These policies have been in effect since the adoption of the Guidelines for Orderly Development in 1969. These efforts are reinforced through the 1998 countywide voter-approved Save Open Space and Agricultural Resources (SOAR) initiatives, which establish City Urban Restriction Boundary (CURB) lines around the cities. SOAR initiatives require a majority vote to urbanize lands zoned for open space, agricultural or rural land uses. SOAR initiatives are active in the County and every city in the county except for Port Hueneme and Ojai. Unincorporated open space outside of Ojai's city limits and around the unincorporated communities of Meiners Oaks and Oak View is protected by the countywide SOAR initiative. In addition to the Guidelines for Orderly Development and SOAR ordinances, Greenbelt Agreements reinforce protections for open space and agriculture lands. Under a Greenbelt Agreement, cities agree not to annex any property within a greenbelt, while the Board of Supervisors agrees to restrict development to uses consistent with existing zoning.

Figure 2-3: Existing Land Use



Key Destinations/Activity Centers/Employment Centers

Key destinations within Ventura County include recreational areas, employment centers, centers for art and culture, and colleges. These destinations are concentrated in several areas throughout the county, with a high density located in the City of Ventura. These include but are not limited to the Ventura Harbor Village, the Ventura Pier, Downtown Ventura, and the Ventura County Government Center. Key destinations in other parts of the county include The Oaks shopping center, Downtown Ojai, the Camarillo Outlet Mall, Sycamore Cove Beach, Wildwood Regional Park, Paradise Falls, and State beaches.

The Naval Base Ventura County (NVBC), including Point Mugu and Port Hueneme, serves as a major employment center in the county. Healthcare and related industries are some of the county's other largest employers, with the Ventura County Medical Center, Community Memorial Health System, Adventist Health Simi Valley, St. John's Regional Medical Center, Los Robles Regional Medical Center, Amgen Inc., and Baxter Healthcare serving as major employment areas. The City of Oxnard also has key agricultural and industrial areas that serve as employment hubs. The majority of jobs in the unincorporated areas of the County are in the agricultural, forestry, fishing, and hunting industries.

Institutional uses also serve as key activity centers within Ventura County. In addition to primary and secondary education facilities, several colleges and universities are located within Ventura County, including California State University (CSU) Channel Islands, California Lutheran University, Ventura College, Oxnard College, Moorpark College, and Saint Thomas Aquinas College.

Enrollment at these institutions continues to increase, with travel demand also increasing as a result.

Ventura County Land Use and Climate Policies

Climate Action Plans

The 2040 County of Ventura General Plan serves as the Climate Action Plan (CAP) for the unincorporated areas in Ventura County, including both a greenhouse gas (GHG) emissions reduction strategy and climate adaptation strategy integrated throughout the 2040 General Plan. The GHG Strategy identifies policies and implementation programs that establish GHG emissions reduction targets and GHG reduction measures, consistent with state guidance and applicable GHG protocols. The Climate Adaptation Strategy includes analysis of climate change vulnerability and adaptation measures that address unincorporated county vulnerabilities to climate change and increase the County's long-term resilience, per the requirements of Government Code Section 65302(g). The specific goals and policies under both strategies that would otherwise form a "stand-alone" CAP are integrated into the Ventura County 2040 General Plan.

As part of the CAP, the County will facilitate the coordination of its Climate Action Plan implementation and maintenance with the cities in the county, the Air Pollution Control District, and other organizations to promote countywide collaboration on addressing climate change.

The GHG Strategy consists of five elements: baseline GHG emission inventory and forecasts, GHG emission reduction goals and targets, GHG emissions reduction measures, GHG Strategy Implementation and Monitoring, and Environmental Review of the GHG Strategy and General Plan. The CTP aims to address the reduction of GHG emissions through sustainable mobility strategies and recommendations. City-level Climate Action Plans will also be integrated into the development of these strategies to ensure consistency across jurisdictions.

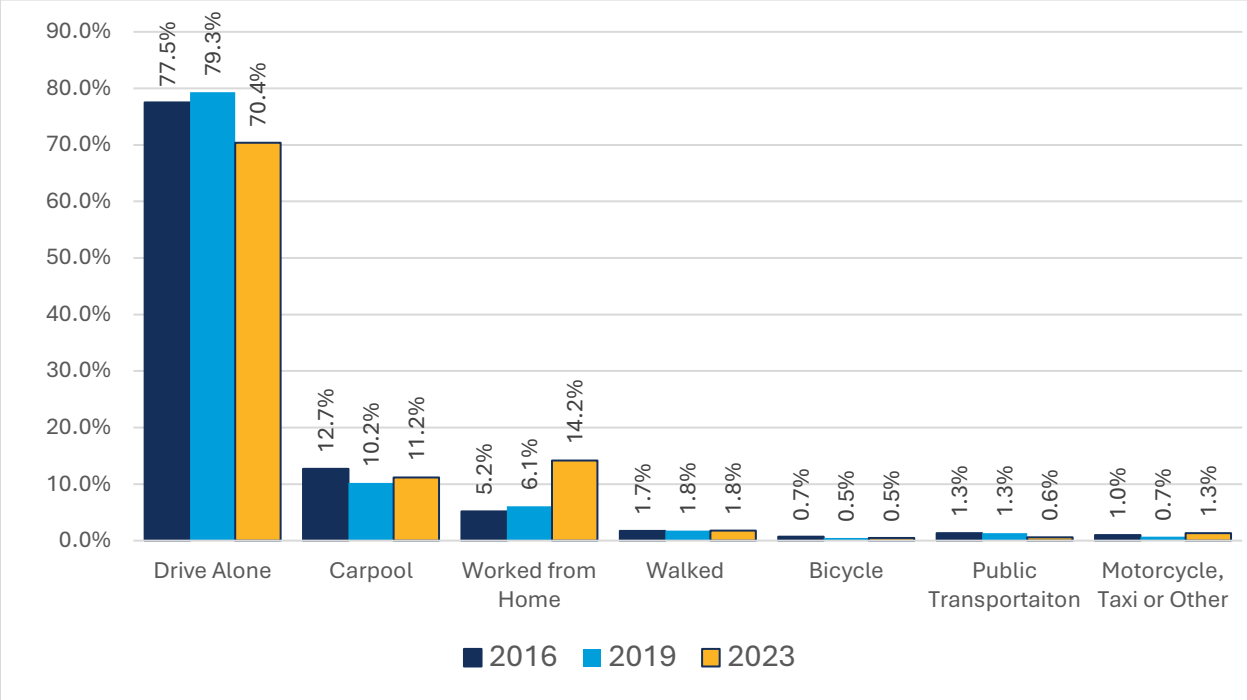
Of the ten incorporated cities in Ventura County, two have implemented a CAP, those cities being Port Hueneme and Simi Valley. Additionally, four others are in the process of developing one: Camarillo, Moorpark, Oxnard, and Thousand Oaks. Each of the six incorporate their CAPs in differing ways, either as a section in their General Plan, or as a unique standalone plan. Each establishes GHG emission reduction targets and reduction measures that are consistent with state direction along with an analysis of climate change vulnerabilities and adaptation measures.

Vehicle Travel Patterns

Commute Mode Split

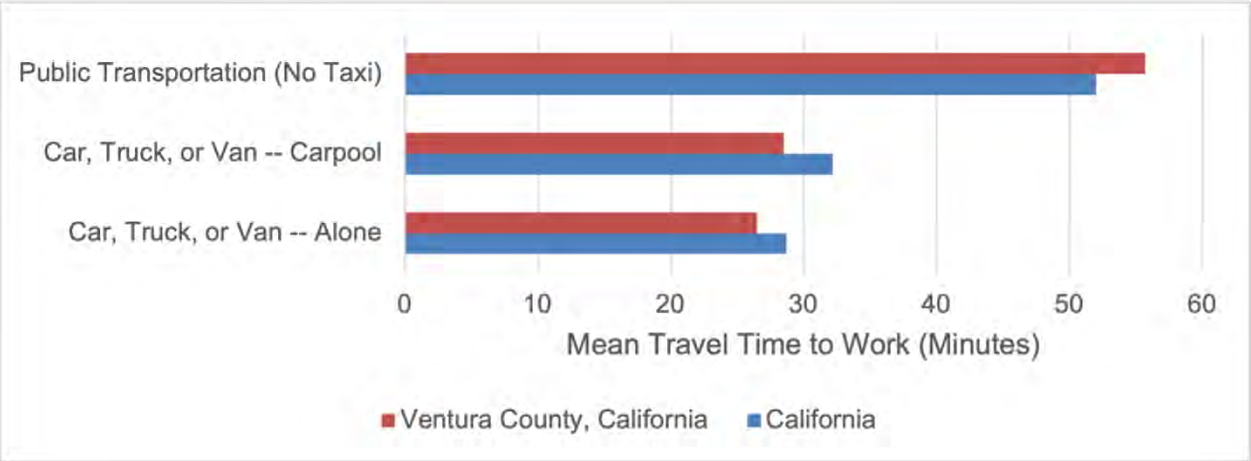
The majority of Ventura County residents drive to work, as shown in the figure below. Based on pre-pandemic data, Ventura County has a higher rate of single occupancy vehicle commuting and a lower rate of public transit use compared to the state. The average commute time in Ventura County is shorter than the state average, and a higher percentage of residents work outside their county of residence in Ventura County than statewide. The average commute time for public transit users in Ventura County is double the commute time of a single occupancy vehicle commuter. Ventura County also has a higher rate of households with 3+ vehicles compared to the state (49.8% versus 41.2%).

Figure 2-4: Commute Mode Share



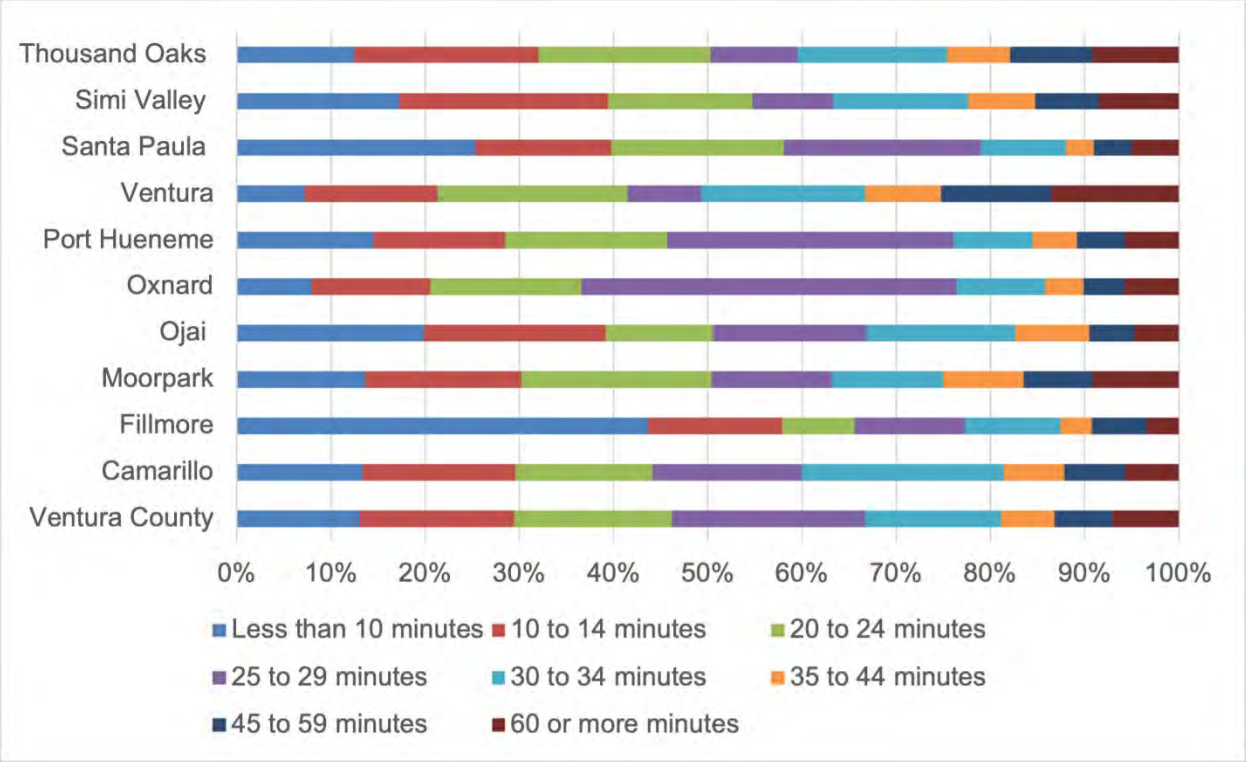
Source: U.S. Census Bureau, American Community Survey One-Year Estimates (2016, 2019,-2023)

Figure 2-5: Commute Time by Mode



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates (2015-2019)

Figure 2-6: Commute Time By Jurisdiction

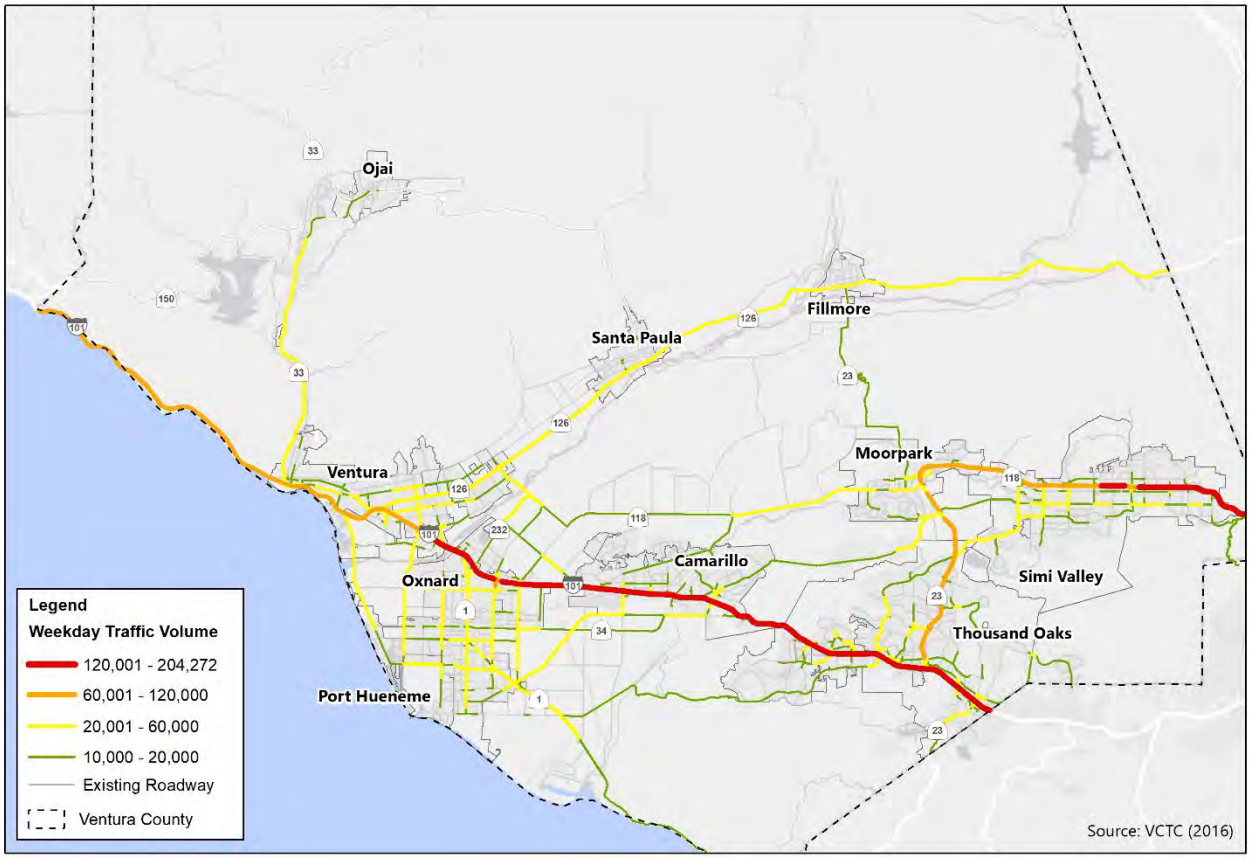


Source: U.S. Census Bureau, American Community Survey 5-Year Estimates (2015-2019)

Average Weekday Traffic Volumes

In Ventura County, the highest travel volumes on weekdays are observed on portions of U.S. Highway 101 and portions of SR 118 in Simi Valley. Other segments with high average weekday volumes include U.S. Highway 101 within and north of the City of Ventura, SR 118 west of Simi Valley, and the entire segment of SR 23. Moderate volume segments include the length of SR 126 through Santa Paula, Fillmore, and Piru, SR 33 from Ventura to Mira Monte, and major arterials in Oxnard, Ventura, Newbury Park, and Simi Valley. With few alternatives, traffic is funneled onto these routes which are the greatest contributors to delay countywide. Figure 2-10 below details average weekday volumes on major arterials and freeways in Ventura County.

Figure 2-7: Average Weekday Traffic Volume



Roadway Volume to Capacity Ratios

Existing travel pattern data is shown via 2016 AM and PM Volume/Capacity data available from the Ventura County Travel Demand Model. Volume/Capacity (V/C) is a metric to show how existing and future traffic volume compares to the capacity of a roadway or freeway corridor to handle for a given period of time. When volume meets or exceeds capacity, the V/C ratio is over 1.00, typically resulting in traffic delays and a breakdown in traffic operations. Letter grades are assigned to V/C to show the level of service. Corridors that are rated D, E, or F should consider remedies to improve V/C. Volume over Capacity ratios are graded relative to levels of service as follows:

- V/C at or greater than 1.00 is F
- V/C between 0.9 to 1.00 is E
- V/C between 0.8 to 0.9 is D
- V/C between 0.7 to 0.8 is C
- V/C between 0.6 to 0.7 is B
- V/C between 0.0 to 0.6 is A

The figures below show the V/C for each major Ventura County corridor for the AM and PM peak periods in the baseline year 2016. The

volume/capacity data highlights the connection between land use patterns across Ventura County and transportation planning policy. As shown in the figures below, notable high demand occurs on the few corridors that link separated cities throughout Ventura County. Roads with high V/C and low LOS in the AM Peak Period include:

- US 101 from Ventura to Ventura-LA County Line
- SR 118 from Moorpark to Ventura-LA County Border Line and SR 126 to Moorpark
- SR 23 from Fillmore to Moorpark and Olsen Road to US 101
- SR 34 from Pleasant Valley Road to Downtown Oxnard and Somis to Upland Road
- SR 1 from Ventura-LA County Line to Las Posas Road
- SR 126 in Piru, Fillmore, and west of Santa Paula
- SR 33 from Casitas Vista Road to Canada Street
- Santa Rosa Road/ Moorpark Road from Upland Road to Tierra Rejada Road
- Pleasant Valley Road from Rose Ave to Lewis Road
- Hueneme Road from Saviers Road to Potrero Road
- Most arterials in Downtown Oxnard
- Santa Susana Pass Road from Katherine Road to Rocky Peak Road
- Victoria Avenue from US 101 to Wooley Road
- Harbor Boulevard from Olivas Park Road to 5th Street

In the PM Peak Period, roads with high V/C and low LOS include:

- US 101 from Ventura to Ventura-LA County Line
- SR 118 throughout corridor except Moorpark
- SR 23 from Fillmore to Thousand Oaks
- SR 34 from Pleasant Valley Road to Downtown Oxnard and Somis to Upland Road
- SR 1 from Ventura-LA County Line to Las Posas Road
- SR 126 in Piru, Fillmore, and Santa Paula
- SR 33 from Casitas Vista Road to Canada Street
- Santa Rosa Road/ Moorpark Road from Upland Road to Tierra Rejada Road
- Pleasant Valley Road from Rose Ave to Lewis Road
- Hueneme Road from Saviers Road to Potrero Road
- Potrero Road/ Lynn Road from Lewis Road to Reino Road
- Westlake Boulevard from US 101 to Potrero Road
- Most arterials in Downtown Oxnard
- Santa Susana Pass Road from Katherine Road to Rocky Peak Road
- Victoria Avenue from US 101 to Wooley Road
- Harbor Boulevard from Olivas Park Road to 5th Street
- Olsen Road/ Madera Road from SR 23 to Royal Ave
- Tierra Rejada Road from Moorpark Road to Madera Road

For further context, the next section highlights countywide trends regarding internal versus external trips among the County's spheres of influence.

Figure 2-8: AM Peak Period V/C 2016

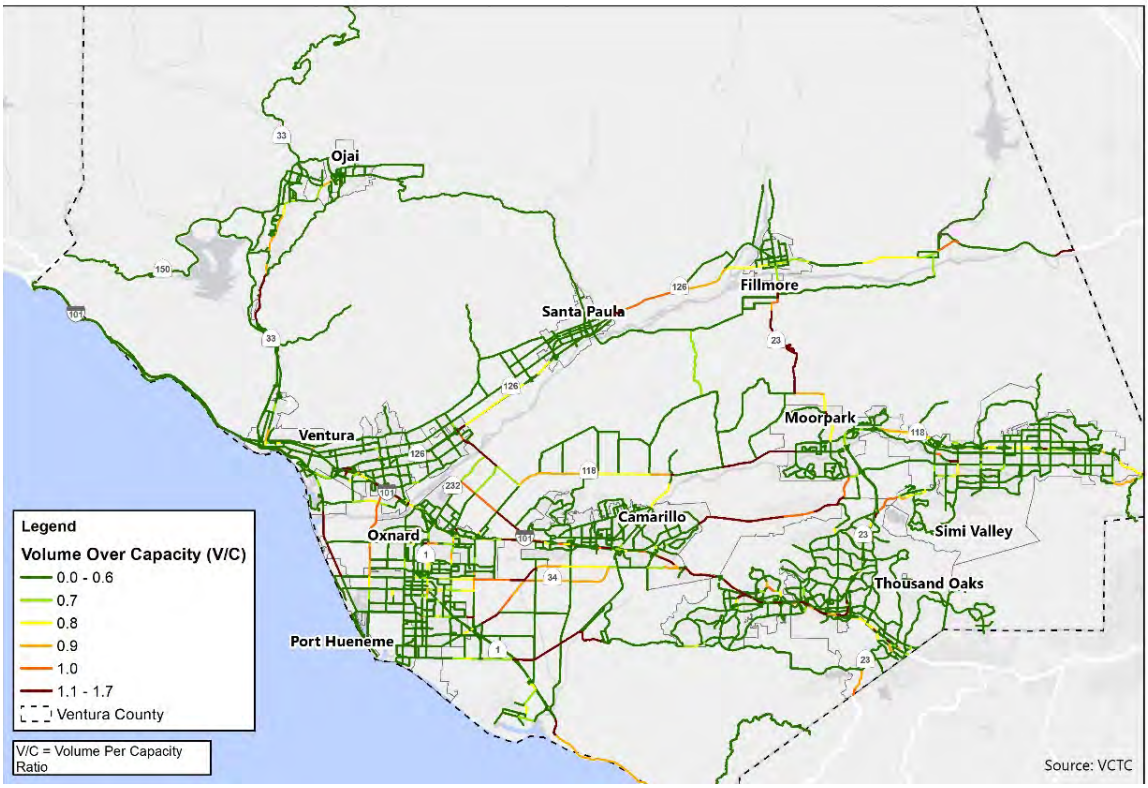
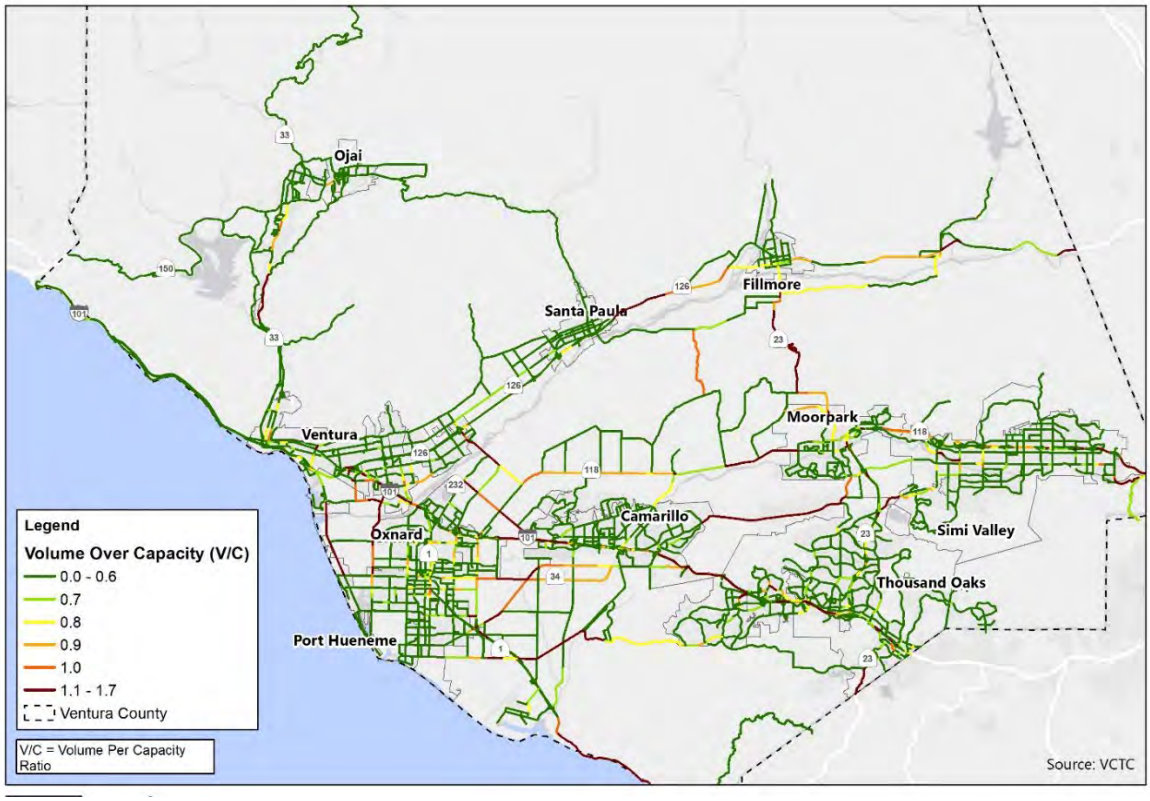


Figure 2-9: PM Peak Period V/C 2016



Origin-Destination Analysis

Origin-destination (OD) data is helpful to determine where drivers are coming from and going to in order to identify the freeway and arterial segments they use to reach their destinations. According to VCTC 2016 OD data, approximately 2.12 million trips in total originate or end daily in Ventura County.Of these, 1.86 million daily trips (88%) are internal trips, meaning they start and end in Ventura County, but do not leave the County. The remaining approximate 260,000 daily trips (12%) are cross-border trips, or trips that cross the Ventura County border but originate or end inside Ventura County.

A breakdown of VMT by time of day for internal-internal (origin and destination inside Ventura County) or internal-external trips (one origin or destination point outside Ventura County) is shown in Table 2-1 below. This chart demonstrates that most external trips occur in the AM peak period, while a greater percentage of internal trips occur in the midday as well as during the PM peak period. The midday period features the most VMT but the shortest trip length, emphasizing a significant amount of short distance trips within Ventura County.

Table 2-1: Daily Internal, Internal-External (Outbound) and External-Internal (Inbound) Trip VMT in Ventura County

ADJACENT LOCATION	INTERNAL TRIP VMT	INBOUND AND OUTBOUND TRIP VMT	TOTAL VMT	AVG. TRIP LENGTHJ
Average Daily VMT	10.4 million	6.9 million	17.3 million	8 miles
AM Peak Period 6AM to 9AM	53.2%	46.8%	3.6 million	9 miles
Midday Period 9AM to 3PM	64.7%	35.3%	5.6 million	7 miles
PM Peak Period 3PM to 7PM	62.1%	37.9%	5.1 million	9 miles
Evening and Night Periods	55.5%	44.5%	3.0 million	8-10 miles

Travel patterns also vary between different regions in Ventura County. For instance, West County Districts (Ventura, Oxnard, Central County, and Camarillo) see a higher percentage of internal trips than East County Districts (Thousand Oaks, Moorpark, and Simi Valley), where a greater percentage of trips have an external origin or destination point. 84 percent of West County trips are internal, where only 70 percent of East County trips are internal. A breakdown of trip percentage by East and West County Districts is shown below.

Table 2-2: Trip Percentage by East and West County Districts

ADJACENT LOCATION	INTERNAL TRIP VMT	INDBOUND AND OUTBOUND TRIP VMT
Total Average Daily Trips	1.1 million	850,000
To West County	84% (Internal)	8%
To East County	6%	70% (Internal)
To North County	3%	1%
To Los Angeles County	4%	19%
To Santa Barbara County	2%	1%
Other	1%	1%

Origin-destination (OD) data is helpful to determine where drivers are coming from and going to in order to identify the freeway and arterial segments they use to reach their destinations. According to VCTC 2016 OD data, approximately 2.12 million trips in total originate or end daily in Ventura County. Of these, 1.86 million daily trips (88%) are internal trips, meaning they start and end in Ventura County, but do not leave the County. The remaining approximate 260,000 daily trips (12%) are cross-border trips, or trips that cross the Ventura County border but originate or end inside Ventura County.

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Table 2-3: Daily Internal and Internal-External (Outbound) or External-Internal (Inbound) Trip VMT by Ventura County Jurisdiction

JURISDICTION	AVERAGE DAILY TRIPS	DAILY INTERNAL TRIP PERCENTAGE	DAILY INBOUND OR OUTBOUND PERCENTAGE	AVERAGE DAILY VMT (MILLIONS)	DAILY INTERNAL VMT PERCENTAGE	DAILY INBOUND AND OUTBOUND VMT PERCENTAGE
Camarillo	179,387	50%	50%	1.4	24%	76%
Fillmore	28,754	53%	47%	0.3	11%	89%
Moorpark	83,037	42%	58%	0.8	14%	86%
Ojai	30,372	53%	47%	0.2	17%	83%
Oxnard	441,364	60%	40%	2.8	37%	63%
Port Hueneme	40,718	22%	78%	0.3	6%	94%
Ventura	339,889	62%	38%	2.2	38%	62%
Santa Paula	54,999	59%	41%	0.4	17%	83%
Simi Valley	324,619	61%	39%	3.0	28%	72%
Thousand Oaks	396,679	60%	40%	3.5	33%	67%
Unincorporated Areas	198,094	16%	84%	2.3	7%	93%
Ventura County	2,117,913	88%	12%	17.3	75%	25%

Table 2-3 presents the variation between internal trips and trips with one origin or destination point outside of any given jurisdiction. In each case, the percent of inter-jurisdictional VMT is greater than the percent of inter-jurisdictional trips. This is due to the average length of inter-jurisdictional trips, which is generally longer than the average length of an internal-internal trip. *Figure 2-13: Interjurisdictional (External) Trips vs VMT Percentage*

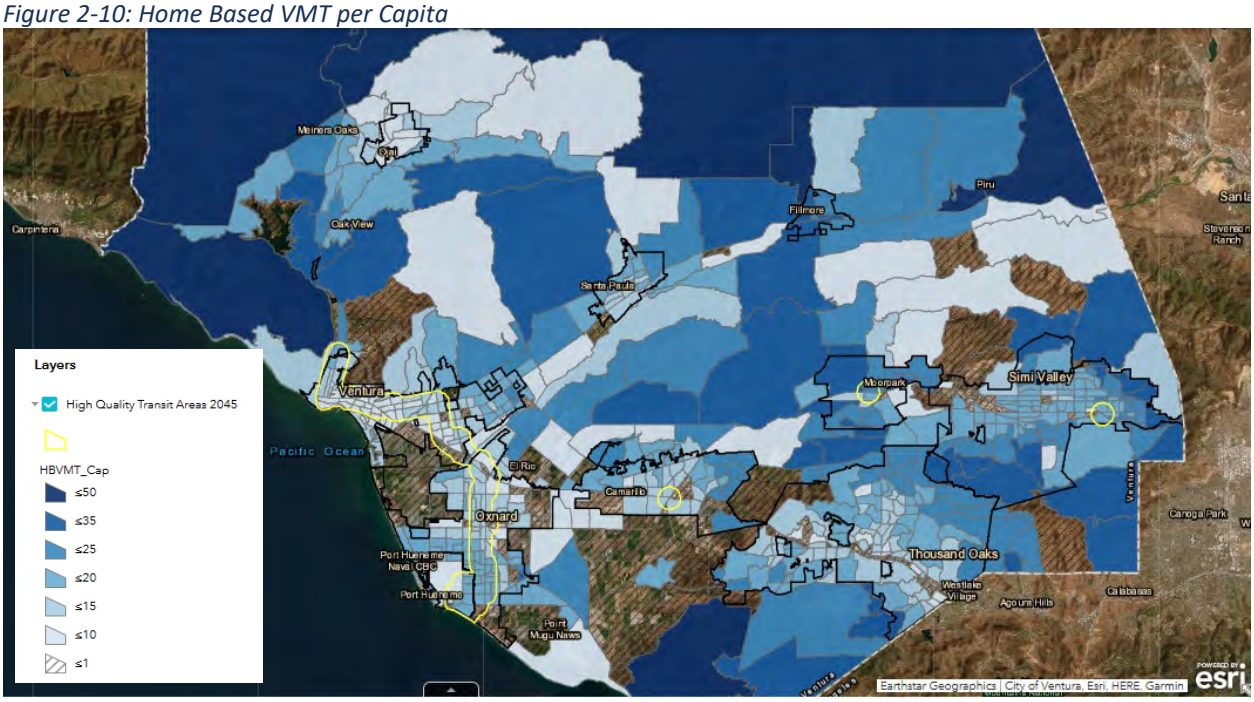
Due to the geography of the county and the existing freeway network, Ventura County experiences substantial pass-through traffic, or trips that originate and end outside of the County but also enter and exit the County at some point. According to the 101 Communities Connected Multimodal Corridor Study, approximately 18,000 daily trips pass-through on the U.S. Highway 101 Corridor between Los Angeles and Santa Barbara County (or about .1% of total daily trips countywide). In 2019, for the 376,849 commuters in Ventura County, 296,273 (79%) live and work within the county boundaries, while 68,409 (18%) commute to Los Angeles County, and the remaining 12,167 (3%) commute to Santa Barbara County.

Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) is an important metric to determine the amount of travel for all vehicles in a geographic region for a given period of time. It provides a measure of total distance traveled. With the changes with CEQA under SB743, California has shifted toward analyzing transportation impacts using VMT. As noted in the previous section, daily total VMT for Ventura County was approximately 17.3 million in the year 2016. The metric of VMT utilized in the following analysis is VMT per capita, which is calculated as total daily miles traveled divided by total population.

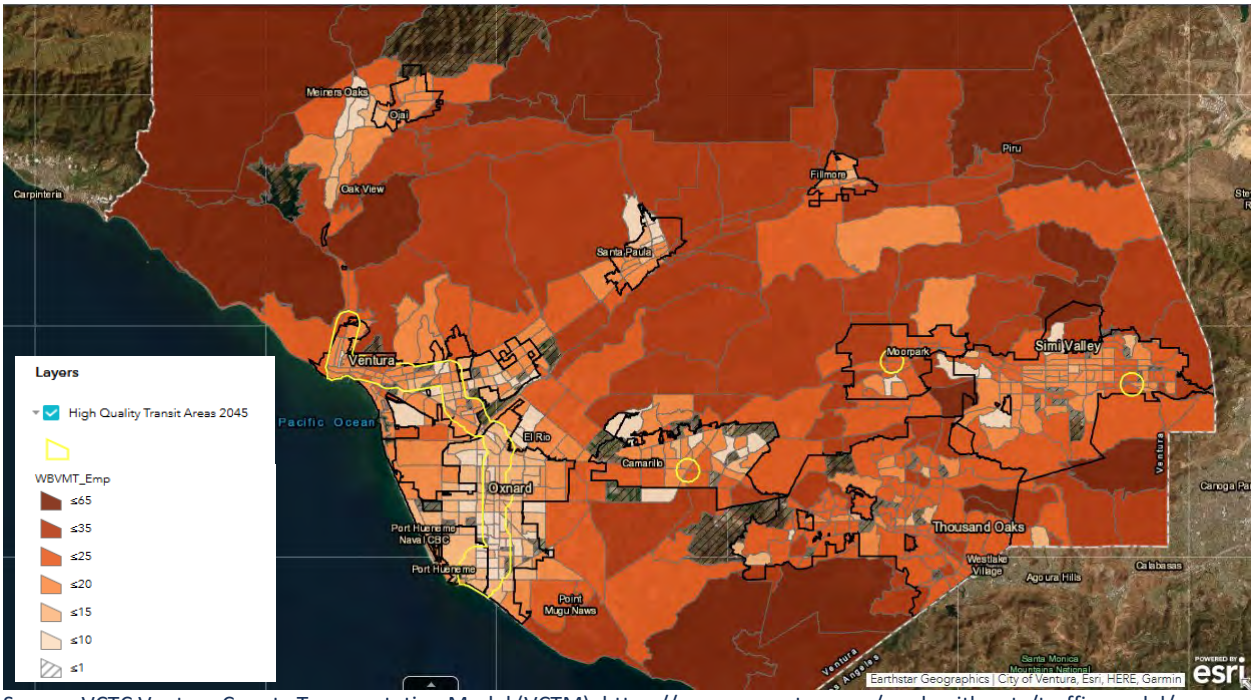
Data collected for VMT in Ventura County is categorized by transportation analysis zone (TAZ) for both home-based trips per capita and work-based trips per employee in the year 2016. A home-based trip is a trip which starts or originates from home. A work-based trip is a trip that starts or originates from an employee's place of work. The following figures sow the home-based VMT per capita and work-based VMT per employee by TAZ. The VMT in the figures below document Production–Attraction VMT, where VMT is attributed to zones producing and attracting the trip.

Figure 2-10: Home Based VMT per Capita



Source: VCTC Ventura County Transportation Model (VCTM): https://www.goventura.org/work-with-vctc/traffic-model/

Figure 2-11: Work Based VMT per Capita

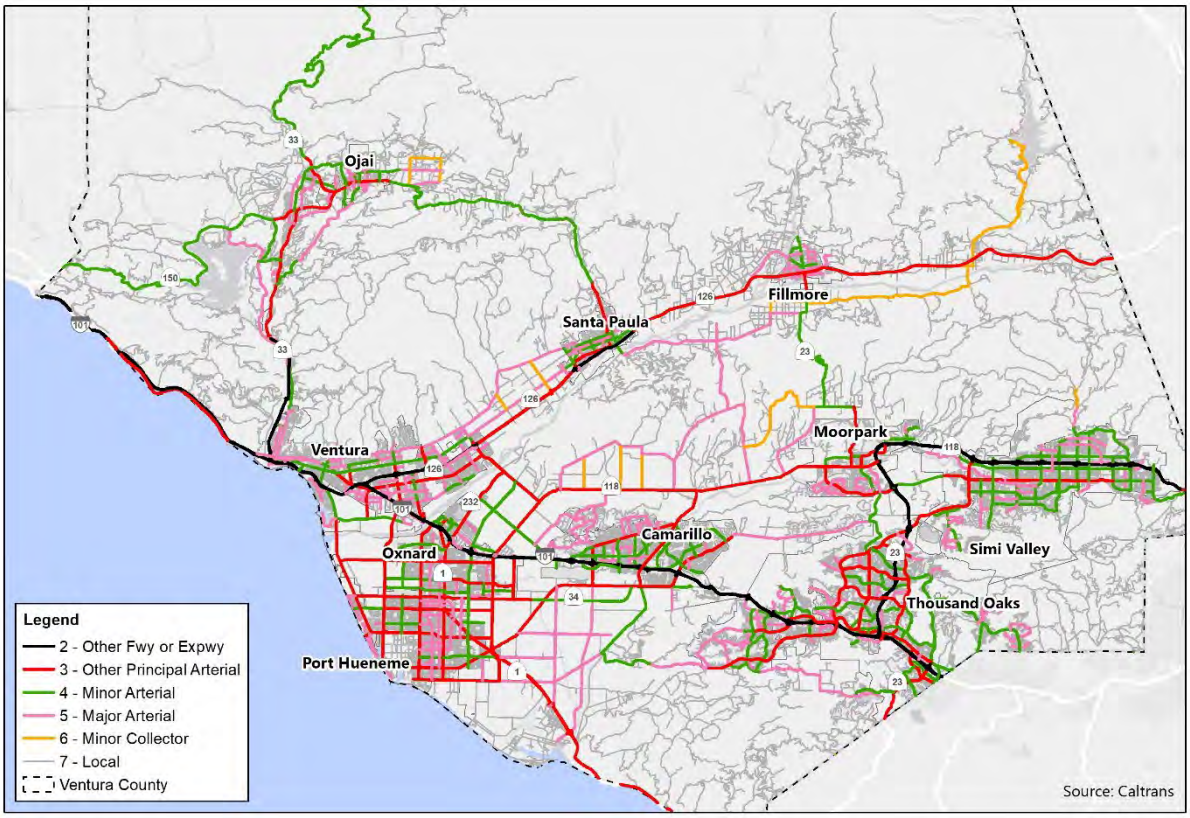


Source: VCTC Ventura County Transportation Model (VCTM): https://www.goventura.org/work-with-vctc/traffic-model/

Roadway Conditions

The roadway network in Ventura County is mostly developed and concentrated in the southern portion of the county. According to the Federal Highway Classifications used by the California Department of Transportation (Caltrans), a significant network of freeways and principal arterials are located in Ventura, Oxnard, and the greater Thousand Oaks area and a substantial number of minor arterials are located in the cities of Simi Valley and Camarillo. Most major roads in unincorporated Ventura County are classified as principal arterials or major collectors. Figure 2-16 below displays the functional classifications for the major roads network in Ventura County.

Figure 2-12: Federal Functional Classifications for Highways and Other Roads



Source: California Road System Classification

Regional Highways

Ventura County features one U.S. Highway and eight State Routes:

- **U.S. Highway 101,** traverses in an east (southbound) – west (northbound) direction in Ventura County connecting Thousand Oaks, Camarillo, Oxnard, and Ventura, before heading to Carpinteria (Santa Barbara County) to the northwest and Westlake Village (Los Angeles County) to the southeast.

- **State Route 1**, a coastal route connecting Malibu (Los Angeles County) to the eastern edge of Oxnard before connecting to U.S. Highway 101. The route continues north of Ventura and runs parallel to U.S. Highway 101 adjacent to the coast.

- **State Route 23,** a north-south route connecting Thousand Oaks and Moorpark, and connecting to SR 118 in the north and U.S. Highway 101 in the south.

- **State Route 33**, a north-south route connecting Ventura to Oak View, Mira Monte and Ojai before continuing throughout mountainous northwest Ventura County, connecting to U.S. Highway 101 in the south.

- **State Route 34**, a north-south route connecting Camarillo to unincorporated Somis, and connecting to U.S. Highway 101 and SR 1 near Oxnard in the south and SR 118 in the north.

- **State Route 118**, a major east-west route in south Ventura County connecting Simi Valley, Moorpark, unincorporated Somis and Saticoy, before connecting to SR 126 in the west and the San Fernando Valley
- (Los Angeles County) to the east.

- **State Route 126**, an east-west route in central Ventura County connecting Piru, Fillmore, Santa Paula, and Ventura before connecting to U.S. Highway 101 in the west and the Castaic Junction (I-5) in the east.

- **State Route 150**, a mountainous east-west route connecting Santa Paula, Ojai, and Mira Monte, before heading to Carpinteria (Santa Barbara County) to the west and SR 126 to the east.

- **State Route 232**, a short north-south route connecting U.S. Highway 101 and SR 118 between unincorporated Saticoy in the north and north Oxnard in the south.

Local Roads

Arterial roadways in urban Ventura County are typically laid out in a grid-like pattern, but often follow the geography of mountain ranges in central locations of south Ventura County as distance from the coast increases. Major roadways that intersect U.S. Highway 101 include:

- Seaward Avenue
- Main Street
- Telephone Road
- Victoria Avenue
- Johnson Drive
- Oxnard Boulevard
- Vineyard Avenue
- Rose Avenue
- Las Posas Road
- Lewis Road
- Santa Rosa Road
- Wendy Drive
- Borchard Road
- Ventu Park Road
- Lynn Road
- Moorpark Road
- Hampshire Road
- Westlake Boulevard
- Carmen Drive
- Rice Avenue/Hwy

Pavement Conditions

Pavement Condition Index (PCI) data provide an important metric for the determination of road condition. It is used to establish a baseline for evaluating the pavement condition of one road over another. The values of the index are a function of distress type, severity, and quantity present in the surface. These values have been established to range from 0 to 100, with a higher value indicating less

distress and better pavement conditions. Generally, scores less than 25 are considered failed, less than 50 poor, less than 70 fair, and above 70 good. Ventura County's roadway network maintains a weighted average PCI of 77, resulting in a "good" designation. Average PCI scores for each district are listed in the table below.

Table 2-4: Pavement Score Index by Supervisorial District

SUPERVISORIAL DISTRICT	AVERAGE PCI 2021	CENTERLINE MILES PER SUPERVISORIAL DISTRICT 2021*
District 1	74	151.89
District 2	77	143.58
District 3	77	160.68
District 4	78	37.22
District 5	78	49.6
Countywide Weighted Avg.	77	542.97

Source: Ventura County Public Works Multi-Year Pavement Plan (FY 2022-2026)

*Note centerline miles per supervisorial district changed as of 2022 due to redistricting, but new PCI scores had not yet been calculated at the time of this plan.

Bridge Conditions

There are 509 roadway bridges in Ventura County—312 on state highways and 197 on local roadways. According to the Federal Highway Administration, 55 percent are in "Good" condition, 41 percent are in "Fair" condition, and four percent are in "Poor" condition. Seventy percent of the bridges in the County are more than 50 years old (built before 1975).

Road Safety Conditions

Mistakes and unforeseen events happen in a transportation system and human bodies have limited ability to tolerate crash impacts. A "Safe Systems" approach to transportation applies the following principles: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial. Application of these principles by federal, state and local transportation agencies has led to better crash outcomes. In the past five years, there were 270 fatalities and 1,300 serious injuries to drivers, passengers, pedestrians and bicyclists on the county's roadway system—an average of 54 fatalities and 260 injuries per year. 30 percent of collisions occurred on the state highway system (US 101, State Routes 1, 23, 33, 34, 118, 126, 150 and 232).

US 101 has the most injury collisions and fatal and severe collisions of the state highways in the county—it also has the highest roadway volumes. However US 101 and SR 23 have the lowest proportion of injuries that were fatal and severe. State route 1, 33, and 150 had the highest proportion of injuries which were fatal or severe.

Table 2-5: State Highway Injury Collisions Average Per Year (2019-2024)

STATE HIGHWAY	ALL INJURIES	FATAL OR SEVERE INJURIES
101	476.4	31.4
118	185.2	17.4
126	183.8	18
33	93.2	16.4
23	91.2	5.6
1	77.6	14.2
150	55.6	9.4
34	33.4	2.2
232	18.6	1.4

Source: Berkeley Transportation Injury Mapping System

Arterial roadways with the highest number of injury collisions were Saviers Road, Telephone Road and Los Angeles Avenue.

Table 2-6: Top Arterial Roadways for Injuries (average per year over 2019-2024)

ROADWAY	INJURY COLLISIONS
Saviers Road	60.6
Telephone Road	56.6
Los Angeles Avenue	54.4
Telegraph Road	50.8
Thousand Oaks Boulevard	50.6
Victoria Avenue	49.4
Cochran Street	48.4
Las Posas Road	44.4
South Victoria Avenue	44.4
Channel Islands Boulevard	43.4

Source: Berkeley Transportation Injury Mapping System

The arterials with the highest average fatal or severe collisions were Telegraph Road, Telephone Road and Harbor Boulevard as shown in Table 2-7.

Table 2-7: Top Arterial Roadways for Injuries (average per year over 2019-2024)

ROADWAY	FATAL OR SEVERE INJURY COLLISIONS
Telegraph Road	4.6
Telephone Road	3.2
Harbor Boulevard	3.2
Victoria Avenue	2.8
Royal Avenue	2.8
Hueneme Road	2.8
Las Posas Road	2.4
Los Angeles Avenue	2.2
Channel Islands Boulevard	2.2
Madera Rd	2.2
Portero Road	2.2

Source: Berkeley Transportation Injury Mapping System

The cost of lost and changed lives due to fatal and severe collisions is immeasurable to the individuals and their families. Using an economic quantification through the US Department of Transportation's Benefit/Cost Analysis Guidance[1], the annual economic loss due to these injuries is $1.7 billion per year in Ventura County.

Collisions involving vulnerable users result in greater risk of injury due to a lack of protection and a differential in the mass of the colliding objects. Collisions involving pedestrians and bicycles, often with severe injury outcomes, accounted for 12 percent of total collisions in the County.

Arterial roadways with the highest level of bicycle-involved injury collisions were Telephone Road, Main Street and East Main Street and Telegraph Road.

Table 2-8: Top Arterial Roadways for Bicycle-Involved Collisions (average per year over 2019-2024)

ROADWAY	FATAL OR SEVERE INJURIES
Telephone Road	4.2
Main Street	3.4
E Main Street	3.4
Telegraph Road	3.2
Victoria Avenue	2.6
Channel Islands Boulevard	2.6
South Victoria Avenue	2.4
North Ventura Avenue	2.2
Potrero Road	2.2
Harbor Boulevard	2.0

Source: Berkeley Transportation Injury Mapping System

The arterial roadways with the highest levels of pedestrian-involved injury collisions were Telephone Road, Saviers Road and Thompson Boulevard.

Table 2-9: Top Arterial Roadways for Pedestrian Involved Injury Collisions (average per year over 2019-2024)

ROADWAY	PEDESTRIAN INVOVLED INJURY COLLISIONS
Telephone Road	4.2
Saviers Road	3.8
Thompson Boulevard	2.4
S. C Street	2.4
Cochran Street	2.2
Harbor Boulevard	2.2
N. Oxnard Boulevard	2.2
Thousand Oaks Boulevard	2.0
South Victoria Avenue	2.0
Main Street	1.8

Source: Berkeley Transportation Injury Mapping System

Goods Movement

The presence of the Port of Hueneme, along with agricultural production, existing and planned freight distribution centers, and Ventura County's location between Los Angeles and Santa Barbara Counties combine to create significant freight movements on the area's roadways. Port Hueneme specifically has a significant role in the movement of local, regional, national, and international goods.

According to a 2021 Economic Impact Study by Martin & Associates, the Port of Hueneme serves as a key driver and economic force in the region, resulting in the movement of $11.14 billion in trade value, $2.2 billion in overall economic impact, $173.2 million paid in annual taxes, and the support of over 20,032 jobs.3 The Port is a transportation asset and its role affects the highway/roadway and rail transportation network in Ventura County.

Figure 2-17 below illustrates freight corridors within the county, and Figure 2-18 illustrates daily large truck (3+ axles) volume. Whether population and employment in the area remains stable or grows in the future, freight traffic and its related impacts can still be expected to grow due to shifting patterns of

[1] USDOT Benefit-Cost Analysis Guidance for Discretionary Grant Programs, November 2024. accessed January 2025

purchasing, such as online commerce, and its impacts on goods movement.

VCTC's recently adopted Ventura County Freight Corridors Study identifies impacts associated with freight rail movements and develops strategies to reduce or avoid negative impacts to promote a safer, more efficient, and sustainable freight transportation network. Part of this study focuses on the rail freight system, which transfers bulk goods to and from port facilities, industrial customers, and intermodal transfer facilities located in Ventura County. The freight rail system overlaps with passenger rail service, creating scheduling challenges for both service types.

The Freight Corridor Study emphasized three areas of focus split into three categories:

- Strengthen Existing Freight Corridors
- Strengthen the Port Intermodal Corridor
- Improve Truck Supportive Infrastructure

The areas of focus identified opportunities and vulnerabilities related to goods movement. Solutions aimed to better direct truck trips to the freeway system, improve efficiency by reducing localized congestion, improve operational improvements at intersections and ramps, and to improve state highway continuity and port access.

VCTC owns the Santa Paula Branch Line rail corridor, which extends 32-miles from the East Ventura/Montalvo station in the City of Ventura through the Cities of Santa Paula and Fillmore to the unincorporated community of Piru. In December 2021, VCTC executed a 35-year Railroad Lease and Operations Agreement with Sierra Northern Railway to operate and maintain the railroad and right-of-way. Permitted railroad uses include tourist/ excursion trains, filming for movies and television, and freight rail service. The corridor served a limited amount of freight rail traffic under the previous rail operator, Fillmore and Western Railway, with one freight customer located in Santa Paula, and intermittent use for the movement and storage of freight rail cars in the area between Fillmore and Piru.

Sierra Northern Railway has begun to develop additional freight customers and plans to increase and improve freight service to the Santa Clara River Valley.

Figure 2-13: Freight Corridors

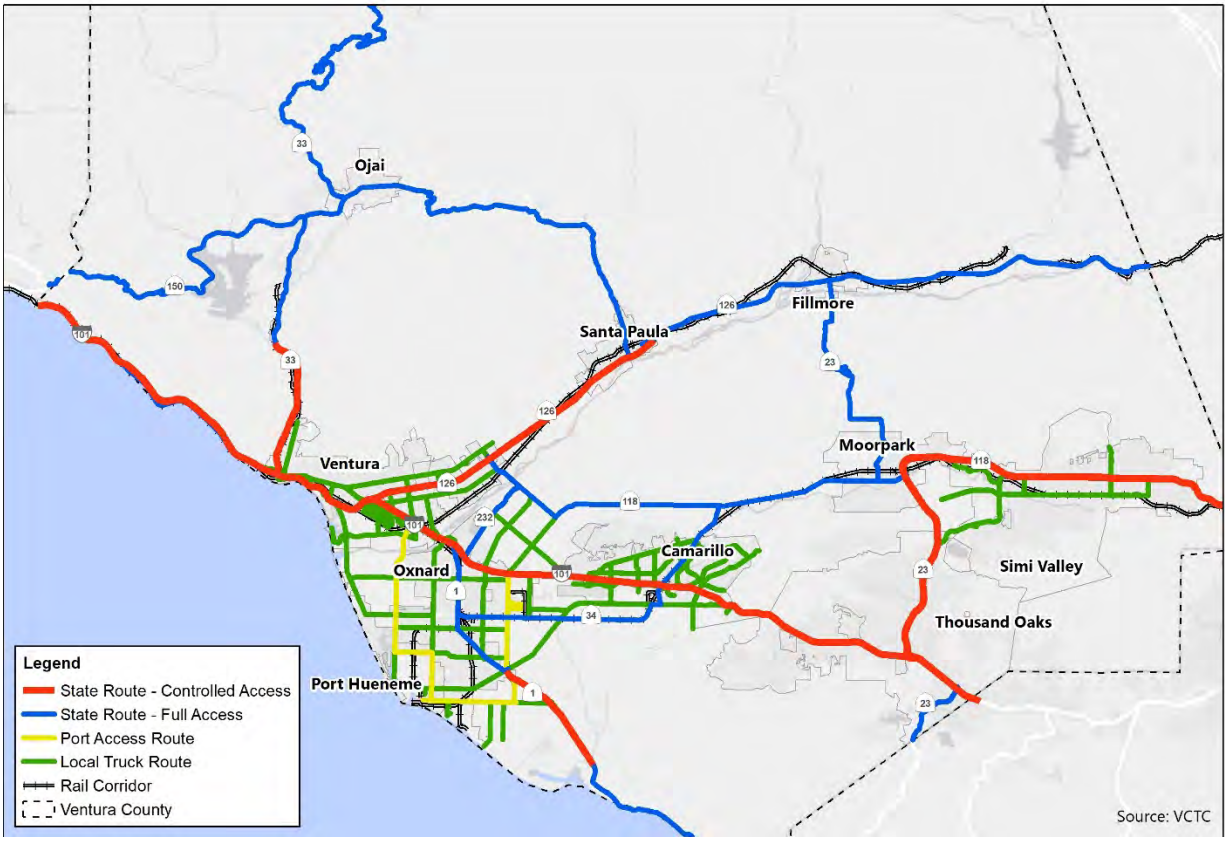
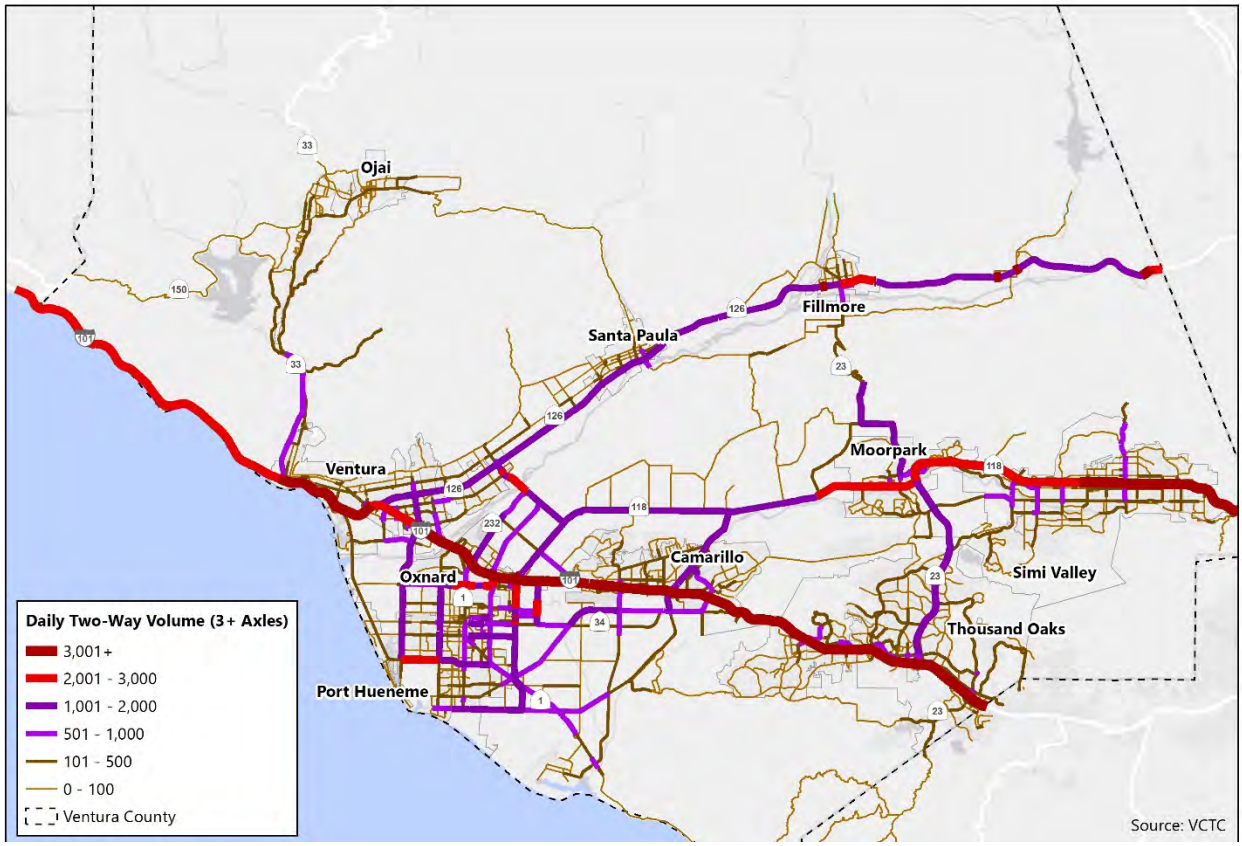


Figure 2-14: Daily Truck Volumes (3+ Axles)



Aviation

Ventura County currently has four public, private, and military airports, including Camarillo Airport (public), Oxnard Airport (public), Santa Paula Airport (private), and Naval Base Ventura County – Point Mugu Naval Air Station (military).

Oxnard Airport currently has approximately 70,000 annual aircraft operations, and Camarillo Airport has approximately 140,000 annual operations, for a combined total of approximately 210,000 annual operations. Oxnard Airport has an annual economic impact of $51 million, supports 310 jobs, is home to seven aeronautical businesses and 8 non-aeronautical businesses, and results in over $2 million in state, local, and school tax revenues. Camarillo Airport has about 300 aircraft operations per day, compared to Oxnard Airport which typically sees 222 aircraft operations per day, and Santa Paula at 266 daily aircraft operations. VCTC is the designated Airport Land Use Commission for Ventura. The Commission adopted the Ventura County Airport Comprehensive Land Use Plan (ACLUP) on July 7, 2000, which serves as the airport land use compatibility plan (ALUCP) as required by state law for the Ventura region.

Public Transit

Public transit in Ventura County is provided by a range of regional and local/municipal providers as discussed in the sections below and illustrated in Figure 2-19.

Bus (Fixed-Route and Paratransit)

Local bus service is provided by several agencies including Camarillo Area Transit, Gold Coast Transit District (Ventura, Oxnard, Port Hueneme, Ojai), Kanan Shuttle (Thousand Oaks), Moorpark Transit, Ojai Trolley, Simi Valley Transit, Thousand Oaks Transit, VCTC Intercity, and Valley Express (Fillmore, Piru, Santa Paula). Each of these bus services come equipped with vehicles meeting the necessary ADA requirements, and except for Kanan Shuttle and Ojai Trolley, each offers Dial-A- Ride paratransit programs that operate on a reservation basis. Additionally, the East County Transit Alliance (ECTA), made up of the cities of Moorpark, Simi Valley, Thousand Oaks, and the County of Ventura, offers CONNECT Dial-A-Ride service in most of eastern Ventura County, specifically designed to permit travel outside of local Dial-A-Ride service areas. These programs are usable for seniors and any individuals who are certified as meeting ADA eligibility requirements.

VCTC Intercity

VCTC Intercity bus service is a fixed route inter-city bus network that operates primarily within Ventura County, but also provides service to Carpinteria, Santa Barbara, and Goleta.

VCTC Intercity offers six fixed route transit connections throughout its service area, including the U.S. Highway 101/Conejo Routes (Routes 50-52X), the Highway 126 Routes (Routes 60-62), the East County Routes (Routes 70-73X), the Cross-County Limited (Route 77), the Coastal Express (Routes 80-89), and the Channel Islands Route (Routes 90-99).

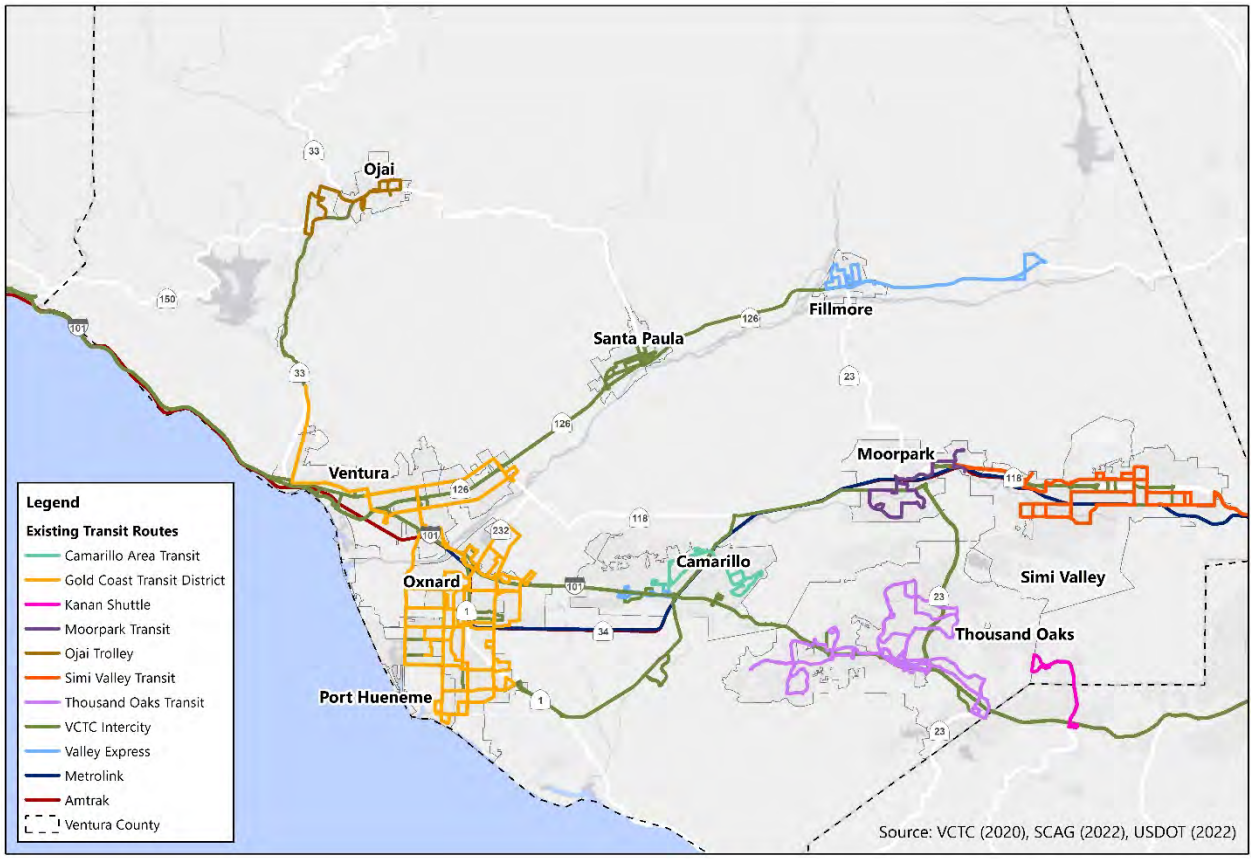
Rail

Amtrak & Metrolink

Amtrak and Metrolink provide intercity and regional rail service between Los Angeles County and Ventura County and beyond. Amtrak operates intercity rail between San Luis Obispo, Los Angeles, and San Diego on its Pacific Surfliner line, and between Seattle, Portland, Sacramento, and Los Angeles via the Coast Starlight. Amtrak serves stations in Ventura, Oxnard, Camarillo, Moorpark and Simi Valley in Ventura County. Six northbound trains and six southbound trains operate daily on the Pacific Surfliner service.

Metrolink operates seven lines of regional rail service in the Los Angeles region, with the Ventura County Line stopping at five locations in Ventura County including East Ventura, Oxnard, Camarillo, Moorpark, and Simi Valley. Ten northbound trains and ten southbound trains operate Monday through Friday. There is one AM southbound train and one PM northbound train on Saturdays.

Figure 2-15: Existing Transit Network



Ridership/Performance Metrics

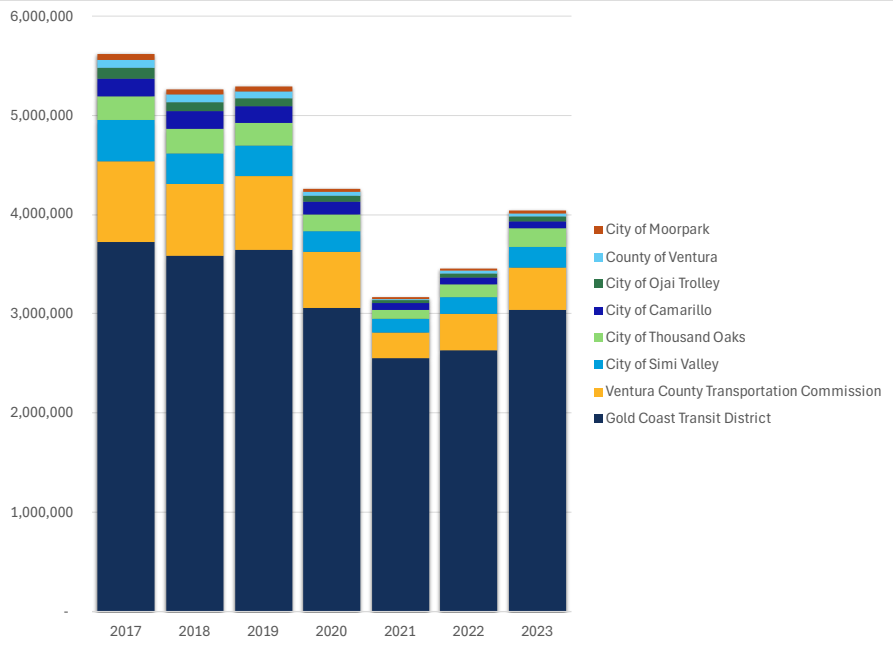
VCTC publishes a quarterly transit ridership and performance measures report. The report provides performance measure data to evaluate key elements regarding planning transit service as an objective basis for sound decision making. VCTC's key performance indicators include ridership, passengers per service hour, service cost per passenger, farebox recovery ratio, customer satisfaction, and road calls per 200,000 revenue miles. Data shown in this report is from fiscal year 2018/2019.

Bus Ridership

Ventura County bus transit use peaked in 2015 at just over 6 million transit trips, with steady decline since then (Figure 2-20). Ventura County transit ridership is driven primarily by GCTD and VCTC Intercity services, followed by Simi Valley Transit and Thousand Oaks Transit. Gold Coast Transit District (GCTD) accounts for the highest share of ridership in the county, at approximately 69% of all trips in 2019.

Ventura County has been experiencing a decline in transit ridership which was exacerbated by the COVID-19 pandemic. Annual declines are not unique to Ventura County, but followed a general trend experienced nationwide ridership. The decline in public transit use has been largely attributed to increased rates of car ownership and lower gas prices before 2020, and the pandemic and subsequent California stay-at-home orders at the beginning of 2020. As a result of the pandemic, many transit agencies have been struggling to rebuild their ridership base, especially on routes which relied on commuters, due to the increase in remote work. They are now challenged with attracting more riders, including both new commuters and recreational riders. Additionally, other pandemic-related challenges, such as safety concerns and changing travel patterns due to relocation, make transit ridership slower to recover. With emergency funds running low, poor farebox recovery and the shift in travel patterns created by the pandemic, the future of transit in the county is uncertain. This presents an opportunity to consider new mobility solutions such as microtransit or Mobility as a Service, to attract new transit users.

Figure 2-16: Ventura County Transit Ridership (2010-2024)



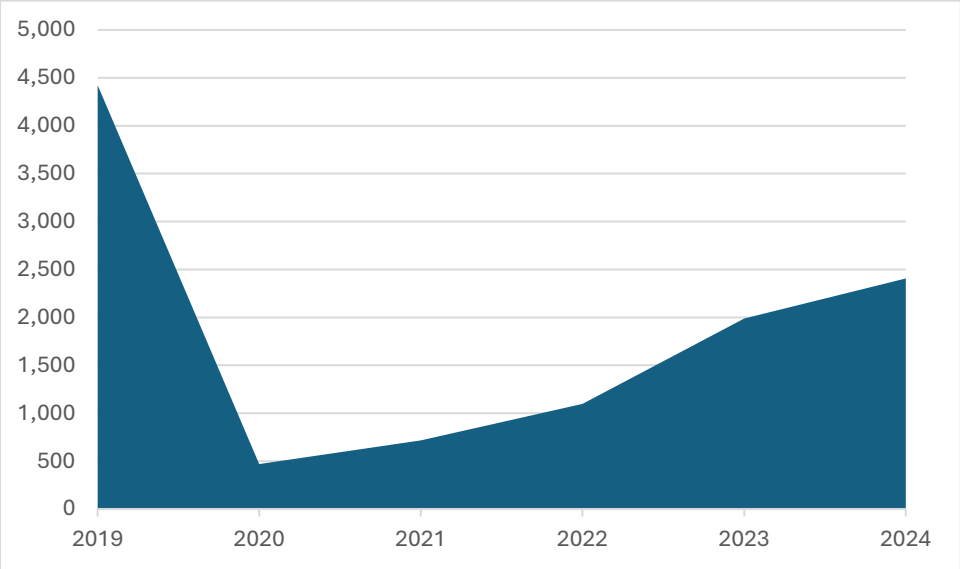
Source: National Transit Database (NTD) (2024)

Rail Ridership

The Metrolink Ventura County Line average daily ridership peaked in 2019 at 4,400 riders per day. The COVID-19 pandemic and the resulting service reduction resulted in a precipitous drop in ridership to just under 500 per day. Since 2020, service and ridership has steadily increased with an average daily ridership of 2,400 in 2024.

Between the Ventura County stations of East Ventura, Oxnard, Camarillo, Moorpark, and Simi Valley, Metrolink ridership was mostly driven by the Simi Valley station, typically averaging over 300 daily riders before the pandemic. Like the other locations, each experienced a roughly proportionate drop caused by the pandemic, and each is recovering gradually at about the same rate.

Figure 2-17: Metrolink Ventura County Average Daily Ridership 2019-2024



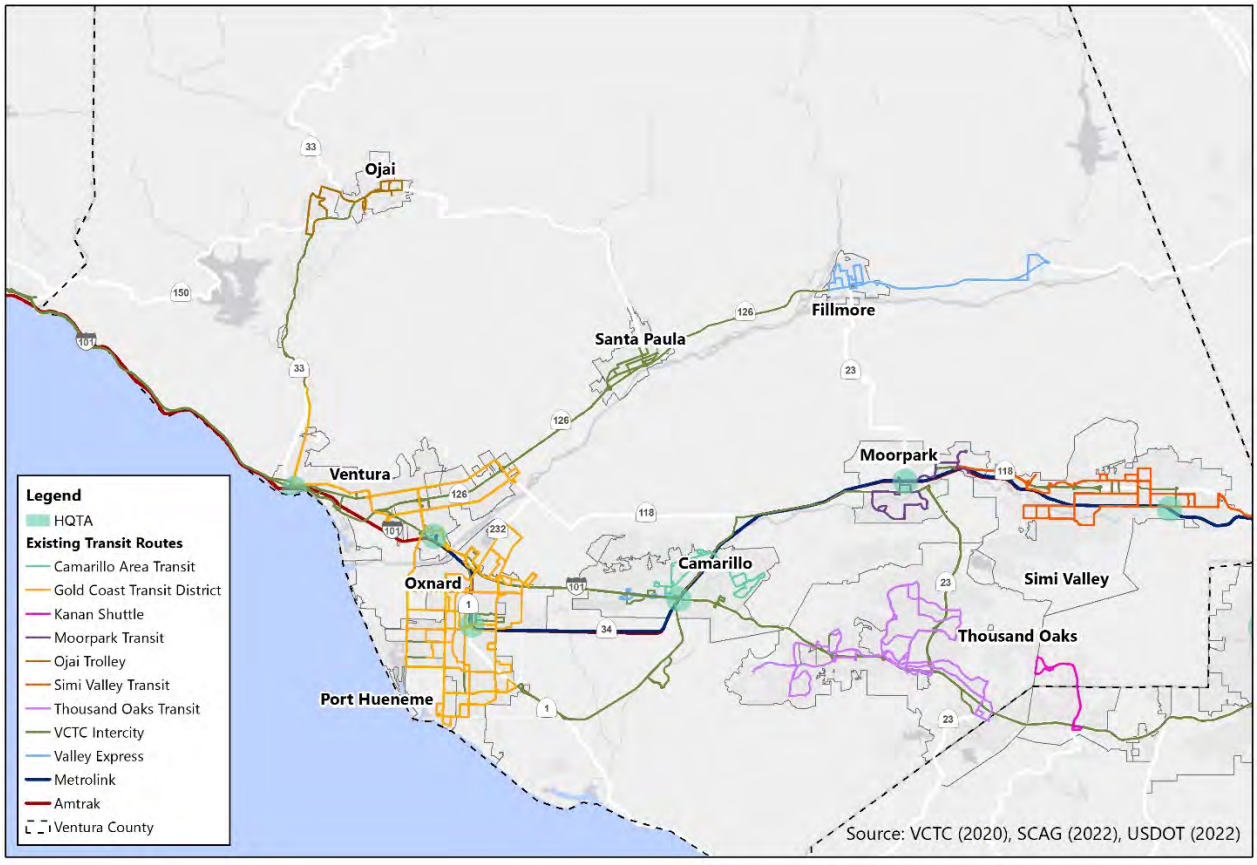
Source: Metrolink average monthly riders during the second quarter (2024)

High Quality Transit Areas

High Quality Transit Areas (HQTAs) are located within a half-mile of a well-serviced transit stop or transit corridor with 15-minute or less service frequency during peak commute hours. HQTAs highlight the connection between transit services, supporting land use, and reduced VMT. These corridors are intended to promote higher-density development patterns, which in turn support more frequent transit services and reduce reliance on automobiles for trip making. The new approach to measuring transportation impacts using VMT, as discussed in Section 2.1.3, incentivizes the expansion of HQTAs in Ventura County and throughout California and should be coordinated with transit and land use improvements that include improving headways, expanding service, and concentrating future housing development near transit hubs to reduce overall VMT. HQTAs by definition provide convenient access to frequent transit service, which can make transit a more attractive and reliable commute option. This can lead to an increase in transit ridership and decrease in VMT. Observed VMT per capita is lower within HQTAs in Ventura County. The current HQTAs in Ventura County are located around transit stops servicing multiple transit services, in Ventura, Oxnard, Camarillo, Moorpark, and Simi Valley.

HQTAs provide opportunities for CEQA relief, especially for affordable housing, which in turn provides more potential transit riders. Many Ventura County Cities are encouraging future development of housing within HQTAs.

Figure 2-18: HQTA in Ventura County



Active Transportation

Existing/Planned Infrastructure

Ventura County features significant existing bicycle infrastructure among all four bicycle classifications in its urban areas, mainly near coastal areas and along arterial streets. The Ventura Countywide Bicycle Master Plan was developed in 2008 by VCTC and provided a blueprint for bicycle transportation and recreation in Ventura County. The plan's intent was to maximize funding sources for the implementation of bicycle improvement projects, improve safety and encourage cycling, expand the network and support facilities, and enhance the quality of life in Ventura County. The plan resulted in Caltrans-compliant bicycle transportation plan documents for all of the county's ten incorporated cities and unincorporated areas, qualifying each jurisdiction for bicycle transportation funding in order to implement projects.

Currently, the county offers a total of 84.3 miles of Class I shared use paths, 397.9 miles of Class II bike lanes, and 76.3 miles of Class III bike routes, and 1.1 miles of Class IV separated bikeways. Table 2-4 below breaks down the total mileage by bikeway type for each jurisdiction in the county. The plan details a suitability and needs analysis to connect gaps in the bikeway network, and recommends various programs and improvements regarding bicycle parking and end-of-trip facilities, maintenance and construction, Safe Routes to School (SRTS) programs, and educational efforts to improve safety for bicyclists.

Table 2-10: Bikeway Mileage by Jurisdiction

JURISDICTION	CLASS I	CLASS II	CLASS III	CLASS IV	TOTAL
Camarillo	4.4	43.3	12.6		60.3
Fillmore	6.6	0	1.8		8.4
Moorpark	1.4	23.6	0.8		25.8
Ojai	2.6	0	1.3		3.9
Oxnard	5.3	73.2	6.8		85.3
Port Hueneme	2.8	7.0	0		9.9
Ventura	28.0	51.7	18.8	1.1	99.5
Santa Paula	2.0	2.7	0		4.7
Simi Valley	14.2	42.3	13.8		70.4
Thousand Oaks	3.2	80.4	16.9		100.5
Unincorporated Areas	13.8	73.6	3.5		90.9
Total Mileage	84.3	397.9	76.3	1.1	559.5

Source: Ventura County Existing Bike Lane Inventory 2022 by City by Class – Centerline Miles

The current bicycle network is presented in Figure 2-26. Class II bike lanes make up the majority of the bikeways in the county, especially in the more densely populated cities. Approximately 61% of the population in Ventura County lives within 0.25 miles of an existing bikeway. The current bicycle network is fragmented and often concentrated within local jurisdictions with limited connections between different jurisdictions. An opportunity exists to extend these local bikeways regionally to provide a more complete and connected network for bicycle travel.

Additionally, the Ventura County Regional Bicycle Wayfinding Plan, developed by VCTC in 2017, identified 17 regional bicycle routes that provide regional connectivity in the county. It also prioritized locations for bicycle infrastructure improvements and developed a family of bicycle wayfinding signs and implementation plans to provide a consistent wayfinding experience for bicyclists across the county. Figure 2-27 presents the proposed regional bikeway routes identified in the Wayfinding Plan.

Figure 2-19: Existing Bike Infrastructure

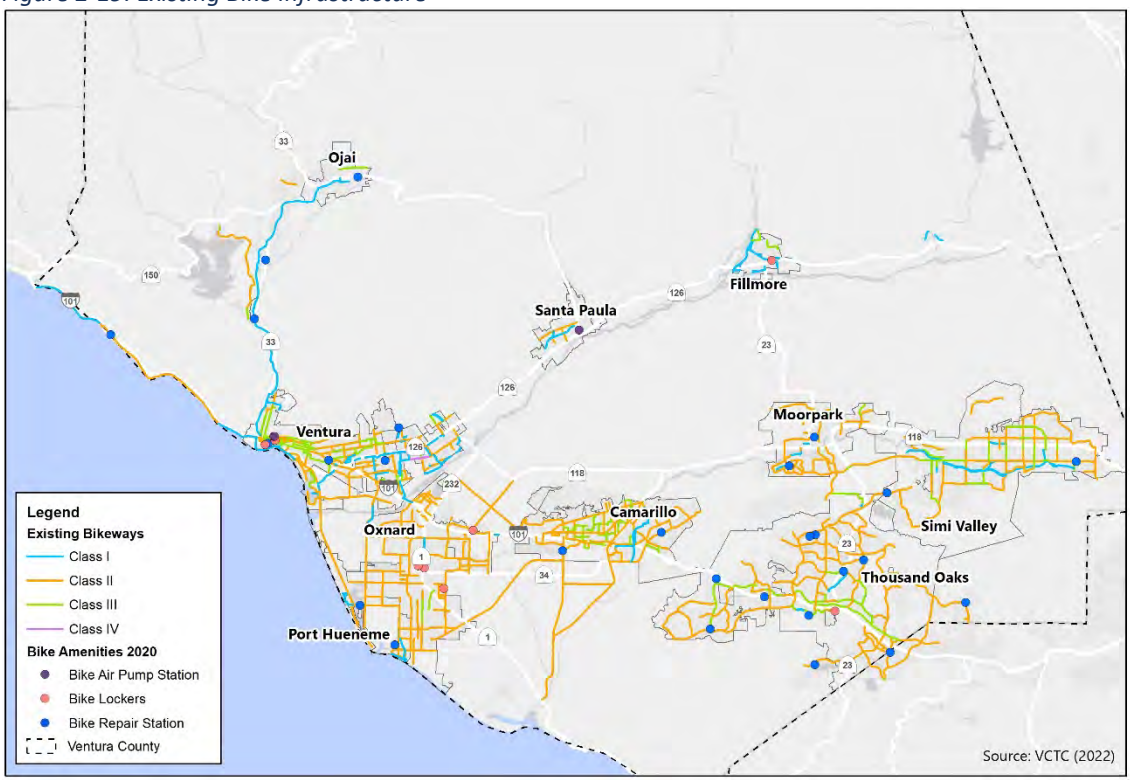
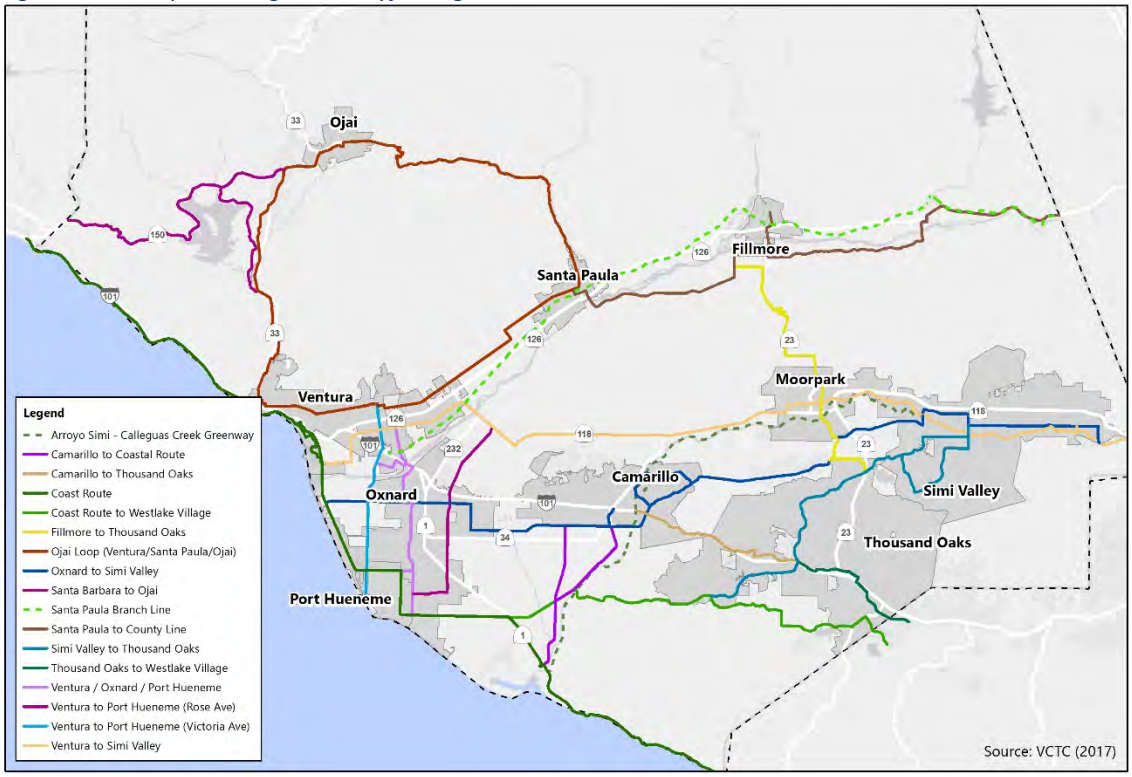


Figure 2-20: Proposed Regional Wayfinding Routes



Various jurisdictions in the county have also developed their own active transportation plans. Table 2-6 presents the existing or current active transportation plans by jurisdiction.

Table 2-11: Active Transportation Plans by Jurisdiction

JURISDICTION	ACTIVE TRANSPORTATION PLAN STATUS
Camarillo	City of Camarillo Bikeway Master Plan (2017)
Fillmore	N/A
Moorpark	City of Moorpark Bicycle Transportation Plan (2008)
Ojai	Ojai Complete Streets Master Plan (2017)
Oxnard	Oxnard Sustainable Transportation Plan (2023) City of Oxnard Bicycle & Pedestrian Facilities Master Plan (2011) City of Oxnard Sustainable Transportation Plan (STP) (in development to be completed by February 2023)
Port Hueneme	N/A
Ventura	City of Ventura Bicycle Master Plan (2011) Ventura Active Transportation Plan (December 2023)
Santa Paula	"Bicycle Mobility" Plan part of Santa Paula 2040 General Plan (2020)
Simi Valley	Simi Valley Bicycle Master Plan (2009), update in progress
Thousand Oaks	City of Thousand Oaks Active Transportation Plan (2019)
County of Ventura	Active Transportation Plan (December 2023) Saticoy Active Transportation Plan (2021)

Additional Analysis

Building on the existing conditions presented in this chapter, the next chapters of this plan will discuss future baseline conditions and trends, input received from community members on transportation challenges, needs, and priority, and equity considerations. These chapters inform the development of the transportation project scenarios and future strategies then presented later in the plan.

Ventura County Comprehensive Transportation Plan

Chapter 3 – FUTURE BASELINE CONDITIONS

Photo Credit: https://www.picuki.com/tag/govctc

California and Ventura County have entered a time of change and demographic shift that looks very different from what the previous several decades. Past years have brought substantial continued population growth as a result of natural population increase and net inward migration and immigration to the state. In the past few years, these patterns have shifted as natural population growth is slowing, the state's and the county's populations are aging, and migration patterns are changing as greater numbers of current California residents relocate to other states seeking lower housing costs.

In this changing demographic landscape, VCTC must examine what future demand for transportation and mobility will look like in Ventura County. These forecasts help establish an understanding of travel demand patterns, the mobility needs of different demographic populations, and where people will live and work, all of which influence transportation.

Changes are not limited solely to demographics as the county, state, and the world also grapple with the effects and impacts of climate change. Extended periods of drought, warmer temperatures, and more severe weather events are already being experienced in Southern California, and these effects are expected to increase as global average temperatures are projected to continue to rise in the coming years. The changing climate does create impacts to the transportation network, specifically impacting the resiliency of the network and the ability of VCTC and local agencies to maintain the physical and operational characteristics of the transportation system.

Coupled with these demographic and climate changes, a variety of advancements in technology could also have a profound influence on transportation networks over the next 30 years. The past 10 years have already brought significant change with technology leading to the rise of the sharing economy, allowing people to request rides and order on demand delivery from their phone or computer, and increased adoption of electric vehicles. These two technology-driven changes will continue to advance in the coming years and may be joined by more advancements including autonomous

vehicle technology, aerial drone-based deliveries and transport, and others we may not be able to envision currently.

The CTP cannot predict which technology advancements will have the greatest impact on mobility in Ventura County during the coming decades, but the document can provide VCTC and local jurisdictions in the county with a flexible roadmap and plan that creates room for these advancements to fit into the transportation network and provide residents in Ventura County with additional mobility opportunities.

This chapter discusses the forecast changes related to demographics, climate, and technology, setting the stage for discussion of the projects, programs, and solutions identified in Chapter 7, which are intended to provide VCTC and Ventura County with the tools and flexibility to respond to these challenges.

3.1 Demographics

Forecast future baseline conditions through the Year 2050 indicate changing demographics in Ventura County. These changing demographics include a slight decrease in population size – after many years and decades of growth - and an aging population that may have very different mobility and travel needs from today. Building an understanding of these changing demographics provides insight into what transportation demand and needs will look like in Ventura County during the next 30 years and helps to inform the development of projects and strategies to address these needs.

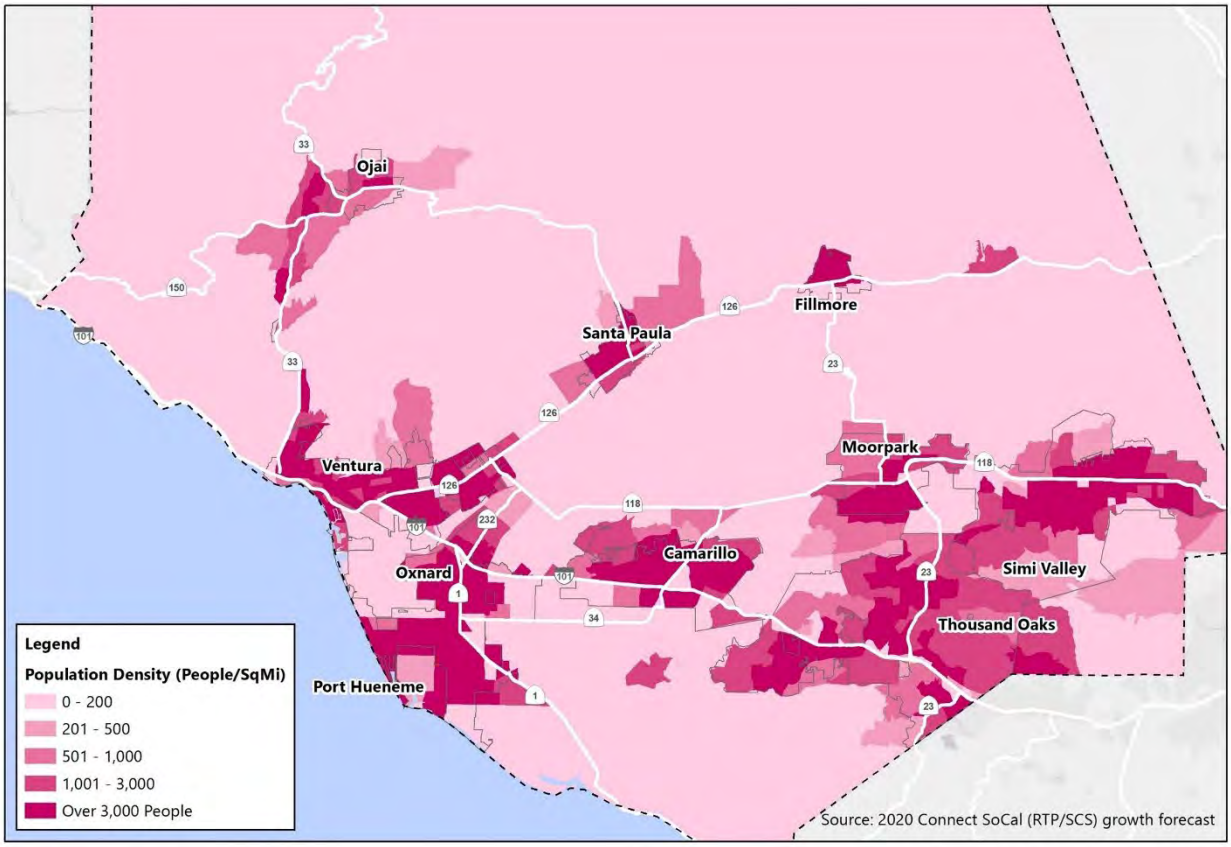
Population and Employment

Ventura County's diverse geography covers 1,843 square miles

According to the most recent projections from SCAG, Ventura County is entering a period of slowing growth. The latest projections developed for the 2024 RTP/SCS present a sharp correction to previous rounds for forecasts from SCAG and the State, which previously indicated Ventura County could expect to add an additional 100,000 residents over the next 30 years. The new consensus of demographic projections presents a forecast of essentially zero population growth in Ventura County between now and 2050.

Forecasts for both employment and household growth have also slowed and show Ventura County with lower levels of employment and household growth than the region. Figure 3-1 presents the population density forecasted in 2050. Additional discussion around the aging of the population is provided in Chapter 5.

Figure 3-1: Population Density in 2050



Population Change by Jurisdiction

Figure 3-2 presents the forecasted population change for each jurisdiction in Ventura County between 2019 and 2050. These forecasts show some limited growth in selected cities, including Fillmore, Moorpark, and Santa Paula. Declines in population are forecast in other jurisdictions, including Port Hueneme, Thousand Oaks, and Simi Valley. Overall, Ventura County's population is forecast to decline slightly by 2050, from 845,900 residents in 2019 to 837,800 in 2050, about 1% less than the 2019 figure.

Figure 3-2: Population Growth Forecast Between 2019 and 2050 by Jurisdiction

Source: SCAG 2024 RTP/SCS Population Forecasts

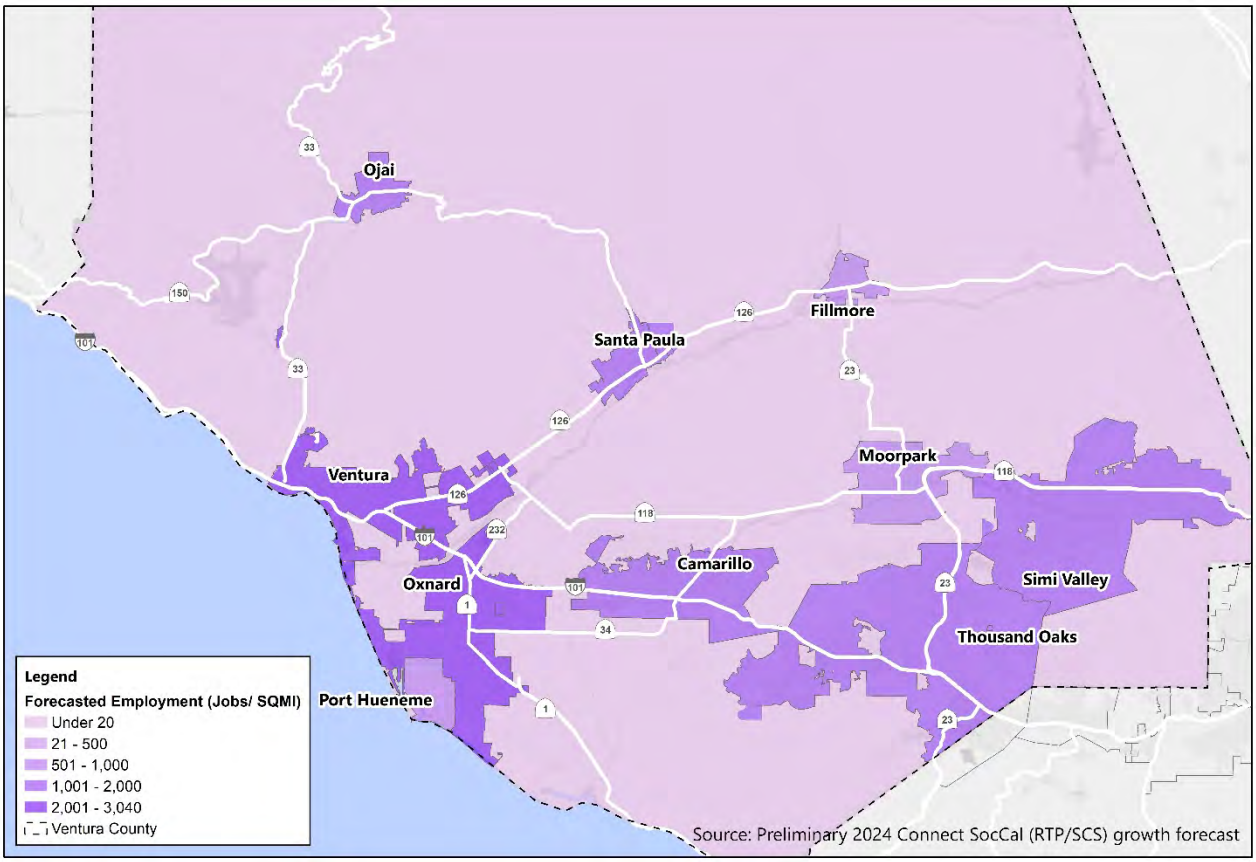
Household Size

The average household size in Ventura County was 3.08 people in 2019. With the forecasted changes in age distribution in Ventura County, by 2050 there will be more people over the age of 70 living alone or only with a spouse/partner than there were in 2019. Combined with the forecasted decrease in population overall, this demographic change will also lead to a forecasted decrease in average household size. Smaller households are forecast to generate fewer daily trips, and fewer vehicle miles traveled, while households primarily consisting of older adults creates an increased need for alternative mobility options, as those over 70 years of age are less likely to drive and more likely to use other modes of transportation such as transit or microtransit services.

Employment Growth

Employment within Ventura County is anticipated to decrease by 0.40% from 2019 to 2050. Employment is anticipated to continue to be concentrated in several areas throughout the county, including in the cities of Ventura, Port Hueneme, Camarillo, Thousand Oaks, Simi Valley, and Oxnard (Figure 3-3).

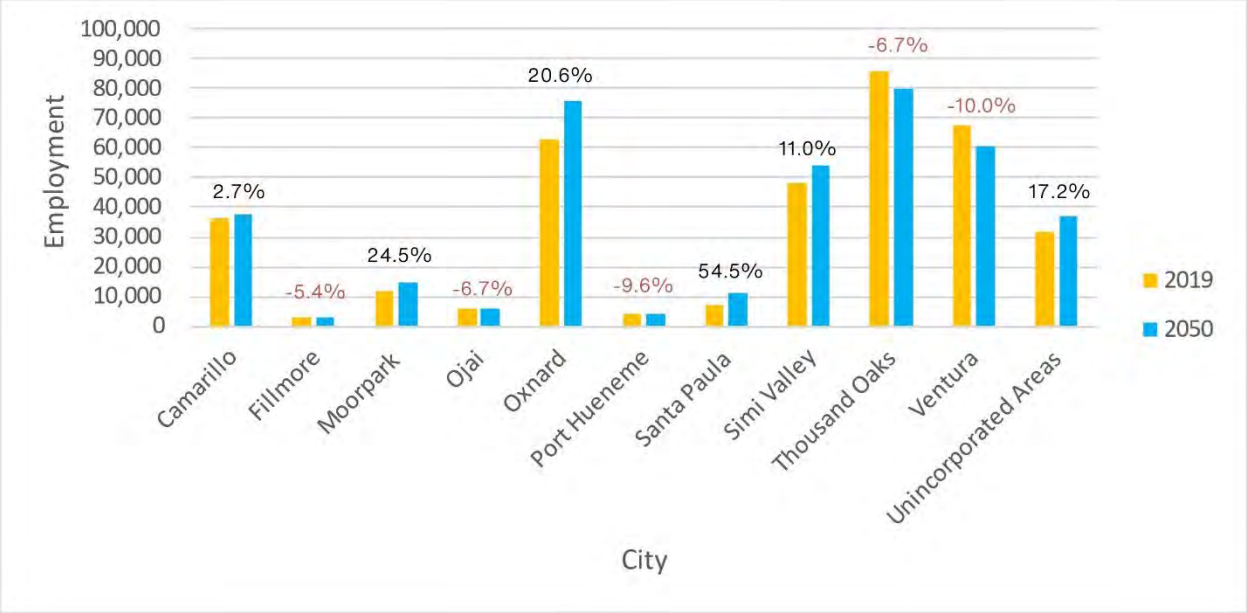
Figure 3-3: Forecasted Employment Density



Employment Change by Jurisdiction

Figure 3-4 presents the forecast percent change in employment for each city within the county. Cities forecasted to experience the most significant decline in employment include Ojai, Port Hueneme, Thousand Oaks, and Ventura. In contrast, some cities are forecast to experience a small increase in employment including Camarillo, Moorpark, Oxnard, Santa Paula, and Simi Valley.

Figure 3-4: Change in Employment by Jurisdiction



Source: SCAG 2024 RTP/SCS Population Forecasts

3.2 Land Use

Local land use policies and development patterns have a major influence on current and future transportation demand and the mode of transportation that people are likely to choose when making different types of trips. Coordination between the regional transportation planning presented here in the CTP and land use planning and policy development at the local level is essential to ensuring that transportation and land use decisions work together to provide residents with mobility choices and the ability to access destinations in a convenient, safe, and efficient manner.

Ventura County faces challenges in coordinating land use and transportation planning in the future. An environment of anticipated slowing population growth may help the county to produce less VMT and place less strain on the transportation system into the future, but it may also make it more difficult to fulfill local General Plan policies that aim to create more efficient land use patterns. It is also possible that housing unit production could outpace population and employment growth and exacerbate the growth in VMT per capita.

Land Use and Housing Forecasts

Areas in the county where housing is expected to increase will impact transportation needs and commute patterns. For context, the Regional Housing Needs Allocation (RHNA) prepared by SCAG for the eight-year planning period of 2021 to 2029 projects a total of 24,452 new residential units in Ventura County for the next planning period (Table 3-1).

The cities of Oxnard and Ventura are expected to provide the greatest number of residential units, followed by the cities of Simi Valley and Thousand Oaks. In these jurisdictions, 32- 48% of those units will be allocated for those with above-moderate income. Proportionately, the jurisdictions with the highest percentage of units needed for low-income or very low- income residents are Moorpark, Thousand Oaks, Simi Valley, Camarillo, and the Unincorporated Areas. In these jurisdictions 17-19% of the total new units are allocated for low income, while 25-29% of units are allocated for very low income.

Table 3-1: Regional Housing Needs Allocation 2021 – 2029 for Ventura County

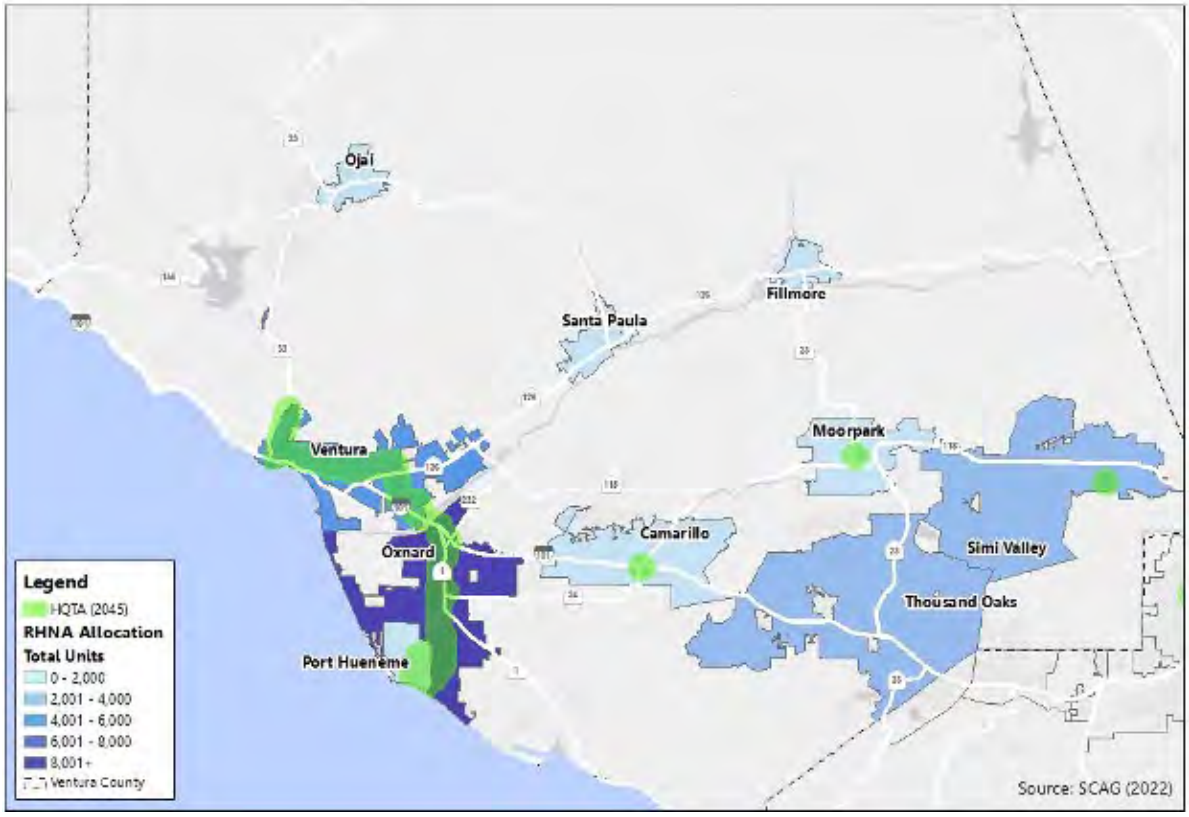
JURISDICTION	AVERAGE DAILY TRIPS		DAILY I-I TRIP PERCENTAGE		DAILY I-X OR X-I TRIP PERCENTAGE		AVERAGE DAILY VMT (MILLIONS)		DAILY I-I VMT PERCENTAGE	
Camarillo	353	25.7%	244	17.7%	271	19.7%	508	36.9	1,376	100%
Fillmore	73	17.6%	61	14.7%	72	17.3%	209	50.4	415	100%
Moorpark	377	29.2%	233	18.1%	245	19.0%	434	33.7	1,289	100%
Ojai	13	24.5%	9	17.0%	10	18.9%	21	39.6	53	100%
Oxnard	1,840	21.5%	1,071	12.5%	1,538	18.0%	4,100	48.0	8,549	100%
Port Hueneme	26	20.8%	16	12.8%	18	14.4%	65	52.0	125	100%
Ventura	1,187	22.3%	865	16.3%	950	17.9%	2,310	43.5	5,312	100%
Santa Paula	102	15.5%	99	15.1%	121	18.4%	335	51.0	657	100%
Simi Valley	749	26.8%	493	17.7%	518	18.5%	1,033	37.0	2,793	100%
Thousand Oaks	735	28.0%	494	18.8%	532	20.3%	860	32.8	2,621	100%
Unincorporated Areas	319	25.3%	225	17.8%	250	19.8%	468	37.1	1,262	100%

Source: SCAG 6th Cycle Final RHNA Allocation Plan (2021)

HQTAs and RHNA Allocations

The area designated as HQTAs in Ventura County is forecast to increase by 2045. This is a result of several transit improvements proposed as part of Scenarios A and B as presented in Chapter 7. New HQTAs are forecast to be located in Ventura and Oxnard along Oxnard Boulevard and within and adjacent to Downtown Ventura, corresponding with increases in transit service proposed for these areas. Figure 3-5 illustrates the forecast locations for HQTAs in Ventura County in 2045, compared with the RHNA allocation for each city. This figure illustrates that RHNA housing unit allocations aligns with the location of future HQTAs. This approach would assist in locating new housing development in areas that generally generate lower levels of VMT and provide access to high quality transit services. Oxnard and Ventura are allocated the greatest number of residential units in the RHNA, which is in alignment with the existing and future HQTAs located in these cities. Simi Valley, Moorpark, and Camarillo also have larger housing allocations compared with other cities in the county. Each of these cities has a HQTA centered around their existing Metrolink stations.

Figure 3-5: HQTAs in Ventura County in 2045 and RHNA Allocation (2021-2029)



Economic Development and Industry

Economic development within the SCAG region is forecasted to increase through 2050 across several industries. Top industries in 2050 for the SCAG region include health care and social assistance, accommodations and food service, educational services, retail trade, professional, scientific, and technical services, administrative and support, waste services, and transportation and warehousing. While these industries represent the greatest share of employees, the greatest growth will occur in the health care and social assistance industry, which is forecast to see a 58% increase. This is significant, as the health care and social assistance industry was the highest performing industry sector in Ventura County in 2018. Other industries forecasted to experience significant growth within the SCAG region by 2050 include transportation and warehousing (36.4%) and the accommodation and food service industries (22.8%).

Table 3-2: Regional Percent Growth for Ventura County Highest Performing Industries4

INDUSTRY	2016 (JOBS IN THOUSANDS)	2045 (JOBS IN THOUSANDS)	% CHANGE
Health Care and Social Assistance	1,264	2,002	58.4 %
Accommodation and Food Service	862	1,059	22.8%
Educational Services	716	850	18.7%
Retail Trade	841	889	5.8%
Professional, Scientific and Technical Services	535	612	14.4%
Administrative and Support and Waste Services	610	734	20.3%
Transportation and Warehousing	382	522	36.4%

3.3 Climate

The CTP is responsive to climate change related opportunities and challenges for the transportation network in Ventura County. As discussed in the introduction to this chapter, there is a need to ensure that the transportation network – both physically and operationally – is prepared for the effects of climate change, many of which have already begun. The CTP must also be responsive to direction from the State of California related to climate change and reducing the contribution of GHG emissions from transportation sources.

Several pieces of recent legislation and rules issued by state agencies in California have sought to help reduce the contribution of transportation sources to climate change. Legislation and administrative rulings have created targets for reductions in greenhouse gas (GHG) emissions and VMT, transition of new vehicle sales in the state away from gasoline by 2035, and conversion of public bus fleets and other public fleets to run on 100% renewable energy sources.

Understanding the influences of future climate conditions on the transportation network in Ventura County, and the state's response to mitigate these conditions, helps to shape a set of projects, programs, and strategies to help VCTC and local jurisdictions prepare and respond with a multimodal transportation network that reduces reliance on internal combustion engine vehicle travel.

This section provides an overview of forecast changes in VMT, vehicle hours of delay (VHD), mode share, and emissions between existing base year and forecast Year 2040 conditions.

Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) can be used as a guiding metric for understanding GHG emissions resulting from transportation projects. As VMT reflects the number of miles being traveled by vehicle, it can also be assumed that as vehicles travel farther, they are also contributing more polluting emissions. The percent change in total VMT countywide between existing conditions and conditions forecasted to occur in the future baseline in 2040 are reflected in Table 3-3 below. This information is useful for understanding how the proposed transportation projects discussed in later chapters of the CTP will impact future baseline conditions. The following subsections discuss forecast changes in per capita VMT for both home-based trips and work based trips.

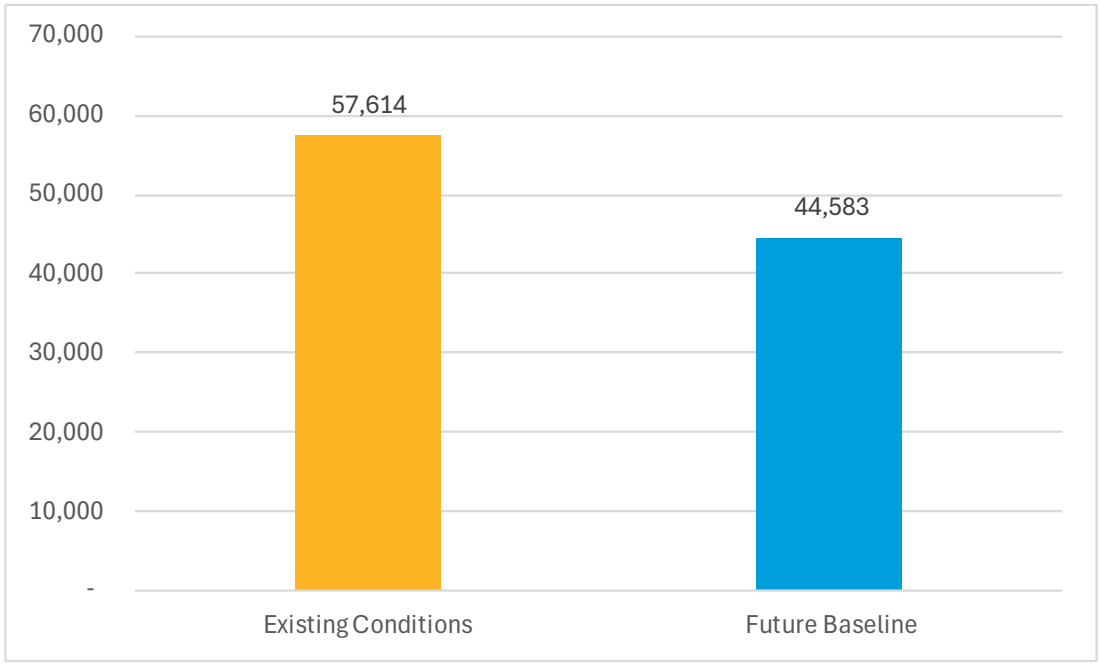
Table 3-3: 2016 to 2040 Countywide VMT
VMT Change Across 2010, Future Baseline, and CTP Implementation Scenarios

Scenario	Daily VMT per Capita	Percent Reduction from 2010
2010 Conditions (per CARB)	23.0	-
Future Baseline	18.7	19%
CTP Implementation	17.8	23%
CTP Visionary	18.6	19%

Vehicle Hours of Delay

Vehicle Hours of Delay (VHD) is used as an indicator for levels of traffic congestion. If there are high levels of VHD, then vehicles are traveling slower due to congestion and are taking longer to reach their destinations. VHD is forecast to decrease by 23% between Existing Conditions and Future Baseline Scenario in 2040. This decrease in VHD may be in response to reduced VMT levels for work based based trips and improvement projects implemented from the RTP and FTIP.

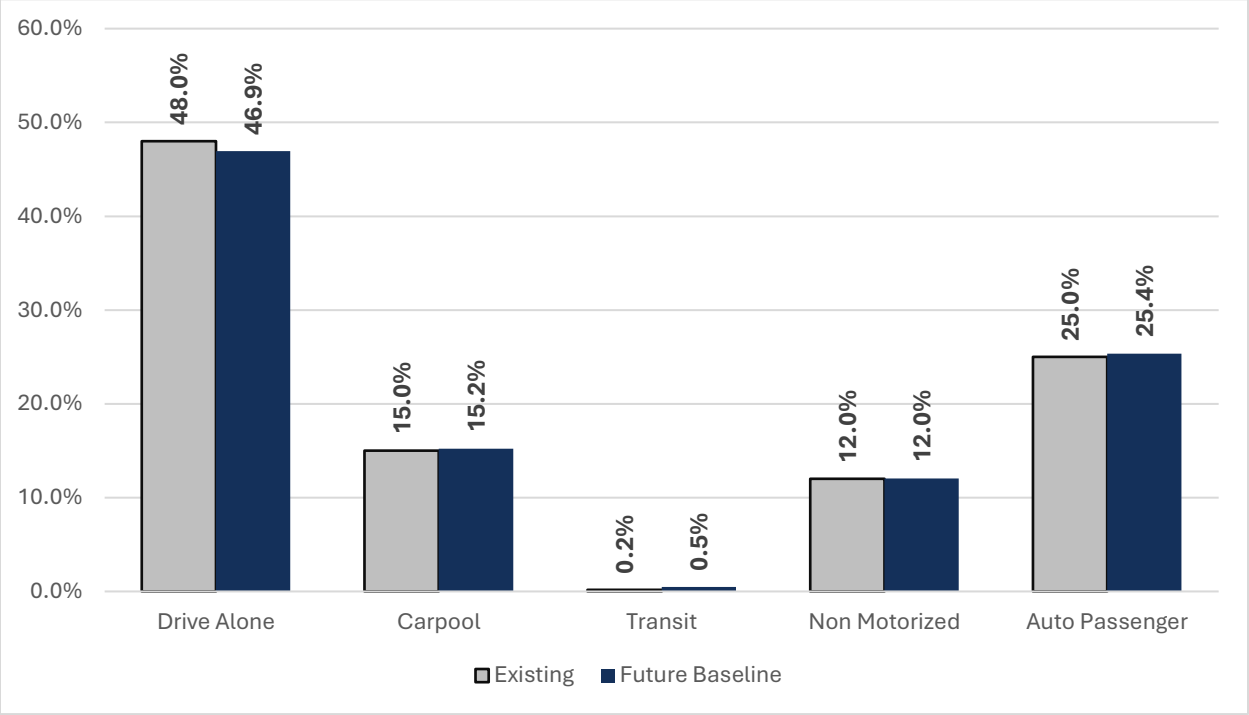
Figure 3-7: VHD in 2016 and 2040



Mode Share

Shifts in mode share are important for analyzing how travel trends may change in the future. Mode share refers to the form of transportation that travelers take on their trip. Modes reviewed include driving alone, carpooling, transit, non-motorized trips, and auto-passenger trips. Mode share patterns are forecasted to remain consistent under 2016 and 2040 conditions. Figure 3-8 shows the percent mode share for driving alone, carpool, transit trips, non-motorized trips, and auto passenger trips for Existing Conditions and the Future Baseline.

Figure 3-8: Percent Mode Share in 2016 and 2040



Emissions

Emissions resulting from transportation sources in Ventura County are forecasted to decrease slightly between 2016 and 2040 under future baseline scenario conditions.

This is likely due to a decrease in Work Based and Home Based VMT, and a decrease in VHD. Additionally, emissions are likely to decrease as more electric and more fuel- efficient vehicles become more common on roadways. Table 3-7 shows the annual rate of GHG emissions under 2016 and 2040 conditions, as calculated using the EMFAC modeling tool created by the California Air Resources Board[5]. The annual GHG emission rate shows a 6% decrease within this time frame. Emission concentrations are represented as metric tons of carbon dioxide equivalent output per year (Mt CO_2E/yr). There is an opportunity to further reduce emissions with the implementation of a variety of strategies and transportation improvements. These tools and strategies range from coordination of land use and transportation policy and planning to better coordinate the location of new denser development in more urbanize areas with lower VMT, encouraging increased multimodal travel, and increasing the electrification of vehicle travel. These improvements will be further discussed in Chapter 7.

Table 3-4: GHG Annual Emission Rate between 2016 and 2040

	2016	2040	% Change
Emissions Total	27,076 Mt CO_2E/yr	25,526 Mt CO_2E/yr	-6%

3.4 Observations

Future baseline conditions in 2040 provide a baseline understanding for the future needs of Ventura County residents and travelers. Key findings from this analysis indicate a declining population size and employment growth. Ventura County's aging population also contributes to shifting demographics and indicates a need for more senior-friendly mobility options.

Changes in land use and housing in Ventura County include a focus on allocating more housing for low- and middle-income residents. The recent Regional Housing Needs Assessment (RHNA) requirement to place a higher density of lower income housing in closer proximity to jobs and services also had a positive impact on forecasted VMT, VHD, and emissions. There is an opportunity to further decrease these metrics with increased access to more sustainable transportation alternatives, which will be discussed in a later chapter of this report. Lastly, expanded HQTA as proposed by SCAG will support increased access to more multimodal transportation connections. This will help to support a mode shift away from single occupancy vehicles and toward more sustainable options, including transit and active transportation.

Ventura County Comprehensive Transportation Plan

Chapter 4 – COMMUNITY ENGAGEMENT

During the development of the CTP, VCTC provided community members with multiple opportunities and avenues to participate in the planning process and provide input that would be incorporated into the plan. This chapter highlights the tactics used to engage with community members across Ventura County and summarizes the input received from participants.

A key objective was to ensure the CTP is a community-driven document that incorporates local transportation and mobility priorities and addresses community-expressed needs related to mobility, traffic safety, and transportation options.

Opportunities for engagement were provided to residents throughout Ventura County, both through in-person and online events and activities. The engagement effort also placed a focus on providing opportunities for members of disadvantaged communities, traditionally underserved communities, and communities of color to participate in the planning process.

4.1 Engagement Approach

Conducting community engagement on a countywide level requires the use of a variety of tactics to reach the greatest number of people, as well as residents from a variety of communities and backgrounds. To help achieve this objectives, the CTP engagement effort included in-person and online elements, including:

- Development of a countywide stakeholder database and outreach plan
- Formation of Regional Advisory Committee comprised of community stakeholders from across the county
- Formation of six Advisory Committees with members bringing expertise in specific topic areas
- Interagency outreach including presentations to VCTC advisory committees and coordination with individual jurisdictions
- Online engagement via the project digital foyer, project web pages, social media, and a virtual community workshop
- Bilingual online and print surveys, with print surveys circulated through libraries across the county
- In-person pop-up events with bilingual staff
- Digital outreach through e-newsletters and social media
- Community walk audit, with a school outreach component
- Public comments database

The CTP community engagement effort began during the COVID-19 pandemic, requiring a creative and flexible approach to engagement, navigating guidelines and restrictions related to indoor gatherings and being respectful of the comfort level of individuals to participate in in-person activities or events. The variety of engagement tactics and activities offered throughout the CTP development process was intended to not only broaden the reach of the engagement effort countywide, but to also provide residents with a range of avenues and opportunities to engage with the planning process designed to fit their schedules and comfort level towards the form of engagement.

Stakeholder Database

Through the planning process, VCTC built a robust stakeholder database that was utilized to keep stakeholders informed about the CTP development process. Key members of the stakeholder database included the participants in the six Advisory Committees and the Regional Advisory Committee. Interested community members were encouraged to provide their contact information for inclusion in the CTP database through pop-up events and through the VCTC website. The stakeholders were informed about survey opportunities, pop-up event opportunities, meeting invites (as appropriate for advisory committees), and other project updates.

Advisory Committees

To guide the development of the CTP, VCTC formed two levels of advisory committees. These committees were engaged at key milestone points throughout the preparation of the CTP. The Regional Advisory Committee (RAC) was comprised of 17 community members who were selected to provide countywide perspectives on transportation, mobility, and land use issues in Ventura County. Six separate Advisory Committees were also formed. These Advisory Committees included a combined total of over 240 stakeholders and were organized around six key topic areas determined to be integral to transportation and mobility issues across Ventura County:

- Education, Youth and Families
- Active Transportation, Health, Wellness, Access and Equity
- Economic Resilience
- Climate Resilience, Wildlife and Conservation
- Transportation, Land Use and Housing
- Technical, Operations, and Transit Operators

A summary of the meetings conducted with each committee and key findings from these meetings is presented below.

Regional Advisory Committee

The objective of the RAC was to bring together representatives from various agencies, organizations, and groups across Ventura County to offer a countywide perspective to inform the preparation of the CTP. Participants in the RAC included representatives from the Port of Hueneme, Gold Coast Transit District, local colleges, and other individuals active in countywide planning issues, including former city council and planning commission members.
RAC meeting dates and topics included:

- June 2021: This meeting introduced the CTP and provided a forum for an initial discussion on the plan, the approach to community engagement, and development of an overall vision for the CTP.

Input from RAC members included the following:

- Strong interest in coordinating transportation and land use planning decisions across the county, increasing the presence of sidewalks and other facilities to promote walking, and strategies to reduce traffic congestion.
- Desire to prioritize equity and safety related to transportation and mobility. There was a recognition that substantial percentages of the population in Ventura County do not have access to quality transit service or safe facilities for walking and bicycling.
- The county faces challenges related to the supply of affordable housing. The location for new housing projects should be coordinated with existing and planned mobility improvements to give residents access to a variety of transportation modes and reduce reliance on automobile travel.
- Recognize that transportation plays an important role in the economic development of the county.
- Community engagement efforts should include outreach to diverse groups and consider the transportation needs of residents who speak different languages, those of different ages (especially youth and seniors), those who care for these groups, military families and employees, and the links between housing advocates and mobility advocates.
- For goals related to the CTP, there was strong support for goals related to integrating housing, land use, and transportation; reducing greenhouse gas emissions; social equity; access to multimodal transportation choices; and economic prosperity.
- September 2021: Presentation of the proposed CTP vision and goals, an update on the technical work progress for the CTP and community engagement.

Input from RAC members included the following:

- There is a need to better coordinate land use planning at the local government level with the transportation planning that happens at the countywide and regional levels. It is important to coordinate where future housing is planned with planned transportation (especially transit and active transportation) improvements.
- Related to reducing greenhouse gas emissions, there was support for strategies that promote reductions in the use of automobiles and increase use of multimodal forms of transportation.
- Members also highlighted the need for people to have a feeling of safety when using different modes of transportation. This includes safe places and facilities to walk and bicycle, as well as safe and convenient access to transit services through the provision of lighting, shade, and other amenities.
- February 2022: Presentation and comments on the draft CTP outline; an overview on transportation and mobility needs; review of initial scenario planning.

Input from RAC members included the following:

- Important to highlight the different economic drivers present in Ventura County, especially the Port of Hueneme. The presence of the Port and needs for infrastructure to support goods movement could be helpful in pursuit of funding for transportation improvements.
- There is a need for improvements to transit service throughout the county. These improvements could include more frequent service, new routes, and other enhancements. Challenges include the availability of funding, changes in travel patterns and working patterns, and coordination with planned land uses.
- There are different populations across the county – youth and family, seniors, low-income workers – who have challenges in accessing different and affordable transportation modes. Strategies to expand access to transit, walking, and bicycling are needed to serve these groups.
- June 2022: An overview of the draft CTP scenarios and projects and discussion on potential performance metrics.

Input from RAC members included the following:

- Transit service enhancements are planned by Gold Coast Transit District along the agency's highest ridership routes. These improvements align with those identified in the CTP.
- There are several multimodal goods movement strategies and projects identified by the Port of Hueneme for inclusion in the CTP.
- There was interest in increasing the number of projects or strategies related to access to transit, comfort and convenience at bus stops, mobility for youth and seniors, and providing adequate routes related to military mobilization.
- November 2022: Overview of the draft CTP; a review of the results from the travel demand modeling process, and discussion of opportunities to review and comment on the draft CTP.

Input from RAC members included the following:

- Interest in how the draft CTP would be presented to the Commission and city councils during the review period to receive comment and inform policy makers.
- Discussion about how best to strategically plan for infill development, and how infill development may influence traffic patterns and transit needs.

Advisory Committees

- The six Advisory Committees each met three times during the development of the CTP. Each committee meeting was scheduled to occur concurrent with the three rounds of community engagement conducted to support the CTP development effort. This approach allowed attendees at each committee meeting to provide input into the planning process and suggest ways to enhance community engagement. Each advisory committee meeting was recorded on video and notes were taken from each

meeting. These recordings and notes were provided upon request to members that could not attend.

- The meeting dates, topics, and input from committee participants included the following:
- September 2021, Meeting #1: CTP overview; Advisory Committee overview; activity and discussion around current mobility challenges, opportunities and issues, as well as discussion on the future of mobility for the county. In each meeting, attendees were asked the same three questions. A sampling of replies to each question from across the different meetings is presented below.
- What are some of the primary barriers or challenges to accessing transportation in Ventura County?
    - More coordination with different transit providers within Ventura County, especially within paratransit and Dial-a-Ride
    - There is a limited number of transit routes serving some areas of the county
    - Bus stop locations – criteria for these locations may miss some residents with transit needs
    - Highway 101 traffic – opportunities to improve freeway operations
    - Accessibility to key destinations – employment hubs, education, grocery stores, etc. by low-income populations
    - Accessible and inclusive transit for riders with disabilities
    - Transit access to healthcare facilities
    - Travel times for transit and paratransit trips (can be multiple hours), which impacts ability to access jobs, shopping, appointments, etc.
    - Aging population in Ventura County, increases in 65+ and 80+ age groups
    - In the East County, there is a need for more transit and paratransit links between Los Angeles County and Ventura County.
    - Walking and biking networks are not currently a good travel option
    - Availability of funding
    - Presence of connected bicycle facilities
    - Traffic congestion and lack of expansion of highways
    - Balancing needs across modes of travel
    - Lack of education on the benefits of innovative traffic improvements
    - Transit connections to job centers
- What opportunities do you see in terms of transportation and mobility (i.e. technology, funding, behaviors/travel patterns, etc.)?
    - A willingness to significantly change
    - Greater support for remote work and telecommuting
    - Improved transit/paratransit
    - Sliding scale of costs/fares for transit
    - Explore opportunity for free or low-cost transit
    - Improved transit/paratransit in East County between Ventura County and Los Angeles County
    - Better understanding of costs of driving a car related to health, pollution
    - If EV, fuel cell, and hydrogen combustion engines are the future, then “fueling infrastructure” needs to be in place for electric charging and hydrogen fuel along the major routes (101, 23, 118, 126)
    - If the Camarillo Airport ends up opening to commercial flights, then traffic needs must be considered. Use of airport in this way would greatly benefit Ventura County.
    - Build on current support for active transportation because of Covid
    - Planning for advancements in technology, i.e. autonomous vehicles
    - Real-time updates while waiting for transit
    - Opportunities for micro-mobility, scooter share, micro-transit service pilots

    - Santa Paula – Fillmore railroad branch
    - Countywide alternate fuel bus and infrastructure grant applications.
    - Marketing for mobile fare technology
    - Electric bicycles
- What areas of transportation are in need of improvement to better serve community members?
    - Non-auto modes of transportation
    - VCTC leadership on regional goals for connectivity, such as a regional VMT mitigation program
    - Grant funding for County GSA and City Park Districts to install class 1 bike lane
    - Increase partnership and coordination with community groups involved with climate change – in disadvantaged communities across the county
    - Joint procurement on large purchases – electric buses and other transportation elements
    - Air quality – regulates stationary sources, mobiles sources are state level, bus transportation sector is one of the largest contributors – how to provide authority at local level
    - Incentive programs – AB617 program for Environmental Justice, Electric Vehicle charging station infrastructure – city fleet changes to Electric Vehicles – charging stations available for public use
    - Development fees that fund transit
- March 2022, Meeting #2: CTP recap; community engagement update; activity and discussion around trade-offs and preferences, as well as mobility and transportation priorities.

Input from each of the six committees was gathered using an online whiteboard activity and voting exercises in the program Menti. Goals and priorities varied by group, with variations in ranking priorities from committee to committee. Priorities by committee include the following:

- Economic Resilience
    - Balance Transportation and Land Use
    - Reduce Emissions and Improve Sustainability
- Active Transportation, Health, Wellness, Access, Equity
    - Improve Multimodal Mobility Choice and Access to Destinations
    - Reduce Emissions and Improve Sustainability
- Technical, Operations, and Transit Operators
    - Improve Multimodal Mobility Choice and Access to Destinations
    - Balance Transportation and Land Use
- Education, Youth, and Families
    - Improve Design to Eliminate Deaths and Serious Injuries
    - Improve Multimodal Mobility Choice and Access to Destinations (tied for second)
    - Reduce Emissions and Improve Sustainability (tied for second)
- Transportation, Land Use, and Housing
    - Improve Multimodal Mobility Choice and Access to Destinations
    - Balance Transportation and Land Use
- Climate Resilience, Wildlife, and Conservation
    - Reduce Emissions and Improve Sustainability
    - Balance Transportation and Land Use

November 2022, Meeting #3: Overview of the draft CTP; a review of the results from the travel demand modeling process, and discussion of opportunities to review and comment on the draft CTP.

Input from each of the six committees included the following:

- Interest in adding an additional Metrolink station in Simi Valley
- Interest in encouraging more housing in high-quality transit areas
- Discussion on whether the new State mandate requiring all new vehicle

- sales to be zero emission by 2035 may change the utility of VMT as a metric for emissions and mobility
- Concern that the lack of a county transportation tax limits ability to implement key projects
- Interest in identifying changing needs for paratransit with the aging of the Ventura County population
- Interest in including policies to improve safety and reduce traffic deaths, such as driver education campaigns
- Role of microtransit in helping to provide mobility in the community, particularly for seniors

Community Surveys

The primary method of receiving input from community members during the first two rounds of engagement – conducted in Fall 2021 and Spring 2022 – was through community surveys that were available both online and in written form in English and Spanish. Both surveys had a specific subject matter focus, designed to provide relevant input for the development of the CTP.

The Fall 2021 survey was focused on receiving input from the community on transportation and mobility needs in the county. This survey featured a map-based format using the online survey platform Maptionnaire, which allowed participants to mark the location and type of the transportation need or challenge they wanted to highlight. Input from this survey helped to form an understanding of transportation needs and provided a foundation for the development of the project lists and CTP scenarios.

The survey deployed during the Spring 2022 community engagement effort was a text- based survey, focused on providing community members with the opportunity to provide input on transportation priorities and metrics for performance. This input provided context and considerations for the review and analysis of the CTP scenarios.

Additional discussion of each survey and the results are presented in the following sections.

Survey Distribution

Surveys were distributed and made available to the community through a variety of channels. With an objective of receiving input from community members across the county, specific focus was placed on identifying distribution channels that were located or had reach throughout the county. The various distribution channels are highlighted below.

Digital Foyer/Project Web Page

VCTC established a project webpage on the agency's website as a central location for community members to learn about the plan, review different materials and documents prepared as part of the planning process, and access the community surveys online.

The CTP project web page on VCTC's website is located at: https://goventura.org/ctp

In addition to the project web page, the planning effort also included the creation of a digital foyer or online meeting place that could be viewed on demand. The digital foyer mirrored the project web page in terms of providing access to different materials and documents related to the project. The online versions of the community surveys were also available to access via the foyer. All materials in the foyer were provided in the English and Spanish languages.

The digital foyer is located at: https://dev.ibiviz.com/usa/ca/vctc/

In addition to the project web pages, the VCTC website home page rotating carousel was used with project visuals to direct website visitors to the project web pages, digital foyer, online surveys and walk audit.

Hard Copy Survey Distribution

Pop-up Events

During interactions with community members at pop-up events, staff provided the community members with a hard-copy of the survey to complete on-site or a business card-sized handout with a QR code linking to the survey.

Libraries

To boost exposure of the Spring 2022 survey for more mono-lingual Spanish speakers and from community members with limited access to computers, hard copies of the community survey in both English and Spanish were distributed at the following library locations:

- Ventura County Library System (10 locations, including the bookmobile in Santa Paula)
- Simi Valley Library
- Thousand Oaks Library
- Moorpark Library
- Oxnard Library

Social Media Posts

The VCTC social media platforms – specifically Facebook and Instagram – were utilized to distribute posts highlighting the availability of the survey and providing a link for community members to access the survey. During the second round of community engagement in Spring 2022, the social media engagement strategy was expanded using geotargeted social media ads published in English and Spanish. These geotargeted ads were successful in reaching approximately 12,000 community members. The English-language ad reached 6,232 and received 83 clicks to the survey while the Spanish-language ad reached 5,840 and received 73 clicks to the Spanish-language survey.

Email Blasts

Both surveys were distributed via email to the stakeholder list noted in Section 4.1. The email blasts included a link to the survey and brief overview of the purpose behind each survey. Links to the online survey were sent out to the CTP email list, and working in coordination with VCTC engagement consultant Celtis, other VCTC email lists totaling about 2,300 addresses.

Other Distribution Channels

The Fall 2021 survey was promoted to the RAC and Advisory Committee Members, who were asked to share the information with their constituents, through VCTC's social media and website, to the CTP project database, through a press release sent to local media and at pop- up events. The City of Moorpark, the County of Ventura Public Works, and City of Camarillo shared the survey information and link on their social media. The survey information also was included in e-newsletters put out by Economic Development staff for the County of Ventura and City of Moorpark.

The Spring 2022 survey was again promoted to RAC and Advisory Committee members, who were asked to share the survey and walk audit information with their contacts. The City of Moorpark and the City of Thousand Oaks shared the messages on their Facebook and Twitter accounts, and the City of Ventura shared the information in their Economic Development e-newsletter. Various committee members and VCTC commissioners shared the message as well through their individual networks.

Transportation Needs Survey Fall 2021

The Transportation Needs Survey was available for a period of two months in Fall 2021, with distribution of the survey timed to overlap with the community pop-up events conducted during this time.

The objective of this survey was to receive input from residents across the county on a range of questions asking about what mode of transportation people use today, what modes of transportation people would like to see available to them in the future, and what challenges and needs people face today related to transportation and mobility.

This survey was map-based and utilized the Maptionnaire online survey platform, which allowed participants to place points and highlight needs and issues on a map of Ventura County. This survey provided valuable input to the CTP, as the project team was able to not only receive input from community members relating to the types of challenges and needs, but also specifics on the exact location associated with the individual challenges and needs.

A total of 574 community members participated in the survey, with 346 participants answering every question. For the mapping exercise, participants provided 6,964 inputs to the survey. Table 4-1 below shows the number of survey inputs received by jurisdiction. Figures 4-1 through 4-4 illustrate the survey responses in chart form by jurisdiction for each of the four improvement categories: Walking, Biking, Transit, and Quality of Life. Figures 4-5 through 4-9 illustrate the locations of all inputs received, highlighted by category.

The survey responses were a key input to the development of the transportation network scenarios presented in Chapter 7. Survey responses for Walking improvements indicated strong support for wider sidewalks, more shade, and improvements for crosswalks and street crossings. For Biking improvements, the greatest number of responses were received for improvements to create more bike lanes and more protected bike lanes. Transit improvements receiving the most responses include interest in more hours of service, more connections between cities, and better connections to places people want to travel to. In terms of Quality-of-Life improvements, needs related to traffic congestion received the most responses, followed by the need for sidewalk and bicycle improvements and roadway safety concerns.

Transportation projects and strategies identified in the CTP Implementation Scenario that respond to these survey inputs include the following:

- New intercity bus rapid transit and freeway-based bus rapid transit routes between Ventura and Oxnard, Fillmore/Santa Paula and Ventura, and Ventura and Thousand Oaks. These routes address the interest in intercity connections, connections to more destinations, and more hours of transit service.
- New protected bicycle facilities are proposed throughout the county and in each of the ten cities. Many of these projects are upgrades of existing and planned bicycle facilities to protected facilities, with several new routes proposed as well.
- Pedestrian improvements are proposed as part of many roadway and bicycle projects identified in CTP Implementation Scenario .
- Traffic-related improvements include new high-occupancy vehicle lanes along U.S. Highway 101, widening of SR 118, and improvements to interchanges on U.S. Highway 101 and SR 118.

Table 4-1 – Survey Inputs by Jurisdiction

Improvement	Ventura	Oxnard	Thousand Oaks	Camarillo	Fillmore	Moorpark	SIMI VALLEY	SANTA PAULA	OJAI	PORT HUENEME	Total
Total	**2194**	**750**	**629**	**799**	**332**	**368**	**124**	**94**	**76**	**55**	**5421**
Walking Improvement	**793**	**287**	**169**	**244**	**81**	**120**	**39**	**24**	**18**	**22**	**1797**
Wider Sidewalks	218	35	55	82	26	44	22	4	7	2	495
Marked Crosswalks/ Flashing Lights	152	65	8	26	19	13	9	5	5	6	308
Improved Signage	84	25	4	10	0	2	1	1	0	2	129
Improved Lighting	96	77	19	41	14	16	0	1	3	5	272
Additional Trees	142	58	64	69	13	25	5	3	0	1	380
Other	101	27	19	16	9	20	2	10	3	6	213
Biking Improvement	**699**	**185**	**221**	**255**	**127**	**119**	**37**	**39**	**38**	**16**	**1736**
Additional Bike Lanes	78	35	29	50	85	21	1	10	0	1	310
Separated Bike Lanes	362	102	172	93	1	27	34	15	13	14	833
Dedicated Bike Lanes	128	5	12	51	27	18	1	6	14	1	263
More Bike Parking	40	11	2	31	9	4	0	1	1	0	99
Improved Lighting	29	6	0	3	0	17	0	0	1	0	56
Bike Share Program	29	11	3	11	4	19	1	0	6	0	84
Additional Trees	11	9	1	12	0	11	0	7	1	0	52
Other	22	6	2	4	1	2	0	0	2	0	39
Transit Improvement	**177**	**110**	**130**	**159**	**19**	**48**	**27**	**16**	**13**	**8**	**707**
Bus Shelters	24	10	3	29	1	4	1	3	2	1	78
Improved Lighting/ Safety	23	20	2	18	0	3	1	1	1	0	69
More Hours of Service	40	20	48	45	5	16	11	5	2	1	193
Routes Going Where I Go	41	23	56	36	4	8	4	3	3	3	181
Additional Intercity Connections	26	15	12	22	9	13	2	4	4	1	108
Housing Closer to Transit	8	1	1	1	0	3	8	0	1	0	23
Other	15	21	8	8	0	1	0	0	0	2	55
Quality of Life Improvement	**500**	**162**	**102**	**135**	**104**	**78**	**21**	**12**	**7**	**9**	**1130**
Traffic/ Congestion	253	106	47	69	25	33	7	1	2	6	549
More Carpool Lanes	6	5	13	15	14	1	7	0	0	0	61
Lack of Sidewalks/ Crosswalks	48	9	0	11	0	10	0	2	1	1	82
Lack of Bike Lanes	49	13	23	13	59	6	3	3	1	1	171
Roadway Safety Concerns	96	16	10	7	2	16	2	1	1	0	151
Transit Doesn't Go Where I Go	11	4	4	8	2	6	1	3	1	0	40
Transit Schedules Not Convenient	14	8	5	12	0	3	1	2	1	1	47
Other	23	1	0	0	2	3	0	0	0	0	29
Other (Corridor)	9	5	5	6	1	2	0	2	0	0	30
Other (Area)	16	1	2	0	0	1	0	1	0	0	21

Figure 4-1: Community Survey Results by Jurisdiction: Proposed Walking Improvements

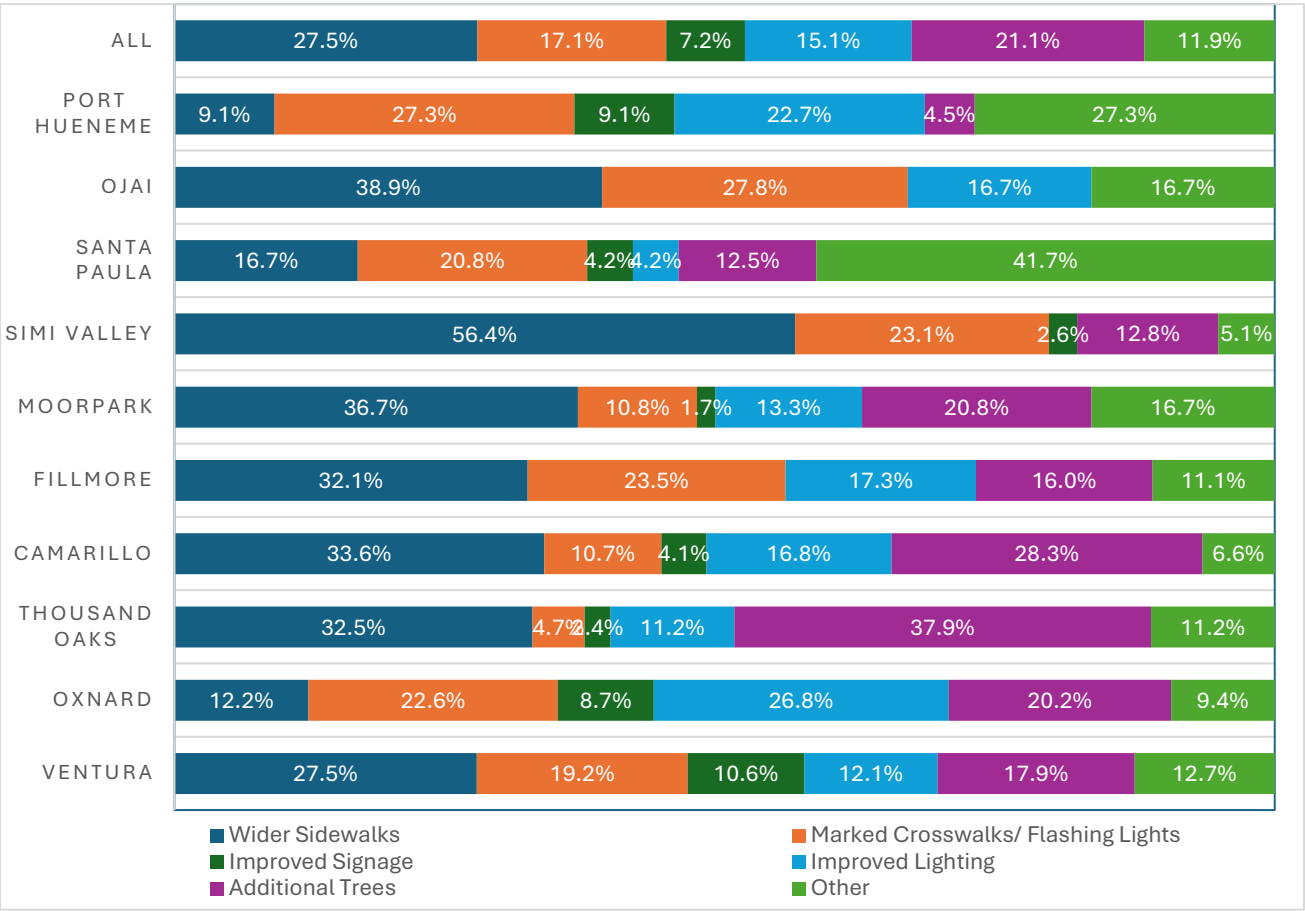


Figure 4-2: Community Survey Results by Jurisdiction: Proposed Biking Improvements

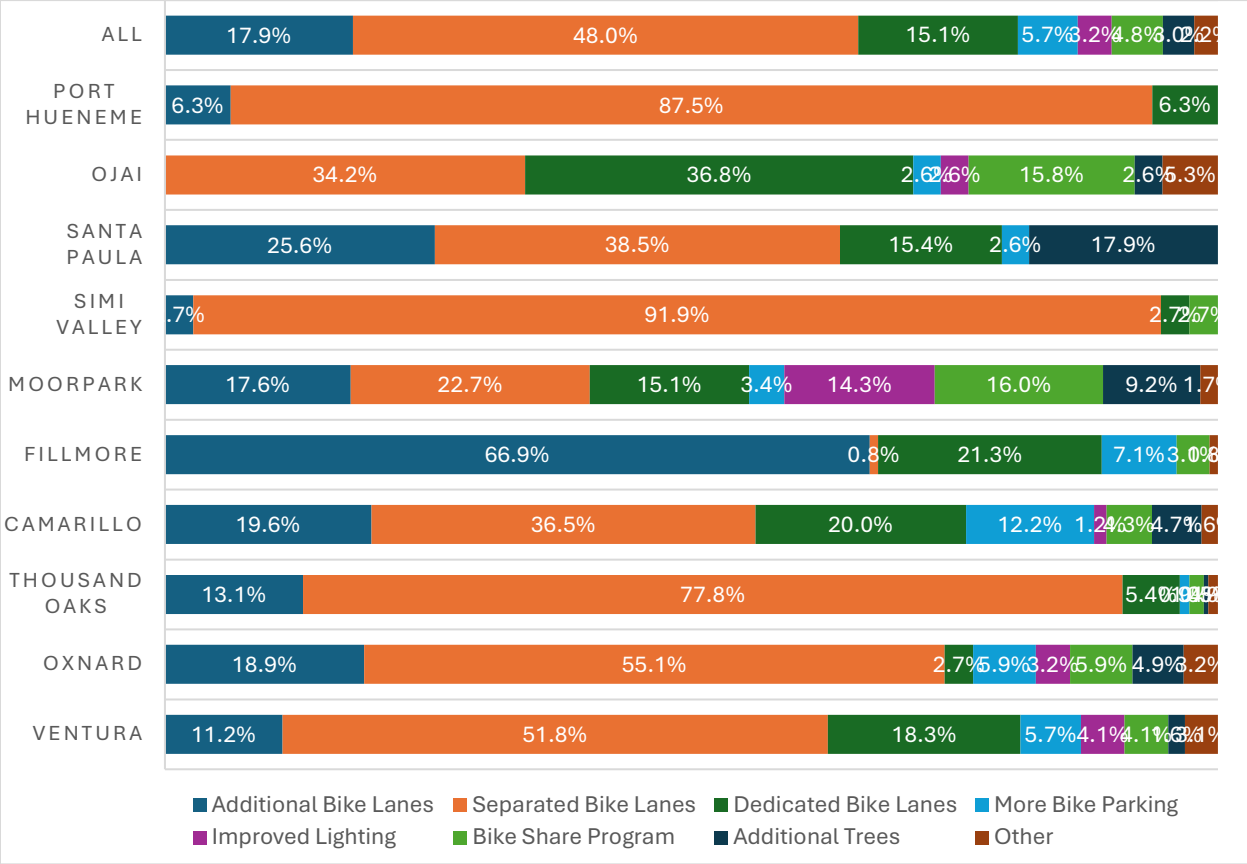


Figure 4-3: Community Survey Results by Jurisdiction: Proposed Transit Improvements

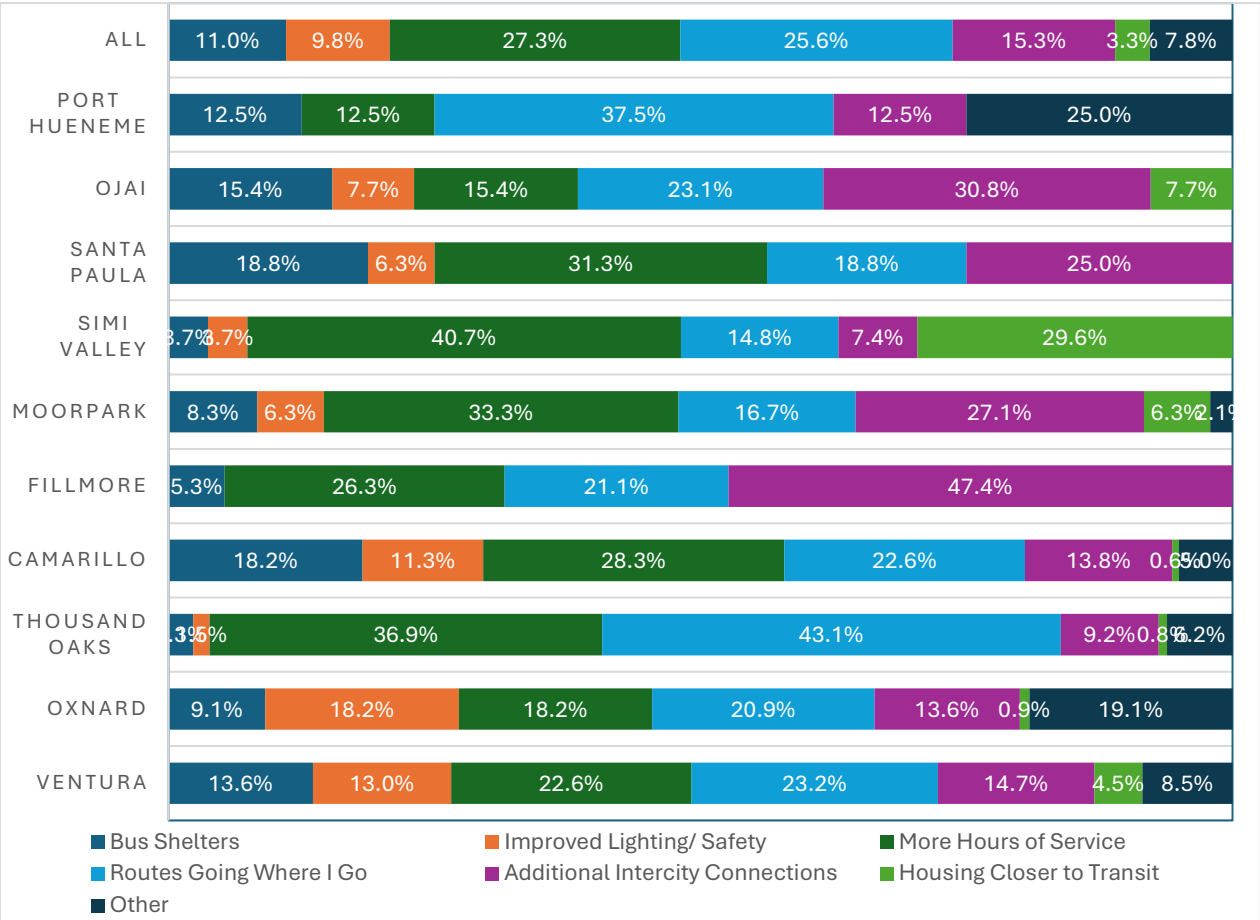


Figure 4-4: Community Survey Results by Jurisdiction: Proposed Quality-of-Life Improvements

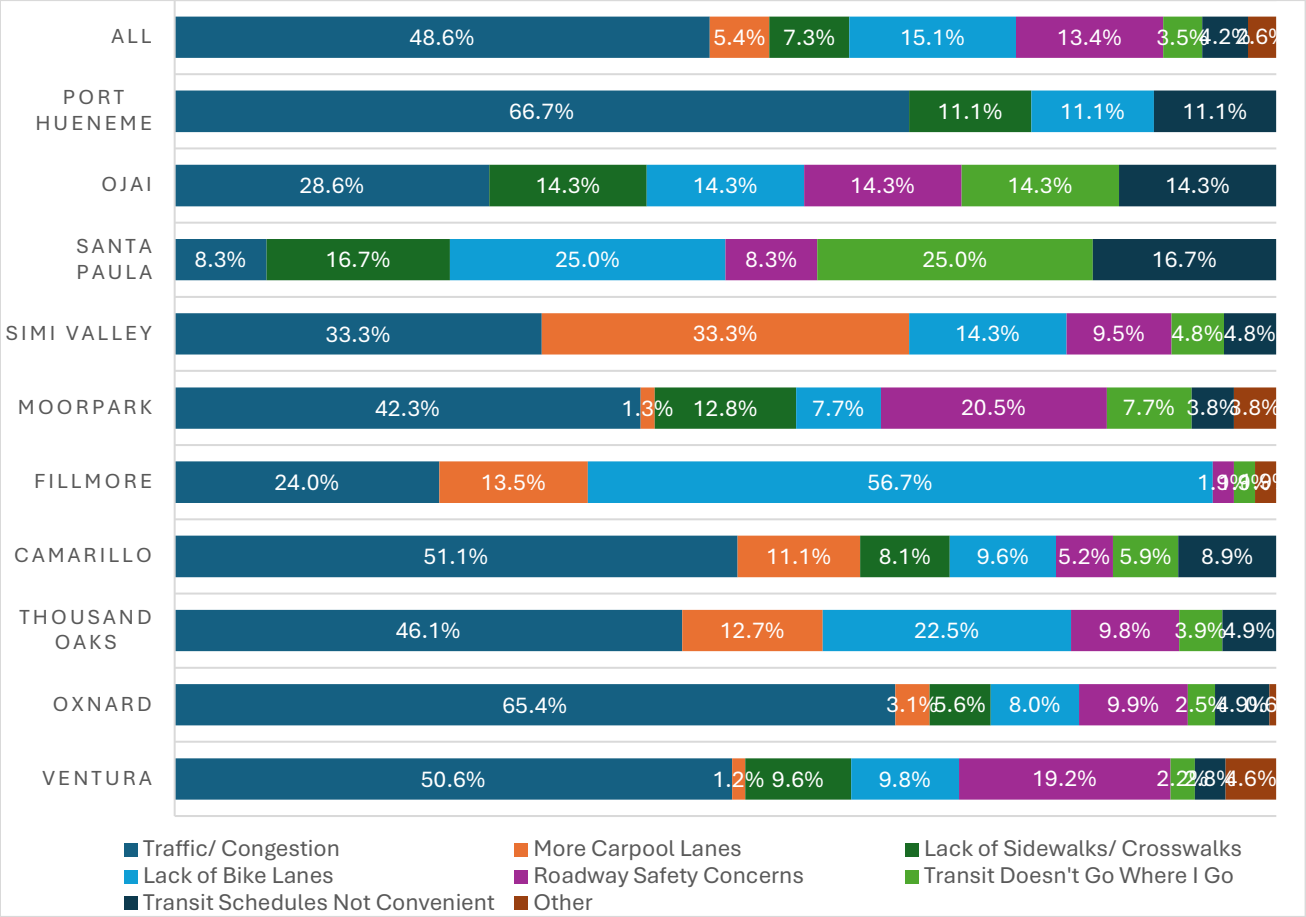


Figure 4-5: Community Survey Results: Proposed Walking Improvements

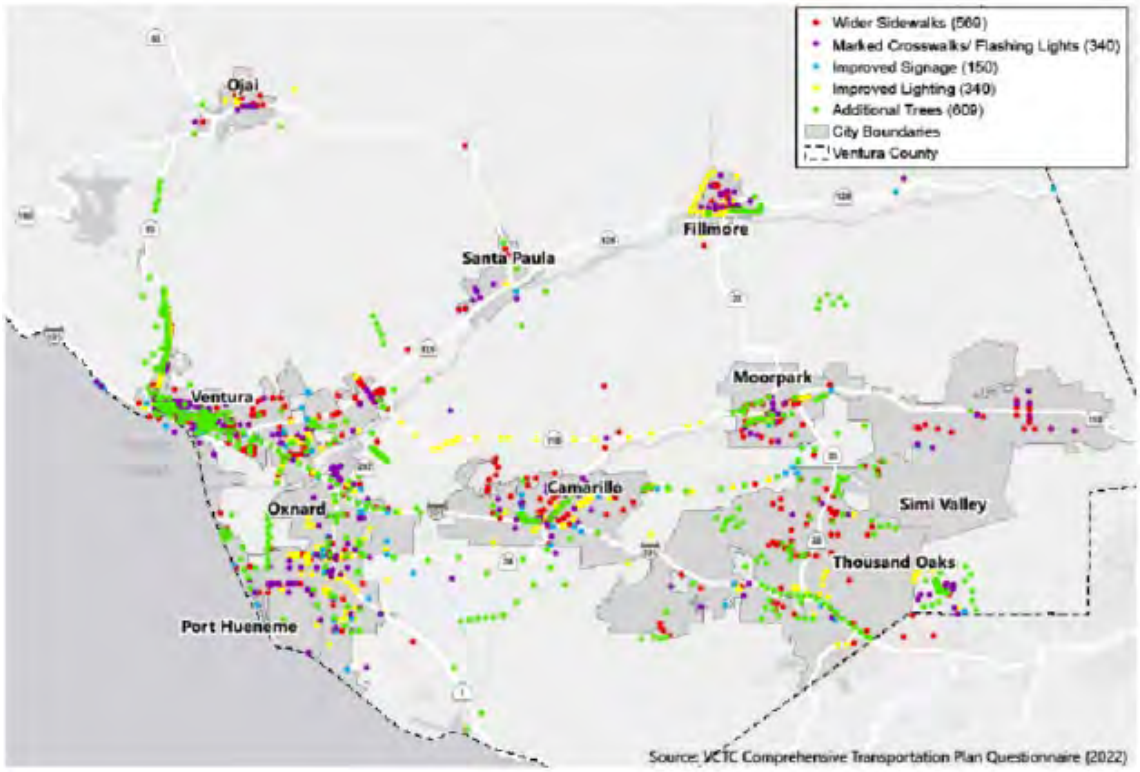


Figure 4-6: Community Survey Results: Proposed Biking Improvements

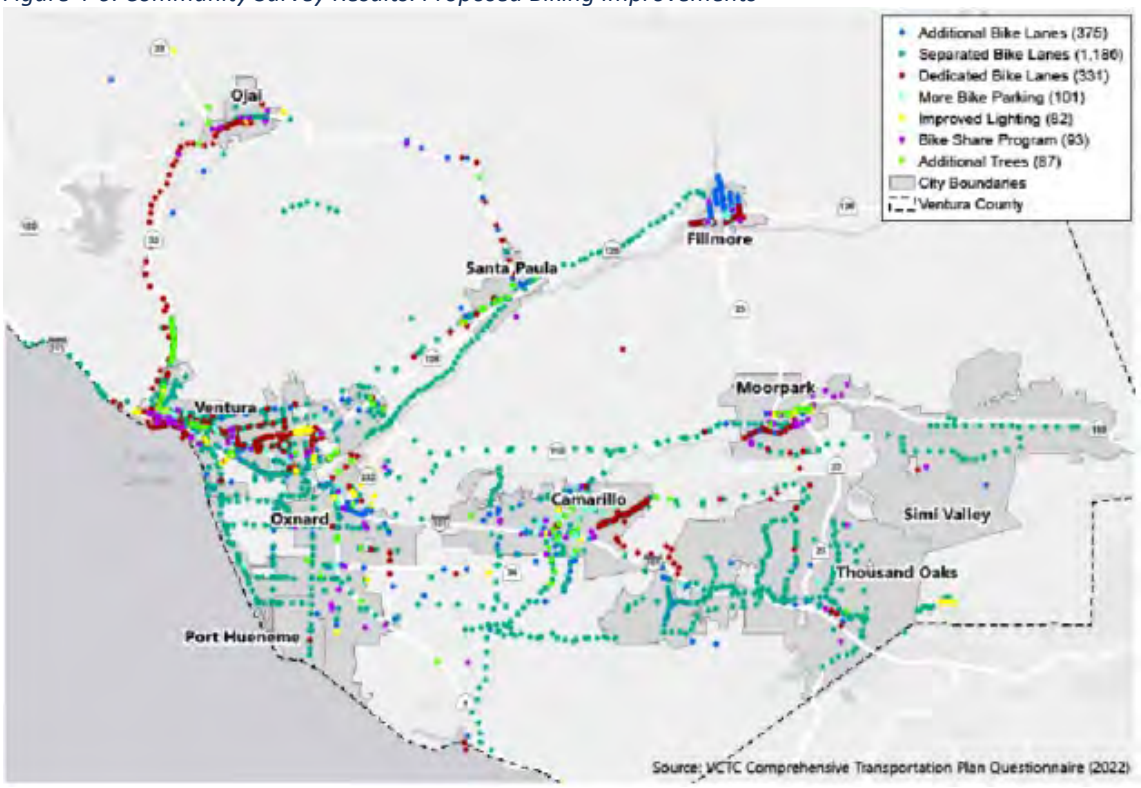


Figure 4-7: Community Survey Results: Proposed Transit Improvements

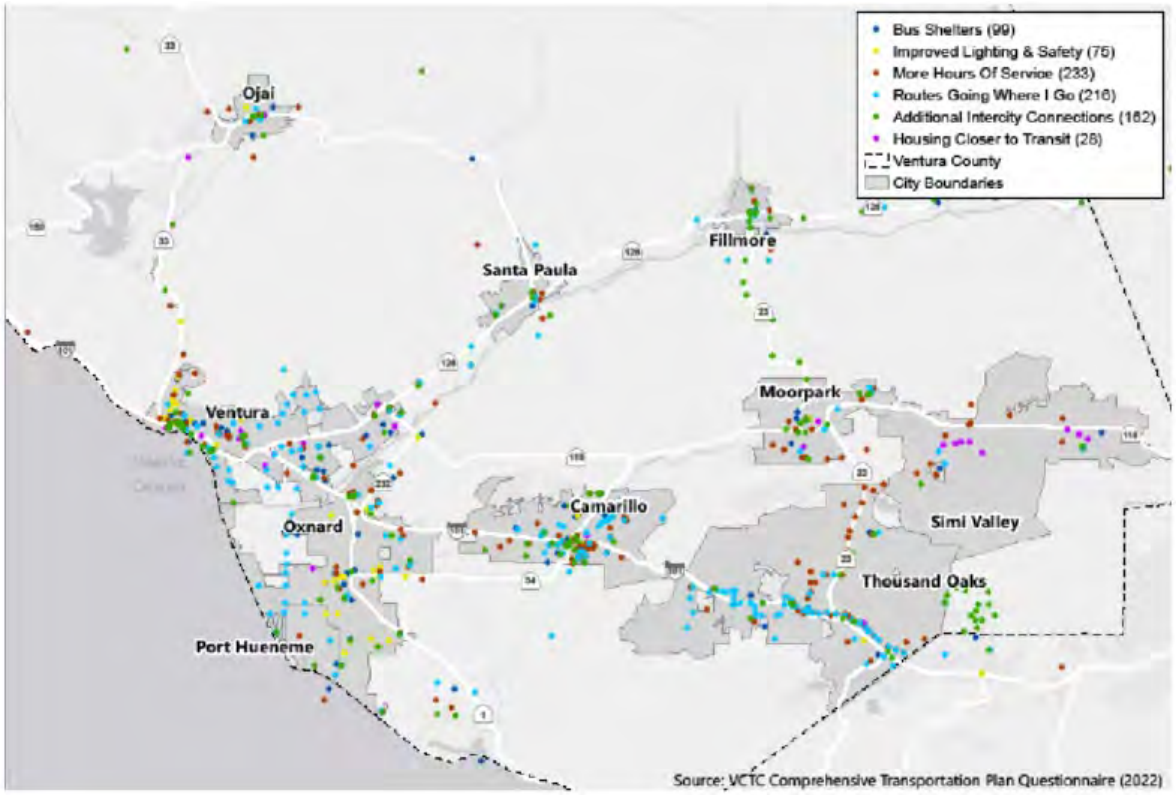


Figure 4-8: Community Survey Results: Proposed Quality of Life Improvements

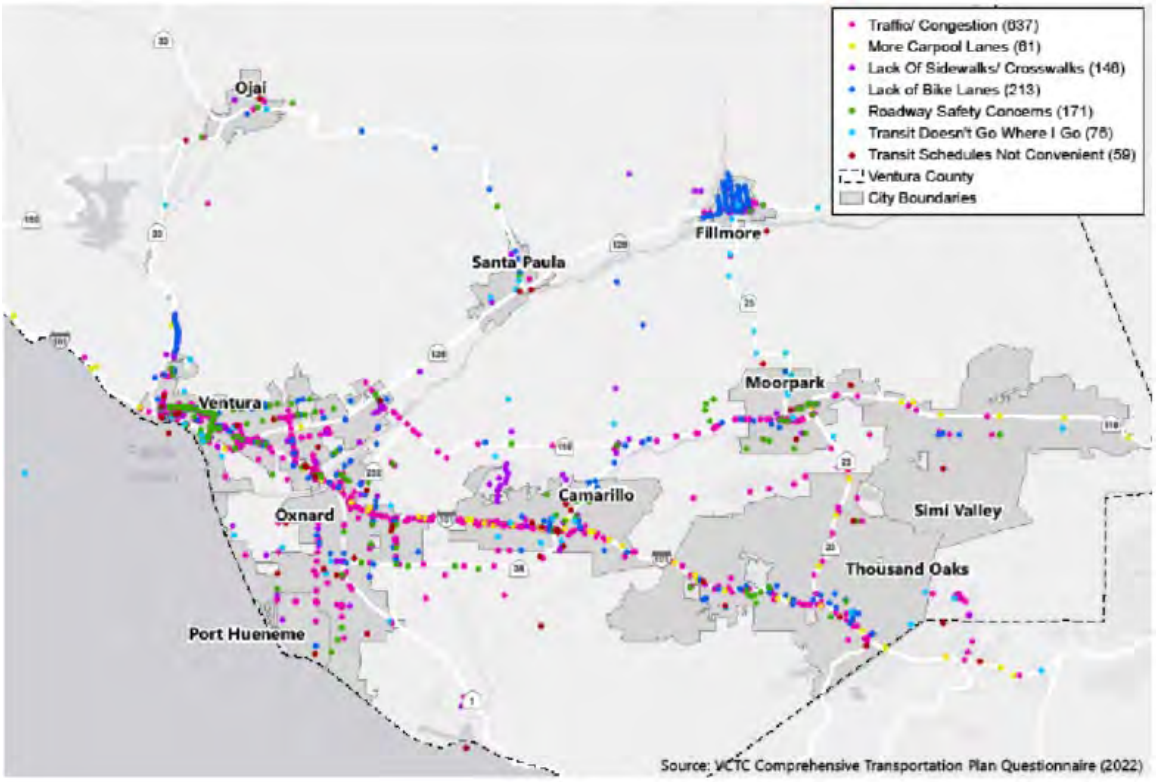
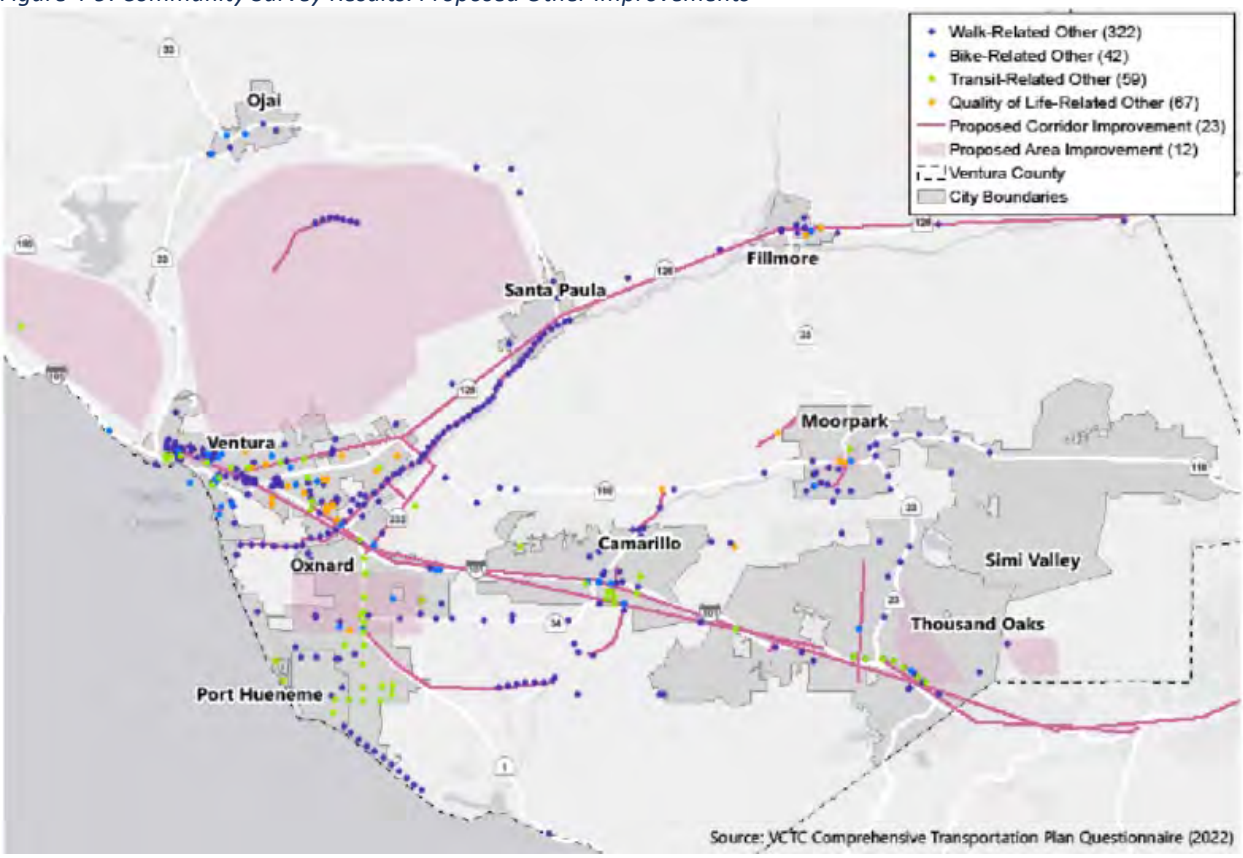


Figure 4-9: Community Survey Results: Proposed Other Improvements



Additional results of the Fall 2021 survey are summarized below.

Mode of Travel Most Used/Mode(s) Most Desired for the Future

By far, most respondents reported that they drive to their destinations today. This result aligns with the 2020 United States Census and 2021 American Community Survey (ACS) data for Ventura County, which also shows driving alone as the most common mode of travel. There was general agreement that, for those who drive, bike, ride transit, carpool, or walk, the way most respondents would like to get around in the next 10-20 years in the future was, in order of preference:

1. More use of bikes, e-bikes, and scooters
2. More use of electric cars
3. More use of rideshare
4. More use of autonomous vehicles, and
5. Improved (availability) of transit service

Transportation Improvements Most Needed (top three listed in order of importance)

Biking Improvements

- Additional bike lanes
- Additional landscaping and shade
- Bike share program

Walking Improvements

- Wider sidewalks
- Improved lighting
- Additional landscaping and shade

Transit Improvements

- Housing located closer to transit
- More hours of service
- Additional intercity transit connections

Transportation and Mobility Priorities Survey Spring 2022

The Transportation and Mobility Priorities Survey was available for a period of three months in Spring 2022, with distribution of the survey timed to overlap with the community pop-up events conducted during this time.

This survey built on the input received from community members as part of the Fall 2021 engagement efforts and sought input from residents on a range of questions asking about priorities and rankings related the draft CTP goals and prioritization of transportation scenarios. This survey was text-based and utilized the SurveyMonkey online survey platform. A total of 1,501 community members participated in the survey.

The results of the survey are summarized by question below.

CTP Goals

Community members ranked the CTP's goals in order of importance as:

1. Safety
2. Emissions and Climate
3. Balance Transportation and Land Use
4. Economic Prosperity
5. Access and Choice

Respondents also were asked to rank in order of important strategies to achieve goals. The top three strategies for each goal are listed below.

Safety

1. Create separated and protected walking and biking infrastructure
2. Reduce the number of vehicular trips on roadways
3. Education programs for safer walking, driving, cycling

Emissions and Climate

1. Make transit more affordable
2. Expand the network of electric vehicle charging infrastructure across Ventura County
3. Improve access to transit stops

Balance Transportation and Land Use

1. Introduce flexible transit services
2. Make transit services more affordable
3. Expand bus transit services (frequency, hours of services, number of routes)

Economic Prosperity

1. Increase countywide economic activity
2. Increase access to different modes of transportation
3. Increase accessibility to jobs

Access and Choice

1. Expand access to walking and biking infrastructure
2. Expand access to quality transit service (such as 15 min frequency during peak periods)
3. Reduce personal vehicle trips

The project team attended three pop-up events in the first round of outreach, reaching approximately 260 community members, seven events in the second round, reaching approximately 375 individuals, and three events in the final round, reaching approximately 360 people. At each event, at least one bilingual team member attended to engage with Spanish-speakers and all materials were available in English and Spanish. Table 4-2 below lists the events attended and approximate number of people reached. In addition to the events below, VCTC hosted a booth at the Ventura County Fair on August 5, 2022.

In-Person Pop-Up Events

Table 4-2: Pop-Up Engagement Events

Event Name	Location	Date	Interactions
Thousand Oaks Street Fair	Thousand Oaks	Oct. 17, 2021	150 total 20 Spanish-speakers
Ventura Harbor Village Halloween Event	Ventura	Oct. 31, 2021	70 total 20 Spanish
Oxnard Peace Ride	Oxnard	Nov. 20, 2021	40 total 8 Spanish
Pleasant Valley Recreation & Park District Eggstravaganva	Camarillo	Apr. 16, 2022	160 total
Earth Day Festival	Moorpark	May 7, 2022	37 total
Health and Wellness Fair	Fillmore	May 14, 2022	41 total 3 Spanish
Channel Islands Farmers Market	Oxnard	May 15, 2022	62 total
Children of Many Color Native American Pow Wow	Oxnard	June 5, 2022	40 total
Spring into Summer Event	Santa Paula	June 11, 2022	22 total 4 Spanish
Spirit of Santa Paula Food Distribution	Santa Paula	June 18, 2022	15 total 10 Spanish
Banana Festival	Port Hueneme	Sept. 24, 2022	220 total 30 Spanish
Town Center Farmers Market	Simi Valley	Oct 14, 2022	35 total
Ojai Day	Ojai	Oct 15, 2022	105 total

A minimum of one event was attended in each of the 10 cities in Ventura County across the three rounds of community engagement. This helped to ensure geographic distribution and broader representation from across the county. Specific emphasis was also placed on attending events that would attract non-English-speaking community members, lower- income community members, and community members of color.

At the first three events in October and November 2021, the project team introduced the project and gave out cards with the Fall 2021 online survey website and QR code. During round two of outreach, April through June 2022, the team promoted the second survey. The project team also created interactive boards allowing pop-up event attendees to express their preferences on five key questions from the survey.

During round three of outreach, the project team let people know about the plan's upcoming availability in November 2022 and encouraged sign-ups for the CTP email list so community members could be alerted to the plan's release.

In addition to the three Fall 2021 pop-up events, the project team received 45 comments via email, social media and during this round of engagement. The majority of the comments pertained to more and safer bike lanes and improved transit experience (greater frequency of buses, for example).

Table 4-3: Key Concerns

Concern	# of Comments Received
Involve me in the project/provide project updates	10
Request for more/safer bike lanes	9
Request for improved transit	9
Request for safer walking conditions	2
Request for safer auto traffic conditions	2
Other	9

During the Spring 2022 pop-up events, specific focus was placed on receiving input from participants on transportation priorities, via the boards displayed at the events. The top two responses from the five key areas are included below, with strongest interest in the creation of separated and protected walking and bicycling paths:

Top ways to support the Plan's Economic Prosperity Goal

- Increase access to different transportation modes – 71 responses
- Increase accessibility to jobs – 53 responses

Top ways to help achieve the Safety Goal

- Create separated and protected walking and bicycling paths – 225 responses
- Education programs for safer driving, walking and cycling – 48 responses

Top ways to achieve the Access and Choice Goal

- Expand access to walking and bicycling infrastructure – 82 responses
- Expand access to quality transit service (i.e., buses available at least every 15 minutes during peak periods) – 69 responses

Top ways to achieve the Transportation and Land Use Goal

- Make transit services more affordable – 49 responses
- Expand bus transit services (frequency, hours of service, number of routes) – 35 responses

Top ways to achieve the Emissions and Climate Goal

- Expand walking and bicycling infrastructure – 65 responses
- Require or incentivize more electric vehicle charging infrastructure for new development – 34 responses

School Outreach: Community Walk Audit

With the CTP looking toward the future and identifying transportation strategies and solutions for the next 20 to 30 years, it was important to encourage participation in the planning process from members of the community under 18 years of age. To help achieve this objective, the Spring 2022 engagement effort included the development and deployment of a community walk audit, targeted towards youth and non-English- speaking members of the Ventura County community. The walk audit survey tool was targeted to encourage participants to provide input on conditions related to walking and bicycling in their communities.

The walk audit received a total of 134 submissions in English and 46 in Spanish (a total of 180 submissions) and was available for participation between the months of February and May 2022.

The walk audits were promoted in the following ways:

- Through emails with bilingual flyers to Ventura County school district superintendents, PTA Councils and school safety coordinators/parent liaisons/engagement coordinators
- Through emails to Advisory Committee members, who shared with their networks
- Through social media and emails to the CTP mailing list
- With a press release sent to local media and picked up by the Vida Newspaper, VC Reporter and Thousand Oaks Acorn

A partnership with the community-based organization Nyeland Promise helped to boost completion of Spanish-language walk audits. Additionally, the Executive Director of CAUSE, another community-based organization, offered to have her youth group participate.

The primary concerns noted by community members in the audits were:

- a lack of sidewalks or cracked/broken sidewalks
- speeding cars
- lack of trees/shade
- lack of benches/places to rest

Targeted Outreach to Sensitive/Disadvantaged Communities

During the preparation of the CTP, a specific emphasis was placed on engaging with and receiving input from disadvantaged communities, as well as other communities in Ventura County that face unique or specific transportation and mobility challenges. These communities include seniors, youth, and low-income residents that may not have access to, or have trouble affording, automobile transportation.

Building on state, regional, and local goals to enhance equitable access to transportation and mobility opportunities, and to reduce the impact of transportation infrastructure on sensitive communities, the CTP community engagement effort included the following strategies, tactics, and approaches to include sensitive and disadvantaged communities in the planning process.

Walk Audits

The walk audit engagement effort that took place between February and May 2022 was specifically focused on providing community members with a fun, accessible, and tangible activity that was directly linked to transportation conditions in their neighborhood. This activity also helped to distill down the countywide focus on the CTP into a locally focused activity where participants could understand how this long-range planning effort would result in transportation benefits at a local level.

To encourage participation in the walk audit by youth and lower income residents in Ventura County, the project team partnered with the community-based organization Nyeland Promise to promote the walk audit and boost participation from members of these targeted communities. This partnership resulted in 35 walk audit surveys returned as part of this engagement activity.

Further participation from youth and lower income communities was encouraged through distribution of the walk audit notices through school superintendents and parent-teacher organizations, as well as through press releases published in the Spanish-language Vida Newspaper, and VC Reporter.

Library Survey Distribution

Distribution of the Spring 2022 community survey in hard copy form was accomplished in partnership with local library systems in Ventura County. This survey approach was intended to reach community members that are limited in their access to the internet, which would in turn limit their ability to be aware and participate in the survey effort. Partners in the hard copy distribution of the survey in English and Spanish included:

- Ventura County Library System (10 locations, including the bookmobile in Santa Paula)
- Simi Valley Library
- Thousand Oaks Library
- Moorpark Library
- Oxnard Library
- Fillmore City Hall

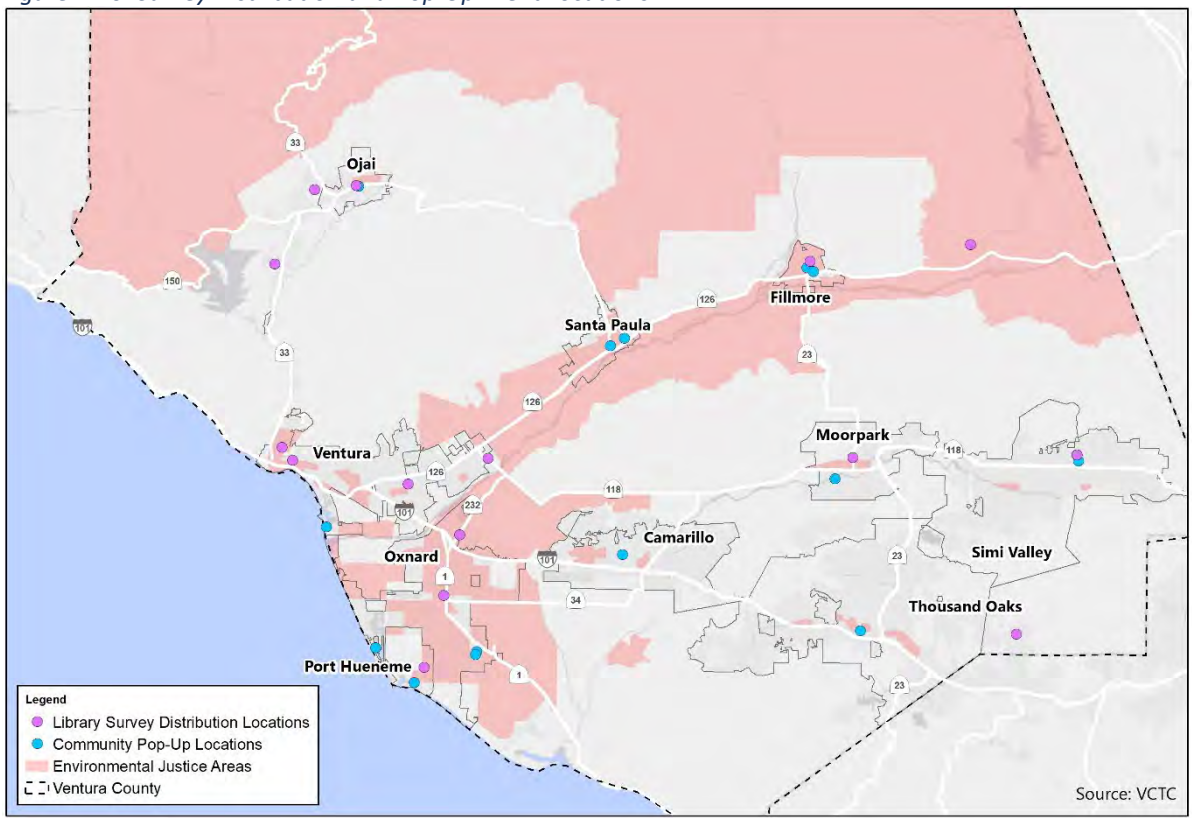
Through this participation avenue, community members were able to fill out the survey and leave completed surveys in drop-boxes at each location. In the case of Fillmore, surveys included a return mailing address.

Locations of Pop-Up Events

The 13 pop-up events conducted during the CTP preparation process were also intended to raise awareness in the community about the planning effort and provide community members with a non-internet-based avenue to participate in the planning process. Consistent with the approach used for the survey distribution at libraries across the county, pop-up events were selected to occur in cities located across the county and in communities and at events that would attract a broad representation of community members.

Figure 4-10 depicts where hard copy surveys were made available and the locations where pop-up events occurred across the county and how these locations overlap or correspond to environmental justice communities in Ventura County.

Figure 4-10: Survey Distribution and Pop-Up Event Locations



Promotion of the Draft Plan

With the release of the draft CTP in late November, promotion was focused on announcing the availability of the plan for review and sharing the plan's comment period and how to provide comments. The draft plan was promoted in the following ways:

- Presentation to VCTC Commissioners on December 2, 2022
- Virtual Community Workshop presented in English and Spanish on December 6, 2022, with the recording and presentation posted to the project site for on-demand viewing and shared via email
- 90-second CTP overview videos in English and Spanish
- Two-page, bilingual CTP overview flyers
- Email announcements to the Regional Advisory Committee and Advisory Committee members, with requests for sharing with committee members' constituents
- Social media posts using the CTP videos
- Emails to CTP list and larger VCTC lists of approximately 2,300
- Press release
- Website updates

More than 300 comments were received on the draft plan, with in-depth feedback regarding transit service improvements, bike lanes, funding suggestions, policy recommendations and more.

4.2 Key Engagement Themes

As a result of this engagement effort, Ventura County community members shared significant input to help guide the development of the CTP. At various public engagement events and through the community surveys, community members noted strong interest and support for providing enhancements to encourage more bicycle and walking activities throughout the county. Transit improvements, including faster service and lower cost service, also received strong support from the community.

The following popular themes were conveyed during community engagement effort:

- **Expand walking and bicycling infrastructure** throughout the county, especially to improve network connectivity between cities, with an emphasis on protected facilities that separate pedestrians and bicyclists from automobiles
- **Enhance existing walking and bicycling infrastructure**, specifically through repairing broken and damaged sidewalks, adding landscaping and shade, and connecting these facilities to key destinations
- **Expand transit services**, including more routes, faster travel times, better frequencies, and extended hours of service
- **Improve access to different modes of transportation** to help people access employment, education, and recreation opportunities
- **Identify strategies and programs to reduce emissions and improve air quality,** including expansion of electric vehicle charging infrastructure and reducing automobile trips
- **Coordinate future land use and transportation planning** efforts to help new development be better connected to a multimodal transportation network

These comments, input, and feedback help to support the multimodal emphasis of the strategies and project scenarios presented in the CTP. Many of the new projects, particularly those involving walking, bicycling, and transit, proposed in the CTP Implementation Scenario, and discussed in Chapter 7, are intended to respond to the themes identified above. This emphasis on including projects and strategies to directly respond to comments received in the community engagement effort helps to ensure that the CTP is a community-driven plan that responds to the transportation and mobility needs, interests, and challenges of Ventura County residents.

Ventura County Comprehensive Transportation Plan

Chapter 5 – EQUITY

Photo Credit: Ventura County Star

Transportation and mobility influence nearly every aspect of an individual's life. This includes how they get to work, to school, or to shop to fulfill daily needs. When planning for future transportation and mobility improvements, it is important to consider how different individuals – regardless of their income level, geographic location, ethnicity, etc. – access the available mobility options in their communities.

Within California, specific attention and consideration is warranted to ensure future projects are equitable and address the systemic effects of transportation on health, safety, and access to opportunity across different populations. Caltrans "acknowledges that communities of color and underserved communities experienced fewer benefits and a greater share of negative impacts associated with our state's transportation system"6. This acknowledgement is leading the development of the Caltrans Transportation Equity Index (EQI). Caltrans guidance establishes a justification for this equity analysis of the transportation system in Ventura County.

As part of the CTP, VCTC has committed to analyzing equity considerations when conducting technical analysis, community engagement, and developing transportation and mobility strategies and improvements that will serve Ventura County residents for years to come. This chapter discusses equity as it relates to transportation and mobility and how it is considered within the development of the CTP.

5.1

Mobility and Equity

> Equity means providing the most vulnerable with the tools they need to succeed.
>
> -Saskatchewan Health Authority

Equitable transportation can be defined with the following characteristics:

- Transportation systems that support multimodal options that are affordable, sustainable, reliable, efficient, safe, and easy to use; quality transportation services that are accessible to all populations; and transportation decision-making processes that incorporate inclusive public engagement to reduce the long-standing socioeconomic disparities experienced by underserved and underrepresented communities.[7]

Caltrans released an Equity Statement in December 2020 that states in part "we will achieve equity when everyone has access to what they need to thrive – starting with our most vulnerable – no matter their race, socioeconomic status, identity, where they live, or how to travel"[8]

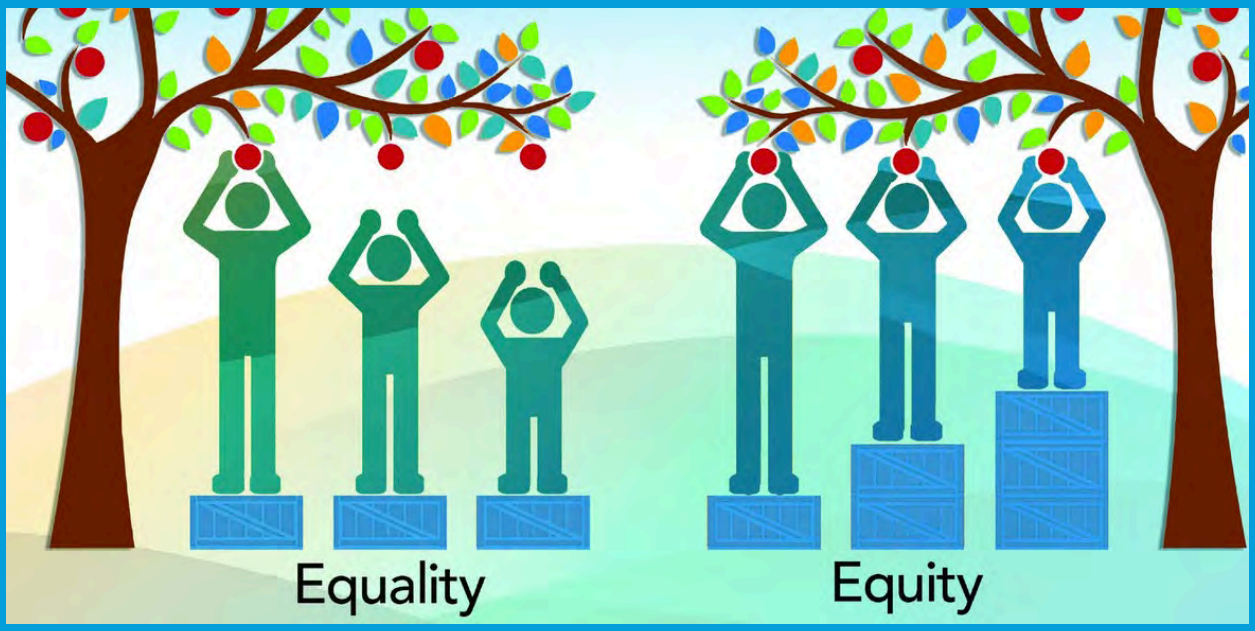


Figure 1: Equity and Equity Comparison

7. CTS Research Brief – Advancing Transportation Equity: Strategies for reducing transportation disparities, 2019), https://www.dot.state.mn.us/planning/program/advancing-trasnportation-equity/pdf/Advancing_Equity_ResearchBrief_Final.pdf

Regional planning agencies have followed Caltrans' leadership and proactively taken steps to include equity considerations within their transportation planning processes. In July 2020, SCAG adopted Resolution 20-623-2, which stated the agency's "commitment to advancing justice, equity, diversity, and inclusion throughout Southern California."9 The regional agency also released in May 2021 its Racial Equity Early Action Plan, which detailed a framework and strategies to better incorporate equity considerations within its policies, planning processes and funding mechanisms.

In November 2021, the San Diego Association of Governments (SANDAG) created the Regional Plan Social Equity Working Group.10 The group included representatives of local community-based organizations serving underserved/disadvantaged communities with the objective to review, support and advise on strategies to integrate equity consideration throughout the development of the Regional Plan and the implementation of the projects listed in the plan. Alongside its peer agencies, VCTC has integrated equity considerations into its own planning efforts. A key focus for the Ventura County CTP is to include equitable engagement and consider communities who have historically been underserved and underrepresented while planning for future transportation investments.

Who are Disadvantaged Communities?

Disadvantaged communities refer to groups of the population who disproportionately suffer negative impacts from infrastructure and land use projects. They include low-income communities and communities of color. SB 535 also identifies geographic, socioeconomic, public health and environmental hazard criteria to designate communities as disadvantaged.11 Neither AB 1550 nor SB 535 provide a definition for "disadvantaged communities." Instead, SB 535 directs CalEPA to "identify disadvantaged communities … based on geographic, socioeconomic, public health, and environmental hazard criteria." It recognizes that these criteria "may include, but are not limited to:"

Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure or environmental degradation."
Areas with concentrations of people that are of low income, high unemployment, low levels of home ownership, high rent burden, or low levels of educational attainment."

As a result, other groups, such as people without access to a private vehicle, elderly populations and individuals with mobility limitations are also included in disadvantaged communities, as a significant proportion of these individuals are within the low-income category and are more vulnerable to the impacts of transportation infrastructure projects. These groups also face unique mobility challenges which can hinder their capacity to access transportation infrastructure and their key destinations.

9. SCAG Inclusion, Diversity, Equity & Awareness. 2020. <https://scag.ca.gov/our-work-inclusion-diversity-equity-and-awareness>
10. SANDAG Regional Plan Social Equity Working Group. 2021. <https://www.sandag.org/index.asp?committeeid=108&fuseaction=committees.detail>
11. California Office of Environmental Health Hazard Assessment. 2022. SB 535 Disadvantaged Communities. https://oehha.ca.gov/calenviroscreen/sb535

Integration of Equity Considerations within the CTP Update Process

The following sections describe the methodology used to incorporate equity considerations within each phase of the CTP.

Data Collection and Existing Conditions Analysis

The CTP considers the populations who live and work within Ventura County, their travel patterns and habits, and existing transportation infrastructure and transit services. Chapter 2: Existing Conditions includes an assessment of the existing transportation system and highlights mobility-related challenges in Ventura County, and how these challenges may affect mobility for different population groups. As part of this plan update, existing data and plans were analyzed using an equity-focused lens. Ventura County's existing demographic, health, environmental, and mobility conditions were analyzed in the following sections of this report to understand the needs and challenges experienced by disadvantaged populations. This information will inform the plan's strategy for future transportation investments.

Engagement

Disadvantaged populations are typically underrepresented in community engagement activities. Contributing factors to reduced participation include a lack of interpretation services, unavailable childcare, inaccessible public meetings due to atypical work schedules, lack of access to broadband, or insufficient promotion which can lead to populations that are unaware of potential opportunities to participate. In addition to these barriers, a distrust of government agencies and the perception that proposed improvements may further enhance inequities and negative impacts, or that their input would make little difference contributes to the challenges of receiving public participation from disadvantaged communities.12 Transportation improvements are also often linked to an increase in real estate values, which may spur a very legitimate fear of displacement from the most financially vulnerable.13

Equity-focused engagement is a key element of success in community and transportation planning. The CTP includes specific measures to promote public participation by disadvantaged populations, including:

- Targeted outreach to community groups that directly interact with disadvantaged populations in addition to marketing in key community destinations.
- Logistical support such as interpreted meeting materials, planning meeting locations within target communities, including asynchronous engagement alternatives to allow individuals to provide input on their own time if they could not attend the live event.
- Engaging the community throughout the entirety of the project, and clearly showing where public feedback was incorporated into the plan, as detailed below in Section 5.2.5 and Chapter 4.

12. University of California Institute of Transportation Studies. March 2021. "Answers from the Margins: Participatory Planning with Disadvantaged Communities". https://escholarship.org/uc/item/0w49r6g5
13. Urban Land Institute. 2016. Active Transportation and Real Estate; The Next Frontier. http://uli.org/wp-content/uploads/ULI-Documents/Active-Transportation-and-Real-Estate-The-Next-Frontier.pdf.>

Development of Policies, Programs and Projects

Providing an inclusive transportation network that addresses the current needs of disadvantaged communities requires a special focus on the future development of policies, programs, and projects. Different strategies are incorporated into the CTP to support these efforts, including:

- Correlating areas of past investments with communities with higher concentrations of vulnerable populations. Following this analysis, investments and projects can be identified and focused in those underserved areas.
- Using equity as a basis for input or prioritization. In addition to addressing under-served areas, equity considerations can be used as a key metric to guide prioritization of planned improvements.
- Developing policies, programs, and projects in close collaboration with local communities as well as community-based organizations who work directly with disadvantaged populations. This is a key component to ensure proposed improvements are in line with community needs and priorities.

Evaluation and Performance Measures

Evaluation and monitoring are important steps that help assess whether the proposed improvements have succeeded in improving access to high quality transportation services and infrastructure. The CTP performance measures were developed specifically to assess the potential impacts of improvements on vulnerable populations, which is essential to achieve equity objectives through monitoring and course correction as needed.

Examples of effective performance measures include location of projects within priority communities, travel length, and number of collisions involving pedestrians and bicyclists, etc.

The following sections (sections 5.2 through 5.3) provide an overview of the CTP equity analysis.

5.2 Engagement Approach

Building on the presentation of existing transportation conditions in Chapter 2, a review of conditions pertaining to equity in Ventura County was conducted.

Socioeconomic Conditions

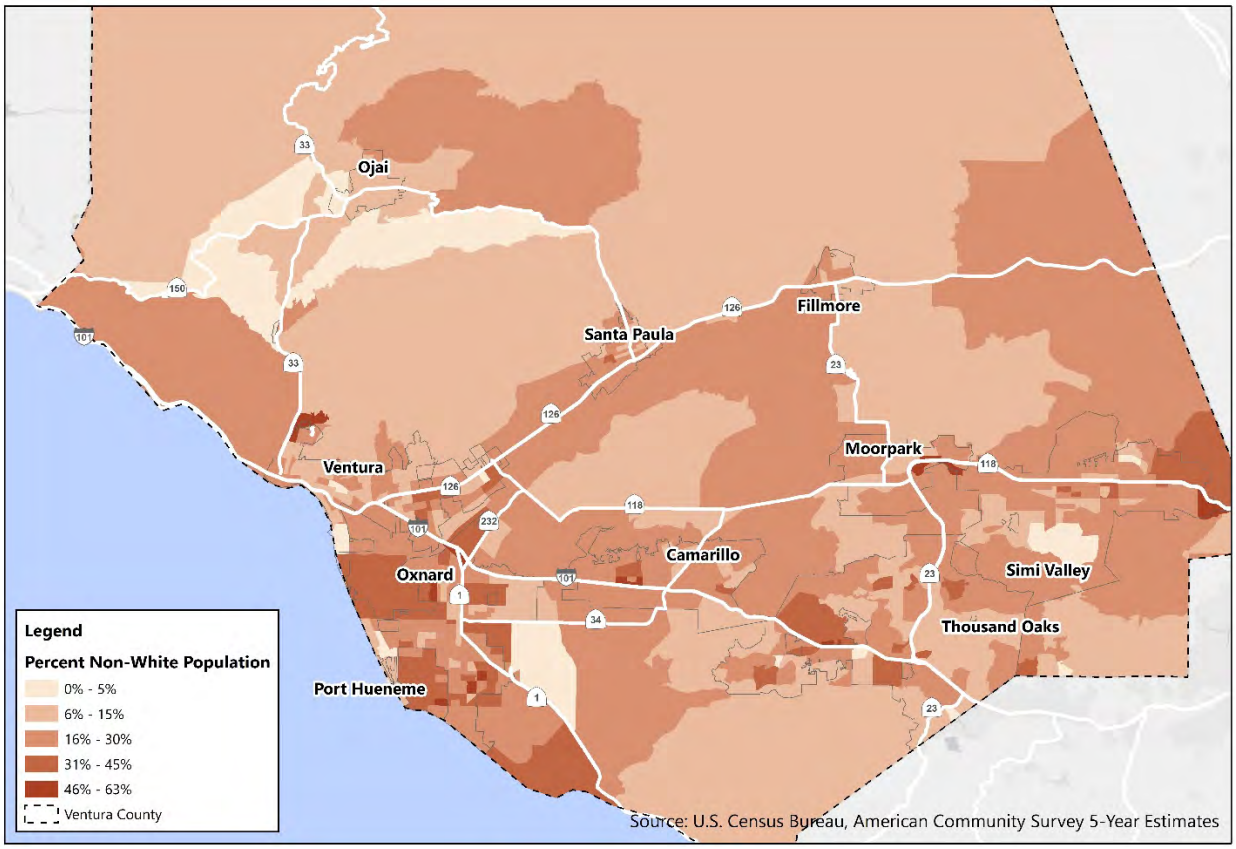
Socioeconomic conditions are used as metrics to identify sensitive populations. Specifically, low-income households and communities of color are typically groups who suffer the most from the negative impacts of transportation infrastructure. They are also less likely to be represented in community engagement, which can lead to their priorities being overlooked. Other key socioeconomic metrics include households without access to a private vehicle, youth, and older adults. These groups are typically more transit-reliant, and consequently more affected by inadequate mobility services and infrastructure.

Communities of Color

The American Community Survey (ACS) indicates the percentage of non-white population by the total population within each census tract. Within the study area, the percent of non-white population reaches above 50% of the total population in census blocks along the coast in the cities of Ventura, Oxnard, Port Hueneme, and in the southern portion of Thousand Oaks along U.S. Highway 101. The presence of communities of color is also notable in eastern Simi Valley along the Ventura County line, and in the cities of Santa Paula, Fillmore, Ojai, and Moorpark.

Although Ventura County has a non-white population of under 20%, communities of color must be considered throughout the planning process as they have historically been underserved by transportation infrastructure. In addition, these communities often overlap with the presence of low-income communities that are also more dependent on public transit and active transportation. Therefore, sustainable, safe, and efficient multimodal transportation connections should be prioritized in these communities. The distribution of these communities is presented in Figure 5-1.

Figure 5-1: Distribution of Non-White Populations

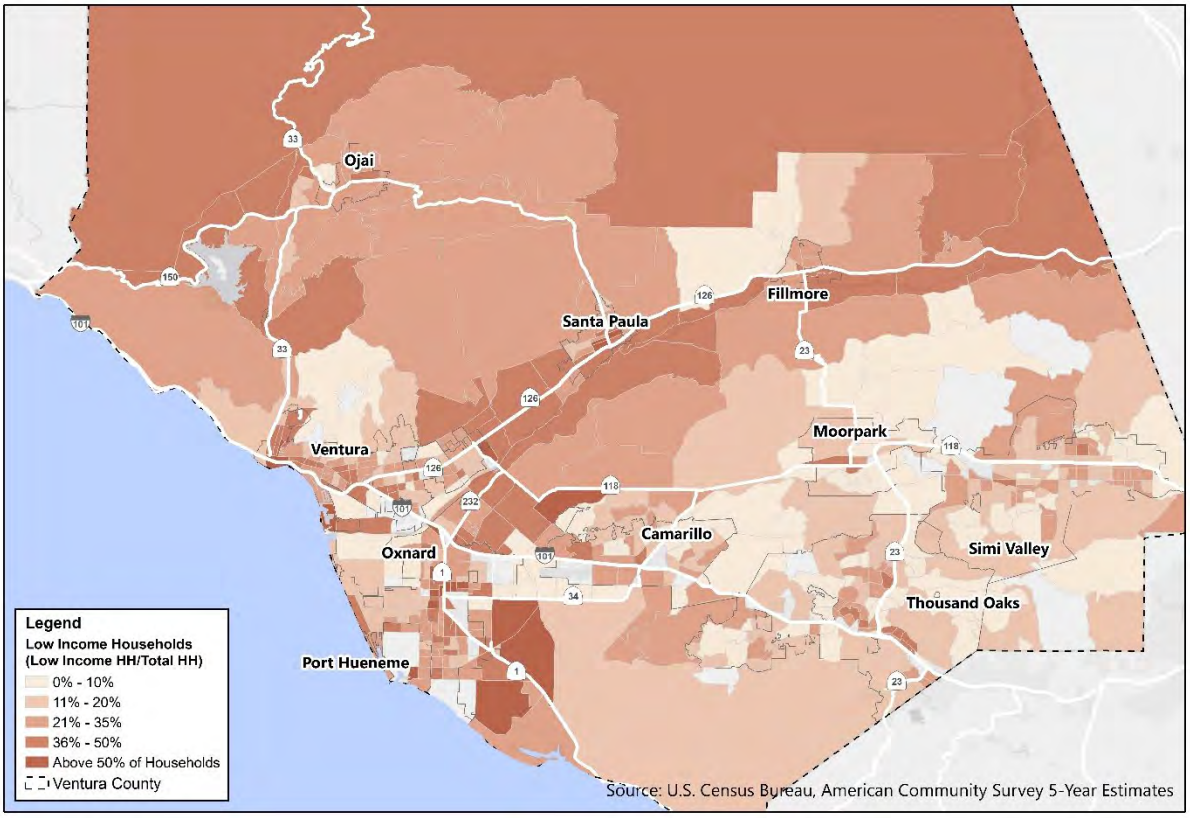


Low-Income Communities

The distribution of low-income communities within Ventura County was derived from Connect SoCal, the Regional Transportation Plan prepared by SCAG to provide further insight on the low-income households in comparison to the rest of the county. The density of low-income households is defined by the total number of low-income households per the total number of households. Figure 5-2 presents the percentage of low-income households in the study area as compared to the rest of the SCAG region, defined by SCAG as households with an annual income of less than $35,000. The median household income in Ventura County is $88,131, according to the 2019 American Community Survey 5-Year Estimates. The Department of Housing and Urban Development currently defines low income for a 1-person household in Ventura County as $62,800 or less, very low income as $39,250 or less, and extremely low income as $23,600 or less. Households that fall into these income categories are eligible for Public Housing and Section 8 Programs.

Areas with particularly high percentages (over 50%) of SCAG-defined low-income households include the census tracts in northern Ventura County, the Port Hueneme community and community near Naval Base Ventura County – Point Mugu along Highway 1, along SR 126 through Santa Paula, in Saticoy along SR 126 and SR 118, in Somis south of SR 118, in Fillmore, and in the community of Piru. Although the northern portion of Ventura County appears to have a significant concentration of low-income households, the area has an extremely low population density. Similarly, the census tracts just north of the Naval Base have a low density of residents, as most of the land is either agricultural or part of the Point Mugu Game Preserve.

Figure 5-2: Distribution of Low-Income Households

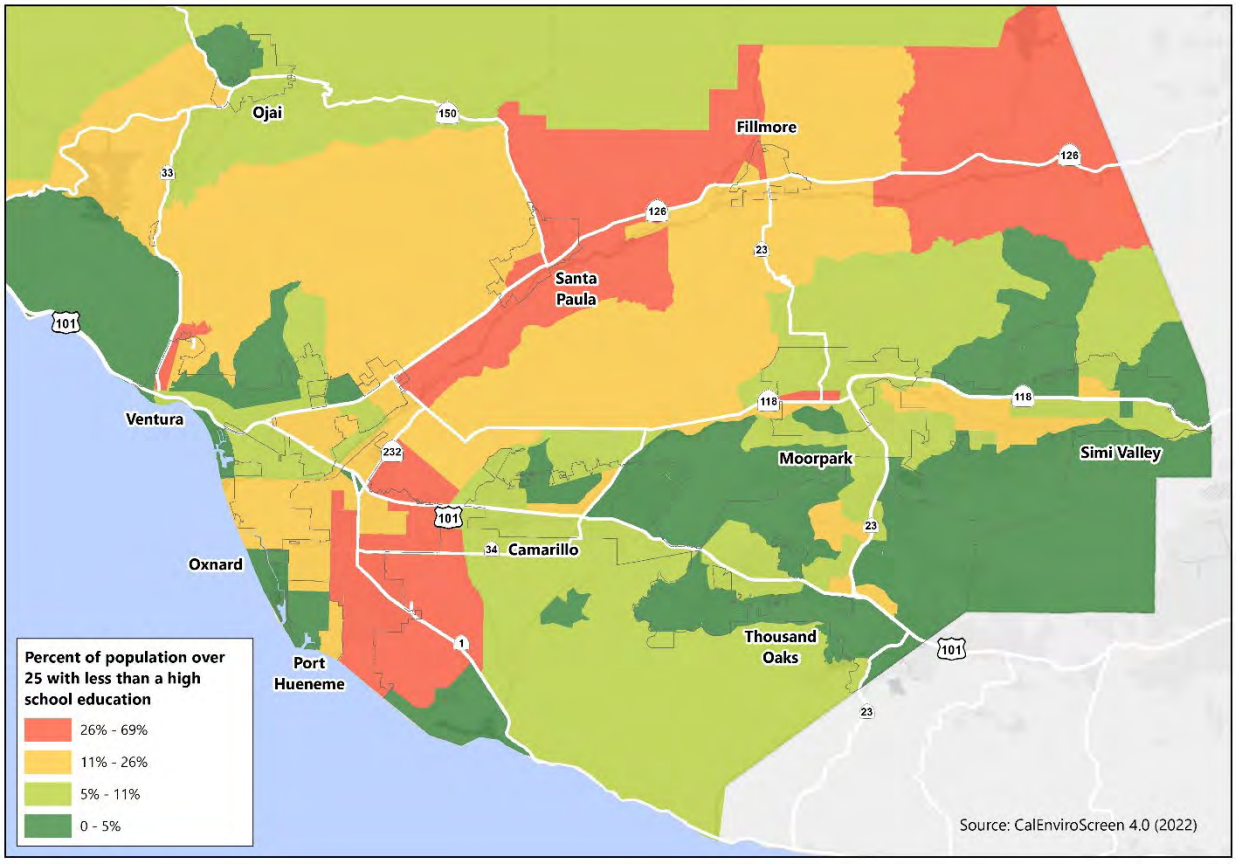


Education

Educational attainment is the highest level of education a person has completed. In California, 19% of adults over 25 do not have a high school degree, compared to 14% for the United States. Studies have found that communities with higher levels of educational attainment experience lower pollution levels, and adults with less education have more pollution-related health problems. People in these communities are also more likely to experience adverse health effects from air pollution.

Educational attainment reflects the percentage of the population over age 25 with less than a high school education (5-year estimate, 2011- 2015). The population in the lowest cohort, or group with the highest education, was mostly located in the southeastern part of the county near Thousand Oaks, Simi Valley, Camarillo, coastal areas in Oxnard and Ventura, and Moorpark. Ojai and Ventura also have a population with higher education. The populations in the highest cohort, or with the lowest percentage of adults with a high school diploma, are located in Fillmore, Santa Paula, and southeast Oxnard.

Figure 5-3: Educational Attainment



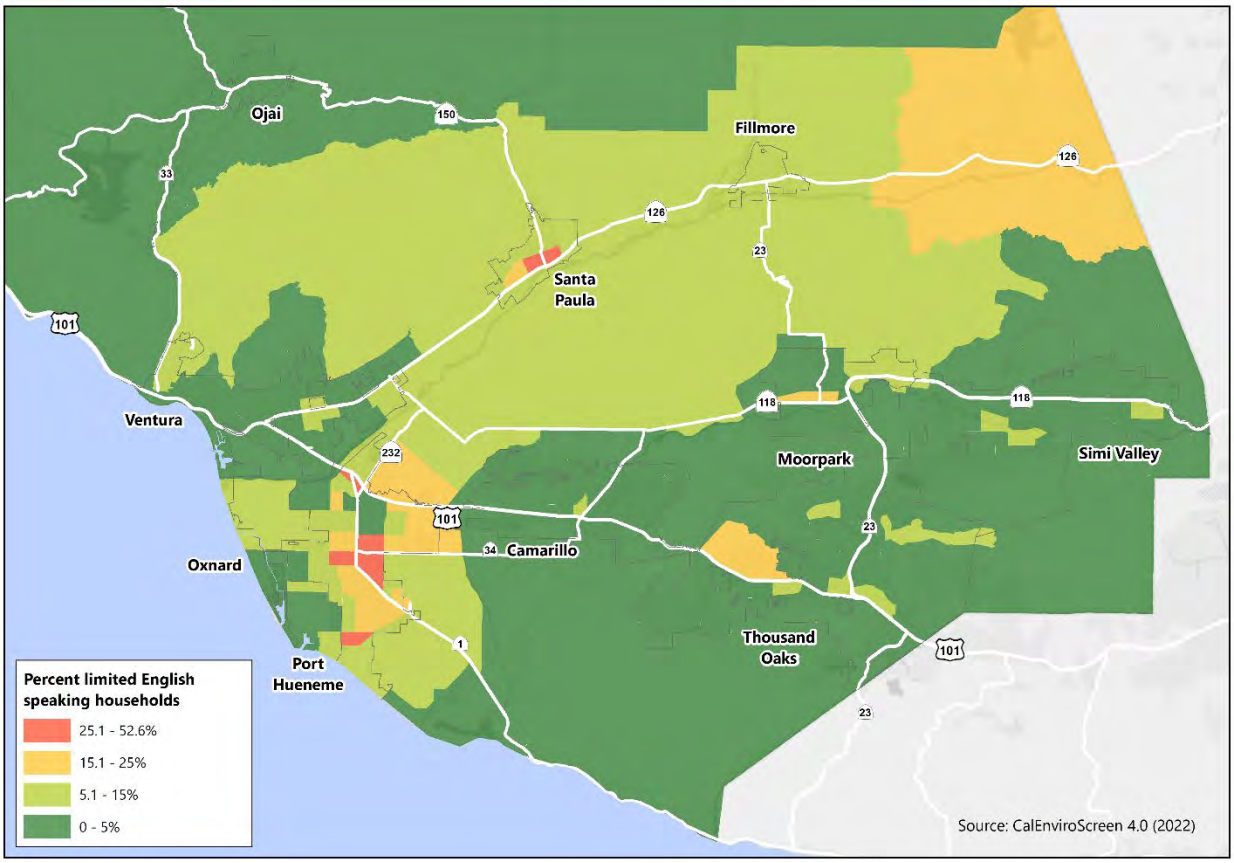
Linguistic Isolation

Linguistic isolation is a term used by the US Census Bureau for limited English-speaking households. More than 40% of Californians speak a language other than English at home and about half of those do not speak English well or at all. Adults who are not able to speak English well often have difficulties communicating with essential service providers. As a result, they might not get the health care and information they need.

The primary indicator for linguistic isolation is the percentage of limited English-speaking households as defined by the American Community Survey and US Census Bureau (2011-2015). The population in the county in the lowest cohort, or population that predominantly speaks English, was the city of Ojai and areas in Thousand Oaks, Simi Valley, coastal areas of Oxnard and Ventura, and Camarillo. The areas in the county with the highest populations of non-English speakers, or those who speak English as a second language, include Fillmore, Santa Paula, Ventura (Avenue area), El Rio/ Nyeland Acres and southeast Oxnard.

The Mixteco Indigena Community has a significant presence in Ventura County and encompasses indigenous people from Mexico including Mixtecs, Zapotecs, and Purépechas. This community faces unique language and cultural isolation, as they often only speak their native pre-Hispanic indigenous languages and have deep-rooted cultural practices that isolate them from other Latino populations. Most individuals from this community are employed in the row crop agricultural sector and are members of low-income households.[14]

Figure 5-4: Linguistic Isolation



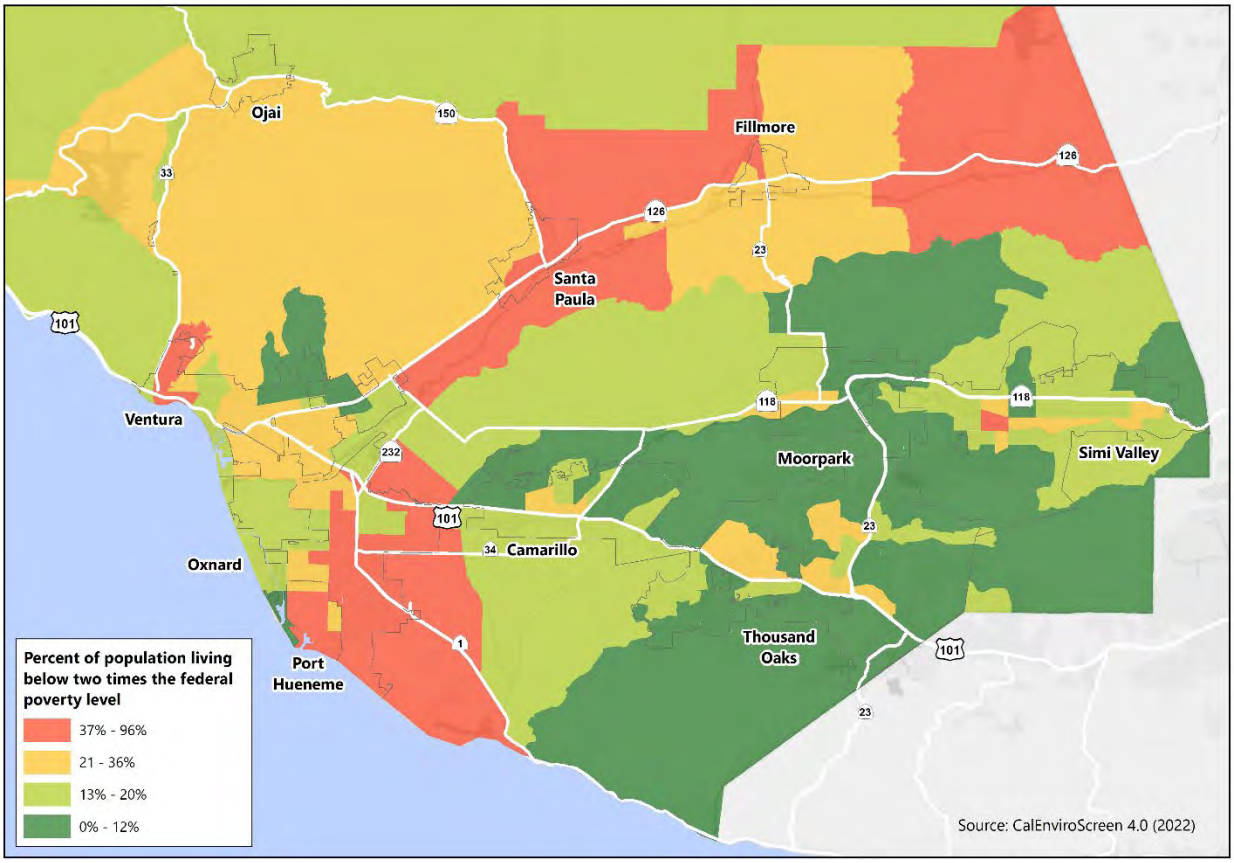
14. "Who is California's Indigenous Migrant Community?". Mixteco Indigena Community Organizing Project. https://mixteco.org/mixtec/

Poverty

The US Census Bureau determines the Federal Poverty Level each year, which is based on the size of the household and the ages of family members. According to the US Department of Health and Human Services, the 2021 poverty level for a family of four is a median income of $26,500. The guidance will vary depending on how many people are in the household. Members of poorer communities are more likely to be exposed to pollution and suffer from health effects as a result of pollution exposure than residents of higher income communities. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care. Lower-income communities are often located in areas with high levels of pollution which can cause stress that weakens the immune system and cause people to become ill[15].

The percentage of the population living below two times the federal poverty level (5-year estimate, 2011-2015) can be used as an indicator, through the American Community Survey and US Census Bureau. Fillmore, Santa Paula, Oxnard and Port Hueneme have the lowest median household income. This geographic pattern is very similar to educational attainment and linguistic isolation, showing correlation between these three indicators.

Figure 5-5: Poverty



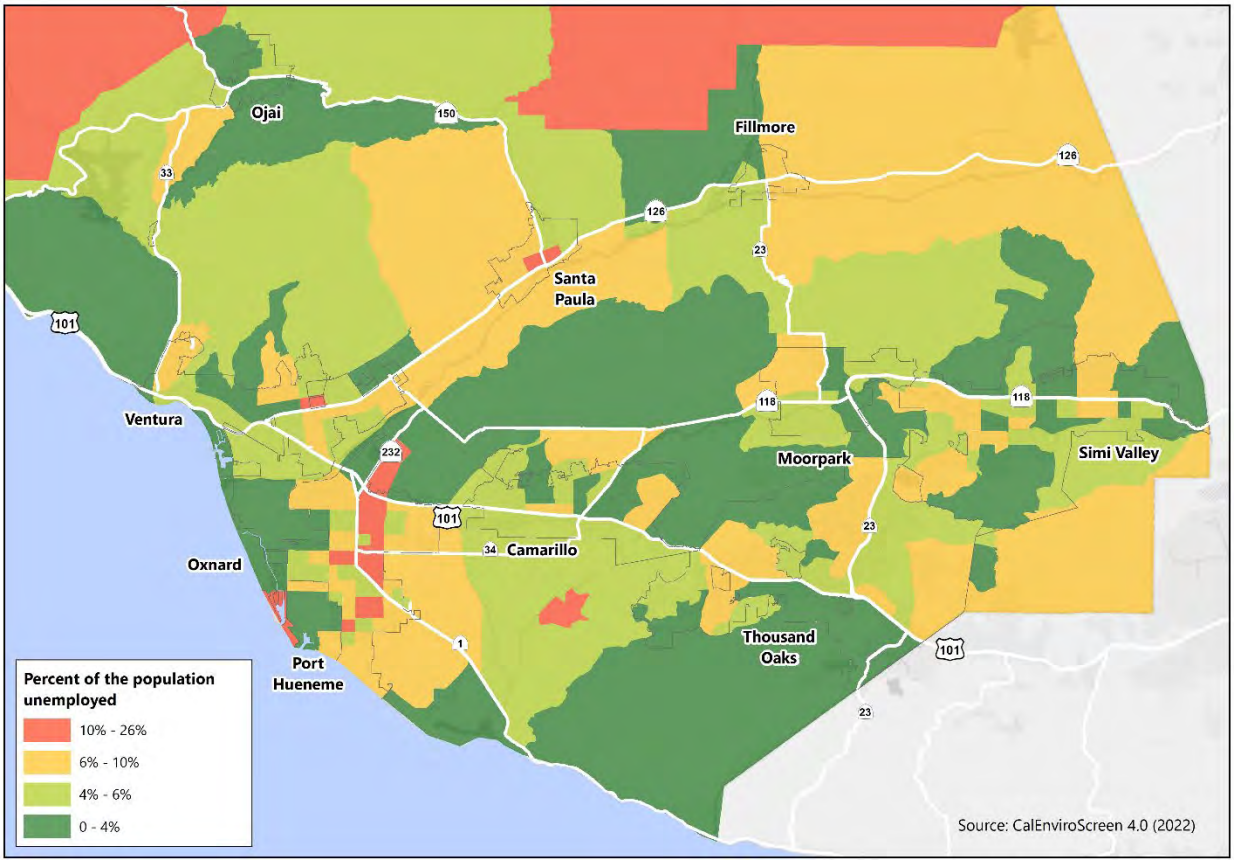
15. Harvard School of Public Health. January 2022. “Racial, ethnic minorities and low-income groups in U.S. exposed to higher levels of air pollution”. https://www.hsph.harvard.edu/news/press-releases/racial-ethnic-minorities-low-income-groups-u-s-air-pollution/

Unemployment

The US Census Bureau counts people who are over 16 years old and out of work, but who are able to work, as unemployed. The definition does not include students, active-duty military, retired people, or people who have stopped looking for work. People who are unemployed may have no health insurance or medical care, and poor health can make it hard for someone to find work or to retain a job. Stress from long-term unemployment can lead to chronic illnesses, such as heart disease, and can shorten a person's life.[16]

The populations with the highest unemployment are generally located in the less developed areas of the county, with pockets of moderate to high unemployment throughout various neighborhoods within every city in the county.

Figure 5-6: Unemployment



16. National Library of Medicine. June 2013. "Health in the Long-Term Unemployed". https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3702026/

Environmental and Health Conditions

Environmental and health conditions are also relevant metrics to identify areas in need of transportation improvements. The locations of heavy transportation infrastructure coupled with topographic conditions can create areas where environmental degradation related to transportation are more acute than others.
This can translate into health conditions, such as higher rates of asthma or cardiovascular disease. These health conditions can limit individuals' access to economic opportunities such as the ability to hold a full-time job.

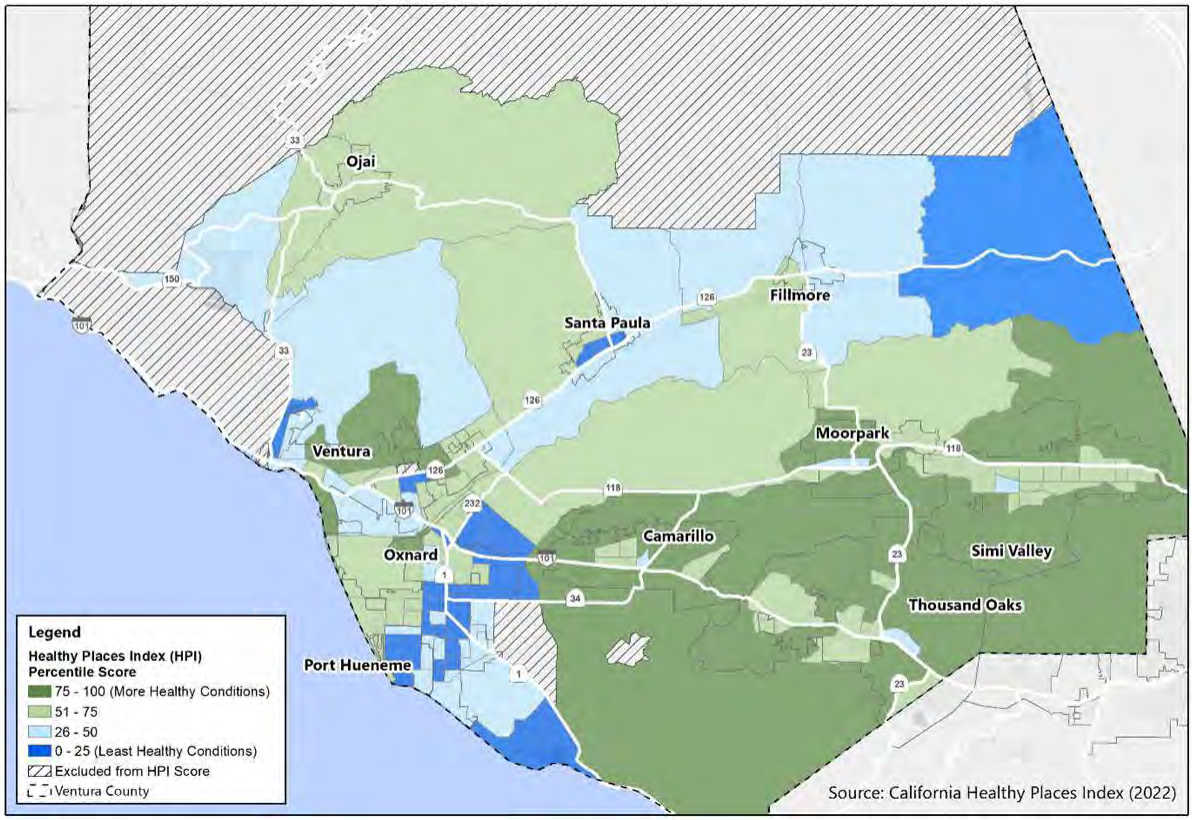
California Healthy Places Index

A project of the Public Health Alliance of Southern California (a coalition of ten health departments in Southern California), the Healthy Places Index (HPI) combines 25 community characteristics such as access to healthcare, housing, education, employment, and clean air and water. Communities with higher scores (and expected higher life expectancies) rank higher on the Healthy Places Index. Active Commuting is a key indicator within the HPI, as it provides increased access to opportunities and a potential reduction in VMTs.17 Additional metrics include: employment, per capita income, poverty level, preschool enrollment, bachelor's education, high school enrollment, voting access, census responses, automobile access, number of insured adults, retail density, park access, tree canopy, severely cost burdened low-income renters, severely cost burdened low-income homeowners, housing habitability, uncrowded housing, homeownership, ozone levels, PM2.5 levels, Diesel Particulate Matter, safe drinking water, extreme heat, impervious surfaces, outdoor workers, public transit access, sea level rise, two parent households, alcohol availability, and supermarket access.

Census tracts with the lowest HPI scores in Ventura County include the central portions of Oxnard, areas north of Port Hueneme, the western edge of the city of Ventura, and the eastern portion of Ventura County along SR 126. Census tracts in central portions of Oxnard have healthier transportation conditions than 10.1% of other California tracts, healthier neighborhood conditions than 85% of other California tracts, and cleaner environmental conditions than 51% of other California Tracts to name a few indicators. Areas north of Port Hueneme have healthier economic conditions than 0.2% of other California tracts, healthier neighborhood conditions than 13% of other California tracts, and healthier housing conditions than 23% of other California tracts. Census tracts on the western edge of the City of Ventura have healthier transportation conditions than 2.1% of other California tracts, healthier economic conditions than 23% of other California tracts, and healthier housing conditions than 7% of other California tracts. Lastly, census tracts on the eastern portion of Ventura County along SR 126 have healthier transportation conditions than 75% of other California tracts, healthier neighborhood conditions than 22% of other California tracts, and healthier economic conditions than 24% of other California tracts.

17. National Library of Medicine. June 2013. "Health in the Long-Term Unemployed". https://www.ncbi.nlm.nih.ov/pmc/articles/PMC3702026/

Figure 5-7: California Healthy Places Index Data



CalEnviroScreen

The State of California Office of Environmental Health Hazard Assessment's online tool, CalEnviroScreen 4.0, uses several indicators to determine a community's status as disadvantaged, pursuant to Senate Bill 535, which was passed in April 2017.

The indicators are organized into four categories by census tract:

- Exposure Indicators – indicators based on measurements of different types of pollution that people may come into contact with.
- Environmental Effect Indicators – indicators based on the locations of toxic chemicals in or near communities.
- Sensitive Population Indicators – indicators that measure the number of people in community who may be more severely affected by pollution because of their health or age.
- Socioeconomic Factor Indicators – conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects.

Data for exposure and environmental indicators are sourced from a variety of statewide organizations, including the California Air Resources Board. Data for demographic-related indicators are sourced from the American Community Survey through the U.S. Census Bureau and the California Department of Public Health. Each census tract is given an overall score based on these indicators. Figure 5-8 presents the CalEnviroScreen scores for the census tracts in the study area.

Census tracts scoring in the highest percentiles (the top 25%) relative to the rest of California are designated as the most disadvantaged communities. Figure 5-9 presents the location of the census tracts in the region that are designated as disadvantaged according to the CalEnviroScreen 4.0 results. Of the 173 census tracts in the study area, a total of 8 census tracts are designated as disadvantaged.

This plan identifies disadvantaged communities using CalEnviroScreen, in accordance with SB 535 requirements. It should also be noted that the County of Ventura recognizes El Rio/Del Norte, Saticoy, and Piru Designated Disadvantaged Communities (DDCs) in its 2040 General Plan. It is recommended to consider these mapped disadvantaged communities in addition to the County-recognized DDCs as CTP programs are implemented in the future.

Figure 5-8: CalEnviroScreen 4.0 Analysis

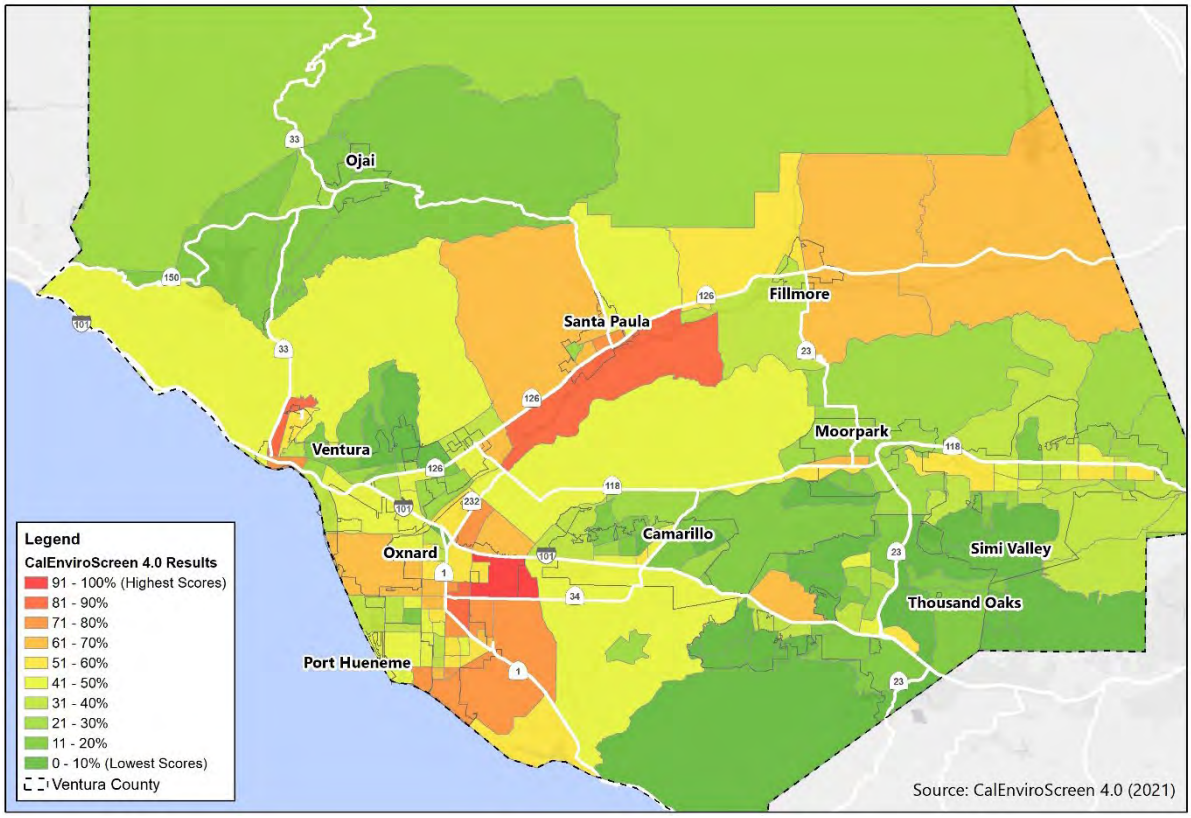
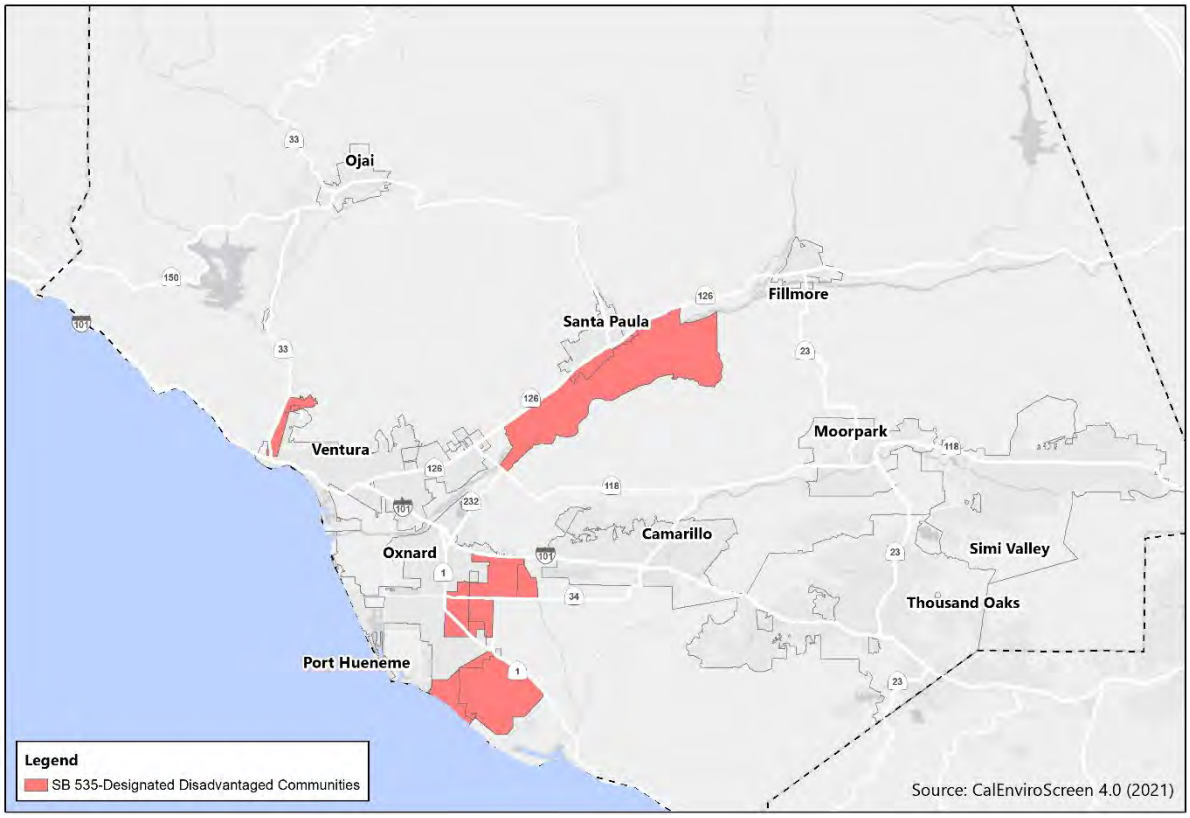


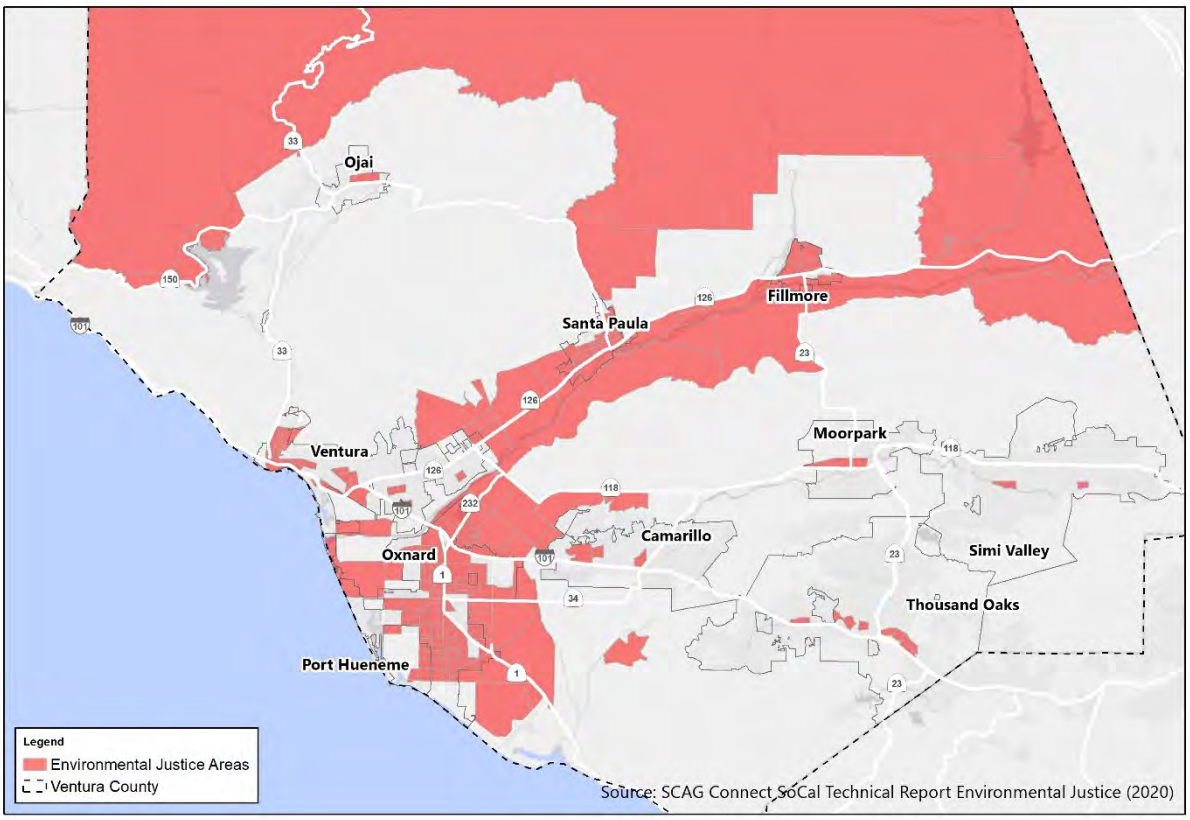
Figure 5-9: Disadvantaged Communities



Environmental Justice Areas

In addition to identifying disadvantaged communities based on the metrics presented above, SCAG has also identified Environmental Justice Areas (EJA). These are defined as Transportation Analysis Zones that have a higher concentration of non-white populations or low-income households than in seen in the region as a whole[18] (Figure 5-10). The areas that were identified as disadvantaged by CalEnviroScreen were also identified as Environmental Justice Areas by the EJA tool, including along SR 126. Although the entirety of the northern half of the County is also identified as an Environmental Justice Area, these areas are largely undeveloped and Federally-owned (National Forest) land with limited population density in comparison with the rest of the county.

Figure 5-10: Environmental Justice Areas



18. SCAG Connect SoCal Environmental Justice Toolbox Recommended Practices and Approaches (May 2021).

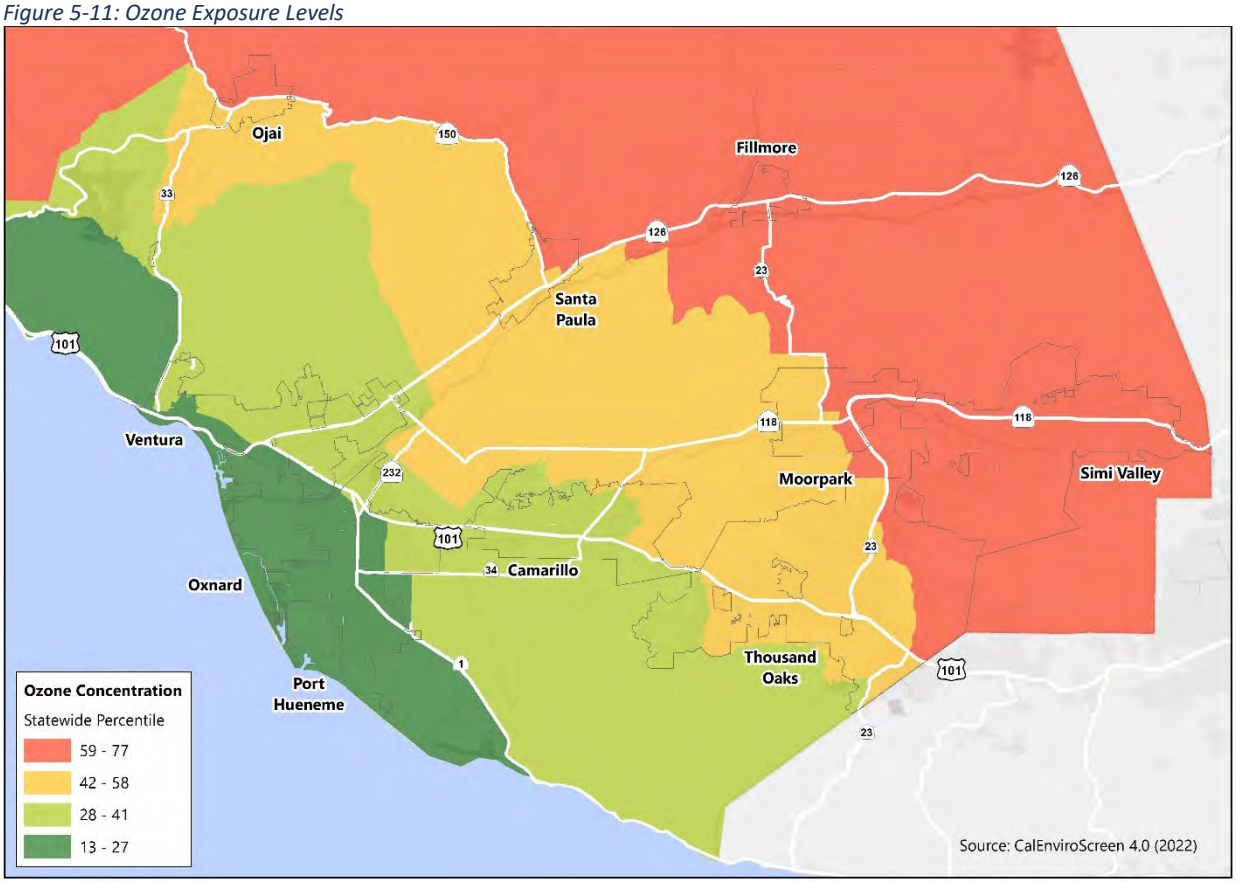
Health Exposures

Exposure to contaminants can have a significant impact on community members' health and their ability to thrive. Some of these contaminants can be directly attributed to vehicular traffic volumes and infrastructure and affect the well-being of populations located nearby.

Ozone

According to the U.S. Environmental Protection Agency, ozone can be beneficial or harmful to health and environment, depending on where in the atmosphere it occurs. In the stratosphere, ozone protects the Earth from ultraviolet rays. At ground level, ozone is the main ingredient of smog and is formed when pollutants chemically react in the presence of sunlight. The main sources of ozone are trucks, cars, planes, trains, factories, farms, and construction. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure. Children and elderly people are most sensitive to the effects of ozone exposure, and studies have shown that ozone can increase asthma emergency room visits among children, and can increase mortality, especially in the elderly, women, and African Americans. Ozone levels are typically highest in the afternoon and on hot days. The metric, used by the Air Monitoring Network and California Air Resources Board, (CARB) to determine ozone exposure is the mean of the daily maximum 8-hour ozone concentration (parts per million or PPM) during summer months (May-October) averaged over three years (2017-2019). The locations in the county with the lowest levels of ozone are concentrated in the cities of Ventura, Oxnard, Port Hueneme, and Camarillo. The locations in the county with the highest concentration of ozone are in Ojai, and east county which is adjacent to the San Fernando Valley.

Figure 5-11: Ozone Exposure Levels



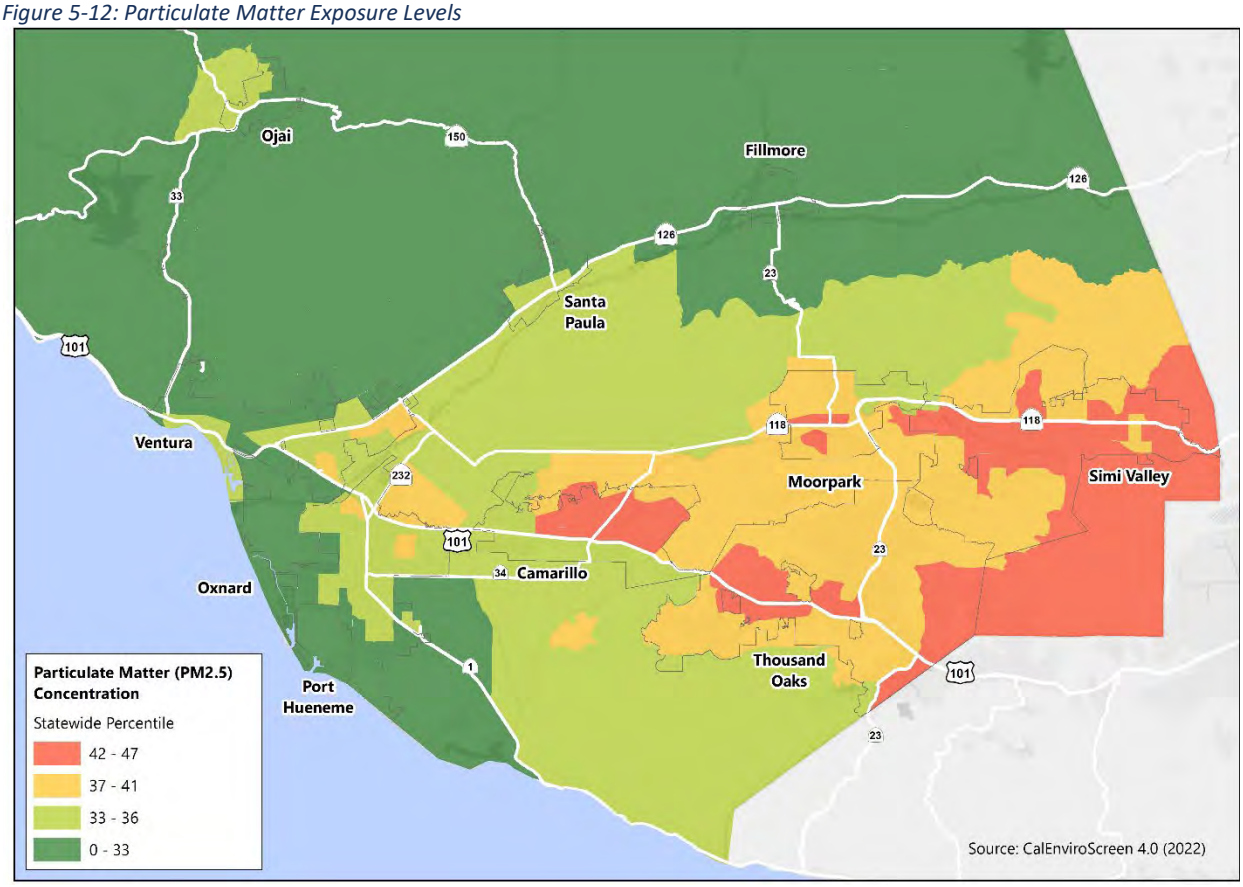
Particulate Matter

Exhaust from trucks, buses, trains, ships, and other equipment with diesel engines contains a mixture of gases and solid particles and are known as diesel particulate matter (diesel PM). Diesel PM contains hundreds of different chemicals which are harmful to human health. The highest levels of diesel PM are observed near ports, rail yards and freeways. The small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer. Children and the elderly are especially vulnerable to the effects of diesel PM.

The indicator for particulate matter uses the annual mean concentration of PM2.5 (average of quarterly means), over three years (2015 to 2017), from Air Monitoring Network and California Air Resources Board (CARB) data. The locations in the county gradually increase in particulate matter concentration from low levels of concentration in the north county to higher levels of concentration in the south/ east county.

Of note, the City of Port Hueneme has one of the lowest concentrations of exposure to particulate matter, even though the city of home to the only deep-water port (Port of Hueneme) located between the cities of Los Angeles and San Francisco.

Figure 5-12: Particulate Matter Exposure Levels



Mobility Conditions

Mobility conditions are a third set of metrics to examine when looking to identify areas disproportionately affected by transportation infrastructure. When combined with sociodemographic, environmental and health data as described above, mobility conditions can identify areas and communities that require special attention.

For example, collision data presented in Chapter 2 show a higher concentration of collisions along U.S. Highway 101 in Ventura and SR 1 in Oxnard. Oxnard was also identified as an area with higher proportions of disadvantaged communities, which further highlights the need for targeted intervention to improve safety in this specific community.

Traffic volumes and congestion can also alter quality of life, increase unsafe conditions on the road and increase travel times for residents living along a specific corridor.

To better understand the interactions between mobility conditions and equity considerations, several key transportation metrics covering active transportation, public transit, and traffic volumes were overlaid with Environmental Justice Areas. This information is discussed below and illustrated in Figure 5-13 through Figure 5-20.

Active Transportation and Environmental Justice Areas

Communities with higher concentrations of non-white or low-income residents tend to be more reliant on walking and bicycling to meet their daily needs. Auto collisions in Ventura County are generally concentrated in the areas with the highest traffic volumes and greatest population density. Areas of particularly greater numbers of collisions include north of U.S. Highway 101 in Ventura, the areas on either side of Rice Avenue / SR 1 in Oxnard, the areas surrounding the intersection of U.S. Highway 101 and SR 23 in Thousand Oaks, and the area south of SR 118 in Simi Valley. As illustrated in the figures below, the areas with the highest number of collisions involving pedestrians and bicyclists roughly mirror the areas mentioned above, which could potentially indicate areas with unsafe infrastructure for bicyclists and pedestrians.

Figure 5-13 illustrates the overlap between pedestrian collisions and Environmental Justice Areas. The greatest concentration and overlap between these two are in downtown Ventura, along SR 1 in Oxnard, and in the central cores of the cities of Santa Paula, Fillmore, Camarillo, and Moorpark. These locations indicate areas where safety treatments could provide greater protection to all users of the road. This is especially important for encouraging a mode shift from private automobiles to active transportation and public transit, as people will be less likely to opt out of using cars if they do not feel safe.

Figure 5-13: Pedestrian Collision Density and Environmental Justice Areas

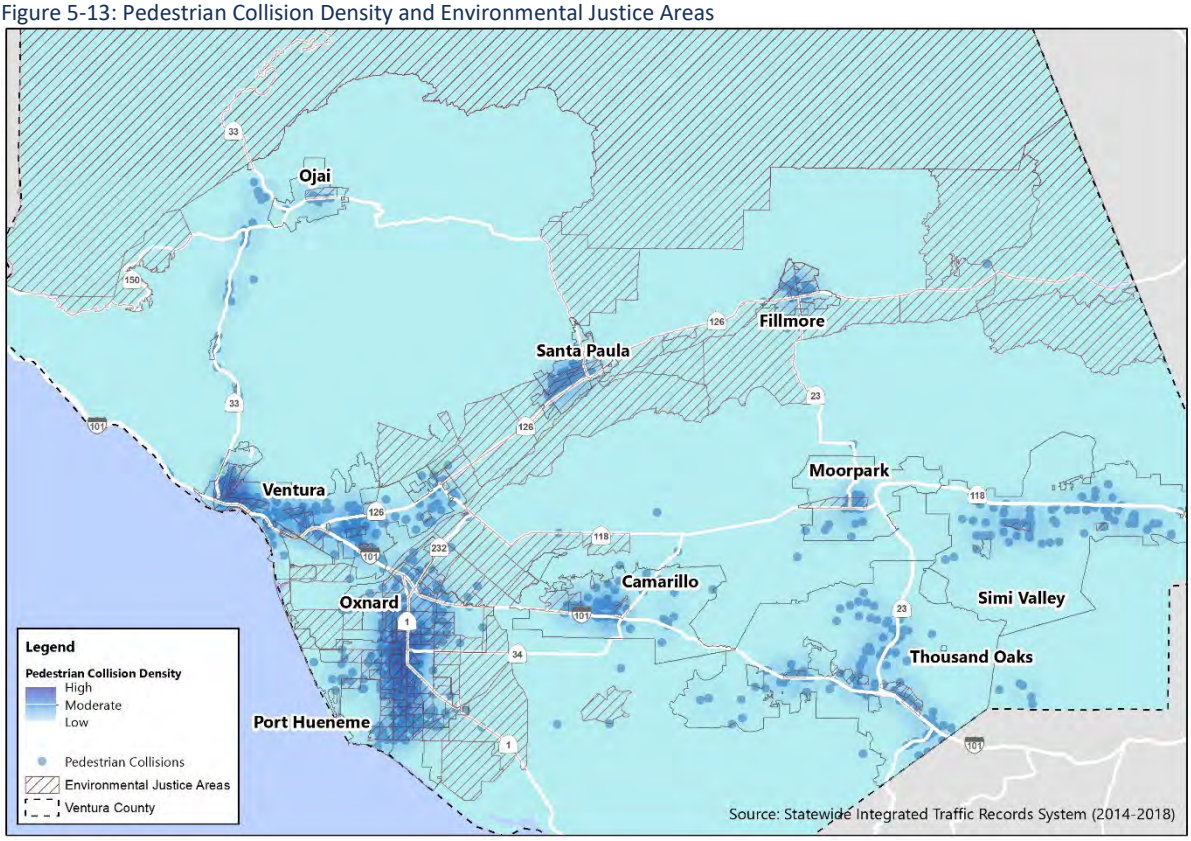


Figure 5-14 illustrates overlap between bicyclist collision density and Environmental Justice Areas. The greatest overlap between the two is in the City of Ventura along U.S. Highway 101 and in the central portions of Oxnard along SR 1. Other areas with overlap include two small concentrations in Simi Valley along SR 118 and areas north of U.S. Highway 101, along Thousand Oaks Boulevard in Thousand Oaks. Safety improvements that protect all users of the road—particularly in areas that are dangerous for pedestrians and bicyclists, such as freeway crossings—can help encourage mode shift among members of the population who do not currently feel safe walking or rolling in their communities.

Figure 5-14: Bicyclist Collision Density and Environmental Justice Areas

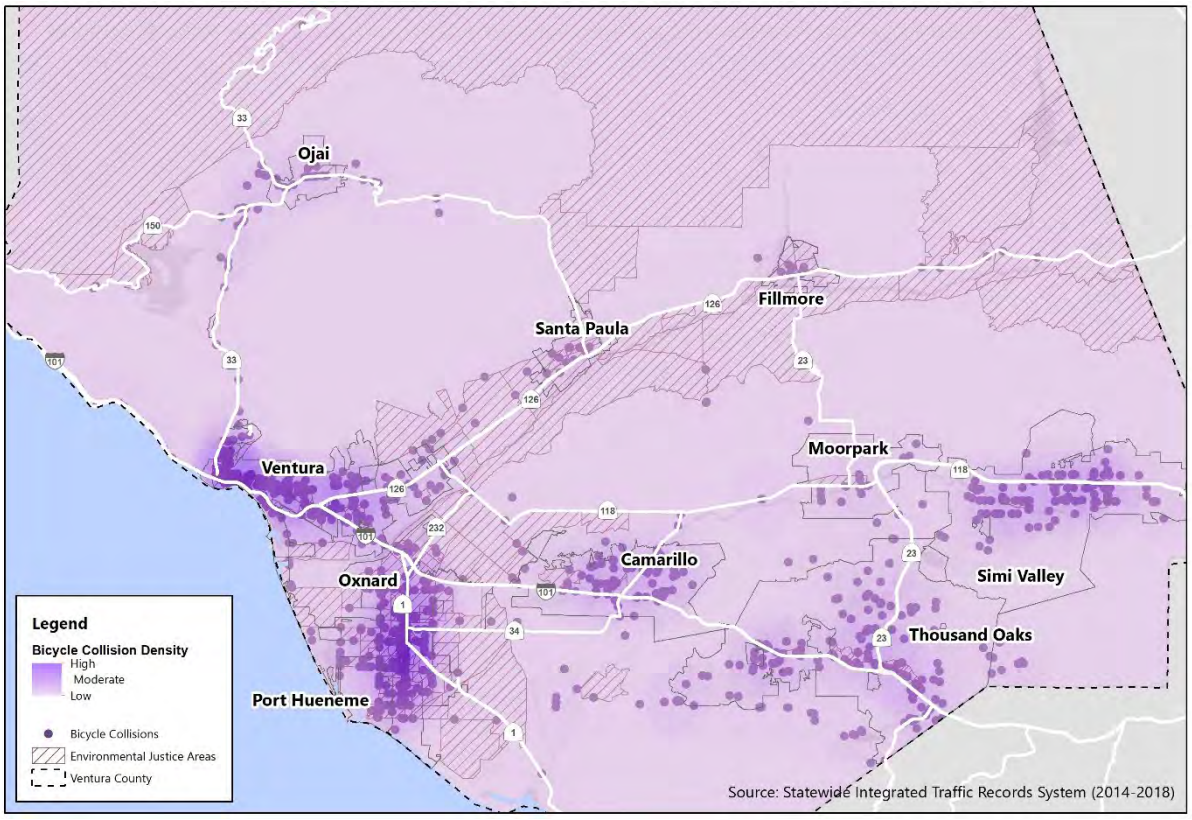
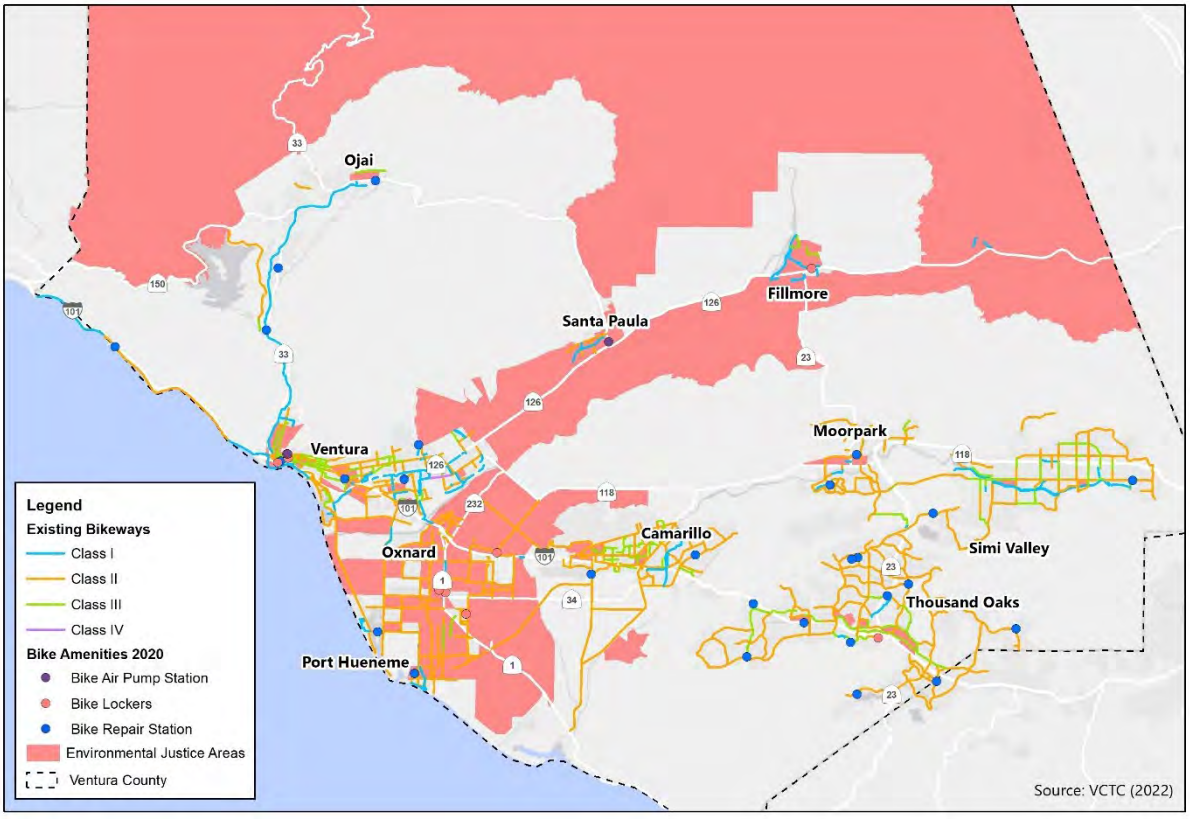


Figure 5-15 illustrates the distribution of existing bicycle infrastructure/amenities in Ventura County. While there are Class II bikeways present in the Environmental Justice Areas in the southwestern portion of Ventura County (such as the communities along SR 126), these facilities could be upgraded to protected bikeways to improve safety.

In addition, communities highlighted in the previous map with higher bicyclist collisions are generally covered by a network of Class II and Class III bicycle infrastructure, which are not separated or protected from vehicular movement. Many of these roadways near areas of high bicycle-involved collisions are also major arterial streets, where vehicle travel speeds are higher (45+ mph) and collisions with bicyclists are more likely to cause death or serious injury. Additionally, high vehicle travel speeds often correlate with vehicle- centric roadway design and insufficient bicycle infrastructure. Approximately 67 percent of total bike accidents and 88 percent of fatal and severe injury accidents occur on streets without bike lanes or bike paths in Ventura County.[19]

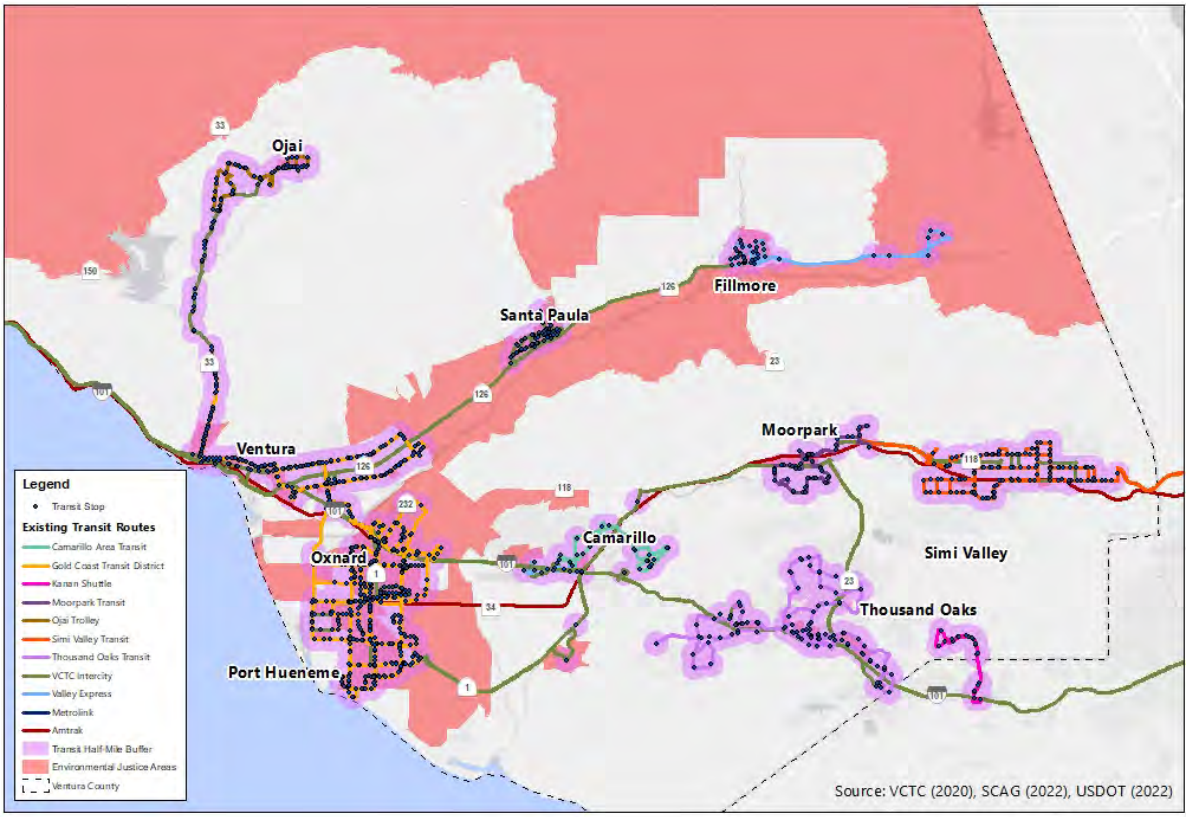
Figure 5-15: Bicyclist Amenities and Environmental Justice Areas



19. Ventura County Bike Crashes 2013-2020". https://www.arcgis.com/home/webmap/viewer.html?webmap=f8701267ddc64a238497766a8f66a2b0&extent=-119.4647,34.0787,-118.8797,34.3473.

Figure 5-16 illustrates existing transit sheds (half-mile buffer) around fixed transit routes to represent the typical maximum distances for people to travel to a transit stop by walking or biking, respectively. Most Environmental Justice Areas are located within three miles of existing transit service, but residents may face barriers that make transit difficult to use for their daily needs. For example, transit service is difficult and costly to provide in low-density and rural areas and tends to operate infrequently. Many of the Valley Express routes in the Fillmore area operate on weekdays only with fewer than five trips per day, with the exception of the Fillmore and Piru routes, which provide neighborhood circulator and intercity service, respectively. Long-distance routes such as VCTC's Intercity routes 60 and 62 that operate between Ventura and Fillmore provide critical service along the SR 126 corridor, but are designed as commuter services that may not conveniently connect to local destinations. Even in the relatively more densely-populated communities of Ventura and Oxnard where the Gold Coast Transit District operates, most bus routes operate on headways of 40-60 minutes. Along Metrolink's Ventura County Line corridor, stations in Oxnard and Downtown Ventura present an opportunity to improve connections between Environmental Justice Areas and the regional transit network using local bus service. In addition to fixed-route service, each of the transit providers (except for Kanan Shuttle and Ojai Trolley) offer Dial-A-Ride paratransit programs which operate on a reservation basis. Additionally, the East County Transit Alliance (ECTA), made up of the cities of Moorpark, Simi Valley, Thousand Oaks, and the County of Ventura, offers CONNECT Dial-A-Ride service in most of eastern Ventura County and is specifically designed to permit travel outside of local Dial-A-Ride service areas. These programs are usable for seniors and any individuals who are certified as meeting ADA eligibility requirements. These services can provide vulnerable populations, and specifically older adults and individuals with mobility limitations, with an alternative to fixed-route transit, especially in areas with insufficient service frequency to meet their needs.

Figure 5-16: Existing Transit Half-Mile Buffer and Environmental Justice Areas



Transit Service and Environmental Justice Areas

Figure 5-17 illustrates existing transit service with buffers around High Quality Transit Areas (HQTAs)—areas within one half-mile of a high-frequency transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. This information is based on SCAG's projections for increased service by the year 2045, showing existing routes expected to be upgraded to higher-frequency service in the future.
To better understand how these projected service improvements also connect with active transportation infrastructure, Figure 5-18 illustrates HQTAs, Environmental Justice Areas, and existing active transportation. Active transportation facilities provide important first-last mile connections for travelers to and from fixed-route transit.

Approximately 80% of residents living in Environmental Justice Areas in Ventura County live within a quarter mile of an existing bikeway. Therefore, there is opportunity to better connect these communities to bikeways in an effort to ultimately better connect them to transit.

In general, HQTAs are concentrated in more affluent or densely-populated city and community centers, generally outside of Environmental Justice Areas. However, the service provided by the Gold Coast Transit District's Routes 1 and 6 in Oxnard do overlap with enough service to create a future HQTA in Environmental Justice Areas along portions of C Street, Saviers Road, and some of the major streets in Port Hueneme. This is positive, as HQTAs have the potential to increase affordable housing and reduce VMT.

Prioritizing implementation of increased service in the nearer-term could support Environmental Justice Areas along these corridors. Implementation of first/last-mile treatments and upgrades to existing active transportation infrastructure (such as conversion of a Class II bike lane to a protected Class IV bike lane) could support ridership and leverage the transit investment by providing greater comfort and amenities to those who walk or bike to transit.

Figure 5-17: Existing Transit, High Quality Transit Areas, and Environmental Justice Areas

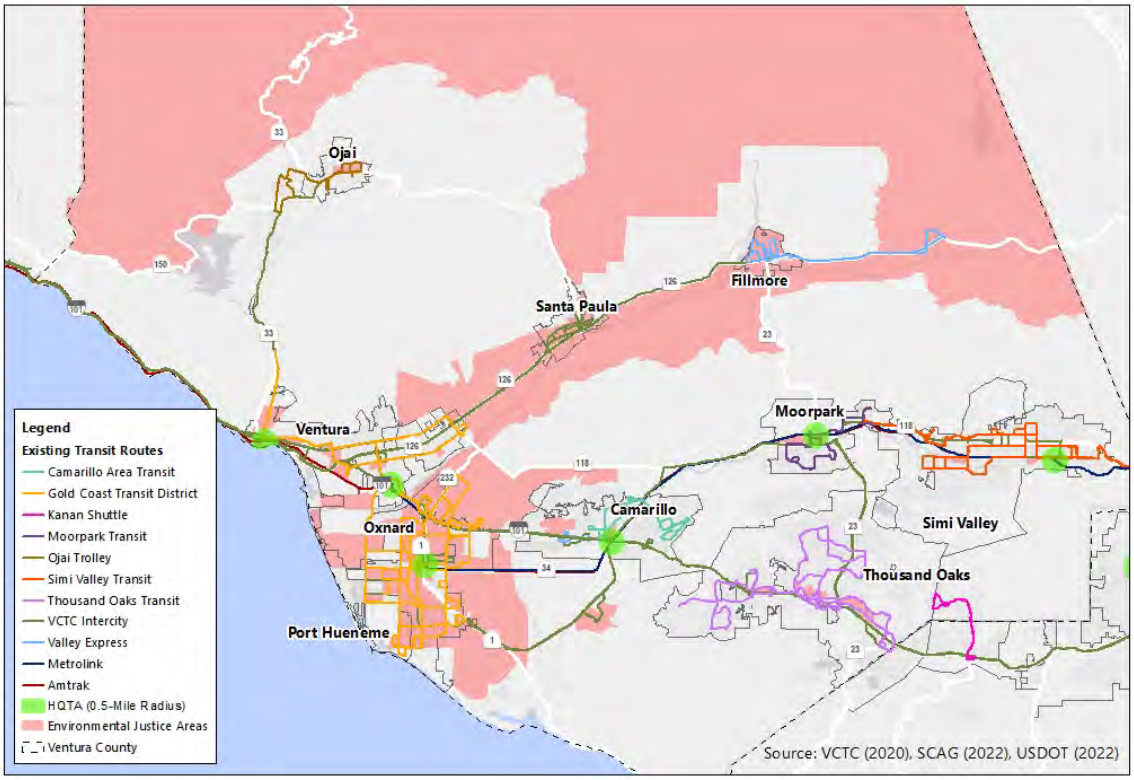
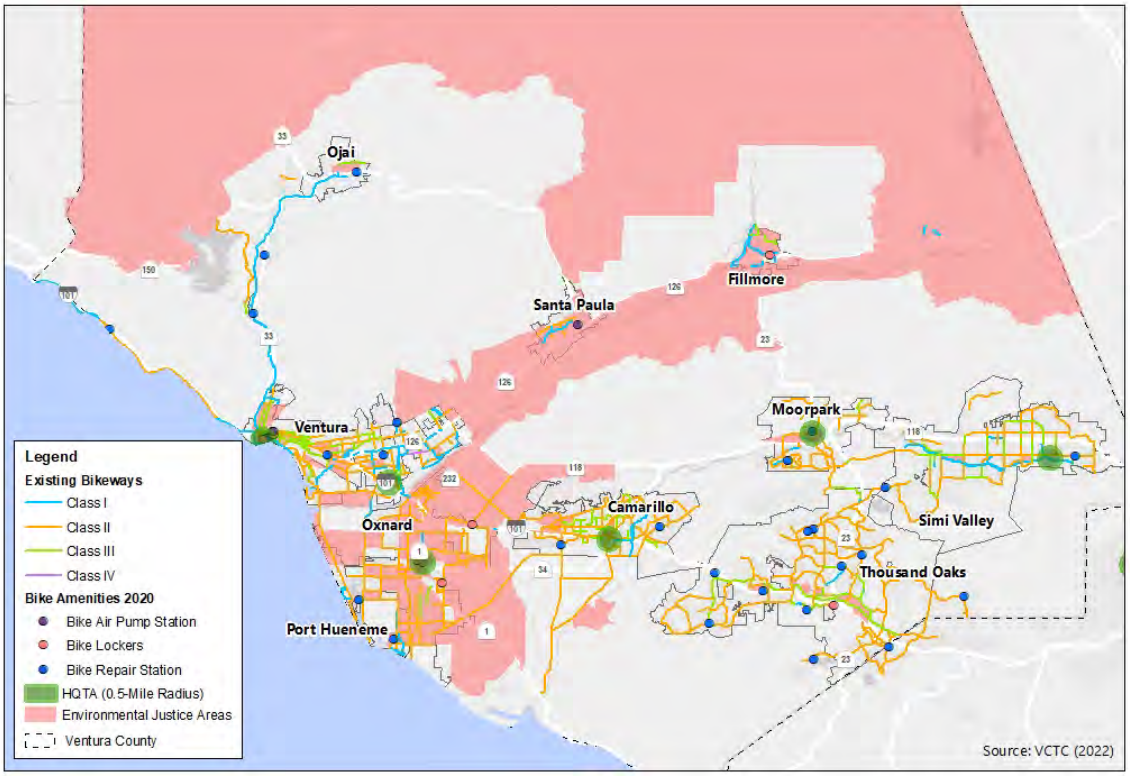


Figure 5-18: Active Transportation, High Quality Transit Areas, and Environmental Justice Areas



Traffic Volumes and Environmental Justice Areas

Figure 5-19 illustrates overlap between weekday traffic volumes and Environmental Justice Areas. The highest concentrations of overlap between the two are along U.S. Highway 101 in Oxnard. Other areas of significant overlap include SR 1 in Oxnard and the communities of Saticoy, Santa Paula, and Fillmore along SR 126. Communities living along these high-volume corridors are most affected by exposure to vehicle emissions and the increased risk of involvement in a traffic collision.

Figure 5-19: Weekday Traffic Volumes and Environmental Justice Areas

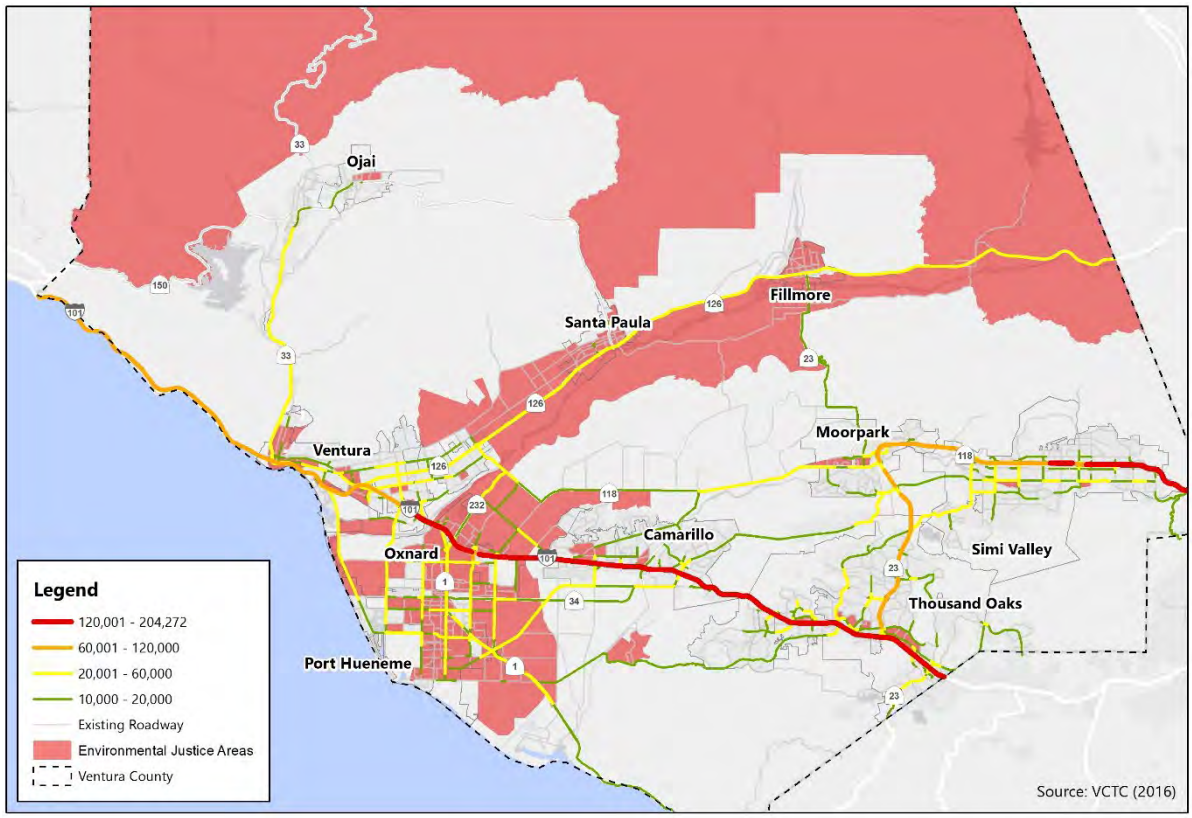
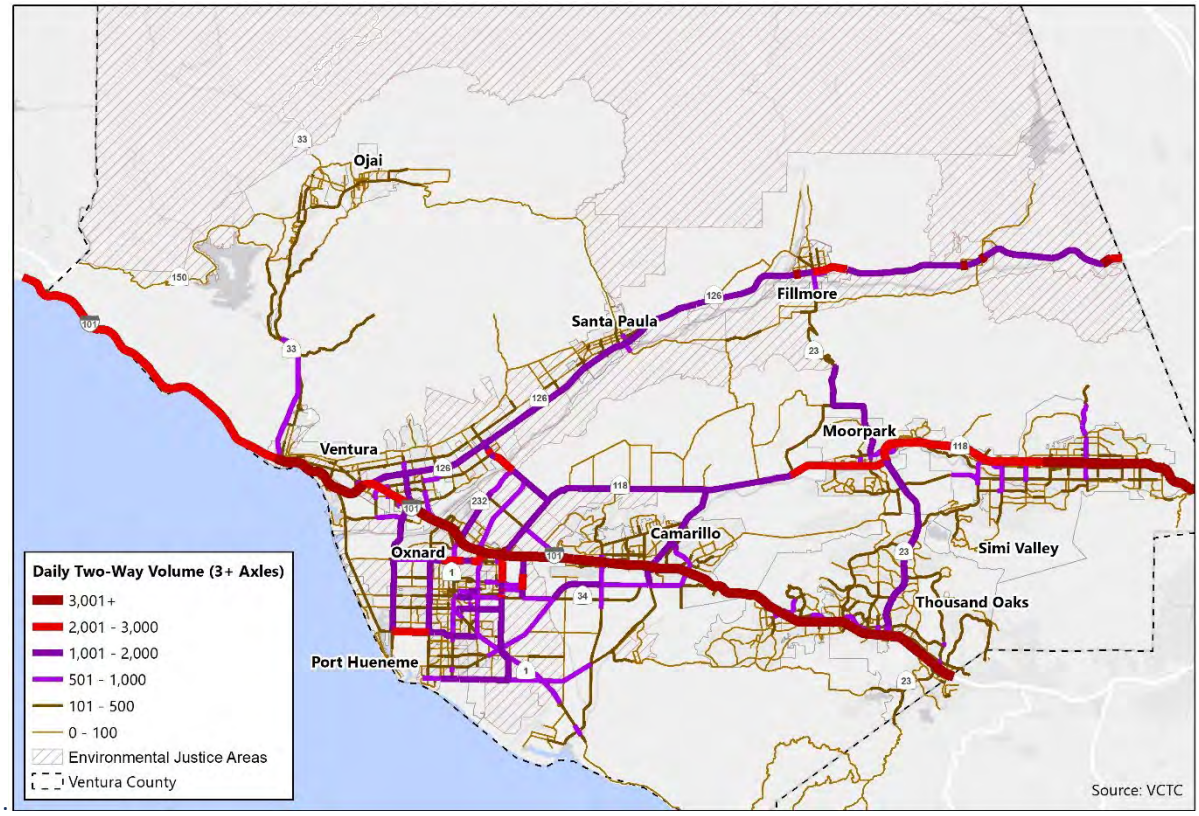


Figure 5-20 illustrates the overlap between daily truck volumes and Environmental Justice Areas. Freight movement creates air pollution emissions, traffic and safety issues, noise pollution, and aesthetic impacts. While truck generators are located throughout the county, lower-cost multi-family housing historically has been sited closer to industrial and transportation facilities that generate truck traffic. The 2021 Ventura County Freight Corridors Study found that while multi-family housing comprises 40% of the housing supply in Ventura County overall, 50% of those living within 1,000 feet of a roadway carrying more than 1,000 trucks per day—67,500 people—live in multi-family housing. This statistic highlights the disproportional impact of freight movement on county residents living in multi-family housing. Relatedly, this condition also leads to disproportionate health and environmental burdens on residents living in Environmental Justice Areas.

The primary impact from freight traffic and goods movement is diesel emissions generated by trucks. With heavy truck volumes traveling east and west, communities along U.S. Highway 101 are most affected by high truck volumes, in particular in and around Oxnard. Environmental Justice Areas located along SR 126 in the communities of Saticoy, Santa Paula, and Fillmore are also particularly affected by high truck volumes. Although some of the truck volume in the area is generated by a variety of agricultural, freight, and industrial land uses in Ventura County, much of the traffic along U.S. Highway 101 is pass-through traffic moving between neighboring counties and the greater region.[20]

Figure 5-20: Daily Truck Volumes and Environmental Justice Areas



20. Ventura County Transportation Model. 2016.

Affected Communities and Public Engagement

As highlighted in Chapter 2: Existing Conditions, socioeconomic, environmental, health and mobility data show that communities located along SR 126 and SR 1 are most affected by the impacts of transportation infrastructure. They are also most likely to have mobility limitations preventing them from benefits from transportation improvements and services, and are more likely to live along corridors with higher levels of congestion and collisions. Specifically, communities living in and around Oxnard, Ventura, Fillmore, Santa Paula, and Port Hueneme have been highlighted as having higher concentrations of sensitive populations.

As engagement activities were being conducted throughout the preparation of this plan, a specific focus was given to make sure the communities identified as disadvantaged populations were included in the process and provided the opportunity to give feedback about transportation priorities:

- Outreach materials were prepared in both English and Spanish to make sure people whose first language was not English were able to understand the project and provide input. A Spanish-speaking team member attended all in-person events to hold conversations in Spanish, as needed.
- The project team ran a Spanish-language Facebook ad which reached 5,840 individuals and received 73 clicks to the Spanish-language survey.
- The project team partnered with Nyeland Promise, a local community-based organization (CBO) that works directly with disadvantaged populations and non-English speakers. The CBO shared information about the project through their network and hosted their own engagement activities. Other key groups and CBOs that were also involved in the engagement process include the House Farm Workers, the Farm Bureau of Ventura County, and the YMCA. These organizations are just a selection of groups that were involved over the course of the project.
- The project team also partnered with the Spirit of Santa Paula to connect with residents and receive feedback during a food distribution event, and partnered with the Southern California American Indian Resource Center, Inc. to explore additional outreach opportunities, leading to the team's participation in the Children of Many Color Native American Pow Wow.
- Youth are often a key population to successfully engage with disadvantaged communities. They are often more fluent in English, and typically more reliant on non-automobile modes, which provide them with a unique expertise on mobility issues in their community. Schools were key stakeholders who allowed the Project Team to reach out to communities from all backgrounds. Specific activities targeting youth were also included in the engagement approach to encourage their meaningful participation in the overall planning process.

The community walk audit received a total of 134 submissions in English and 46 in Spanish during the months of February, April and May 2022, for a total of 180 completed walk audits. The walk audits were promoted in the following ways:

- Through emails with bilingual flyers to Ventura County superintendents and school safety coordinators/parent liaisons/engagement coordinators.
- Through emails to Advisory Committee members, who shared with their networks.
- Through social media and emails to the CTP mailing list.
- With a press release sent to local media and picked up by Vida Newspaper, VC Reporter and Thousand Oaks Acorn.
- The partnership with Nyeland Promise resulted in completion of most of the Spanish-language walk audits. Additionally, Maria Navarro of CAUSE offered to have her youth group participate.

Members of the Advisory Committee also include representatives from vulnerable communities. They

were asked to provide insight from the perspective of the communities they represent and work with. Several of the in-person engagement activities took place in communities identified as the most vulnerable. Of the total 10 events, three events took place in Oxnard, two in Santa Paula, and one in Fillmore, which were highlighted as communities that had higher concentrations of sensitive populations.

To support and encourage participation amongst all community members, all events hosted as part of the plan update were family-friendly and included weekend events. This approach was taken to allow interested participants to attend. If work conflicts or access to childcare was a barrier.

Input from Target Populations

The feedback collected during engagement activities allowed us to draw some distinctions between general populations and disadvantaged populations. For example, input was collected during the walk audit in both English and Spanish. Overall, Spanish-speaking populations tended to highlight issues in greater proportions than English-speaking participants. For example, from the total of 180 participants, a much higher proportion of Spanish-speaking respondents (61.4% vs 42.2%) mentioned that the sidewalks in the area where they walked were broken, cracked, or presenting a tripping risk. A higher proportion (58.5% vs 27.7%) also mentioned that there was no crosswalk or that it was poorly marked. In general, English- speaking respondents were also more inclined to note an absence of problems.
The difference is particularly noticeable on the question of comfort: whereas 58% of English-speaking participants identified comfort issues, 95% of Spanish-speaking participants highlighted comfort as an issue. Overall, based on this feedback it appears Spanish-speaking participants live in communities where active transportation infrastructure is less extensive, often in bad condition, and typically uncomfortable. Additionally, at pop-up events, Spanish-speaking residents had more interest in improving transit than English-speaking residents.

5.3 Applying Equity to the CTP

The following takeaways can be derived from the analysis of equity conditions for the CTP and input received through community engagement effort:

- Equity is a key concern and VCTC is committed to incorporating equity into future transportation planning and improvements.

An equity-based process involves conducting a thorough analysis of the sociodemographic composition of Ventura County residents, and the impacts affecting them that can be derived from social determinants of health, and specifically the physical environment where they live.

There are several areas within Ventura County that warrant a specific focus for equity purposes, specifically in Oxnard and communities located along SR 126, SR-33, and SR 1. These areas have shown higher densities of vulnerable populations, increased health issues related to the built environment as well as higher mobility barriers.

Targeted efforts were made to reach out to populations living in sensitive communities. Local partners such as Nyeland Promise played a central role in reaching out to these communities and engaging them. Working with trusted partners and meeting with the community at events that were family- and community-friendly are keys to receiving feedback from diverse community members.

The engagement activities highlighted mobility barriers among disadvantaged populations, discussed in the mobility conditions analysis in Section 2.3. For instance, disadvantaged communities tend to live in areas with active transportation infrastructure that is less extensive, often degraded, and less comfortable to navigate.

Environmental Justice Areas are exposed to high auto and truck traffic volumes that cause impacts to health from air and noise pollution, as well as increased risk of crashes involving pedestrians and bicyclists, further exacerbated by insufficient protected active transportation infrastructure. The majority of total bike accidents (67 percent), as well as fatal and severe injury accidents (88 percent) occur on streets without bike lanes or bike paths.[21]

21. “Ventura County Bike Crashes 2013-2020”. https://www.arcgis.com/home/webmap/viewer.hml?webmap=f8701267ddc64a238497766a2b0&extent=-119.4647,34.0787,-118.8797,34.3473

Collisions involving bicycles and pedestrians tend to be concentrated where traffic volumes are highest. However, volumes are expected to increase on roadways throughout the county, particularly around freeways and on major arterials. Deployment of additional protections for cyclists and pedestrians should be prioritized in sensitive communities (such as Environmental Justice Areas) that are more likely to be dependent on non-automotive travel, and where safety concerns and traffic volumes are projected to increase.

Where Environmental Justice Areas overlap with High Quality Transit Areas, these areas could be further supported through first/last mile and active transportation improvements that make it easier to access transit, by fast-tracking increased service frequencies along routes that connect to Environmental Justice Areas (i.e. introducing transit signal priority), or by introducing additional mobility solutions such as flexible microtransit or personal mobility on demand that may be more useful than fixed-route bus service.

In addition to more frequent transit service, transit dependent riders in equity focused communities could also benefit from amenities such as shelters at bus stops that provide protection during days with extreme heat.

The usefulness of long-distance and regional transit routes (such as Metrolink and VCTC Intercity buses) may be limited where fixed route buses run infrequently or only during peak hours. Flexible microtransit or personal mobility on demand programs that operate within a zone could be explored by the County to provide service to communities with equity concerns.

Learning where transit travels and how to coordinate trips can be difficult for riders due to the high number of individual transit providers operating in Ventura County. Coordinating efforts between transit partners would support increased access to opportunities among disadvantaged communities.

Chapter 7 discusses how each of the three future transportation network scenarios perform against a set of different metrics, which includes equity and the issues discussed in this chapter.

Ventura County Comprehensive Transportation Plan

Chapter 6 – NEEDS

Photo Credit: Katherine Padilla and Associates

The Ventura County transportation system is intended to provide communities with a sustainable way to reach their destinations as efficiently as possible. The CTP identifies transportation and mobility needs to be addressed to create a sustainable transportation system for the future. Addressing these needs would balance health and safety, equity, and open space, while also serving daily trip demand in an effective way.

The CTP is intended to be a guiding document for planning the future of transportation and mobility in Ventura County to meet community needs in partnership with local agencies through 2050. This chapter brings together the analysis presented in Chapters 2, 3, and 5 to summarize these needs, as well as opportunities to provide Ventura County residents with more mobility choices. Addressing these needs, challenges, and opportunities is the objective of the Preferred Plan and the Strategic Plan, presented in subsequent chapters, which together identify a set of specific transportation and mobility projects and programs to improve Ventura County's transportation network.

6.1 Previously Identified Needs

To supplement the needs identified within the CTP, previously identified needs from past planning efforts throughout the county were also considered. Plans reviewed include the VCTC 2013 Comprehensive Transportation Plan, the US 101 Communities Connected Plan, the Ventura County Freight Corridors Study, and the Coordinated Public Transit- Human Services Transportation Plan. The needs identified in these plans have been summarized below.

Plans

VCTC 2013 Comprehensive Transportation Plan

The 2013 CTP is a community-based policy document that provides a framework for Ventura County's long-range transportation decisions. The vision of the Plan is to create "a connected and integrated transportation system that provides convenient, safe and accessible options. This system is inclusive of all community members and needs, balancing all interests. It is intended to be built from a sustainable plan that reflects local priorities." The needs stemming from the plan are summarized below:

- Ventura County local roads present a need for investment in upkeep, maintenance, and increased capacity.
- Arterials and highways present a need for increased capacity.
- The regional public transportation system would benefit from agency consolidation to develop a more customer-focused approach.
- Improvements to active transportation modes are required to develop bikeable and walkable communities, such as a cross-county bicycle network and localized pedestrian amenities.
- Re-imagining revenue generation, funding, and development sources for projects is needed.
- Increased capacity on highways and arterials presents environmental challenges, especially related to freight and highway volumes. These challenges would need to be overcome through implementation of environmental and mitigation programs.

US 101 Communities Connected Plan

Initiated by SCAG, VCTC, and Caltrans, US 101 Communities Connected establishes the need for a shared vision and comprehensive plan for the US 101 corridor in Ventura County to connect the jurisdictions of Ventura, Oxnard, Camarillo, and Thousand Oaks. The US 101 corridor plays a central role in the vitality of Ventura County, as it connects diverse communities and businesses with costal portions of California to the north and south. 101 Communities Connected seeks to foster a resilient, sustainable, and efficient transportation future to meet the diverse needs of the adjacent communities. It also provides a roadmap for collaboration across jurisdictions and develops funding priorities for infrastructure investment to improve connectivity, reduce vehicle miles traveled, and better serve Ventura County. The needs identified in this plan are summarized below:

- US 101 is an important passenger and freight connector for the coastal communities of Ventura County. These disparate communities present a need for a collaborative and comprehensive transportation plan for a safe, equitable, resilient, sustainable and efficient future.
- The road networks present a need for improved vehicular and active mobility safety, as well as improved air quality along the corridor.
- The economically diverse communities along the corridor include people without access to personal motorized vehicles. There is, therefore, a need for expanded viable transportation options for car-light or car-free travel in the region.
- In order to improve transportation safety air quality and reduce VMT and traffic conditions stemming from single-use motor vehicles, there is a need to focus development on multi-modal mobility.
- With a focus on environmental stewardship, improving access to increasingly better-preserved natural spaces is needed.

Ventura County Freight Corridors Study

The Ventura County Freight Corridors Study identifies and prioritizes the most significant freight corridors in Ventura County for safer, more efficient, and sustainable freight connections. The study also establishes an understanding of highway freight corridors in Ventura County to inform future highway planning and investment decisions. It will also assist the Port of Hueneme and Ventura County to move toward achieving state and regional emission reduction goals and increase social equity by planning for a goods movement system that is efficient but not disproportionally centralized around disadvantaged communities. The needs identified in this plan are summarized below:

- The movement of freight through Ventura County presents a need for developing safer, efficient, and sustainable corridors for both current and future development.
- There is a need to meet emission reduction goals by investing in multi-modal freight movement, including rail movement, while also considering the impact centralized corridors may have on Environmental Justice communities in the region.
- Future development in Ventura County needs to ensure the greatest sustainability benefit for the County's agricultural sector, economic competitiveness and growth, as well as human and environmental benefits.

Ventura County Coordinated Public Transit-Human Services Transportation Plan

The 2022 Coordinated Public Transit-Human Services Transportation Plan is an update of the Coordinated Plan for Fiscal Year 2016/2017. The plan examines changes in Ventura County's demographic and mobility landscape that highlights gaps in the coordination between Ventura County transit and human services. The needs identified in this plan are summarized below:

- There is a need to develop a coordinated transportation plan to accommodate the ever-changing nature of transportation such as service delivery, information dissemination, fare payment technology, and more.
- A special focus on vulnerable populations consisting of seniors, low-income, and disabled persons is needed to develop responses aimed at protecting and developing equitable access to new and affordable service innovations.
- Due to the various and often multiple sources of information resources for the different transportation options available for customers, there is a need for a centralized and coordinated information dissemination system.
- Mobility gaps arising out of inconsistent daily services, geographical gaps and schedule coordination need to be addressed.

6.2 Needs Identified Through Public Input and Regional Advisory Committee

Input from the community, the Regional Advisory Committee (RAC), and the topic-specific advisory committees was compiled from multiple rounds of community outreach and engagement, as well as the March 2022 Advisory Committee Survey results. The outreach and engagement activities reached thousands of community members through surveys, in-person pop-up events, digital emails and e-newsletters, and school- based community walk audits. The advisory committee survey was administered to six separate advisory committees to inform and advance the Ventura County CTP. For more information on public engagement, visit the Community Engagement Chapter. The needs stemming from community engagement efforts and survey results are presented below.

Community Engagement Summary

- Survey respondents showed that their preference in getting around Ventura County in the next 10 to 20 years included more use of bicycles, e-bikes, scooters, and electric vehicles.
- Survey respondents identified the greatest need for additional bike lanes, wider sidewalks, and housing located closer to transit.
- Survey respondents listed Safety, Emissions, and Climate as their highest- ranking goals for the CTP.
- Survey respondents ranked separated and expanded active transportation infrastructure, as well as affordable and flexible transit as their highest scoring improvements.
- Pop-up booth respondents highlighted the creation of separated and protected walking and bicycling paths as their top priority.
- Walk audit concerns noted by community members included a lack of sidewalks, broken sidewalks, speeding vehicles, a lack of shade trees, and a lack of benches or places to rest.
- Most open-ended public comments included requests for additional safer bike lanes and improved transit services.
- Public comments noted a need for additional active transportation connections between cities, as well as within cities.

Advisory Committee Survey Results

- For achieving the Balanced Transportation and Land Use Goal, most respondents mentioned a need for better local and county level coordination of transportation and land-use decisions, closely followed by introduction of flexible transit options and expansion of active mobility infrastructure. Ideas also included reductions to off-street parking minimums, locating new developments near transit stops, and providing connectivity to active transportation infrastructure.
- For the Emissions and Climate Goal, most respondents mentioned expansion of active transportation infrastructure as well as expanding and increasing EV public transit fleets and charging points.
- For achieving the Economic Prosperity Goal, an increase in accessibility to jobs and a reduction in household transportation costs were identified as primary needs.
- To achieve the Access and Choice Goal, primary needs identified were expanded frequent transit (especially outside typical commute hours) as well as expanding access to active mobility transportation. Respondents also identified a need to support transit with more amenities at stops and stations, as well as improvements to enhance a feeling of safety at these locations.
- For the Safety Goal, most respondents opted for incorporating separated active mobility infrastructure and a path towards Vision Zero.

6.3 Demographics

As highlighted in Chapters 2 and 3, Ventura County is a diverse region. Many residents within the county benefit from convenient access to employment, education, and recreational opportunities. However, the county is not without its challenges. Disadvantaged communities and communities of color located throughout the county disproportionally suffer from negative impacts. Among other factors, these impacts include noise pollution and a high-cost burden associated with their transportation
and mobility.

Access to Employment Opportunity

Population density is highest in the urbanized areas of Oxnard, Ventura, and Camarillo. While Ventura County's overall population is not projected to increase between now and 2050, there are pockets of growth forecast to occur in selected locations. Population growth from 2019 to 2050 is projected to occur in the cities located in the SR 126 corridor, including Santa Paula (+4%) and Fillmore (+9%), as well as the cities of Oxnard (+6%) and Moorpark (+3%).

In contrast to population density, employment density currently is highest along U.S Highway 101, and this corridor is also expected to see growth in employment density from 2019 to 2050. Oxnard (+4%), Camarillo (+0.4%), and Thousand Oaks (+3%) are all projected to see a rise in employment from 2019 to 2050.

In general, the cities of Ventura, Thousand Oaks, Oxnard, and Simi Valley hold the greatest share of total population and total employment in the county in the present day and in the future. As population density begins to increase in other regions of the County, efficient access to employment for all Ventura County residents is a key need in an effective and sustainable transportation network.

The Regional Advisory Committee (RAC) identified job creation and access to job opportunities as a key concern for quality-of-life in Ventura County. While the overall unemployment rate in Ventura County currently is low, the location of jobs and the corresponding affordable housing supply is not always in alignment. The greatest concentrations of unemployment are found in lower density regions of the county. These communities also tend to have the highest rates of linguistic isolation and comparatively lower levels of educational attainment. Ensuring communities with higher rates of unemployment have access to a sustainable transportation network that supports transit and active transportation helps those seeking work to access more job opportunities and to reduce their transportation costs.

Needs in Communities of Color

Through the Fall 2021 Transportation Needs survey and the walk audits conducted in Spring 2022, there was a common theme from surveys and audits completed by Spanish- speaking residents to highlight needs related to sidewalk improvements, street crossings and crosswalks, and wayfinding while walking and bicycling. These types of improvements were also cited more often by Spanish- speaking respondents than by their English-speaking counterparts.

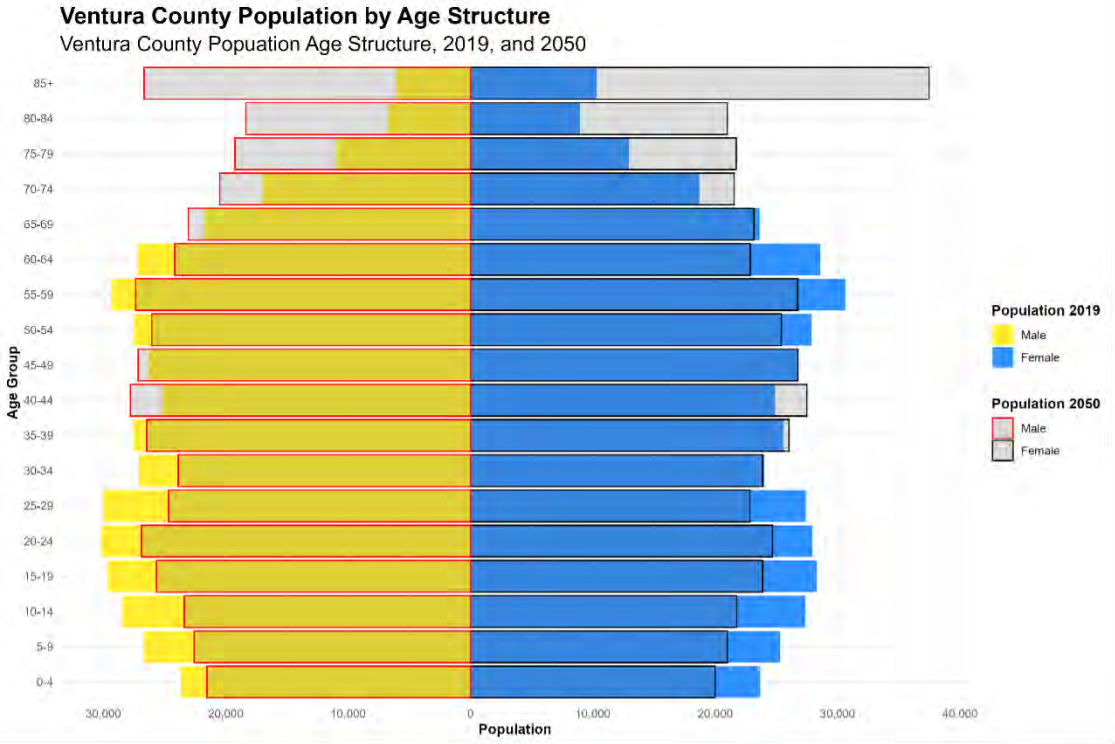
This input highlights a need for targeted interventions across Ventura County to improve active transportation infrastructure in neighborhoods where higher numbers of Spanish-speaking residents live. These communities are present particularly in Fillmore, Santa Paula, and Southeast Oxnard, as well as in the City of Ventura in the Ventura Avenue corridor and El Rio/Nyeland Acres. These areas have the highest concentrations of non-English speaking or English as a second-language residents. Possible strategies may include procuring multilingual transit signs throughout Ventura County, repairing and widening sidewalks, and improving crosswalks and street crossing locations, among others.

An Aging Population and its Impact on Transportation

Based on State of California Department of Finance data22 projecting population by county, older adults will represent a higher percentage of the total population in Ventura County by 2050, as baby boomers enter their 70s and 80s (Figure 6-1). As people get older, they may drive less and are more likely to rely on transit, paratransit, and dial-a-ride services that allow them to access goods and services, such as shopping or medical care. They may also use curb-to-curb deliveries for groceries or other goods.

To address this change in demographics, VCTC and other transit agencies in Ventura County should look to expand transit service in strategic areas and supplement with flexible transit options that meet the needs of an older population. Flexible transit options would be beneficial in areas that are not currently served by fixed-route transit or existing demand-response services and routing can be determined based on customer demand. Current demand-response services may also need expansion and could follow a model similar to the East County Transit Alliance, which was designed specifically to extend travel outside of local dial-a-ride service areas in the region.

Figure 6-1: Ventura County Population by Age Structure



22. State of California Department of Finance Projections: dof.ca.gov/forecasting/demographics/projections/

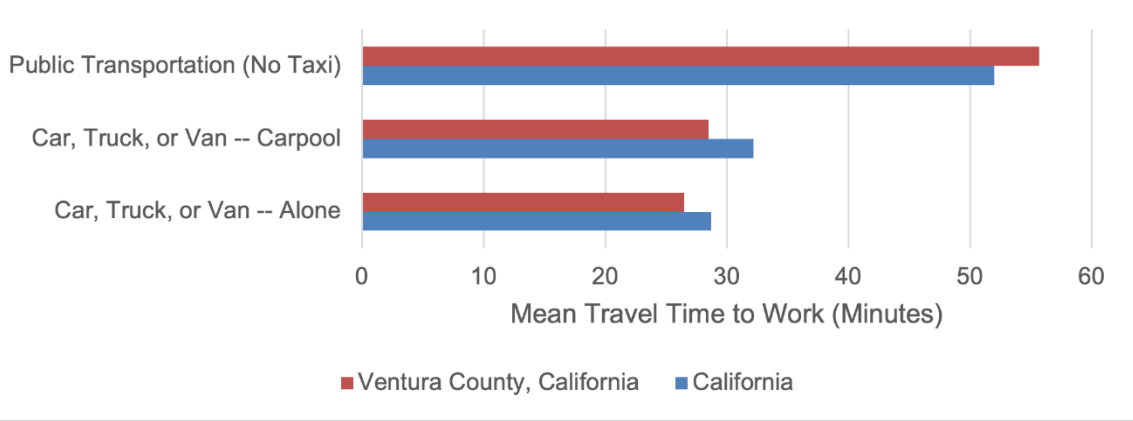
Coupled with a decrease in the county's population overall, an aging population may increase demand for transit services and create greater need for the development of more sustainable options for mobility. In the future, housing strategies designed for an aging population, including locating housing near healthcare, shopping, and other opportunities may also play a role in decreasing personal vehicle trips.

The forecast slow population growth may help to produce less VMT and place less strain on the transportation system into the future, but it may also make it more difficult to fulfill local General Plan policies that aim to create more efficient land use patterns. It is also possible that housing unit production could occur in a more low-density manner and exacerbate growth in VMT per capita.

Commute Time by Mode

According to the ACS 2020 5-year survey data, the average travel time to work for Ventura County employees is just under 27 minutes, which is less than the statewide figure at just under 30 minutes. Ventura County employees who take public transportation (no taxi) on average spend 55 minutes commuting. In Ventura County, those who carpool spend approximately 28 minutes commuting, and those who commute in a vehicle alone spend on average 27 minutes to get to work. The average commute time for public transit users in Ventura County is approximately double the commute time of a single occupancy vehicle commuter.

Figure 6-2: Commute Time By Mode



Source: U.S. Census Bureau, American Community Survey 5-Year Estimates (2015-2019)

This disparity in travel time by mode highlights a theme that also commonly appeared in community engagement efforts conducted to support the CTP development. There is a particular need for transit services in Ventura County to provide faster service, provide better connections between services, and run more frequently. While transit services would not replace automobile trips, bringing average travel times closer between the two modes would allow for more competitive travel times for those residents who do not have access to a vehicle and depend on transit for their daily travel.

6.4 Land Use and Transportation Integration

Background

Land use policies and decisions hold the potential to have large regional impacts on transportation and employment. While VCTC has no land use authority beyond acting as the County's Airport Land Use Commission, VCTC has a set of tools to advise and encourage local agencies to plan for future land use that support multimodal transportation, reduction in vehicle miles traveled (VMT), and reduced reliance on single occupancy vehicle trips.

In 2020, the State of California began implementation of SB743, which changed the way Caltrans and local agencies evaluate the environmental impacts of transportation projects. Instead of measuring impacts through traffic level of service, which could only be mitigated through adding roadway capacity, impacts no consider VMT. This metric is more closely tied to vehicle emissions, rather than traffic operations, aligning project review with the State's climate mitigation and adaptation goals.

In response, VCTC updated the Ventura County Transportation Model (VCTM) to assist local jurisdictions to conduct VMT analysis for future development projects in accordance with SB743.

SB743 also promotes the expansion of High Quality Transit Areas (HQTA), which are key tools for future land use development in Ventura County to better support transit and other multimodal transportation modes. VCTC will continue to emphasize policies and strategies that reduce VMT in future Ventura County projects.

Ventura County Setting

Ventura County has a unique land use setting, featuring coastal and inland areas adjacent to the U.S. Highway 101, SR 1, and SR 118 corridors that have a diverse mix of land uses. Populated areas in the county are primarily focused in incorporated cities, accounting for 89% of Ventura County's population, with the remaining 11% living in unincorporated areas. Incorporated cities are also located in closer proximity to more frequent transit services and active transportation facilities compared to unincorporated areas.

Travel patterns in Ventura County are unique in that the highest traffic volumes countywide are focused along a single corridor, U.S. Highway 101. Significant segments of U.S. Highway 101 see bi-directional volumes over 32,000 vehicles in both the AM or PM peak period between Oxnard and the Los Angeles County line. The next highest volume is observed along SR 23 in Thousand Oaks, which sees a volume of over 20,000 vehicles in the AM and PM peak periods.

Land use development within Ventura County is guided by policies that protect agriculture and open space areas between more urbanized areas. These policies have been in effect since adoption of the Guidelines for Orderly Development in 1969 and revision in 1996. The Guidelines state that urban development in unincorporated centers should only be allowed when an Area Plan has been adopted by the County. The Guidelines are also responsible for the separation of development patterns between cities in Ventura County. Land use patterns and transportation policy have contributed in part to cross jurisdiction commuting and a job- housing imbalance, which places high travel demands on the few corridors that connect different cities, most notably U.S. Highway 101.

These development patterns are reinforced through the voter approved Save Open Space and Agricultural Resources (SOAR) initiatives, which establish City Urban Restriction Boundary (CURB) lines around the cities in Ventura County. Moreover, SOAR initiatives require a majority vote to urbanize lands zoned for open space, agricultural or rural land uses. SOAR initiatives are active in every city and the unincorporated county except for Port Hueneme and Ojai. Unincorporated open space outside of Ojai's city limits and around the unincorporated communities of Meiners Oaks and Oak View is protected by the countywide SOAR initiative. In addition to the Guidelines for Orderly Development and SOAR ordinances, Greenbelt Agreements reinforce protections for open space and agriculture lands. Under a Greenbelt Agreement, cities agree not to annex any property within a greenbelt while the Board of Supervisors agrees to restrict development to uses consistent with existing zoning.

These initiatives have the potential to encourage and promote development patterns that are denser and more supportive of multimodal transportation. With new development restricted to occur within defined growth boundaries, there are opportunities to focus new development along existing and planned transit routes and corridors that have or are planned to have high quality active transportation infrastructure and/or High Quality Transit Areas. A key role for VCTC is to encourage local jurisdictions to work within the Guidelines for Orderly Development and SOAR initiatives, as well as their local land use policies and zoning guidelines, to facilitate these patterns of development that ultimately support a reduction in VMT.

Accordingly, VCTC acknowledges that residential development within 500 feet of a heavily travelled roadway can have negative health impacts, as cited by the Ventura County Air Pollution Control District. It is important to balance this consideration with the need to utilize land use and transit integration planning as a tool to reduce VMT and GHG emissions, which can also adversely affect health.

Opportunities for Better Integration

Working with VCTC, local agencies have the opportunity to increase the presence of high-density housing and complementary commercial and employment uses in and adjacent to these areas and corridors to promote multimodal mobility and VMT reduction.

Key tools identified in the 2020 SCAG RTP/SCS include: High Quality Transit Areas, Neighborhood Mobility Areas – priority growth areas that provide convenient connections to schools, shopping, services, and parks, and Livable Corridors – which encourages local jurisdictions to plan and zone for increased density along key corridors in their communities.

SCAG's Regional Housing Needs Allocation (RHNA) forecasts approximately 10,299 new housing units (39.2%) to be built in Ventura County between 2019 and 2029 for very-low income and low-income residents. The development of employment centers and affordable residential areas should be harmonized to reduce travel time and travel distance for workers. According to SCAG, Ventura County's Low-Wage Jobs-Housing Fit is 1.62, which indicates that there is a concentration of low-wage jobs (e.g., earning $1,250 a month or less) that accompanies the existing lack of affordable rentals for those employed in these jobs. Improving the job- housing balance may reduce transportation costs for workers and congestion across the county.

As part of the development of the CTP, the RAC noted that the General Plan land use elements of many jurisdictions in Ventura County do not adequately state policies and guidance for new land use development to integrate bike and walking infrastructure beyond recreational and commercial areas. While many jurisdictions do have standards for active transportation, a detailed uniform policy at the county level and across jurisdictions would be

beneficial in promoting safe access for all modes for any existing or new land use development. New uniform standards that encourage existing and new developments to incorporate active transportation infrastructure and connections to public transit services would help integrate land use and transportation, as well as assist in reducing vehicle trips and VMT.

6.5 Roadways/ Freeways

The roadway network in Ventura County is complex in the southern portions of the county. Within the southern portion of Ventura county, U.S. Highway 101 serves as the backbone of Ventura County's transportation system, as it carries a large number of people and goods every day. U.S Highway 101 is an east (southbound) – west (northbound) freeway that connects the cities of Thousand Oaks, Camarillo, Oxnard, and Ventura. Beyond Ventura County, U.S. Highway 101 connects to Carpinteria and Santa Barbara in Santa Barbara County in the northwest, and Westlake Village, the San Fernando Valley and greater Los Angeles in Los Angeles County to the southeast. Other major highways include SR 118, which connects Moorpark and Simi Valley to Los Angeles County to the east and coastal portions of Ventura County to the west, and SR 126, which provides an east-west connection through central county, linking coastal communities in Ventura with Santa Paula and Fillmore.

In addition to U.S. Highway 101, Ventura County features eight State Routes, which are captured in the following table.

Table 6-1: Ventura County State Highways

State Route	Start	End	Connecting Jurisdictions
SR 1	LA County (Malibu)	U.S. Highway 101	Oxnard, Port Hueneme
SR 23	SR 118	U.S. Highway 101	Moorpark, Thousand Oaks
SR 33	Santa Barbara County	U.S. Highway 101	Oak View, Mira Monte, Ojai, Ventura
SR 34	SR 118	SR 1	Somis, Camarillo, Oxnard
SR 118	LA County (San Fernando Valley)	SR 126	Saticoy, Somis, Moorpark, Simi Valley
SR 126	LA County (Castaic)	U.S. Highway 101	Piru, Fillmore, Santa Paula, Ventura
SR 150	Santa Barbara County	SR 126	Mira Monte, Ojai, Santa Paula
SR 232	SR 118	U.S. Highway 101	El Rio, Oxnard

Six of the eight State Routes connect to U.S. Highway 101, emphasizing its importance as the major transportation corridor in Ventura County.
The locations of incorporated cities and State Routes follow the unique topography of central and southern Ventura County. Some incorporated cities feature a partial grid-like pattern for arterial streets, such as Ventura, Oxnard, and Simi Valley. Secondary and local streets generally are curvilinear streets, especially within residential areas.

The County of Ventura Public Works Agency Multi-Year Pavement Plan (FY 2022-2026) provides pavement condition index (PCI) data use to evaluate pavement conditions of roadways. In Ventura County, 80% of roads are in good condition. Of the remaining roadways, 14% are in fair condition, 5% are in poor condition, and 1% are in failing condition.

U.S. Highway 101

As the major transportation corridor in Ventura County, the U.S. Highway 101 Communities Connected Study highlighted numerous infrastructure improvements along the corridor to benefit vehicular travel, through projects related to:

- Auxiliary lanes
- Bridge improvements
- Capacity enhancements
- Grade separation
- HOV lanes
- Interchange improvements
- Intersection improvements
- Intelligent Transportation Systems (ITS)

In addition to vehicular benefits, U.S. Highway 101 non-roadway projects to benefit transit, passenger rail, and active transportation users were also considered to support the multimodal transportation system adjacent to the corridor. These non-roadway projects were categorized as capital and demonstration projects, passenger rail projects, active transportation, travel demand management, and others.

The US 101 Communities Connected Study describes that the current set of funded transportation projects is insufficient in meeting future transportation demand, which would result in increased travel times,

limited multi-modal network connectivity, and unsafe roadways. Continued reliance on private vehicles could also result in a negative effect on the region's public health and economic progress. Lengthy commutes, lack of multimodal travel options, and lack of affordable housing may result in workers denying job opportunities, stifling regional job growth.

The report also highlights the need to consider the following elements working in unison to build a robust multimodal transportation network cultivating a sustainable transportation network in the future:

- Land use planning ordinances, policies, and guidelines
- Planning for population and job growth in urbanized areas
- Planning for a growth in travel volumes and congestion
- Planned transit and active transportation improvements

Remote Work and Telecommuting

The COVID-19 pandemic accelerated a shift to remote working and hybrid workplace dynamics. Since 2020, a greater percentage of workers have shifted to work from home, eliminating a significant number of traffic volumes in the peak periods from Ventura County freeways. The American Community Survey (ACS) shows a sharp increase in work-from-home percentage from 6.1 percent in 2019 to 14.2 percent in 2023. This shift to more prominent work-from-home statistics reduces traffic congestion and volume in the short-term, while longer-term effects are unknown. Capitalizing on reduced peak hour trips today by implementing new active transportation projects and work-from-home incentives would create a more permanent shift in travel demand in Ventura County.

Incidents and Traffic Congestion

Freeway and roadway operations can be impacted by capacity issues, as well as by traffic incidents, which can contribute to significant vehicle traffic delays along individual routes and surrounding areas. Although the limits of lane capacity are an important factor in bottlenecking, the Transportation Disruption and Disaster Statistics from the Regional Integrated Transportation Information System (RITIS) indicates that 16 percent of highway congestion in Ventura County is incident-related, such as stalled vehicles, collisions, and road obstructions. The ensuing congestion results in traveler delays, increased fuel consumption, lost productivity, and additional crashes. Projects and programs which reduce or mitigate the impact of incidents, such as operational improvements or investments in expanding Service Authority for Freeway Emergencies (SAFE) programs (Freeway Service Patrol), may have a substantial benefit for reducing congestion on Ventura County highways.

6.6 Transit

As highlighted in Chapter 2, transit ridership in Ventura County has declined, a trend that has been experienced nationwide and further exacerbated by the COVID-19 pandemic. While this trend has been attributed to increased rates of car ownership and lower gas prices before 2020 and stay-at-home orders at the beginning of the pandemic, ridership has been slow to recover as the country has emerged from the pandemic. Reversing this trend is an ongoing challenge as remote work has increased, making it difficult for transit agencies to rebuild ridership, especially on routes that relied on white-collar commuters, such as the Metrolink regional rail service into Los Angeles. Additionally, some workers have relocated, and travel patterns have shifted. Farebox recovery rates have also declined for the transit operators in the county.

Survey respondents and RAC members noted several potential opportunities to improve transit ridership across the county, including:

- Faster and more frequent bus trips;
- Intermodal connections between buses, rail, and active transportation;
- Providing services outside “normal” working hours to allow for public and active transportation to social and community activities, rather than just to employment areas;
- The addition of express bus and rail services;
- Affordable transit fares

Transit Propensity and High Quality Transit

Transit propensity describes the likelihood that someone relies on forms of transportation other than driving, and is influenced by a number of demographic factors. Youth and seniors, people with disabilities or low incomes, and those with limited English proficiency and either limited or no access to a vehicle tend to have higher transit propensities. In Ventura County, the people who have a higher propensity of transit use are more likely to live in the most densely populated areas of the county (Figure 6-3). Generally, this aligns with areas that currently have access to fixed-route transit or dial-a-ride services.

Paratransit Services

In addition to fixed-route service, each of the transit providers (except for Kanan Shuttle and Ojai Trolley) offer dial-a-ride paratransit programs which operate on a reservation basis. Gold Coast Transit District operates ACCESS paratransit, serving the cities of Ojai, Oxnard, Port Hueneme, Ventura, and other nearby unincorporated areas. Valley Express operates fixed route, ADA-paratransit, and public dial-a-ride service throughout the Heritage Valley, within the cities of Santa Paula, Fillmore, and the unincorporated community of Piru. The East County Transit Alliance offers CONNECT Dial-a-Ride, operating in most of eastern Ventura County including the cities of Moorpark, Simi Valley, Thousand Oaks, and many unincorporated communities.

Areas that could benefit from additional transit service or expanded dial-a-ride service areas include the El Rio and Nyland Acres neighborhoods in Oxnard and along Ventura Avenue, as well as areas in Ojai, Moorpark, and along State Route 126 in Santa Paula.

High Quality Transit Areas

HQTAs are located within a half-mile of rail stations and well-serviced bus transit stops with 15-minute or better service frequency during peak commute hours. The new approach to address VMT through SB743 incentivizes the expansion of HQTAs as a means of reducing VMT, by concentrating future development near existing and planned transit hubs. HQTAs highlight the connection between frequent transit services, supporting land use, and reduced VMT. These areas are intended to promote higher-density development patterns, which in turn support more frequent transit services and reduce reliance on automobiles for trip making. The new approach to measuring transportation impacts using VMT, as discussed in Section 6.1.3, incentivizes the expansion of HQTAs in Ventura County and throughout California and should be coordinated with transit and land use improvements that include improving headways, expanding service, and concentrating future housing development near transit hubs, to reduce overall VMT. HQTAs provide convenient access to frequent transit service, which can make transit a more attractive and reliable commute option. This can lead to an increase in transit ridership and decrease in VMT. Observed VMT per capita is lower within HQTAs in Ventura County. The current HQTAs in Ventura County are shown in Figure 6-4 and are located around transit stops servicing multiple transit lines, in Ventura, Oxnard, Camarillo, Moorpark, and Simi Valley.

Figure 6-3: Transit Propensity

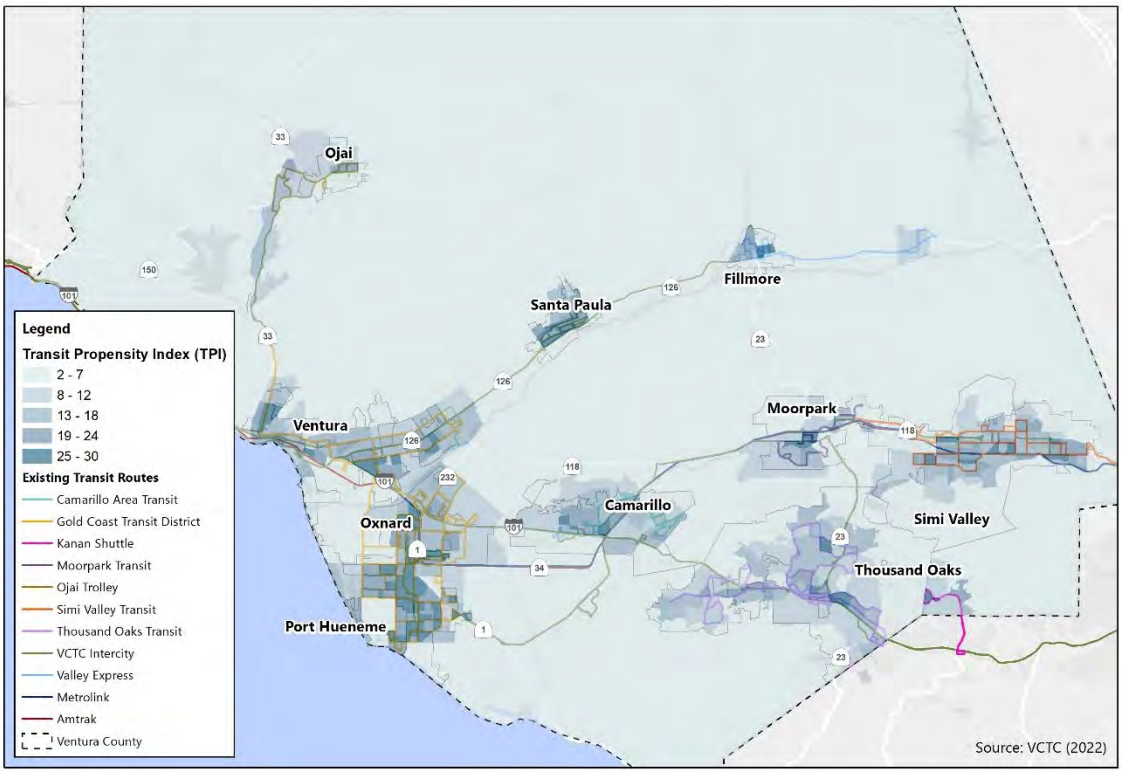
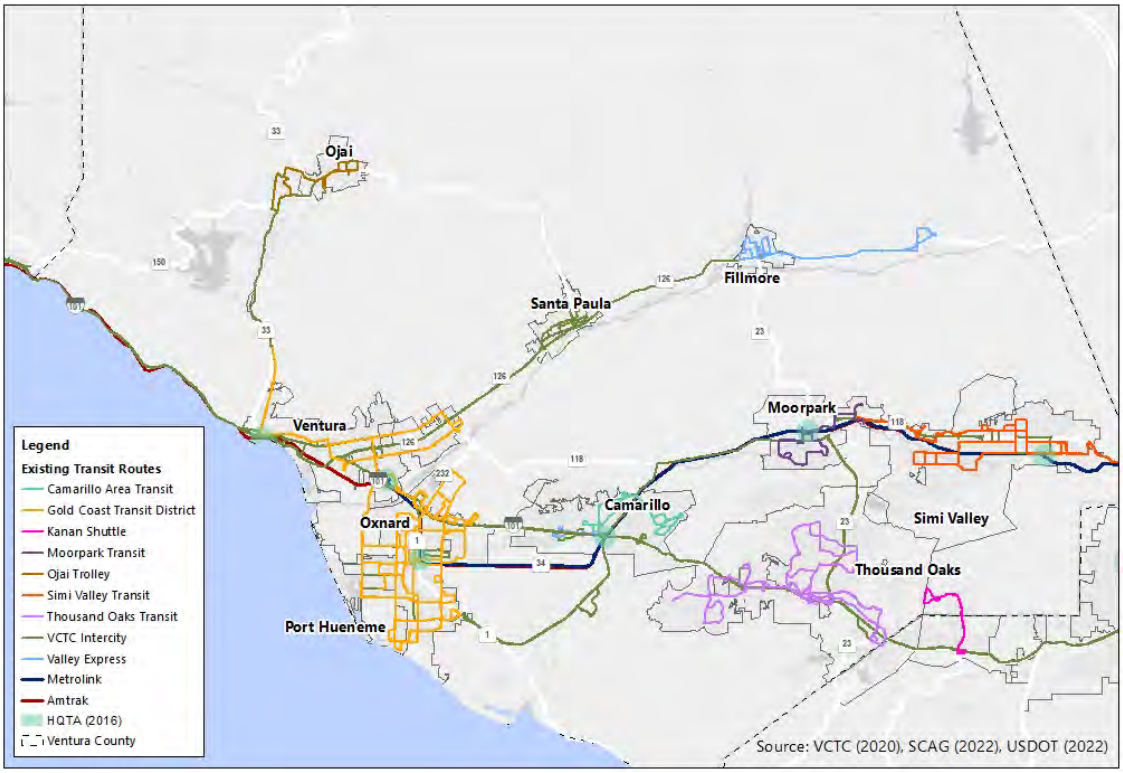


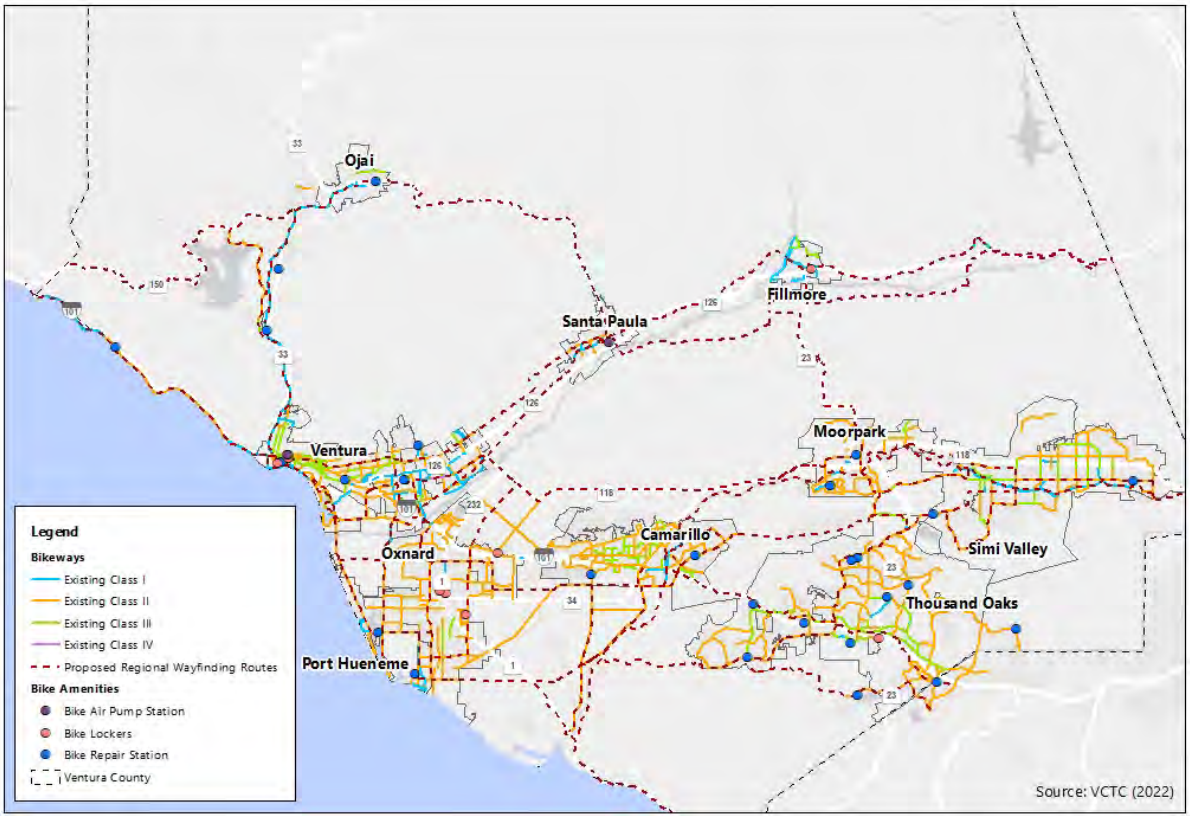
Figure 6-4: HQTAs in Ventura County



6.7 Active Transportation

Chapter 2 highlights that the existing bicycle and pedestrian network in Ventura County is fragmented and generally concentrated within local jurisdictions, with few connections between cities. VCTC's Ventura County Regional Bicycle Wayfinding Plan (2017) identifies 17 regional bicycle routes that provide and enhance regional bicycle connectivity. Figure 6-5 illustrates existing bicycle facilities and proposed wayfinding routes between cities. Additionally, this section provides a pedestrian propensity analysis to highlight where additional pedestrian infrastructure may be needed.

Figure 6-5: Existing Bicycle Infrastructure and Proposed Wayfinding Routes



While Class II bike lanes and Class I bike paths exist along some of these regional routes, opportunities are available to expand and complete the proposed regional wayfinding routes between the cities and create a more complete network. This would especially be helpful in areas lacking regional connections, including the east county and northernmost cities (Fillmore, Moorpark, Santa Paula, and Ojai). Enhancing local bikeways may also include the addition of more bike air pump stations, bike lockers, and bike repair stations. These additions are important to improving the experience of users and have the potential to increase participation in active transportation.

Additionally, bike lockers will provide an enclosed and more secure parking alternative to traditional bike racks at key destinations.

As highlighted in Chapter 4, several respondents to the Fall 2021 CTP Transportation Needs survey and members of the RAC both highlighted bicyclist and pedestrian safety as a central concern for bike facilities and sidewalks. Chapter 2 highlights collision density across the county and how collision density overlaps with disadvantaged communities. Improvements may include adding protected bike lanes and pedestrian areas, maintaining existing bike infrastructure and sidewalks, and improving lighting. Active transportation improvements, both for bicyclists and pedestrians, can also be beneficial as the benefits realized in terms of mobility, access to recreational opportunities, and health improvements typically positively outweigh the cost to implement these types of improvements. To complement bicycle infrastructure, additional amenities such as showers and clothes lockers at key destinations, such as places of employment, can be considered to provide the accommodations necessary to comfortably utilize bicycling as a method of transportation and gain the health benefits of doing so.

In addition to the recommendations contained in the 2017 Regional Bikeway Wayfinding Plan, there is also an opportunity to provide multilingual bicycle wayfinding signage throughout Ventura County. Survey respondents further noted that some bike lanes end unpredictably, or are not well marked, leading to conflicts over the use of the road with drivers. Improving the maintenance, wayfinding and signage of these paths may improve the experience of bikers throughout the county.

Bicycle-Pedestrian Propensity Analysis

To help define priority areas, a Geographic Information Systems (GIS) Bicycle-Pedestrian Propensity Model (BPPM) was developed, considering various analysis inputs, to establish where bicyclists and pedestrians are most likely to be, either currently or if improvements were to be made. The BPPM is composed of three sub-models: Attractor, Generator, and Barrier Models. These three sub-models are then combined to create the composite BPPM.

Attractors are essentially activity centers known to attract bicyclists and pedestrians. Examples include schools, parks, transit stops, and shopping centers. Generators are developed from demographic data and estimate potential pedestrian and bicyclist volume based on how many people live and work within the study area. Examples of generators are population density, employment density, primary mode of transportation to work and vehicle ownership. Barriers are features likely to discourage or detract people from bicycling or walking. These are generally physical limitations, such as high-speed roadways, lack of sidewalks or bike paths, or bridges and underpasses that often have narrower right-of-way, and major truck corridors like SR 118, that are otherwise perceived as more dangerous to active modes and often are areas with high numbers of bicycle-related collisions.

This initial composite map is a first take on a propensity model to highlight the densities of attractors, prioritizing populations that use non-motorized modes of transportation and have high rates of bicycle and pedestrian collisions. The intent of this exercise is to provide a tool to begin conversations for the community engagement phases, to prioritize resident needs and to further refine the model for upcoming active transportation recommendations.

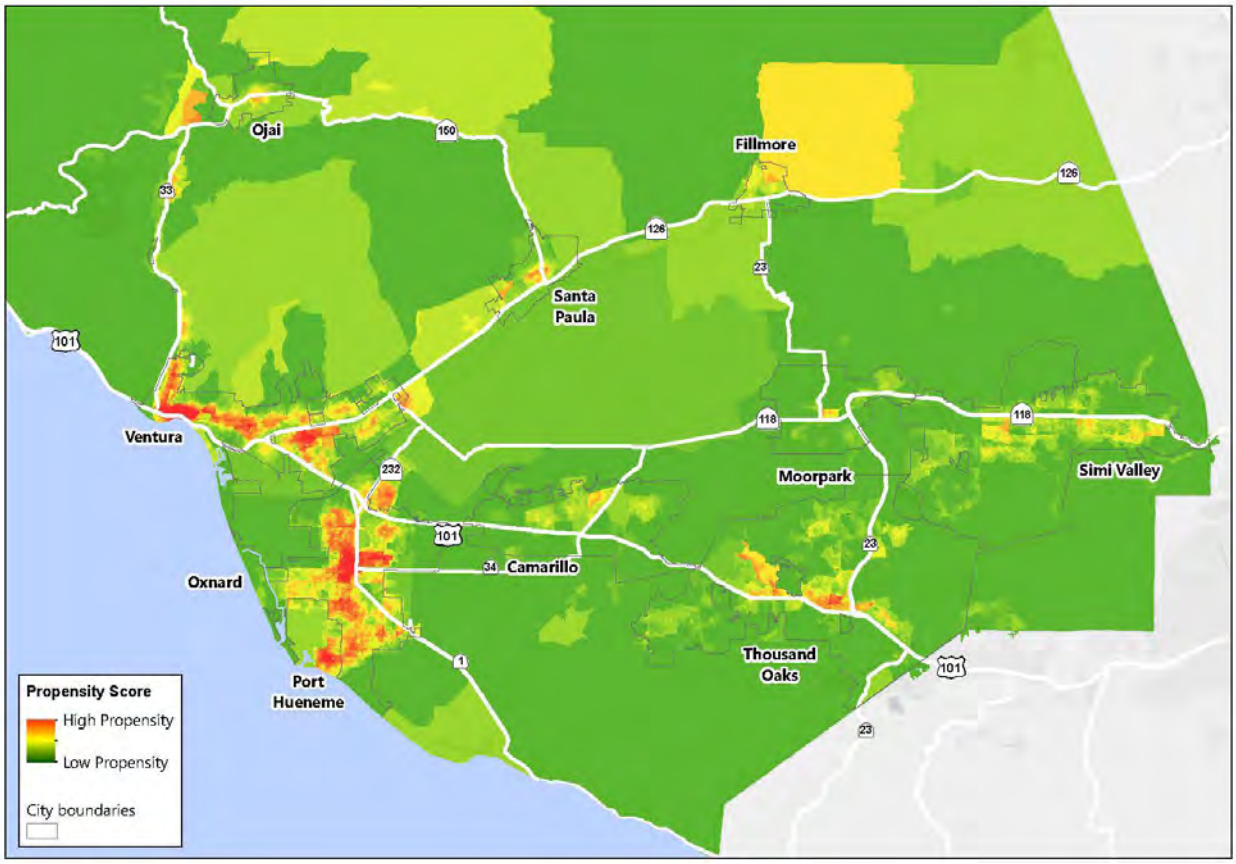
Summary of BPPM Results

The BPPM analysis resulted in the identification of three high propensity regions around the cities of Ventura, Oxnard, and Port Hueneme. The City of Ventura includes two high propensity areas, one in western Ventura, particularly in the downtown area and another in central Ventura between U.S. Highway 101 and SR 126. The City of Oxnard has the second highest propensity area north of the intersection of SR 1 and SR 34. Port Hueneme has the third highest propensity area near the neighborhoods of Hueneme Road and Ventura Road.

While these areas of the county do have existing bicycle infrastructure in place, these facilities are primarily local in nature and provide a limited number of connections across jurisdictional boundaries. This condition limits the ability of residents in these higher propensity areas to access key destinations like areas of employment, schools, and shopping, unless these destinations are in proximity to their place of residence. Facilitating connections between higher propensity areas is important to promote and facilitate travel by active transportation modes for a greater number of trip purposes.

Outside of these three higher propensity areas, the analysis identifies pockets of higher propensity for walking and bicycling in numerous other areas around the county. Each of the 10 cities in the county has their own high propensity area for walking and bicycling and the information presented in Figure 6-6 can help local jurisdictions prioritize where to invest in walking and bicycling projects and how to connect areas of higher propensity within their jurisdiction and between jurisdictions. This analysis also informed the bicycle and pedestrian projects identified as part of the CTP Implementation Scenario in Chapter 7.

Figure 6-6: Bicycle and Pedestrian Propensity Model Analysis Results



6.8 Shared Mobility

The last 10 years have seen radical changes in how people choose to travel and move around their communities. The introduction and expansion of the "sharing economy" has had a profound influence on mobility, not only in Ventura County, but across the region and country. ACS 2020 5-year survey data shows that carpooling to work is utilized by 10.2% of Ventura County commuters, 0.2% greater than statewide, and 1.3% greater than the nationwide average. Key elements of the sharing economy include:

- Increased access to smartphones: these devices provide individuals with access to real time information, GPS location, and applications that connect to a variety of mobility services.
- New mobility solutions and suppliers: from car sharing to ridesharing to scooter sharing, a range of different new mobility technology companies have emerged in the past decade to offer a range of mobility services that are changing the way people travel.
- Advancements in technology related to mobility: electric mobility devices (scooters, bicycles, etc.) and connected and autonomous vehicles are changing how people travel and what modes of transportation are available and convenient to them. These technologies also influence the types of mobility services provided by both the private and public sector.

Many of these shared mobility services are deployed and operated by private sector companies. Public agencies have jurisdiction to regulate these services and the ability to coordinate with the private providers to plan and target implementation of services.

All three services – micromobility, microtransit, and rideshare – hold promise to help reduce vehicle trips and VMT. If implemented, new or expanded shared mobility solutions would improve access and mobility for all residents. As a part of any future pilot program(s), if shared mobility vendors are allowed to operate within the unincorporated areas of the county, VCTC shall work with the County of Ventura Resource Management Agency and General Services Agency. To analyze the feasibility of establishing shared micromobility services. An overview of different services is provided below.

Micromobility

Micromobility devices include scooters and bicycles, many of which are electrically powered. In recent years, private operators have created companies centered around providing shared micromobility devices for general public use. Users access, pay for, and "unlock" the devices using a smartphone app. Current private shared micromobility operators include companies such as Bird and Lime.

Shared micromobility devices are typically deployed in more dense, urban areas that experience a larger share of short distance trips. Introduction of micromobility options provides another mobility option for Ventura County residents and visitors and may ultimately be useful in replacing shorter vehicle trips.

In Ventura County, micromobility options may have a role as a solution to the first/last mile gap. Deployment of intermodal strategies, or one that integrates micromobility with public transit services by purchasing one ticket/pass for both modes of transit, may be effective reducing vehicle trips and VMT. Beyond commuting and errands, access to micromobility may also help reduce leisure-based vehicle trips. In some cases, micromobility has also helped reduce congestion, emissions, and noise pollution.

Micromobility is relatively untested in Ventura County, and some jurisdictions have banned deployment of shared devices. In jurisdictions where shared devices are not banned, a regulated pilot study would be helpful in determining if micromobility could be an effective or popular access mode within denser areas like Downtown Oxnard/Oxnard Transit Center, beach areas, and/or near higher education campuses. A pilot program could also help VCTC and local agencies better understand where and how often residents are traveling for short trips, which would be useful in determining how to advance active transportation in Ventura County, even if micromobility services are unsuccessful.

Key planning considerations for shared micromobility include storage of the devices when not in use, the provision of adequate and safe active transportation infrastructure, and user and driver education to avoid conflicts with automobiles, pedestrians, and traditional cyclists.

Microtransit

Beyond these shared micromobility offerings, electrically powered personal scooters and bicycles are becoming more common in the active transportation market. Individually owned devices like these provide users with the ability to travel longer distances in less time compared to traditional, human-powered scooters and bicycles. As with shared devices, personal e-scooters and e-bicycles can provide individuals with a convenient alternative mode of transportation, and one that helps to reduce automobile trips and emissions.

Microtransit services can be operated by public or private providers. These services are commonly characterized by use of smaller vehicles (vans or small buses), the ability for riders to request rides via smartphone app or phone call, the provision of service in a defined zone as opposed to along a specific route with specific frequency, and service between designated points as opposed to door-to-door like rideshare or for-hire vehicles.

Key attributes for microtransit services are the ability of these services to replace higher cost fixed route transit service in lower density and lower demand corridors, offering more flexible services that could appeal to non-transit users, and increasing a provider's ability to serve specific zones, areas, and destinations with more direct service than what is possible with traditional fixed-route transit.

The low-density development patterns, single use zoning and development patterns, and limited numbers of roadway connections between cities and communities present in Ventura County are all attributes that would typically support the deployment of microtransit service as an alternative to or replacement for fixed route transit services. A key challenge would be balancing the use of additional vehicles with the cost of vehicle acquisition and operation (particularly the costs associated with additional drivers).

The City of Moorpark launched a 3-year pilot mobility program "MCT On Demand" in 2022 to provide on-demand rideshare services within the city. The purpose of the program is to explore the

feasibility of replacing portions of the fixed route bus service with a more flexible and efficient service for the city's residents. The service includes "virtual stops" to allow pick up and drop offs to operate more efficiently. The results of Moorpark's pilot program will be integrated into future microtransit planning in Ventura County.

Rideshare and for Hire Vehicles

Transportation Network Companies (TNCs) including Uber and Lyft offer shared ride services in Ventura County and throughout the region. To use these services, customers request rides via a smartphone app, and the rideshare provider offers them a door-to-door service that may or may not involve a solo ride. While many of the rides provided by these companies are requested by individuals for personal trip purposes, selected cities and transit agencies have partnered with Uber and Lyft to have rideshare services provide a quasi- transit service that can replace or supplement traditional transit services and first/last mile connections to transit stops and stations.

For personal trip purposes, rideshare services are not unlike personal vehicle use in terms of vehicle trip generation, VMT, and emissions. Carpool offerings from providers (such as Uber Pool and Lyft Line) have the potential to reduce vehicle trips and VMT, while partnerships for first/last mile connections and microtransit service offerings can further reduce the trip impact of these services. Another primary benefit of these services is their ability to offer access to a vehicle trip for individuals or families who may not have access to a personal vehicle. In these cases where an individual uses the rideshare service as one of a menu of services (which could include transit, walking/biking, micromobility), ownership and use of a personal vehicle becomes less of a requirement and more of a choice.

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6.9 Safety

Reducing collisions and injuries is an essential element to improving transportation network safety for all modes of transportation, including vehicles on freeways and roadways, rail and freight services, transit, and active transportation. A safer transportation network, especially for multimodal modes, can help to encourage increases in walking and bicycling. This can also advance efforts to achieve reduced emissions goals, while enhancing public health, and improving access to mobility options for disadvantaged communities.

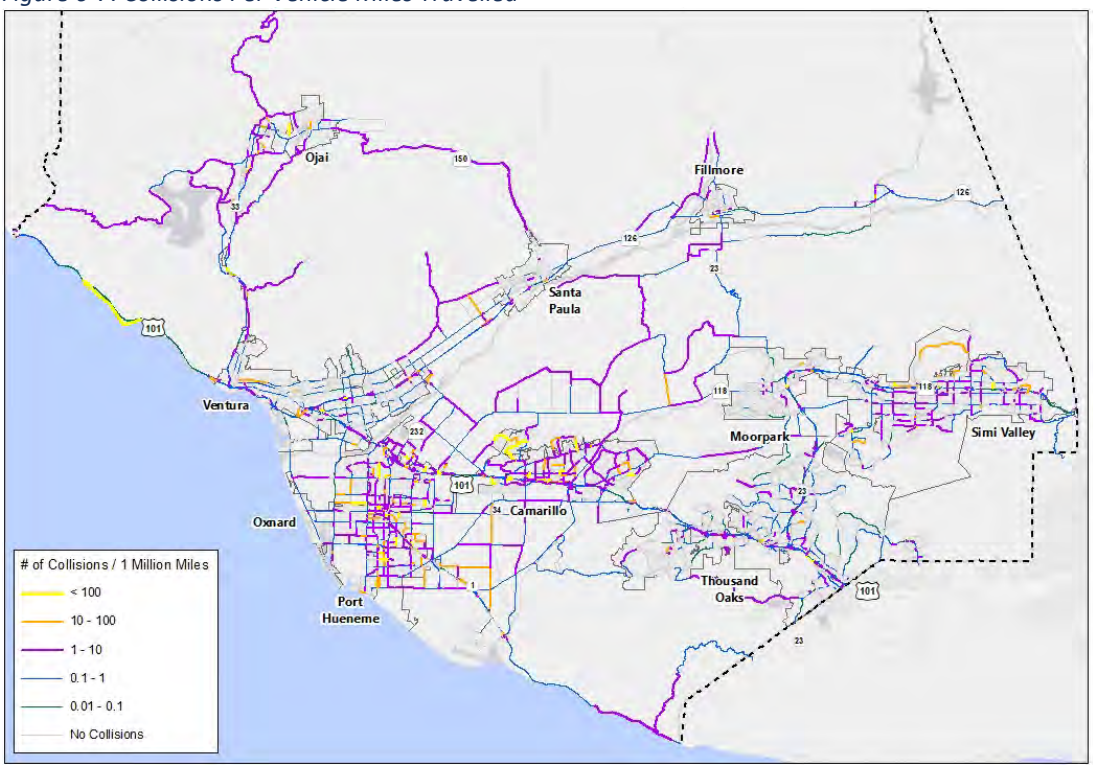
Safety at bus stops, on sidewalks, and on bike trails was highlighted as a central concern for RAC members and respondents to the Fall 2021 needs survey. Both groups identified improved lighting on sidewalks and maintenance of bus stops and shelters— including the addition of benches, an enclosed shelter at stops where they are not currently present, and the addition of NextBus information—as areas of improvement.

In addition to the provision of additional bicycle infrastructure, bicycle facilities must be safe and provide bicyclists with protection from vehicle traffic. Collisions involving bicyclists are generally concentrated in the areas with the highest traffic volumes and greatest population density. Areas of particularly greater numbers of collisions include north of U.S. 101 in Ventura, the areas on either side of Rice Avenue / State Route 1 in Oxnard, the areas surrounding the intersection of U.S. 101 and State Route 23 in Thousand Oaks, and the area south of State Route 118 in Simi Valley. The total number of fatalities and severe injury collisions were standardized relative to the Ventura County population to help interpret where collisions occur more frequently in higher density areas.

Fatality and severe injury collisions on the Ventura County highway network indicate that many of the rural segments present safety challenges. This is alignment with projects, such as improvements along the SR 118 that aim to improve safety for all roadway users. Additionally, safety recommendations are in alignment with goals discussed in Local Road Safety Plans (LSRP) provided by partner agencies within Ventura County.

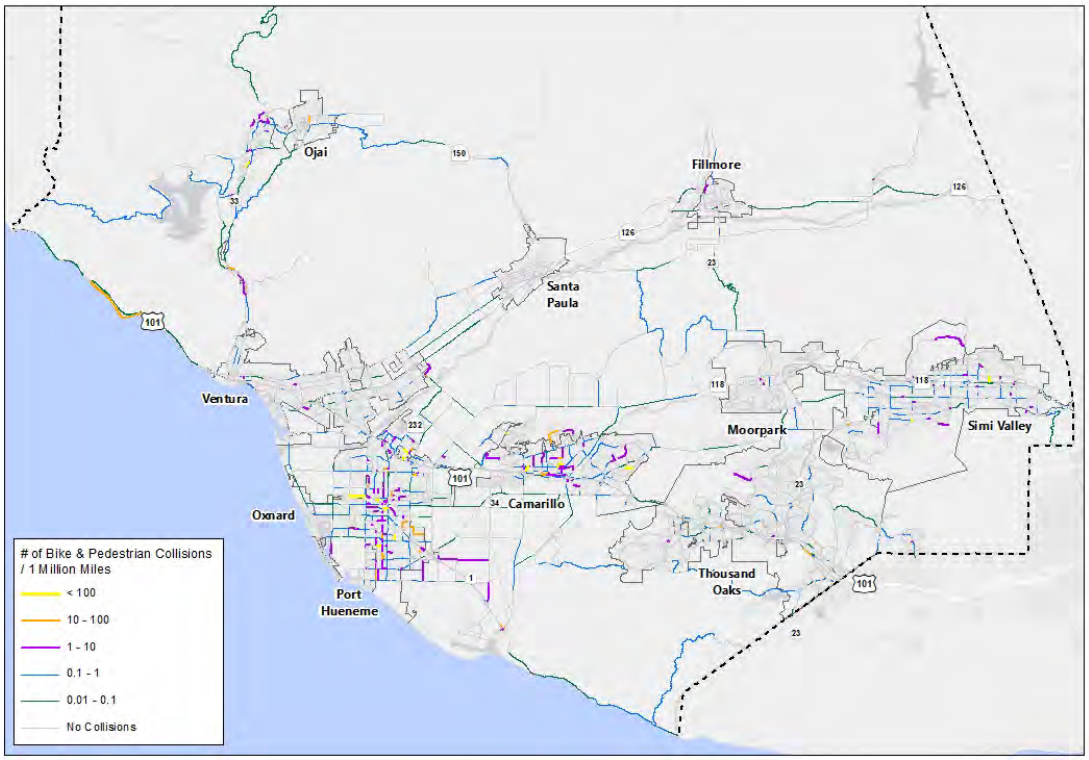
As illustrated in Figures 6-7 and 6-8, the areas with the highest number of collisions involving bicyclists and pedestrians roughly mirror those with the greatest number of collisions overall, including automobiles, which could potentially indicate areas with unsafe infrastructure for bicyclists and pedestrians. For comparative purposes, this analysis shows the number of collisions normalized by million vehicle miles traveled. As mentioned in Chapter 5, approximately 67% of total bike accidents and 88% of fatal and severe injury accidents occur on streets without bike lanes or bike paths in Ventura County. As transportation improvements are planned for Ventura County, the most dangerous streets should be prioritized for treatments that can improve the safety of all travelers. This is especially important for encouraging a mode shift from private automobiles to active transportation and public transit, as people will be unlikely to opt out of using cars if they do not feel safe.

Figure 6-7: Collisions Per Vehicle Miles Travelled



Source: VCTC (2022)

Figure 6-8: Bike & Pedestrian Collisions Per Vehicle Miles



6.10 Passenger Aviation

According to the 2020 SCAG RTP/SCS Connect SoCal, Ventura County is estimated to have generated air passenger demand equivalent to 2.82 million annual passengers (MAP) in 2017. This is compared to a total air passenger demand of 110.17 MAP across the SCAG region. SCAG's most recent Year 2045 forecast of commercial aviation air passenger traffic for the full region is 197.14 MAP. Assuming Ventura County's share of regional air passenger demand remains similar to the existing condition (~2.56%), the Year 2045 forecast air passenger demand originating in Ventura County would be 5.05 MAP.

No commercial passenger aviation services are currently provided in Ventura County.

General purpose, non-commercial aviation airports operating in Ventura County today include:

- Oxnard Airport
- Camarillo Airport
- Santa Paula Airport

Oxnard and Camarillo Airports are owned and operated by the County of Ventura Department of Aviation. Santa Paula Airport is privately owned. Naval Base Ventura County Point Mugu is a military airfield also located in Ventura County adjacent to SR 1 and southeast of Oxnard.

Within the SCAG region, there are seven existing commercial aviation airports and 30 reliever and general aviation airports. A total of sixteen airports in the SCAG region23 are designated by the Federal Aviation Administration (FAA) as reliever airports, which means that they could provide congestion relief for any of the commercial service airports in the region. Camarillo Airport is one of the designated reliever airports that is identified as being capable of serving commercial aviation flights in the future.

Ventura County is the only county in the six county SCAG region without a commercial aviation airport. While there have been off and on discussions related to the provision of commercial passenger aviation services in Ventura County, no active proposals are currently under consideration.

Today, residents in Ventura County typically travel to one of three existing commercial airports located in adjacent counties: Santa Barbara Airport (SBA), Los Angeles International Airport (LAX), and Hollywood Burbank Airport (BUR). Ground transportation options for travel to these airports consists of private vehicles, airport shuttles, taxis, and rideshare vehicles. Hollywood Burbank Airport is accessible from Ventura County by Metrolink regional rail and Amtrak intercity rail service with a stop adjacent to the airport property.

23. Connect SoCal: 2020 SCAG RTP

While the air passenger demand generated by Ventura County represents a small fraction of the total demand generated throughout the SCAG region (2.56%), the distances required for residents in the county to travel to one of the three closest commercial airports results in a more substantial contribution to the county's overall generation of VMT. Using Camarillo Airport as a reasonable representation of a central point in the county, travel distances to the three closest airports range from 48 miles to Hollywood Burbank Airport to 53 miles to Santa Barbara Airport, and 56 miles to Los Angeles International Airport. Each represents a significant round trip travel distance for vehicle trips.

In the absence of the introduction of commercial aviation services in Ventura County, or in addition to this service to serve traffic associated with longer distance and international flights, there are strategies available to reduce the VMT impact of airport ground traffic. These could include:

- Expansion of existing airport shuttle services operating to/from Ventura County.
- Introduction of fly-away bus service connections from Ventura County to LAX and other airports.
- Coordination with Metrolink and Amtrak to incentivize use of rail services to travel to Hollywood Burbank Airport (located along the Ventura County Line) and LAX via the Union Station Flyaway bus service.

VCTC will continue to serve as the Airport Land Use Commission for Ventura County and support the Department of Airports in their efforts related to passenger aviation in Ventura County as appropriate. A study on aviation feasibility, economic benefits, and environmental impacts would help determine the viability of commercial aviation in Ventura County.

6.11 Goods Movement

Freight movement in Ventura County is expected to grow due to the increase in online commerce and shifting patterns of purchasing. The RAC and other stakeholders noted that the volume of goods would ideally be transported primarily on highways and rail, rather than on local arterial roadways. One challenge is that the freight rail system is currently shared with passenger rail services, limiting the ability of this corridor to transport both goods and people efficiently. The Union Pacific rail corridor through Ventura County serves freight traffic, as well as Metrolink and Amtrak passenger services. The CTP identifies a range of improvements, including double tracking and siding improvements, intended to improve operational efficiency within the rail corridor.

The Port of Hueneme has a significant role in the movement of local, regional, national, and international goods. While the Port is substantially smaller than the port facilities in Los Angeles and Long Beach, it serves an important role in Ventura County and the SCAG region, focusing on the movement of niche products. These include automobiles, agricultural goods, and liquid bulk fertilizer. The Port has an interest in continuing to modernize their operations and invest in zero-emissions technologies. Such investments present an opportunity to ensure that local and regional transportation connections to the port are robust.

Military installations and missions as associated with Naval Base Ventura County and the Channel Islands Air National Guard Station, have needs to be addressed beyond strictly goods movement. For instance, the military has highlighted the value of harmonizing military and community land uses to ensure the equitable use of land while meeting the military's needs. In terms of transit, NBVC is not served by transit service and is difficult to access without a car. The NBVC Joint Land Use Study created recommendations to address climate change, local housing availability, land use, and roadway capacity elements including gate queuing, mobilization corridors, public transit availability and access, and regional circulation through expansion. The military installations also have specific needs related to mobilization and the transfer of military equipment, which would be transported along roadways and freeways in Ventura County. Continued coordination and collaboration between VCTC and the Department of Navy and the Air National Guard is essential to ensure that these military installations have adequate access and are able to fulfill their missions.

The Ventura County Freight Corridors Study identified strategies to strengthen existing freight corridors through controlled access facilities and other existing freight corridor improvements, strengthen the port intermodal corridor, and improve truck supportive infrastructure, while reducing the negative impacts of the freight transportation network. The study aimed to promote a safer, more efficient, and sustainable network.

Improvements to the goods movement network in Ventura County should consider the harmonization of port, military, and general freight operations to improve local and county- wide land use and transportation decisions. As noted above, the RAC expressed interest in further building out rail infrastructure to remove freight trips from the local roadway network, illustrated by the widening of Hueneme Road, for example, which is a vital east-west corridor for regional goods movement. Additionally, encouraging fewer trips by car, more trips by bus, walking and bike infrastructure may all contribute to mitigating negative health and environmental impacts.

Ventura County Comprehensive Transportation Plan

Chapter 7 – SOLUTIONS

Photo Credit: SoCal Transit Studios

The Comprehensive Transportation Plan (CTP) presents a set of solutions to address transportation needs and challenges within Ventura County for the next 20+ years. These solutions build on the analysis presented in Chapters 2, 3, 5 and 6, as well as the community input documented within Chapter 4. The proposed solutions, projects, programs, and strategies are presented as part of three future scenarios. Each scenario builds upon its predecessor, layering on new improvements and projects to create a comprehensive transportation network across Ventura County to support the five goals of the CTP:

- Goal 1: Balance Transportation and Land Use
- Goal 2: Reduce Emissions and Improve Sustainability
- Goal 3: Foster Economic Prosperity
- Goal 4: Improve Multimodal Mobility Choices and Access to Destinations
- Goal 5: Enhance Transportation Safety to Eliminate Deaths and Serious Injuries

A Future Baseline scenario includes projects that currently have an identified source of funding and are reasonably anticipated to be completed within the time horizon of the CTP. This includes all projects

The projects, programs, and strategies outlined in CTP Implementation Scenario present a future transportation network that is forecast to outperform conditions under Future Baseline and provide noticeable benefits in reducing traffic congestion, travel delay, total vehicle miles traveled, and emissions, while providing increased access to multimodal transportation options. Implementation of the full complement of projects contained in CTP Implementation Scenario would require funding beyond that which is expected from traditional sources in Ventura County.

The CTP Visionary Scenario presents the unconstrained transportation network, incorporating the projects identified in the Future Baseline and CTP Implementation, and including a longer list of projects that do not currently have an identified source of funding, may have a project development timeline that extends beyond the horizon year for the CTP, and/or may not be well defined that this stage of planning and development.

Following the presentation of the scenarios and their associated project lists, this chapter compares the performance of all three scenarios for the CTP horizon year. Each scenario was modeled using the Ventura County Transportation Model (VCTM) to

understand how each scenario is forecast to perform in terms of travel delay, vehicle miles traveled, and mode split, among other metrics.

This chapter also summarizes key strategies and programs for VCTC and local jurisdictions to implement to support the project lists and discusses future technology advancements to be monitored to assess their potential impact on mobility and the transportation network in Ventura County.

7.1 Future Baseline Projects

The Future Baseline Scenario consists of a package of multimodal transportation network improvements. Projects are presented below and organized by mode. As noted above, Future Baseline Scenario projects all have a committed source of funding and are anticipated to be implemented within the time horizon of the CTP.

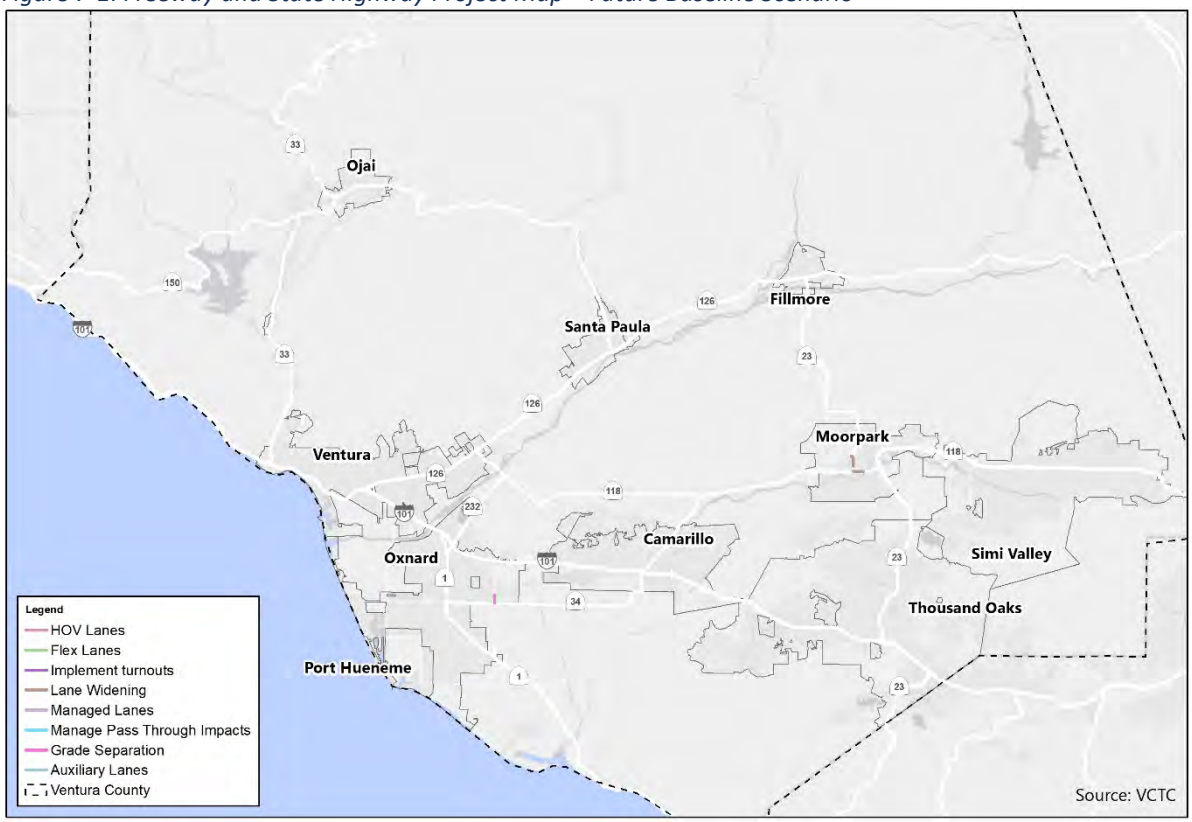
Note that projects marked with a * symbol do not have an impact on the scenario modeling results and were therefore not incorporated into the travel demand modeling process. Similarly, projects marked with a ^ symbol are not presented geographically in the accompanying map. During public comment period for the draft plan, partner agencies noted that construction of a few of the projects in the FTIP were completed earlier than projected. These projects have been marked with a ‡ symbol.

Freeway and State Highway Projects

Table 7-1: Freeway and State Highway Project List – Future Baseline Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Grouped projects for safety improvements, shoulder improvements, pavement resurfacing and/or rehabilitation – minor program*^	VENLS13	At First St/ Poindexter	Moorpark	2025
Grouped projects for pavement resurfacing and/or rehabilitation on the state highway system – roadway preservation projects*^	VENLS02	Countywide	Caltrans	2030
Grouped projects for pavement resurfacing and/or rehabilitation on the state highway system – highway maintenance*^	VENLS11	Countywide	Caltrans	2025
Grouped projects for bridge rehabilitation and reconstruction - widening narrow pavements or reconstructing bridges (no additional travel lanes)*^	VENLS07	Countywide	Caltrans	2025
Grouped projects for safety improvements - SHOPP collision reduction projects (scope: railroad/highway crossing improvements, shoulder improvements, traffic control devices & operational assistance, intersection signalization projects at individual intersections, pavement marking, truck climb lanes outside urbanized areas, lighting improvements, emergency truck pullovers)*^	REG-0701 SBDLS04	Countywide	Caltrans	2030
Grouped projects for safety improvements – SHOPP mobility program projects (scope: railroad highway crossing, shoulder improvements, traffic control devices & operational assistance, intersection signalization projects at individual intersections, pavement marking, truck climbing lanes outside urbanized areas, lighting improvements, emergency truck pullovers)*^	VENLS05	Countywide	Caltrans	2025
Grouped projects for emergency repair – SHOPP emergency response program (scope: repair damage caused by natural disasters, civil unrest, or terrorist acts. Applies to damages that don't qualify for federal emergency relief funds or to damages that qualify for federal emergency relief funds but extend beyond the federal declared disaster period)*^	VENLS10	Countywide	Caltrans	2025
Grouped projects for safety improvements – SHOPP mandates program (scope: railroad/highway crossing, shoulder improvements, traffic control devices & operational assistance, intersection signalization projects at individual intersections, pavement marking, truck climbing lanes outside urbanized area, lighting)*^	VENLS08	Countywide	Caltrans	2025
Widen Route 23 (Moorpark Ave) from 1 lane in each direction to 1 lane NB and 2 lanes SB. Realign First St/Poindexter intersection and upgrade rail crossing.	VEN051213	From Third St to Casey Rd	Moorpark	2021
Los Angeles Ave (0.6 mi) – reconstruct sidewalks, realign roadway and widen from 4 to 6 lanes	VEN34089	Route 23 (Moorpark Ave) to east of Spring	Moorpark	2019
Rice Ave railroad grade separation – includes widening of Rice from Sturgis road to 1350 ft south of Fifth Street	VEN040401	At UPRR Crossing; From Sturgis Rd to 1350' south of Fifth St | Post Miles: begin 6.20 end 6.3	Oxnard	2022

Figure 7-1: Freeway and State Highway Project Map – Future Baseline Scenario

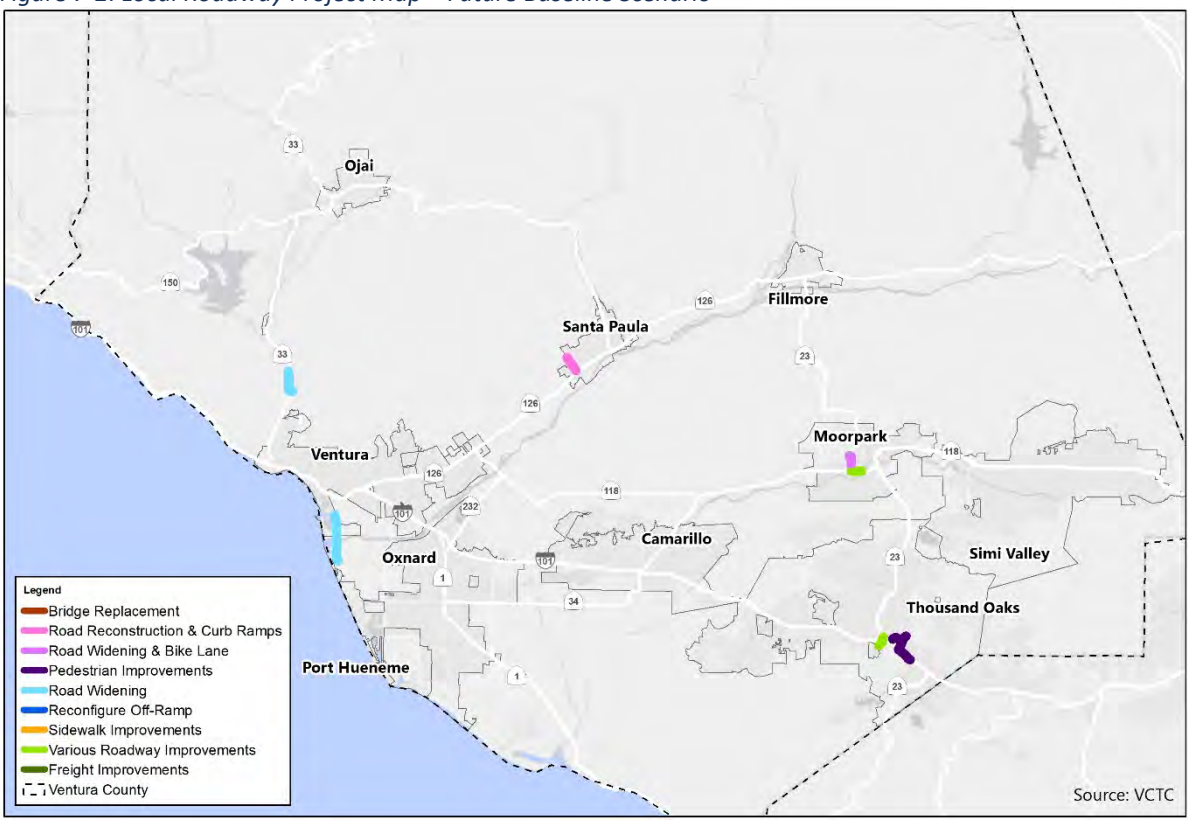


Local Roadway Projects

Table 7-2: Local Roadway Project List – Future Baseline Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Widen Crooked Palm Road to county standards		Ventura Ave west of Route 33 to east of Route 33	Ventura County	2040
Santa Paula on Faulkner Rd and Peck Rd: reconstruct 1/3 mi of roadway and 9 ADA curb ramps on Peck Rd from Faulkner Rd to Santa Paula St	VEN191204	Faulkner and Peck Rd | From Faulkner Rd to Santa Paula St	Santa Paula	
Install left turn phasing at five intersections*^	VEN191203		Simi Valley	
Rancho Rd between Thousand Oaks Blvd and Haaland Dr: add new sidewalks, new/retrofit curb ramps, slope paving at 101 undercrossings, new signal at 101 SB ramps, stripe new Class II, Class III sharrows, modify vehicle striping, modify signal at 101 NB ramps, add Class IV bike lanes	VEN150616	From Thousand Oaks Blvd to Haaland Dr	Thousand Oaks	
Conejo School Rd and Willow Ln between Hillcrest and Hampshire: add missing sidewalk and reconstruct sidewalk segments for ADA. Install new/retrofit curb ramps, PED crosswalk enhancement, stripe new Class II, Class III sharrows, modify vehicle striping	VEN171005	From Thousand Oaks Blvd to Hillcrest	Thousand Oaks	2031
Los Feliz Dr: construct sidewalk, curb and gutter, add handicap ramps	VEN190702	From Thousand Oaks Blvd to Conejo School Rd	Thousand Oaks	
Harbor Blvd to Gonzales Rd: add 2nd SB through lane and 2nd NB through lane		From Gonzales Rd to intersection	Ventura County	
Harbor Blvd from Oxnard city limits to Ventura city limits: widen 1.99 miles of roadway from 2 to 4 lanes	VEN170110/ 5A0720	Oxnard city limits to Ventura city limits	Ventura County	
Santa Clara River Riparian Mitigation for Route 101 Santa Clara Bridge Project. (Ea 31480, Ppno 4740)*^	VEN131203			

Figure 7-2: Local Roadway Project Map – Future Baseline Scenario



Rail Transit Projects

Table 7-3: Rail Project List – Future Baseline Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Ventura County Seacliff siding upgrade and extension	VEN141202/ 5CR104	UPRR Santa Barbara Subdivision, between Milepost 386.38 and Milepost 387.45, in Ventura County, CA	Caltrans	2024
Simi Valley Double Track and Platform Expansion		Ventura County Line: Sequoia Ave - Hidden Valley Dr	Metrolink	2025
Camarillo train station pedestrian undercrossing	VEN120603	Camarillo train station	Camarillo	2024
Expand Moorpark north rail station parking by 30 spaces	VEN181001/	Moorpark north rail station	Moorpark	
Systemwide preventive maintenance for Metrolink commuter rail^	5200T002	Countywide	Metrolink	2029
Systemwide preventive maintenance for Metrolink commuter rail. System-wide preventive maintenance for Metrolink commuter rail including rolling stock facilities, guideways*^	VEN171001	Countywide	Metrolink	2023
Systemwide Metrolink rehabilitation/ renovation including purchase of replacement locomotives with Tier-4 technology, track, signals, platforms, power systems, facilities, rolling stock, equipment, signage^		Countywide	Metrolink	2029

Figure 7-3: Rail Project Map – Future Baseline Scenario

Bus Projects

Table 7-4: Bus Project List – Future Baseline Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Purchase two expansion cut-away paratransit vehicles*^	VEN170704/ 5TL0703	Camarillo	Camarillo	2020
Purchase one replacement cut-away bus for Camarillo Transit-Gas*^	VEN170705/ REG0702	Camarillo	Camarillo	2021
Operating assistance*^	VEN050401/ VEN050401	Camarillo	Camarillo	2029
ADA paratransit service*^	VEN981107/ VEN981107	Camarillo	Camarillo	2029
Camarillo Rail Station and bus maintenance*^	VEN061000/ VEN061000	Camarillo	Camarillo	2029
Payments for certificates of participation for new operations and maintenance facility*^	VEN170108/ REG0702		Gold Coast Transit District	2024
Operating assistance*^	VEN131104/ REG0702	West County	Gold Coast Transit District	2029
Operating assistance – ADA paratransit capital*^	VEN54095	West County	Gold Coast Transit District	2029
Business system upgrade including software and hardware*^	VEN131103/ 5TL0702	West County	Gold Coast Transit District	2029
Transit planning and programming (planning support & ADM)*^	VEN990602	West County	Gold Coast Transit District	2029
Passenger awareness activities (planning support & ADM)*^	VEN54057	West County	Gold Coast Transit District	2029
Preventive maintenance – fixed route & ADA*^	VEN64003	West County	Gold Coast Transit District	2029
Business system upgrades (computer and server replacement)*^		West County	Gold Coast Transit District	2021
Business system upgrades (Finance ER, Payroll, Planning Scheduling Software, servers)*^		West County	Gold Coast Transit District	2022
Expansion of demand response services*^		West County	Gold Coast Transit District	2021
On Demand software to facilitate Microtransit service*^		West County	Gold Coast Transit District	2021
Replacement of fixed route buses-CNG*^	VEN171004/ REG0702	West County	Gold Coast Transit District	2021
Website redesign*^		West County	Gold Coast Transit District	2021
Ventura Rd - construct bus stop improvements*^	VEN180301/ 5TL0706	Oxnard	Oxnard	2019
Dial-A-Ride Service – capital*^	VEN030612	Thousand Oaks	Thousand Oaks	2024
Dial-A-Ride vehicle capital and maintenance service*^		Thousand Oaks	Thousand Oaks	2024
ADA service – paratransit capital*^	VEN150603/ REG0702	Thousand Oaks	Thousand Oaks	2024
Purchase 2 replacement EV buses*^		Thousand Oaks	Thousand Oaks	2029
New bus washer for Thousand Oaks*^	VEN170703/ VEN030611	Thousand Oaks	Thousand Oaks	2025

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Bus stop enhancement for Thousand Oaks Transit*^	VEN101101/ 5TL0706	Thousand Oaks	Thousand Oaks	2023
New transit technologies – Electronic Dispatch, Automated Stop Announcements, Transit Reporting Software, and Projects To Be Determined*^	VEN170111/ 5TL0706	Thousand Oaks	Thousand Oaks	2024
Transit Planning*^	VEN110602/ 5TL0702	Thousand Oaks	Thousand Oaks	2024
At Municipal Center: upgrade fueling station to add new dispensers, fuel control system, and IGHT Emitting Diode Lighting*^		Thousand Oaks	Thousand Oaks	2021
At the Transportation Center on Rancho Rd and the Municipal Service Center on Rancho Conejo Blvd: Construction of EV charging infrastructure*^	VEN150616/ 5TDL04	Thousand Oaks	Thousand Oaks	2024
At Janss Road Park and Ride: new light poles and LED fixtures, new vinyl fencing, asphalt and overlay, installation of additional EV charger, new striping*	VEN191205	Thousand Oaks	Thousand Oaks	2023
Preventive maintenance – fixed route and Dial-A-Ride vehicles and facility including transit centers and bus stops*^		Thousand Oaks	Thousand Oaks	2025
Purchase two trolley-like buses for local circulator service*^	VEN150613/ 5TL04		VCTC	2029
Grouped projects for operation assistance, PLNG, purchase or replace vehicle or maintenance expense –Elderly and Disabled New Freedoms Initiative*^	VEN070202/ 5TL04	Countywide	VCTC	2029
Operating assistance*^	VEN150602/ REG0702	Countywide	VCTC	2029
New buses to replace existing vehicles, operation assistance to transit agencies*^	VEN171002/ REG0702	Countywide	VCTC	2029
Fare collection and ridership monitoring and automotive vehicle locator equipment and maintenance*^	VEN121002/ VEN059401	Countywide	VCTC	2019
Transit Mobility Management Information Center*^	VEN54069	Countywide	VCTC	2024
Elderly/Disabled planning including patron disability evaluation*^	VEN081001/ REG0702	Countywide	VCTC	2020
Transit programming/planning*^	VEN34348	Countywide	VCTC	2029
VCTC bus system planning*^	VEN54115	Countywide	VCTC	2029
Transit outreach activity*^	VEN54070	Countywide	VCTC	2029
Regional Rideshare Program*^	VEN93017	Countywide	VCTC	2021
Transportation Center facility improvements, expand bus boarding area, construct ADA accessible sidewalk and pedestrian pathway improvements, construct EV charging infrastructure*^	VEN120420/ 5TL0706	Thousand Oaks	Thousand Oaks	
Implement Community Service (microtransit) route*^		Simi Valley	Simi Valley	
Purchase 2 electric vehicles for microtransit*^		Simi Valley	Simi Valley	
Electric vehicle charging infrastructure*^		Simi Valley	Simi Valley	
Two fixed-route CNG bus replacements*^		Simi Valley	Simi Valley	
Operating assistance*^		Simi Valley	Simi Valley	

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
ADA/senior paratransit service*^		Simi Valley	Simi Valley	
Bus stop improvements*^		Simi Valley	Simi Valley	
Fixed-route battery electric bus replacements*^		Simi Valley	Simi Valley	
Paratransit battery electric van replacements*^		Simi Valley	Simi Valley	
Simi Valley Transit Center Hub & amenities*^		Simi Valley	Simi Valley	
Purchase electric non-revenue vehicles *^		Simi Valley	Simi Valley	

7.2 CTP Implementation Projects

The CTP Implementation presents a multimodal package of projects that builds on the baseline condition presented in the Future Baseline Scenario and seeks to advance the goals and objectives of the CTP, as presented in Chapter 1. Projects in the CTP Implementation Scenario include projects previously contained in the 2020 SCAG RTP that are not yet fully funded, as well as new projects identified through recent regional planning efforts (US 101 Communities Connected Study, Ventura County Freight Study, etc.), the CTP development process, and those identified or proposed by local agencies in their local planning efforts.

Projects proposed as part of the CTP development process seek to respond to the input and needs identified through the community engagement effort completed in support of the plan. Specifically, many of the new bus transit routes identified in Table 7-8 and the new bicycle facilities identified in Table 7-9 respond to community input and the bicycle and pedestrian propensity analysis presented in Chapter 6.

Funding for projects included in this scenario may come from grants obtained at the state/ federal level or these projects could be funded through a new local funding source should one emerge in the future.

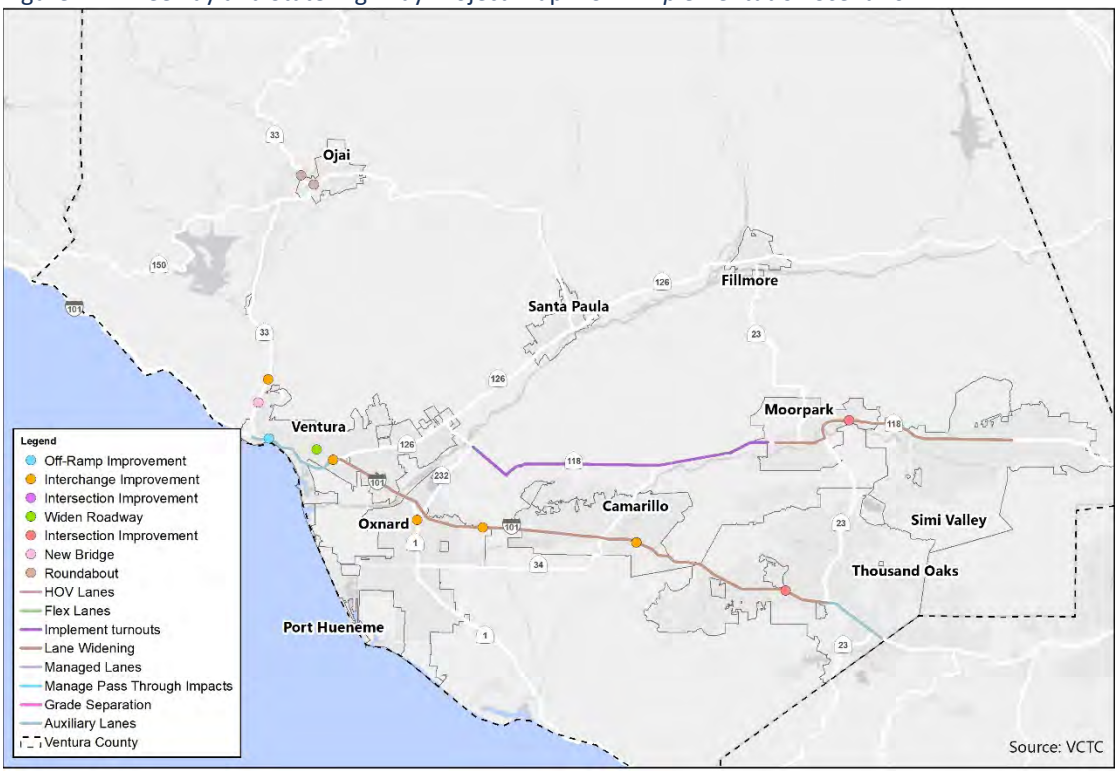
Freeway and State Highway Projects

Table 7-5: Freeway and State Highway Project List – CTP Implementation Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
On SR-118: add one lane in each direction from Route 23 (New LA Ave) to 0.4 mi west of Tapo Canyon Rd. Add second lane each direction from Collins to Madera, and add one lane each direction on Route 23 from 0.8 mi north of Teirra Rejada to LA Ave	VEN131202	0.4 mile west of Tapo Cyn to 0.8 mile north of Tierra Rejada | Post Miles: begin 0.00 end 20.00	Caltrans | Ventura County	2032
Improve US 101 at Pleasant Valley Rd intersection with southbound ramps – widen onramp entrance from 1 to 2 lanes	VEN031226	From Pleasant Valley Rd to Route 101 | Post Miles: begin 12.20 end 12.20	Camarillo	
Reconfigure Central Ave/US 101 interchange in Camarillo including widening Central Ave bridge from 1 to 2 lanes each direction	VEN051210	From Route 101 South interchange ramps to Route 101 North interchange ramps | Post Miles: begin 17.90 end 17.90	Camarillo	2026
Route 101 from Santa Rosa Rd to Central Ave: add auxiliary lanes in NB direction, ramp metering NB and SB	VEN131206/ 7120003	Post Miles: begin 12.20 end 17.80	Camarillo	2023
Widen SB 101 freeway off-ramp to Pleasant Valley Rd from 1 to 2 lanes and modify SB on-ramp to accommodate	VEN190117	From 12 to 12 | Post Miles: begin 12.00 end 12.00	Camarillo	2026
Various minor spot improvements to reduce congestion on SR 33 and SR 150 in Ojai Valley and near Ojai*^	5A0704	Various	Caltrans	2031
SR 118 New Weigh Station*^	5OM0701	SR 23 to Sr 34	Caltrans	
Various locations – LA County line-Moorpark Rd: convert auxiliary lanes to mixed flow lanes, add 1 lane each direction by shifting centerline northwards & widening on NB side, realign & widen ramps, construct soundwalls (ea 195211, 19522), widen 3 bridges on northside (Hampshire UC, Conejo School UC, & Moorpark UC); Improve Route 101/Route 23 connectors	VEN011205/ VEN011205	Countywide	Thousand Oaks	
Improve northbound Pleasant Valley Road on-ramp to southbound 101 freeway on the southeast portion of the interchange at PM 12	VEN190116/ 7120003	Pleasant Valley at US 101	Camarillo	2021
SR 118 and Collins Drive interchange and signal improvement. Widen WB off-ramp to add a free right- turn lane and signal modification.		SR 118 at Collins Dr	Moorpark	2026
SR 33 Roundabout at SR 150	5A0705	At SR 150	Ojai	2027
SR 33 Roundabout at Cuyama Rd	5A0706	At Cuyama Rd	Ojai	2026
SR 33 new two-lane freeway bridge for SB traffic	5A0701	at Stanley Avenue	Ventura	2037
On US 101: reconfigure NB California St offramp (reconfigure ramp to terminate at Oaks St instead of the current California St location)	VEN010202/ VEN010202	California St at US 101	Ventura	2025
US 101 add auxiliary lanes	5160005	Johnson Ave to Flynn off Ramp	VCTC	2040

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Misc. ITS Project Implementation*^	5ITS04	Countywide	VCTC	
Retrofit Soundwall Program*^	5O0702	Countywide	VCTC	
Add one HOV lane in each direction along US 101	5160001	US 101: Los Angeles County Line to SR 33	Caltrans/VCTC	2029
Intersection improvement US 101 at Lynn Road	CI4231	US 101 & Lynn Rd	Caltrans	2024
Route 33 Stanley Ave/Shell Rd improvements at interchanges and merge sections of Route 33		SR 33 & Shell Rd	Caltrans	
Interchange improvement (US 101/Del Norte Blvd)		101/Del Norte Blvd	Caltrans	
Route 232 (Vineyard Ave) pedestrian crossing*^		SR 232/ Vineyard Ave	Caltrans	
Implement turnouts along SR 118 for freight vehicles allowing traffic to pass		Santa Clara Ave - Bradley Ave	Caltrans	2030
Widen SR-118 from two to four lanes and implement traffic safety improvements		SR 118: Buttercreek to Vineyard Ave	Caltrans	2045
SR 126 Westbound to US 101 Southbound Connector		SR 126/US 101 interchange	Caltrans	
Improve freight efficiency by reducing localized congestion, improving safety and limiting community impacts*^		(Fillmore) SR 126: E St - Trestle Way; (Piru) SR 126: Pacific Ave - Piru Creek	Caltrans	

Figure 7-4: Freeway and State Highway Project Map – *CTP Implementation Scenario*



Local Roadway Projects

Table 7-6: Local Roadway Project List – CTP Implementation Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Main Street Bridge Replacement in Ventura	CIP - 91060	Peking Sr – Milling Rd	Ventura	2024
Reconfigure NB California St offramp to terminate at Oaks St	VEN010202	From start of California St NB onramp to end of California St NB onramp | Post Miles: begin 30.10 end 30.10	Ventura	
Add one HOV lane on Route 101 in each direction and auxillary lanes at various locations		From Moorpark Rd to Route 33 | Post Miles: begin 4.10 end 30.90	VCTC	
Las Posas Rd from Ventura Blvd to Pleasant Valley Rd: widen from 4 to 6 lanes	VEN051211/ VEN051211	From Ventura Blvd to Pleasant Valley Rd	Camarillo	2024
Las Posas Rd and Pleasant Valley Rd intersection: widen Las Posas from 4 to 6 lanes and Pleasant Valley from 2 to 4	VEN/131205 5A0721	From Pleasant Valley Rd to Las Posas Rd	Camarillo	2024
US 101: replace Hampshire Rd undercrossing structure, bridge number 52-0273. Widen Hampshire Rd to provide additional left turn lane in NB direction between SB and NB ramps. In SB direction provide additional through lane between NB ramps and Willow Ln and an additional left turn lane between SB and NB ramps. Class II bike lanes and widen NB onramp to 3 lanes	VEN/210201 620A1L01	From Willow Rd to NB ramps	Thousand Oaks	
Hueneme Rd from Oxnard city limits to Rice Rd: widen from 2 to 4 lanes	VEN011202	From Oxnard city limit to Rice Rd	Ventura County	
Hueneme Rd from Rice Rd to Las Posas Rd: widen 3.66 road miles to 4 lanes	VEN/170109 9999	From Rice Rd to Las Posas Rd	Ventura County	
Stanley Avenue/ SR 33: New 2 lane Freeway Bridge for SB Traffic	5A0701	Stanley Avenue/ SR 33	City of Ventura	2037
Widen Ponderosa Drive from 2 to 4 lanes	5160006	Las Posas to Springville	Camarillo	2016
Widen Central Ave from 2 to 4 lanes and add bike lane	VEN131207/ 5A0725	Us 101 to City Limit	Camarillo	2024
Widen Lewis Road from 2 to 4 lanes	VEN131204/ 5AL07	Ventura Blvd to North City Limit	Camarillo	2024
Las Posas Road at Daily Drive: intersection improvements, widen northbound Las Posas Road to WB Daily Drive to provide dual left turn lanes	VEN190115/ 5A0721	Las Posas Rd to Daily Drive	Camarillo	2024
Widen Las Posas Rd from 4 to 6 lanes	5A0721	Ventura Blvd to Pleasant Valley Road	Camarillo	2024
Adolfo Rd extension (2 lane road)	VEN54019/ VEN54019	Conejo Creek to Camarillo Springs Rd/ US 101	Camarillo	2024
North Hills Parkway (4 lane freeway)	5A0743	Princeton to Westerly City Limit	Moorpark	
Princeton Avenue widening and realignment	5A0713	SR 118 to Spring Road	Moorpark	2020
Topa Topa St Extension	5A0715	Fox St to Montgomery St	Ojai	2025

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Hermosa Rd and SR 150 intersection Improvements	5A0746	Hermosa St at SR 150	Ojai	2024
Pearl St Gap Closure Extension	5A0743	Fox St to Bald St	Ojai	2026
Ventura Blvd new sidewalk, curb, and gutter	VEN120403	Balboa St to Rose Ave	Oxnard	2023
Olivas Park Drive construction (4 lanes)	5A0723	Perkin Ave to Auto Center	Ventura	2026
Widen Tapo Canyon Road to add an additional lane in each direction (from 2 to 4 lanes) and a divided center median	VEN131202/ 5120001	Walnut to Lost Canyon	Simi Valley	2026
Widen south side of Los Angeles Avenue by adding a lane (from 4 to 5 lanes both directions - currently 2 lanes each direction)	5A0730	Orchid to Sycamore and Sequoia to Darrah	Simi Valley	2024
Widen Stearns Street to add a lane in each direction	5A0734	Cochran to Leeds	Simi Valley	2026
Widen Tapo Channel Bridge at Los Angeles Avenue to add one lane in each direction	5A0735	1250 ft west of Sycamore to 1000 ft east of Sycamore	Simi Valley	2024
New Street with two travel lanes*^		Flanagan to Evening Sky	Simi Valley	2026
Widen Tapo Street from 2 to 4 lanes	5A0738	Walnut to Presidio	Simi Valley	2024
Los Angeles Street Grade Separation	5G0701	At UPRR Crossing	Simi Valley	2032
Widen Channel Islands Blvd from 2 to 4 lanes	5160003	Rice to Oxnard City Limit	County	2032
Widen Olivas Park Drive from 2 to 4 lanes	5160004	Telephone to Victoria	County	2032
Widen Los Angeles Avenue from 2 to 4 lanes and widening improvements to SR 118 within Saticoy	5160008	Route 232 to Santa Clara Ave	County	2032
Central Avenue widen from 2 to 4 lanes	5160009	Camarillo City Limit to Santa Clara Ave	County	2034
Signalization of intersection and construct second northbound and second southbound through lanes on Pleasant Valley Rd	VEN130104/ 5A0709	Pleasant Valley at 5th Street	County	2021
Realign Hitch Blvd with Grimes Canyon Rd and intersection improvements		At SR 118	County	2032
Harbor Blvd: add 2nd SB land and 2nd NB lane[24]	VEN170105/ 5A0708	At Gonzales Rd	County	2032
Rice Avenue at Channel Island Blvd - add 3rd SB and 3rd NB lane and SB right turn lane		At Channel Island Blvd	County	2024
Somis/SR 118/Donlon intersection: add EB right/ left turn lanes, NB left/right turn lanes, WB increasing from 1 to 2 left turn lanes		Donlon to SR 34	County	2017
Widen Santa Clara Ave from 2 to 4 lanes		North of Oxnard city limit to SR 118	County	2034
Harbor Blvd widening from 2 to 4 lanes[24]	VEN170110/ 5A0720	Oxnard City Limit to Ventura City Limit	County	
Pleasant Valley widening from 2 to 4 lanes	5A0721	Dodge to Las Posas Rd	County	2034
Victoria Avenue widening from 4 to 6 lanes	5A0722	Gonzales to Ventura City Limit	County	2031

24. Ventura County Public Works noted that the implementation these projects by their projected build years may be cost-prohibitive as they may not receive funding from traditional sources which may impact scenario timing.

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Countywide Arterial Roadway Corridor Traffic Signal Coordination Program*^		Gonzales Rd: Rice Ave - N Victoria Ave; Victoria Ave: Olivas Park Dr - Channel Islands Blvd; W Channel Islands Blvd: Saviers Rd - Victoria Ave; Oxnard Ave: Town Center Dr - Pleasant Valley Rd; Pleasant Valley Rd: Pacific Rd - Oxnard Blvd; Thousand Oaks Blvd: Moorpark Rd - Lakeview Canyon Rd; Olsen Rd: SR 23 - Royal Ave	Various	
Add new collector street*^		Floral Drive - Shell Road	Ventura County	
Permit travel by freight vehicles along Hueneme Road		Wood Rd - Port of Hueneme	City of Oxnard, City of Port Hueneme, Ventura County, Port of Hueneme	2030
Improve truck supportive infrastructure*^		Port Hueneme	Port of Hueneme	
Expand EV charging stations at key travel demand locations		CSU Channel Islands, Camarillo Premium Outlets, Naval CBC Port Hueneme, the Collection at RiverPark, Oxnard Airport, Moorpark College, Los Robles Regional Medical Center, Rancho Santa Susana Community Center, Downtown Ventura, Ventura Transit Center	Various	2030
Create ongoing funding program targeted to repair, resurface, and repave existing local streets and roads*^		Countywide	Various (VCTC Administered)	
Create ongoing funding program targeted to implement complete street improvements (including transit upgrades, bicycle facilities, and pedestrian facilities)*^		Countywide	Various (VCTC Administered)	
Harbor Boulevard at Gonzales Road Enhancement - add 2 SB through lanes and 2 NB through lanes		Gonzales Rd - W 5th St	Ventura County	2030
Freight truck access improvements at Port Hueneme, especially during peak traffic hours*^		Port of Hueneme	Port of Hueneme	

Figure 7-5: Local Roadway Project Map – CTP Implementation Scenario

Rail Transit Projects

Table 7-7: Rail Project List – CTP Implementation Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Southern California Optimized Rail Expansion (SCORE) increase Metrolink service to 30-minute headways to Moorpark^		Moorpark to Ventura County Line	Metrolink	
Coordinate Metrolink train arrivals with transit connections from Simi Valley Transit, Moorpark City Transit, Camarillo Area Transit, GCTD		Simi Valley Metrolink Station, Moorpark Metrolink Station, Camarillo Metrolink Station, Oxnard Transit Center, East Ventura Metrolink, Ventura Transit Center, and the Ventura Amtrak Station	Simi Valley Transit, Moorpark City Transit, Camarillo Area Transit, GCTD	2025
Improve rail corridor fencing/ pedestrian rail crossings*		Simi Valley Metrolink Station, Moorpark Metrolink Station, Camarillo Metrolink Station, Oxnard Transit Center, East Ventura Metrolink, Ventura Transit Center, and the Ventura Amtrak Station	Metrolink, UPRR, County and rail corridor Cities	
Create countywide funding program for rail crossing safety upgrades, allowing for creation of quiet zones*^		Countywide	Metrolink, UPRR, VCTC, County and rail corridor Cities	
Metrolink Commuter Rail Service Improvements*^		Countywide	Metrolink	2025
Metrolink Commuter Rail Service Improvements *^	5CR104	Countywide	VCTC/ Metrolink	2025

Figure 7-6: Rail Project Map – CTP Implementation Scenario

Bus Transit Projects

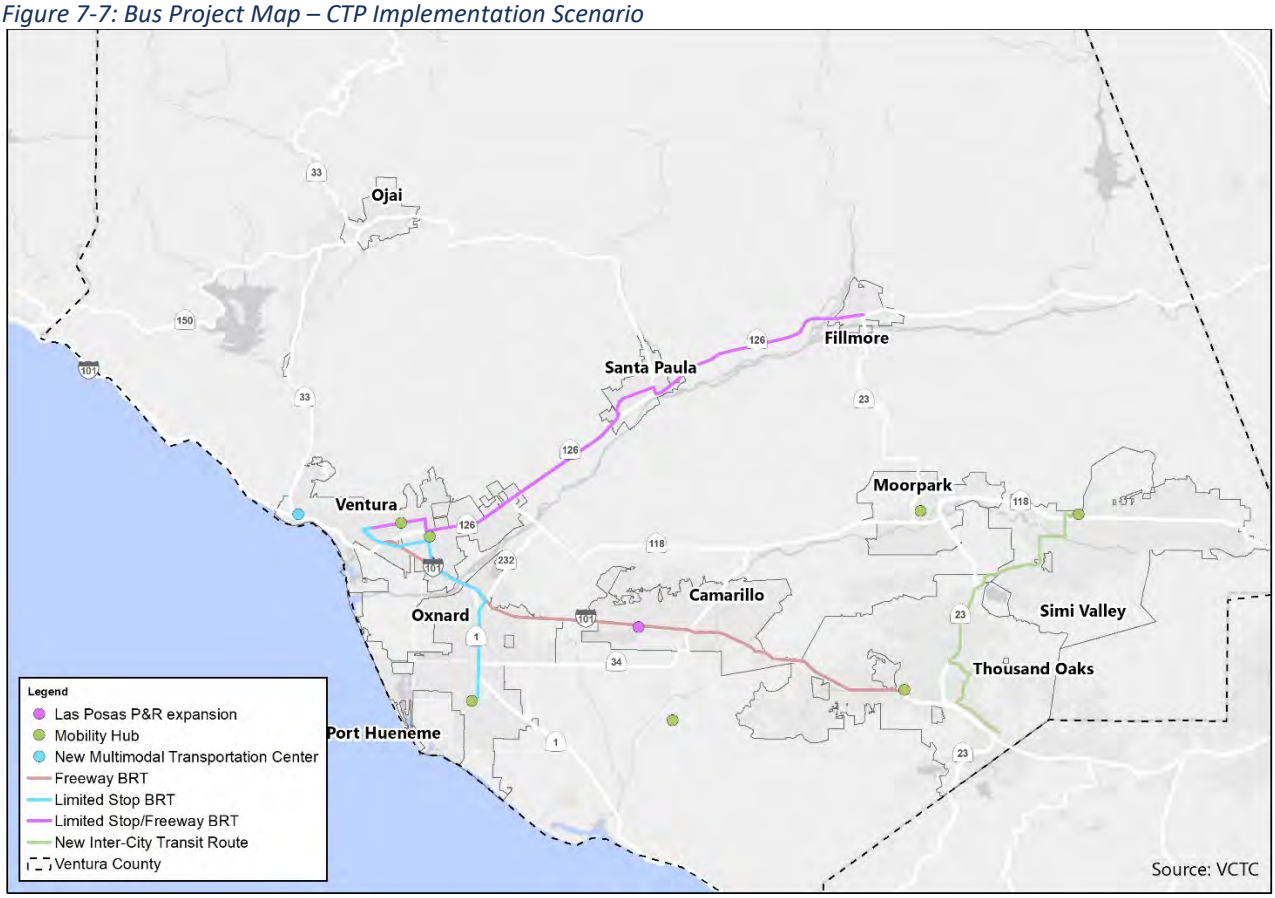
Table 7-8: Bus Project List – CTP Implementation Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Las Posas Park and Ride Parking Lot Expansion	ST-5070	Park N Ride Blvd, Camarillo, CA 93010	Camarillo	2024
Designate areas as mobility hubs where passengers can more easily transfer between services across transit agencies*^				
Business System Upgrades (computer and server replacement)*^			Gold Coast Transit District	2030
Expansion of demand response vehicles (microtransit)*^		South Oxnard	Gold Coast Transit District	2029
Expansion of fixed route buses (CNG)*^		Countywide	Gold Coast Transit District	2026
Expansion of fixed route buses (ZEB)*^		Countywide	Gold Coast Transit District	2030
Facility battery storage and solar panel systems*^			Gold Coast Transit District	2023
Fuel station upgrades (hydrogen)*^			Gold Coast Transit District	2024
Maintenance truck*^			Gold Coast Transit District	2025
Relief car-sedan*^			Gold Coast Transit District	2027
Replacement of demand response vehicles*^			Gold Coast Transit District	2030
Replacement of fixed route buses (CNG)*^			Gold Coast Transit District	2028
Replacement of fixed route buses (ZEB)*^			Gold Coast Transit District	2024
Ventura Rd. bus stop construction Phase II*^		Ventura Rd.	Gold Coast Transit District	2023
Grouped projects for operating assistance, planning, replace vehicles or min exp. – jobs access reverse commute projects*^			VCTC	2029
VCTC Intercity capital lease/maintenance contract*^	VEN54036/ VEN54036		VCTC	2029
New Multimodal Transportation Center in Downtown Ventura*	5TC0701	Ventura Ave/Santa Clara St	City of Ventura/VCTC	2026
Wells Center bus stop improvements including new sidewalk with retainingwall, access ramps, additional bus shelter, and landscaping*^	VEN171006	Wells Road from Carlos to Citrus	Ventura	2021
Countywide transit service expansion*^	5TL04	Fillmore to Oxnard, South Oxnard to Camarillo, service to Central Ave. in Camarillo, connections to Metrolink/ service to Los Angeles	Various operators/ cities	2039
Transit planning & application*^			VCTC	2039

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Countywide paratransit expansion*^		Fillmore to Oxnard, South Oxnard to Camarillo, service to Central Ave. in Camarillo, connections to Metrolink/ service to Los Angeles	Various operators/ cities	2039
Countywide new transit facility improvements - introduce WiFi, charging stations, shade structures*^		Thousand Oaks, Camarillo	Various operators/ cities	2039
Create countywide fund or program for transit station/stop safety improvements*^		Countywide	Various operators/ cities	
New Mobility Hub at Moorpark Metrolink Station: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); VCTC routes 70,72,73, 73X, 77		Moorpark Metrolink Station	Moorpark	2030
New Mobility Hub at Simi Valley Town Center: VCTC Routes 70, 72, 73, 73X, 77		Simi Valley Civic Center	Simi Valley	2030
New Mobility Hub at the Oaks Mall: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); Thousand Oaks Transit Routes 40,41,42,43; VCTC Routes: 50,70,73		Oaks Mall	Thousand Oaks	2030
New Mobility Hub at C Street Transfer Center: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); VCTC Route 99		C Street Transfer Center	Oxnard	2030
New Mobility Hub at Cal State Channel Islands: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); VCTC Route 99		Cal State Channel Islands	CSUCI	2030
New Mobility Hub at Ventura College: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); GCTD Route 6		Ventura College	City of Ventura/ Ventura College	2030
New Mobility Hub at Ventura County Government Center: Micromobility bike share, enhanced TNC PUDO, enhanced station amenities (WiFi, EV charging stations, tech charging hubs); GCTD Route 11		County of Ventura Government Center	County of Ventura/City of Ventura	2030
Distribute informational materials on how to ride transit*^			VCTC	
Freeway-based Bus Rapid Transit route using US 101 HOV Lane		Downtown Ventura to Thousand Oaks	VCTC/ Caltrans	2035
Limited stop/BRT "Lite" route along Saviers, Oxnard Blvd, US 101, Victoria Ave, Telephone Rd, Main St		C Street Transfer Center to Ventura Transit Center	GCTD/VCTC	2030
Limited stop/Freeway BRT route along SR-126		Fillmore and Santa Paula to Ventura Transit Center	VCTC/cities	2035

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
New inter-city transit route between Simi Valley and T Oaks via First, Los Angeles, Madera, SR 23, Janss, Erbes, T Oaks Blvd		Simi Valley Civic Center to Thousand Oaks T Blvd/ Westlake Blvd	Simi Valley/T Oaks	2035
Curb Management/Rideshare Pick-Up/Drop-Off Pilot Projects*^		Downtown Ventura, Thousand Oaks, Simi Valley, Oxnard	Various	2025
Shuttle/bus service to Point Mugu*^		Various	Various	

Figure 7-7: Bus Project Map – CTP Implementation Scenario



Active Transportation Projects

Table 7-9: Active Transportation Project List – CTP Implementation Scenario[25]

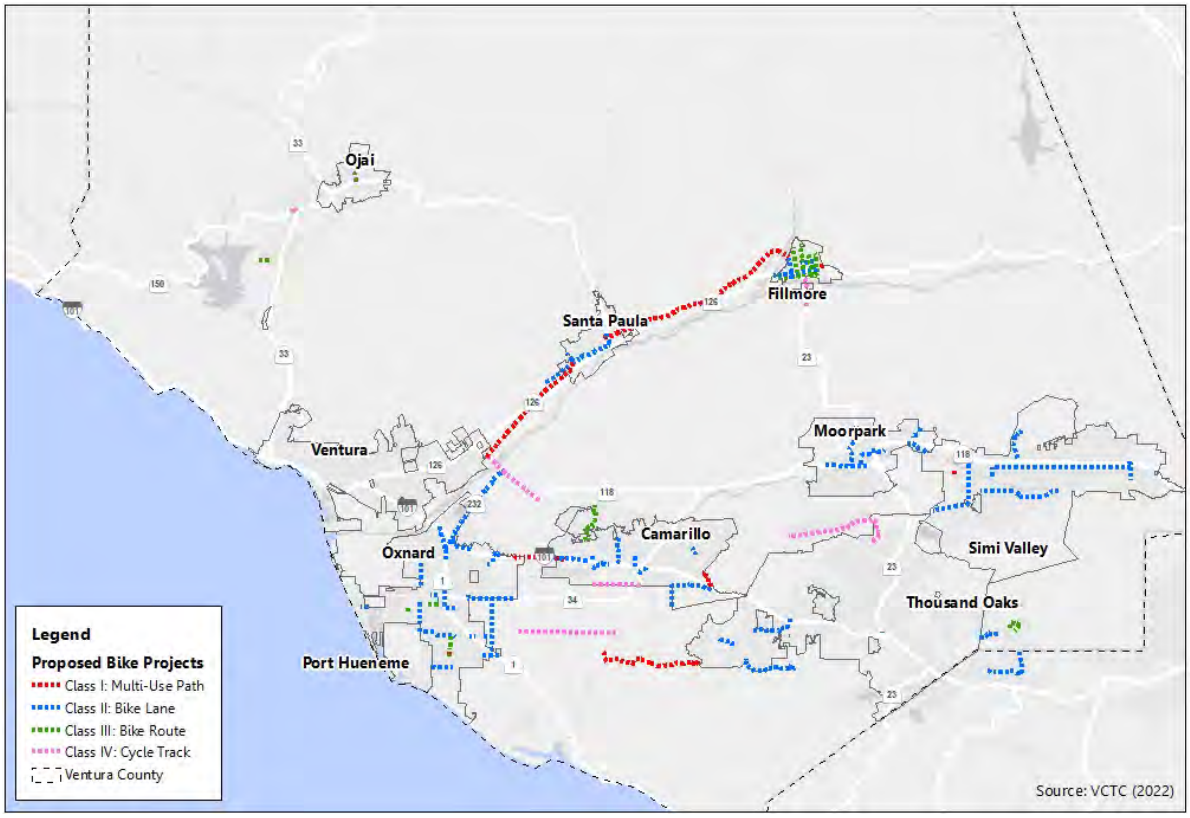
Class	Name	From	To	Miles	Jurisdiction
1	Railroad	Los Angeles Ave	Peck Rd	5.43	Unincorporated
1	Ventura Blvd	Del Norte Blvd	Verdulera St	1.93	Camarillo
1	Stargaze Pl	Algonquin Dr	Tierra Rejada Rd	0.18	Simi Valley
1	Ventura Blvd	Almond Dr	Ventura Freeway	0.16	Oxnard
1	Potrero Rd	Hueneme Rd	Via Acosta	4.65	Unincorporated
1	Railroad	Davis St	Goodenough Rd	8.86	Unincorporated
1	Dirt Road	Conejo Creek	Camarillo Springs Rd	0.72	Camarillo
1	Johnson Creek Park	Yucca St	Bard Rd	0.22	Oxnard
1	Bike Path Undercrossing	Santa Paula Branch Railroad	Route 126	0.20	Fillmore
2	Oxnard Blvd	Wagon Wheel Rd	Gonzales Rd	1.18	Oxnard
2	Spur Dr	Oxnard Blvd	Esplanade Dr	0.05	Oxnard
2	Vineyard Ave	Oxnard Blvd	Los Angeles Ave	4.11	Oxnard
2	Telegraph Rd	Briggs Rd	Ojai Rd	3.16	Santa Paula
2	Peck Rd	Santa Paula St	Telegraph Rd	0.49	Santa Paula
2	Ventura Blvd	Las Posas Rd	Camarillo Center Dr	0.75	Camarillo
2	Central Ave	Ponderosa Dr	Ventura Blvd	0.38	Camarillo
2	Carmen Dr	Las Posas Rd	Daily Dr	1.01	Camarillo
2	Amber Rd	Parkway Dr	Temple Ave	0.13	Camarillo
2	Woodcreek Rd	Mission Oaks Blvd	Santa Rosa Rd	0.38	Camarillo
2	Pleasant Valley Rd	J St	Squires Dr	0.90	Oxnard
2	Channel Islands Blvd	Ventura Rd	Paula St	1.55	Oxnard
2	Ventura Rd	7th St	Channel Islands Blvd	1.14	Oxnard
2	7th St	D St	C St	0.07	Oxnard
2	5th St	Hobson Way	C St	0.39	Oxnard
2	Ventura Rd	Gonzales Rd	2nd St	1.08	Oxnard
2	Erringer Rd	Legends Dr	Alamo St	1.33	Simi Valley
2	Cochran St	1st St	Yosemite Ave	5.75	Simi Valley
2	Yosemite Ave	Mount Sinai Dr	Los Angeles Ave	0.79	Simi Valley
2	1st St	Cochran St	Los Angeles Ave	0.50	Simi Valley
2	Royal Ave	Sinaloa Rd	Sequoia Ave	3.42	Simi Valley
2	Madera Rd	Country Club Dr	Cochran St	3.29	Simi Valley

25. During the public comment period, VCTC received a list of suggested projects, including approved ATP/Congestion Mitigation Air Quality projects from the City of Thousand Oaks, the realization of the proposed bicycle wayfinding route between Camarillo and Thousand Oaks, and the City of Ventura's recently adopted 2023-2027 Capital Improvement Program. These projects will be incorporated into these lists at a later time.

Class	Name	From	To	Miles	Jurisdiction
2	Los Angeles Ave	Gabbert Rd	Science Dr	1.82	Moorpark
2	Spring Rd	2nd St	Los Angeles Ave	0.27	Moorpark
2	Walnut Canyon Rd	Marine View Ln	Los Angeles Ave	1.86	Moorpark
2	Campus Rd	Campus Park Dr	University Dr	0.67	Moorpark
2	Thousand Oaks Blvd	Reyes Adobe Rd	Kanan Rd	1.41	Unincorporated
2	Adohr Ln	Pleasant Valley Rd	Camarillo Springs Rd	1.87	Camarillo
2	Pancho Rd	Pleasant Valley Rd	Howard Rd	0.96	Camarillo
2	Arneill Rd	Ponderosa Dr	Ventura Blvd	0.48	Camarillo
2	Dawson Dr	Lewis	Petit St	0.47	Camarillo
2	Channel Islands Blvd	Rose Ave	Rice Ave	0.63	Oxnard
2	Rice Ave	5th St	Pleasant Valley Rd	2.28	Oxnard
2	Ross Ave	Eastman Ave	5th St	0.09	Oxnard
2	Oxnard Blvd	Colonia Rd	Wooley Rd	1.14	Oxnard
2	Wooley Rd	Saviers Rd	Richmond Ave	0.49	Oxnard
2	Wooley Rd	Harbor Blvd	Chesapeake Rd	0.35	Oxnard
2	Solar Dr	Gonzales Rd	Graves Ave	0.21	Oxnard
2	Daily Dr	Central Ave	Spring Oak	1.80	Camarillo
2	Las Posas Rd	Ponderosa Dr	Ventura Freeway	0.22	Camarillo
2	Daily Dr	Lantana St	Brently Ave	0.20	Camarillo
2	Via Rio	Via Las Brisas	Greenway Ave	0.77	Thousand Oaks
2	Potrero Rd	Reino Rd	Hidden Valley Rd	2.50	Thousand Oaks/ Unincorporated
2	Arroyo Dr	Collins Dr	Paseo del Verda	1.03	Moorpark
2	Ventura Blvd	Rice Ave	Nyeland Ave	0.24	Oxnard
2	Rice Ave	Ventura Blvd	Gonzales Rd	0.49	Oxnard
2	5th St	Ross Ave	Del Norte Blvd	1.86	Oxnard
2	Ventura St	Railroad	Mountain View St	1.85	Fillmore
2	C St	Old Telegraph Rd	River St	0.90	Fillmore
2	1st St	Yucca Dr	Mountain View St	0.61	Fillmore
2	Borchard Rd	Reino Rd	Hillcrest Dr	1.90	Thousand Oaks
2	Rockfield St	Lindero Canyon Rd	Kanan Rd	0.90	Unincorporated
2	Princeton Ave	Spring Ave	Condor Dr	1.08	Moorpark
2	Ventura Blvd	Vineyard Ave	Rose Ave	1.17	Oxnard
2	Ojai Rd	Santa Paula St	Telegraph Rd	0.50	Santa Paula
2	Kanan Rd	Tamarind St	Thousand Oaks Blvd	1.03	Unincorporated
2	Rancho Rd	Thousand Oaks Blvd	Haaland Dr	0.06	Thousand Oaks
3	River St	E St	Mountain View St	1.64	Fillmore
3	A St	Goodenough Rd	River St	1.21	Fillmore
3	Mountain View St	3rd St	Heritage Valley Prkway	0.91	Fillmore
3	Cloyne St	Channel Islands Blvd	Bard Rd	0.65	Oxnard

Class	Name	From	To	Miles	Jurisdiction
3	Novato Dr	Wooley Rd	Hill St	0.30	Oxnard
3	9th St	Hobson Way	C St	0.46	Oxnard
3	Santa Ana Blvd	Santa Ana Rd	Monte Via	0.59	Unincorporated
3	Signal St	Grand Ave	Ojai Valley Trail	0.53	Ojai
3	E St	Cottonwood Ln	Ventura St	0.03	Fillmore
3	Doubletree Rd	Kanan Rd	Kanan Rd	0.84	Unincorporated
3	Fairway Dr	Center School Rd	Crestview Ave	1.73	Camarillo
3	Central Ave	3rd St	Heritage Valley Prkway	0.88	Fillmore
3	Heritage Valley Parkway	Central Ave	Mountain View St	0.28	Fillmore
3	B St	Goodenough Rd	River St	1.18	Fillmore
4	Los Angeles Ave	Nardo St	Santa Clara Ave	2.89	Unincorporated
4	Chambersburg Rd	Gasway Dr	Pasadena Ave	1.20	Fillmore
4	Baldwin Rd	Rice Rd	Ventura Ave	0.28	Unincorporated
4	Santa Rosa Rd	Yucca Dr	Joel Ln	4.77	Unincorporated
4	Pleasant Valley Rd	Las Posas Rd	Lewis Rd	2.01	Camarillo
4	Pleasant Valley Rd	Laguna Rd	Lewis Rd	4.18	Unincorporated

Figure 7-8: Active Transportation Project Map – CTP Implementation Scenario



7.3 CTP Visionary Scenario Projects

The CTP Visionary Scenario contains a set of transportation projects that would enhance the Ventura County transportation network beyond the package of projects, programs, and strategies contained in Future Baseline and CTP Implementation Scenarios. The CTP Visionary Scenario projects are intended to build on the CTP Implementation package of projects, identifying projects and improvements that either do not currently have a defined pathway to funding, the project specifics are not yet well-defined due to a need for additional study, or project costs and timelines would extend implementation of the projects beyond the Year 2040 horizon for this CTP.

Freeway and State Highway Projects

Table 7-10: Freeway and State Highway Project List – CTP Visionary[26]

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Flex lanes along freeways to accommodate changes in traffic volumes in the AM vs PM: (additional lane SB in AM and additional lane in NB in PM)		US 101: SR 23 - SR 126	Caltrans	2040
Managed lane additions along US 101 between Moorpark Rd and SR 33		Moorpark Rd - SR 33		
Managing pass-through traffic impacts *^				
Implement a single reversable HOT lane (additional lane SB in AM and additional lane in NB in PM) on US 101 to serve AM and PM peak travel flows		US 101: SR 23 - SR 126	Caltrans	2040
Interchange improvements along US 101 at Del Norte Blvd, Victoria Rd, S Westlake Blvd, & at SR 126: Del Norte Blvd. – improve interchange, Widen Del Norte Bridge over 101 (From Ventura Blvd. to US 101 SB Ramps) from 2 to 4 lanes plus left turn lane. Add NB loop on-ramps and realign and improve other ramps, including bicycle friendly ramps		Various	Caltrans, various cities	2030
US 101 Beach + Town - Cap over US 101 in Downtown Ventura for three blocks*^	S5121001	Downtown Ventura	Caltrans/ Ventura/VCTC	
Coordinate with NBVC and Caltrans to program needed improvements on US 101 associated with access to the installation*^		Countywide	Caltrans	
Implement recommendations from the US 101 Wildlife Tracking Study to promote connectivity, including potential improvements for wildlife crossings across US 101*^		US 101 in Ventura County	Caltrans/VCTC	

The Casa Conejo Municipal Advisory Council also suggested the addition of a fourth lane on US 101 from SR 23 west to Conejo Grande in both directions. This project will be incorporated at a later time.

Figure 7-9: Freeway and State Highway Project Map – CTP Visionary Scenario

Rail Transit Projects

Table 7-11: Rail Project List – CTP Visionary Scenario

PROJECT	PROJECT #	LIMITS	JURISDICTION	BUILD YEAR
Moorpark to Simi Valley Double Track*^		MP 438.1-MP427.2	Metrolink	2025
Introduce rail service between Ventura and Santa Barbara Counties*^		From existing end of Ventura County Line	Metrolink	
Seacliff Curve Realignment^	VEN141202	LOSSAN Corridor in Ventura County	Metrolink	2024
Replace Arroyo Simi Bridge*^		At bridge	Metrolink	
Moorpark Area Maintenance Facility Buildout*^		Moorpark	Metrolink	
Second Main Track^		Control Point (CP) Las Posas to MP 423	Metrolink	
Leesdale Siding Extension: Siding extension to allow operational flexibility between Oxnard and Camarillo*^		LOSSAN Corridor in Ventura County: Ventura - Camarillo	Metrolink	
Oxnard Station Second Platform*^	VEN210607/ 6A98P01	Oxnard Station	Oxnard	2030
Santa Paula Branch Line Rail Improvements*^	5N011	Montalvo to Los Angeles County Line	VCTC	
New second Metrolink station in Simi Valley		Simi Valley	Simi Valley	

Bus Transit Projects

Table 7-12: Bus Project List – CTP Visionary Scenario

PROJECT	PROJECT #	JURISDICTION	BUILD YEAR
Designate areas as mobility hubs where passengers can more easily transfer between services across transit agencies*^		Various	
Time transit services along popular O-D pairings so travelers can make easier transfers*^		Various	
Implement Kiss & Ride locations for TNC PUDO*^		Various	
Introduce WiFi at transit stations*^		Various	
Introduce charging stations at transit stations*^		Various	
Introduce shade structures at transit stops*^		Various	
Expand GCTD service in the western portion of Ventura County*^		Gold Coast Transit District	
Expand paratransit service for forecasted aging populations*^		Various	
VCTC Countywide Bus Expansion*^		VCTC	2039
Oxnard Bus Route 23 Bus Stop Improvement*^		TBD	
Ventura Avenue and Santa Clara Street Mobility Hub*^		Gold Coast Transit District, VCTC, City of Ventura	
Introduce service between Fillmore and Moorpark*^		TBD	
Introduce service between Santa Clarita River Valley and Santa Clarita*^		TBD	
Introduce bus-on-shoulder service*^		TBD	
Ventura Avenue and Santa Clara Street Mobility Hub*^		Gold Coast Transit District	
Pedestrian Improvements within 1/4 mile of HQTA's*^		Gold Coast Transit District	
Implement GCTD Bus Stop Improvement Plan*^		Gold Coast Transit District	
Implement 15 min or better frequency on HQTC's/other highly utilized corridors*^			

Active Transportation Projects

Table 7-13: Bike Project List – CTP Visionary Scenario

PROJECT	PROJECT #	JURISDICTION	BUILD YEAR
Class IV bike lane on Ventura Rd*^		Ventura	2040
Class I bikeway along Crooked Palm Rd*^		Ventura County	2040
Class I Ojai/Ventura bike path*^		Various	
Connect bikeways to provide direct access between business park and a potential Metrolink transit station serving the western portion of Simi Valley*^		Various	
Ventura River Trail*^	91027	Various	2023
Implement Class II bike lanes northeast of Oxnard Transportation Center*^	VEN130101/ 5O0703	Oxnard	2023
Ventura Eastside Sidewalk ADA Poinsettia*^	75240	Ventura	2024
Springville Drive Bike Trail in Camarillo*^	5TDL04	Camarillo	
Santa Paula Branch Line Recreational Trail between Montalvo in Ventura toward Santa Paula*^	5N011	Various	
Introduce bike share program*^		Various	
Introduce infrastructure for e-bikes*^		Various	
Introduce bike training programs at schools/community centers*^		Various	

The following map illustrates the location of the all of the improvements listed in the tables above for each of the scenarios.

Figure 7-10: Project Locations Combined

7.4 Scenario Performance

This section presents an analysis of the three transportation network scenarios and compares the performance of each scenario using metrics related to automobile trips, congestion, air quality, mode share, economic access, connectivity to transit, and equity.

Performance Metrics

To understand the potential benefits of the projects and programs presented here in the CTP, each scenario is analyzed using a set of performance metrics that are derived from the CTP goals presented in Chapter 1.

Performance metrics used to evaluate the CTP scenarios include:

- Change in Vehicle Miles Traveled (VMT) – The State and the SCAG region have defined targets for reducing VMT generated from transportation sources. This metric illustrates how the different scenarios would help Ventura County contribute to regionwide and statewide VMT reduction targets.
- Change in Vehicle Hours of Delay (VHD) – VHD highlights the time vehicles are spending in congested traffic conditions on a countywide level. Reductions in VHD correlate with reductions in overall traffic congestion.
- Change in Volume to Capacity (V/C) Ratio – This metric measures how much of a roadway or freeway's capacity is utilized by traffic volumes. This is a corridor-specific metric that allows for comparison between scenarios along a full corridor or specific segments of a corridor.
- Change in Mode Split – Refers to the travel mode individuals use for each trip. Travel modes include drive alone auto, carpool, active transportation, and transit. Higher mode splits for transit and active transportation would correlate with fewer automobile trips and potentially lower VMT and traffic congestion.
- Change in Greenhouse Gas (GHG) Emissions – This metric looks at the amount of GHG emissions are forecast to be generated from transportation sources. This metric typically correlates with VMT.
- Population within a High Quality Transit Area (HQTA) – Increased access to high-quality transit services (15 minute or better frequency) can encourage greater use of transit services for commute and non-commute trips.
- Population within 0.25 miles of a Bikeway – This metric analyzes the change in the number of residents that would have convenient access to a bicycle facility, which could encourage more travel by active transportation modes.
- Environmental Justice Area Population within a High Quality Transit Area (HQTA) – This metric builds on the analysis in Chapter 5 and focuses in on how access to high-quality transit services changes for residents in EJAs across the scenarios.
- Environmental Justice Area Population within 0.25 miles of a Bikeway – This metric analyzes the change in the number of residents in EJAs that would have convenient access to a bicycle facility.
- Vehicle Miles Traveled in Environmental Justice Areas – Analyzing the change in forecast VMT in corridors located within or adjacent to EJAs assists in assessing how the scenarios would reduce transportation source emissions in these communities.

The analysis using these performance metrics assists in quantifying the potential benefits to mobility and the environment resulting from each scenario.

Table 7-14 identifies the performance metrics used to evaluate each scenario, and shows how each metric aligns with the CTP goals.

Table 7-14: Performance Metrics

Performance Metric	Alignment with CTP Goals
Change in Vehicle Miles Traveled (VMT)	Balance Transportation and Land Use Foster Economic Prosperity Reduce Emissions and Improve Sustainability
Change in Vehicle Hours of Delay (VHD)	Balance Transportation and Land Use Foster Economic Prosperity Reduce Emissions and Improve Sustainability
Change in Volume to Capacity (V/C) Ratio	Balance Transportation and Land Use Foster Economic Prosperity Reduce Emissions and Improve Sustainability
Change in Mode Split	Improve Multimodal Mobility Choice and Access to Destinations
Change in Greenhouse Gas (GHG) Emissions	Reduce Emissions and Improve Sustainability
Population within a High Quality Transit Area (HQTA)	Balance Transportation and Land Use Improve Multimodal Mobility Choice and Access to Destinations Foster Economic Prosperity Reduce Emissions and Improve Sustainability
Population within 0.25 miles of a bikeway	Balance Transportation and Land Use Improve Multimodal Mobility Choice and Access to Destinations Enhance Transportation Safety to Eliminate Deaths and Serious Injuries Reduce Emissions and Improve Sustainability
Environmental Justice Area Population within a High Quality Transit Area (HQTA)	Balance Transportation and Land Use Improve Multimodal Mobility Choice and Access to Destinations Foster Economic Prosperity Reduce Emissions and Improve Sustainability
Environmental Justice Area Population within 0.25 miles of a bikeway	Balance Transportation and Land Use Improve Multimodal Mobility Choice and Access to Destinations Enhance Transportation Safety to Eliminate Deaths and Serious Injuries Reduce Emissions and Improve Sustainability
Vehicle Miles Traveled in Environmental Justice Areas	Reduce Emissions and Improve Sustainability

Scenario Results

Change in VMT

The State of California and the SCAG region have defined targets for reducing VMT generated from transportation sources. The statewide and regional Southern California Association of Governments target for reduction in per capita GHG emissions reductions (and proportional reduction in VMT) relative to 2005 by 2035 from passenger vehicles is 19 percent.

The Baseline Future Project Scenario is composed of $340 million in transportation system investments over 30 years, as well as demographic and land use changes in response to local land use planning encouraging development in in-fill areas and areas served by transit. Based on a comparison to the 2010 VMT per capita as determined by the California Air Resources Board, the Baseline Future Project Scenario would result in a 19 percent reduction in VMT per capita—consistent with the statewide and regional VMT reduction target.

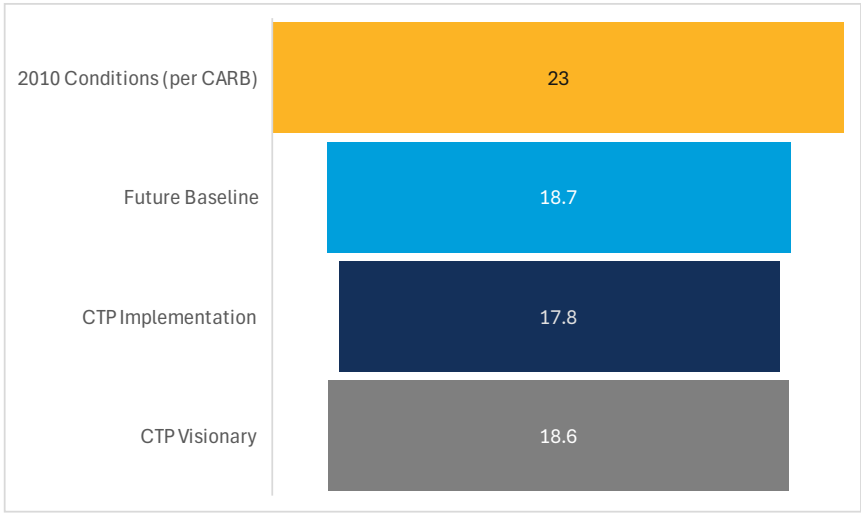
The CTP Implementation Scenario represents a further $3 billion in transportation system investment which would result in a 23 percent reduction in VMT per capita—exceeding the CARB VMT reduction target.

The CTP Visionary Scenario includes further roadway system improvements and would result in more VMT through induced demand. However the VMT per capita would be similar to the Baseline Future conditions.

Table 7-15: VMT Change Across 2010, Future Baseline, and CTP Implementation Scenarios

Scenario	Daily VMT per Capita	Percent Reduction from 2010
2010 Conditions (per CARB)	23.0	-
Future Baseline	18.7	19%
CTP Implementation	17.8	23%
CTP Visionary	18.6	19%

Figure 7-11: VMT per Capita by Scenario



Change in VHD

Measuring vehicle hours of delay (VHD) can provide insight into levels of traffic congestion on freeways and roadways across the county. For example, higher VHD would indicate that vehicles are spending a greater amount of time experiencing traffic congestion and their travel time is delayed when compared to travel times under free-flowing traffic conditions.

Table 7-16: VHD Change Across Existing, Future Baseline, CTP Implementation, and CTP Visionary Scenarios

Scenario	VHD	Percent Reduction from Existing
Existing Conditions	57,614	-
Future Baseline	44,583	23%
CTP Implementation	49,482	14%
CTP Visionary	36,141	37%

Countywide VHD is forecast to be highest in existing conditions and is forecasted to decrease across all three modeling scenarios. It is important to note that while the CTP Visionary Scenario is forecast to experience the highest VMT due to roadway and freeway capacity enhancements, VHD is forecast to experience the greatest reduction under the CTP Visionary Scenario, with a forecast decrease of approximately 37 percent from existing conditions.

In contrast, the forecast reduction in VHD under the CTP Visionary Scenario is the lowest among the three future CTP scenarios, illustrating the tradeoff between advancing a greater number of multimodal projects intended to reduce VMT versus freeway and roadway capacity-adding projects that could further reduce traffic delay and provide congestion relief. The CTP Implementation Scenario does achieve a 14 percent reduction in VHD compared to 2016 conditions.

Change in Volume to Capacity Ratio

As presented in Chapter 2, existing AM and PM peak period volume to capacity (V/C) ratios according to Ventura County's Travel Demand Model showed high travel demand along regional corridors (including U.S. Highway 101, SR 126, SR 118) that connect different cities in the county.
The figures presenting 2040 forecasts show a forecasted decrease in V/C ratios across each consecutive scenario, particularly along U.S. Highway 101 between Camarillo and Thousand Oaks, along Santa Rosa Road/Moorpark Road, and along SR 118 east of Oxnard, all of which serve east-west traffic. These results generally align with the forecasted decrease in VHD summarized in the previous section.

In the 2040 CTP Implementation Scenario, the PM peak period features percentage V/C changes from the existing network of:

- Up to a 77% decrease in V/C on segments of SR 23
- Up to a 58% decrease in V/C on segments of SR 34
- Up to a 50% decrease in V/C on segments of SR 118
- Up to a 24% decrease in V/C on segments of US 101

The Future Baseline and Visionary scenarios also feature positive changes in V/C. The Future Baseline sees as high as a 75 percent decrease in V/C on a portion of SR 118 and SR 23 in both the AM and PM peak periods. The CTP Visionary Scenario data depicts a significant decrease in V/C along the roadway portions of SR 23, up to 88 percent in the AM peak period and 78 percent in the PM peak period.

Figure 7-12: V/C in Existing Conditions– AM Peak Period

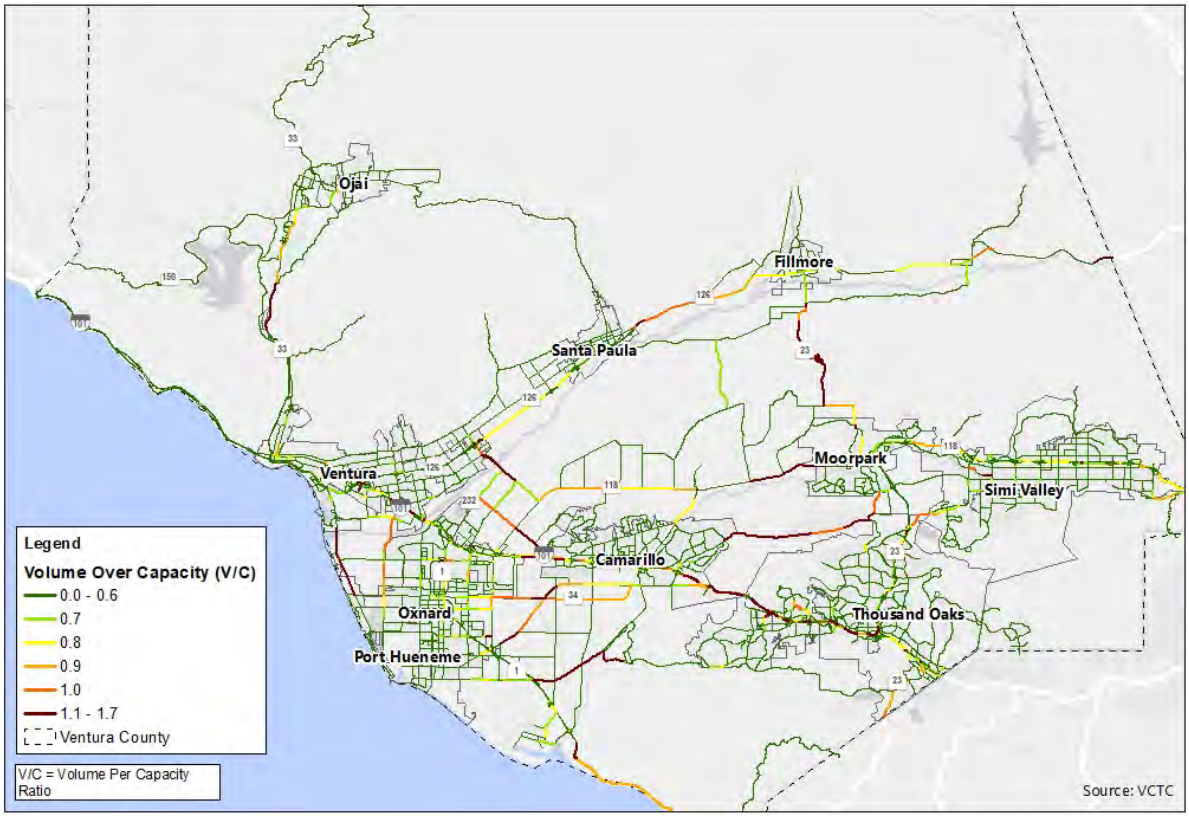


Figure 7-13: V/C in Existing Conditions – PM Peak Period

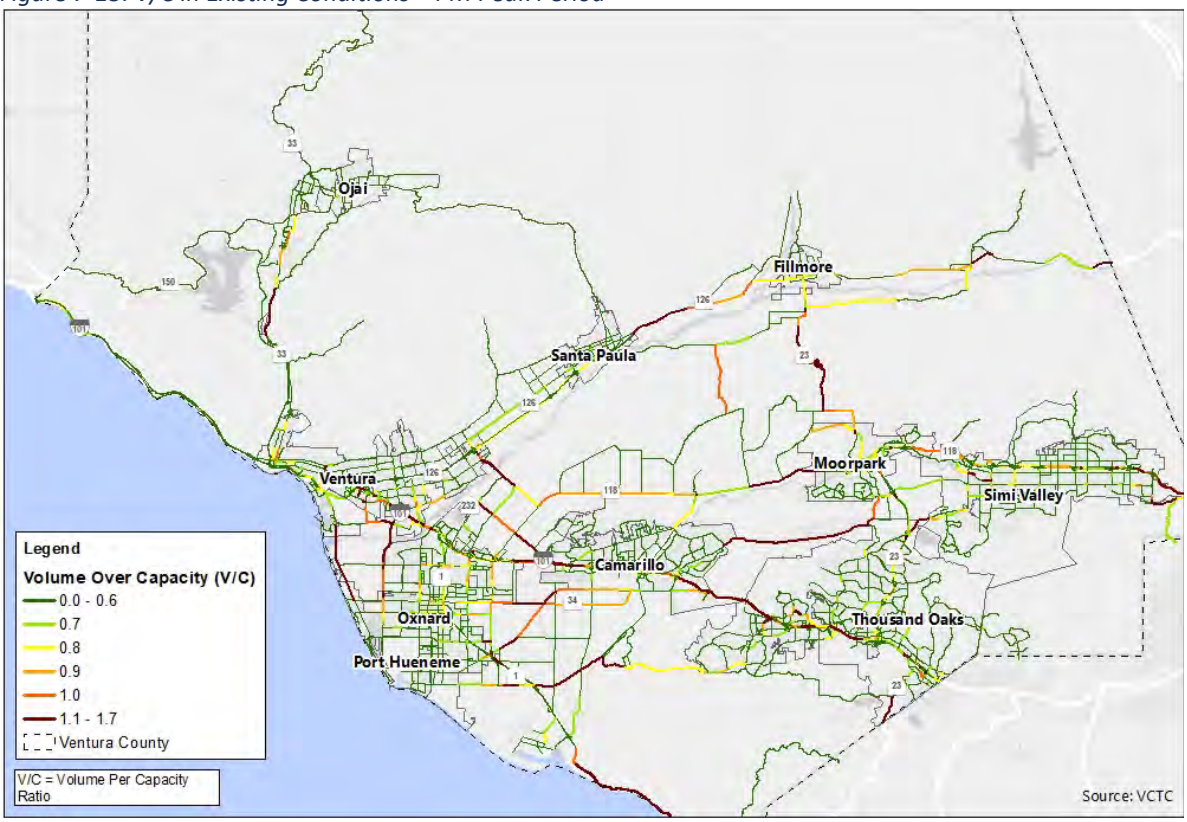


Figure 7-14: V/C in Future Baseline – AM Peak Period

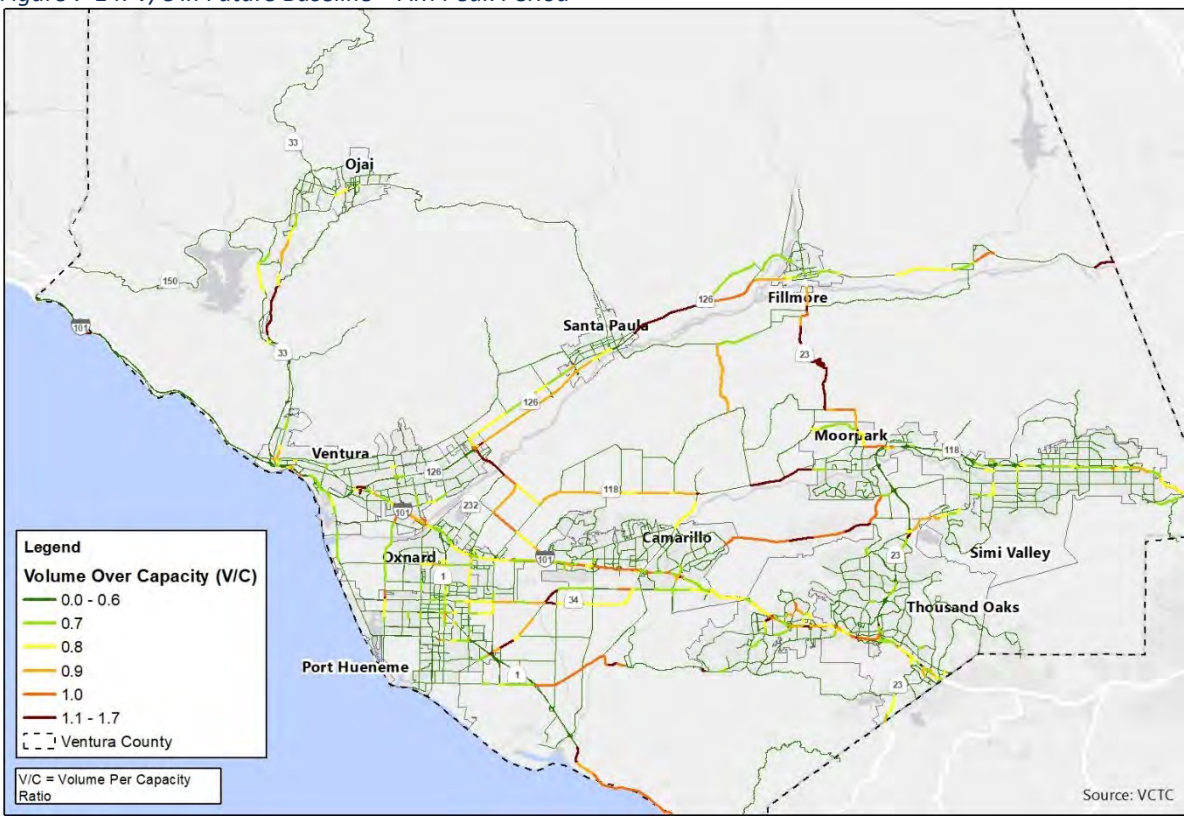


Figure 7-15: V/C in Future Baseline – PM Peak Period

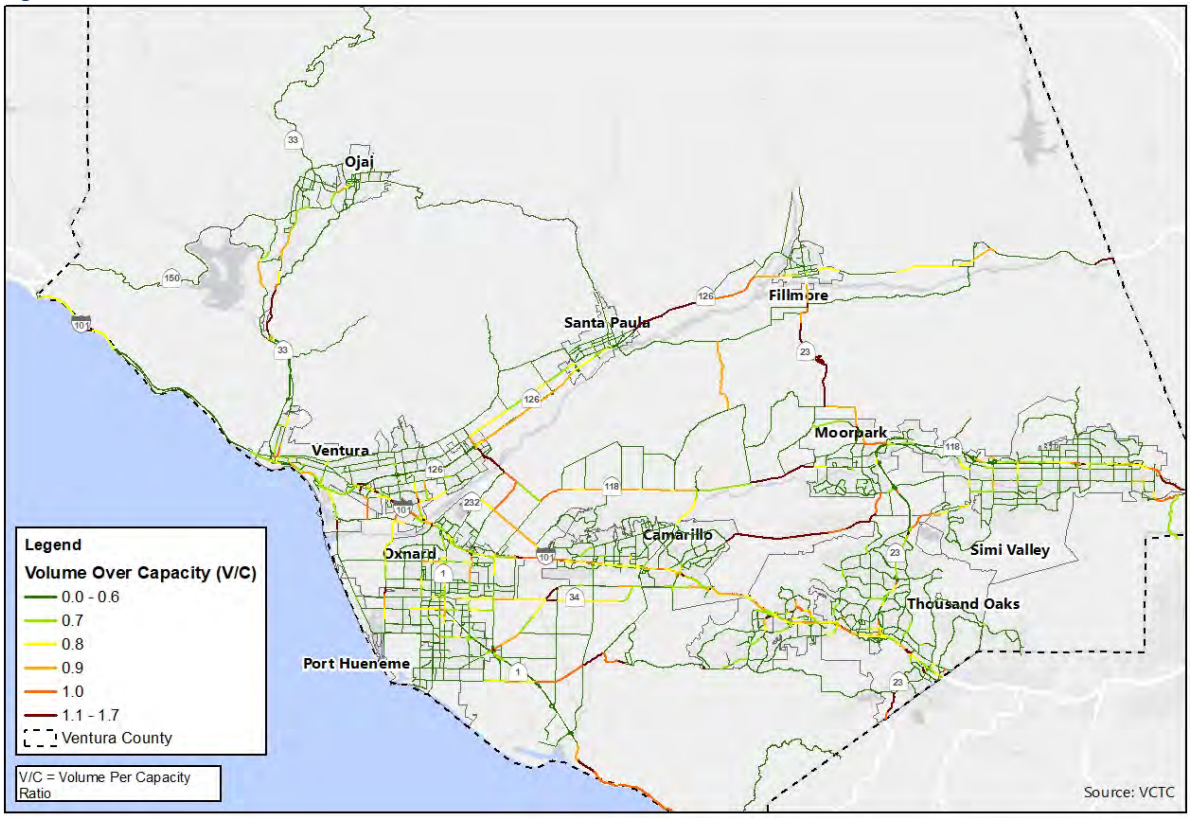


Figure 7-16: V/C in CTP Implementation – AM Peak Period

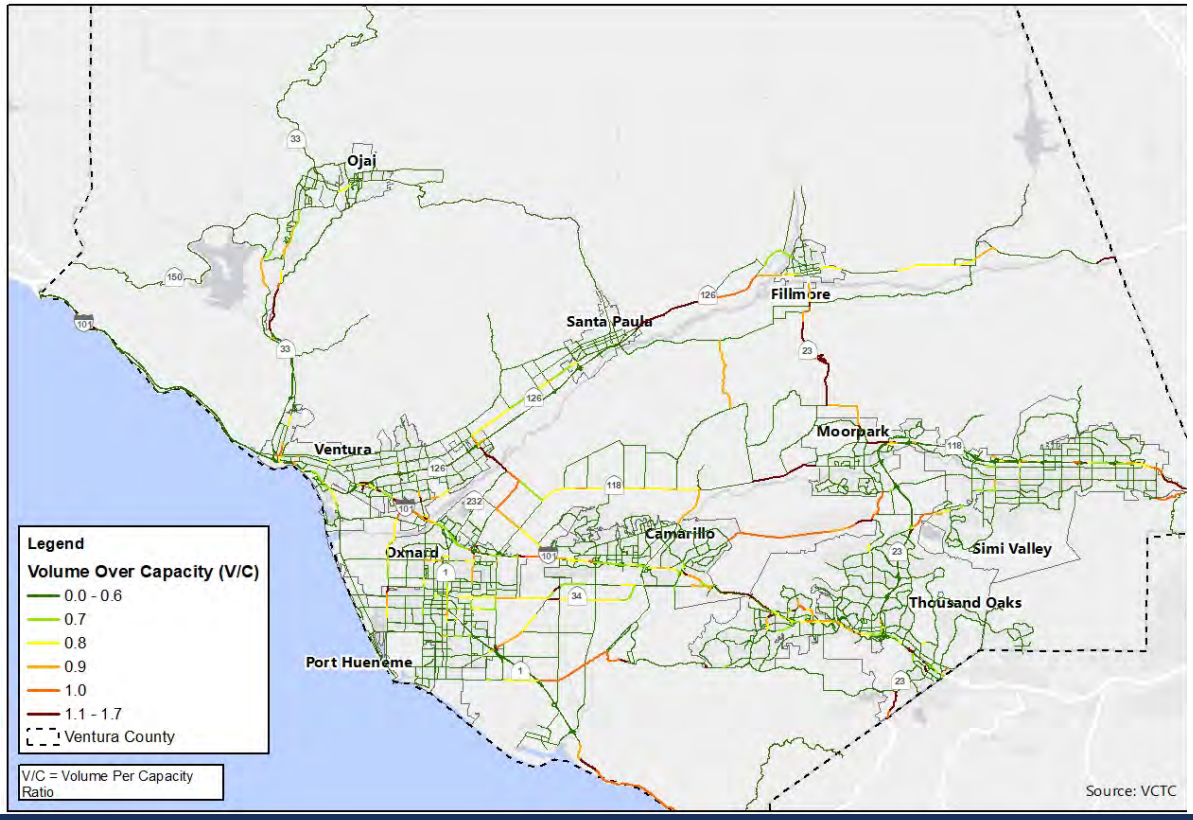


Figure 7-17: V/C in CTP Implementation – PM Peak Period

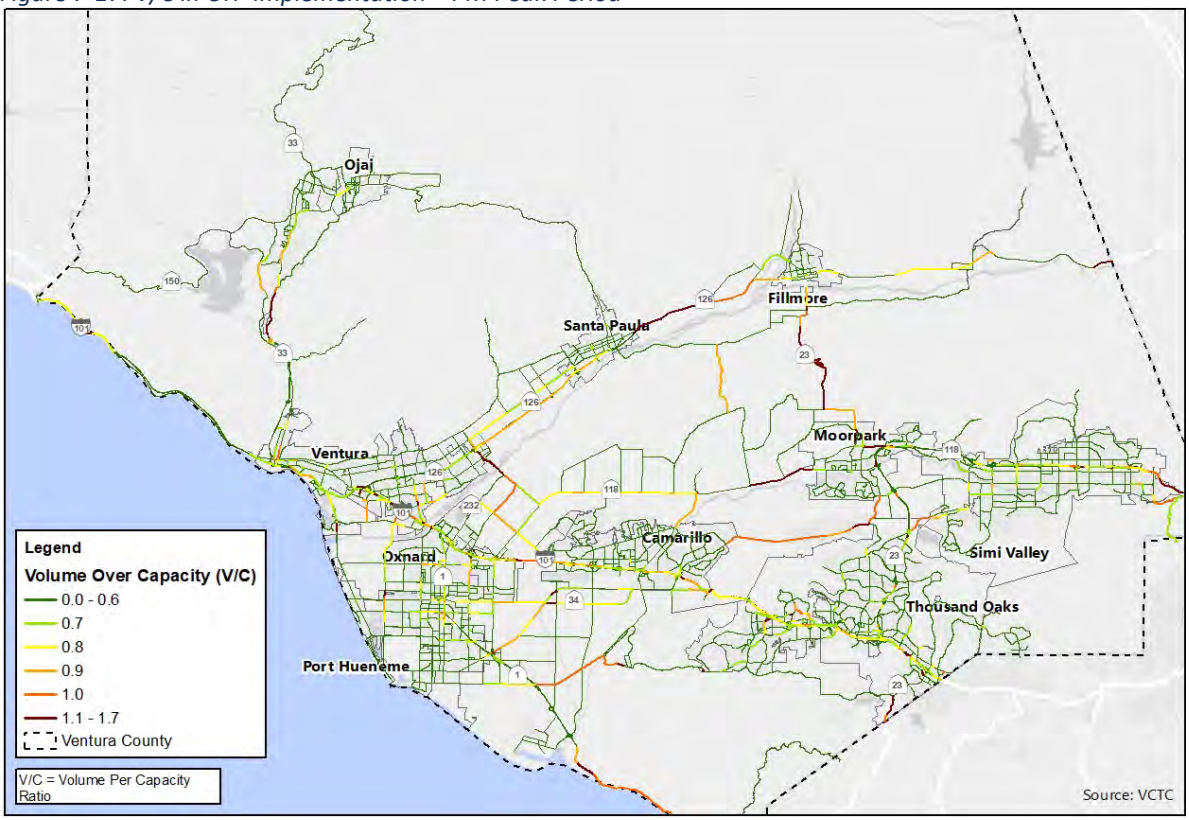


Figure 7-18: V/C in *CTP Visionary Scenario* – AM Peak Period

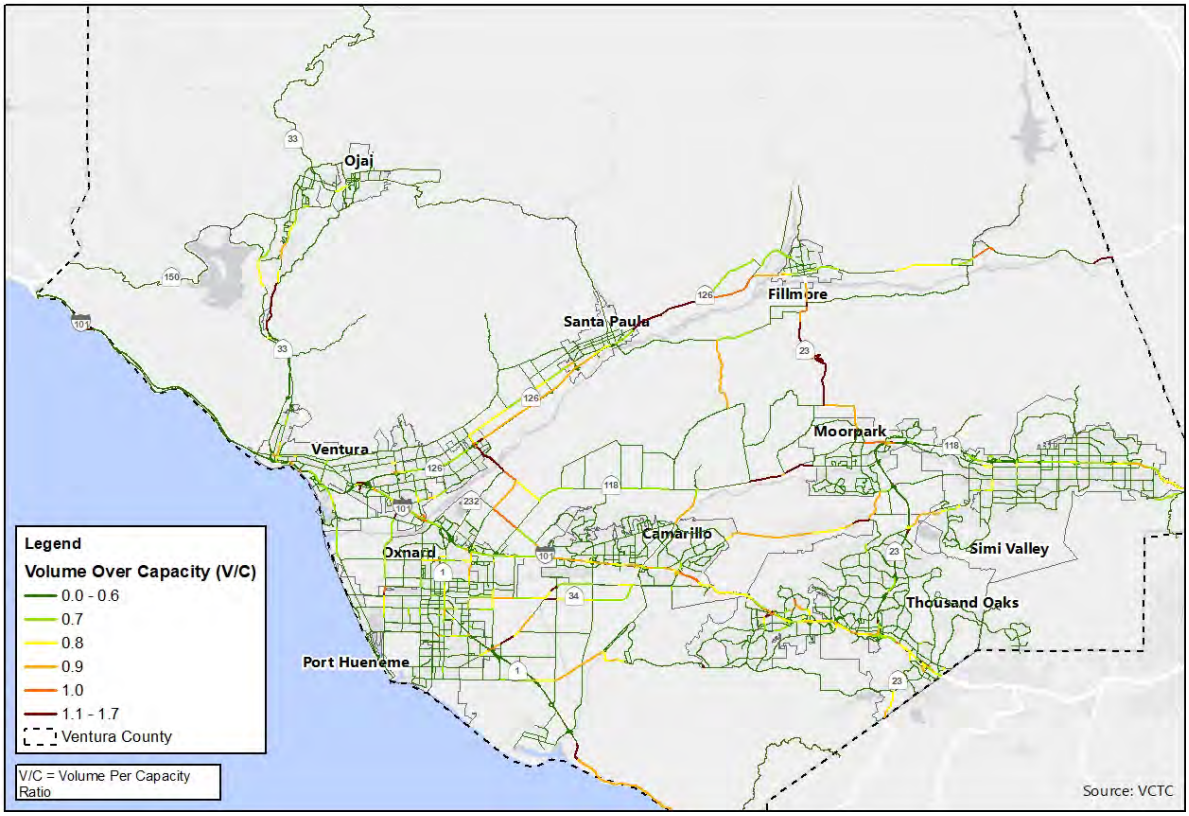
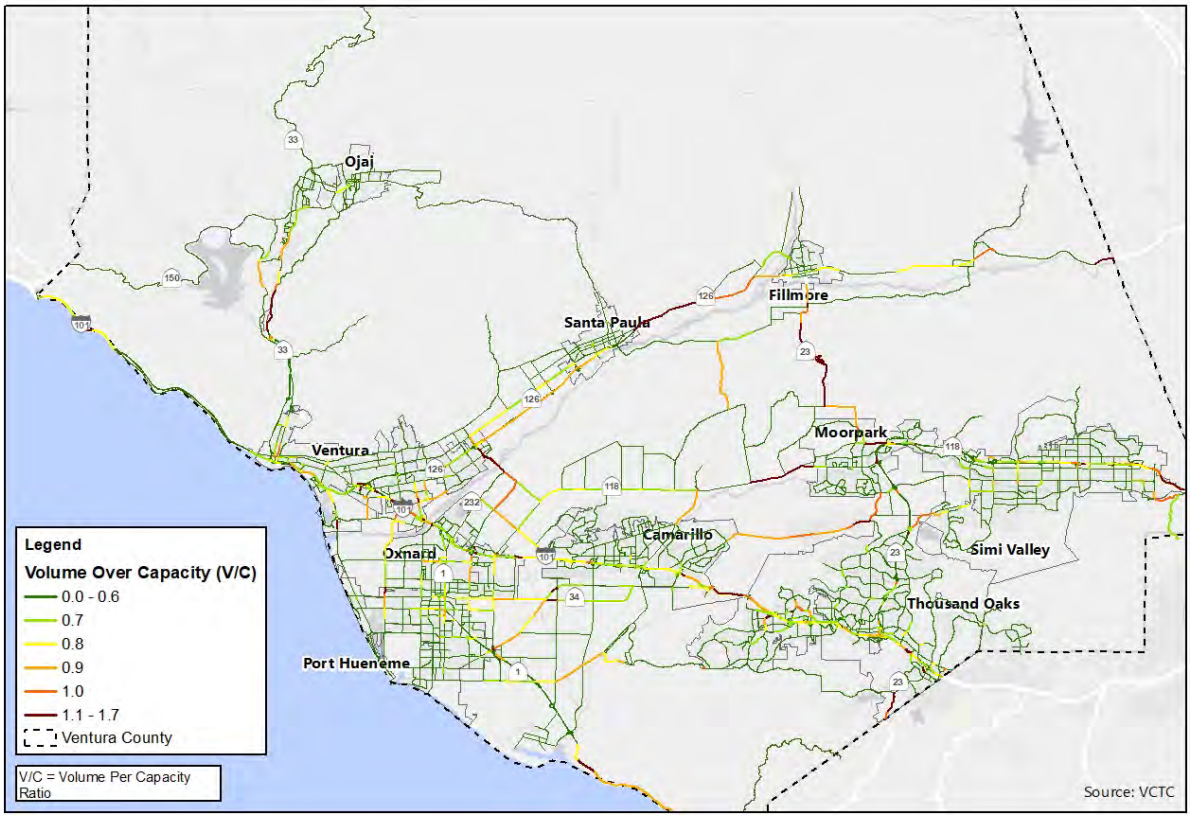


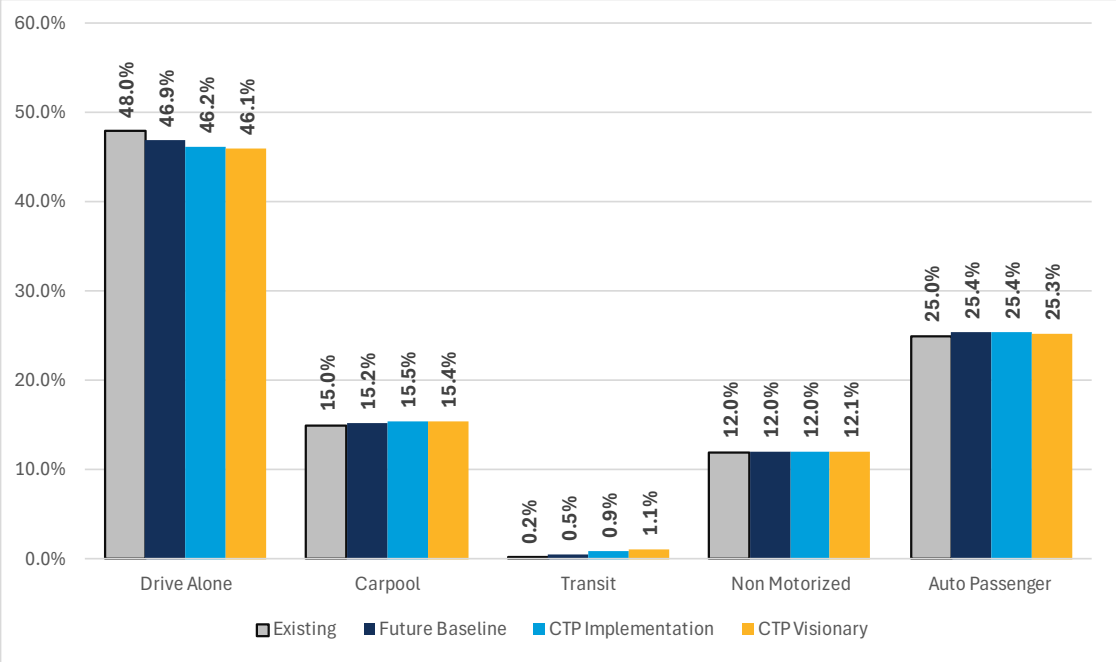
Figure 7-19: V/C in CTP Visionary Scenario – PM Peak Period



Change in Mode Split

Changes in mode share would indicate if proposed transportation improvements have an impact on the type of travel mode that people chose to take on their trips. Figure 7-20 illustrates the forecast percent mode share for driving alone, carpool, transit, non-motorized, and auto passenger trips in 2016 and across the Future Baseline, CTP Implementation, and CTP Visionary Scenarios. Changes in mode share are forecasted to be minor across the three modeling scenarios.

Figure 7-20: Mode Split Comparison Among Scenarios



Due to the constraints of the Ventura County Transportation Model (VCTM), several improvements that could contribute to shifting mode share toward more sustainable transportation alternatives were not able to be modeled. This limitation contributes to some of the very minor shifts in mode share that were reflected in the figure above, particularly for active transportation projects.

Examples of the projects not able to be modeled include active transportation (walking and bicycling) improvements and selected transit improvements, including electrification of the bus fleet and bus stop maintenance also contribute toward an improved transit experience.

Another key factor in shifting mode split is the coordination of land use and transportation planning and policies. Transportation network improvements and changes to land use – particularly involving increased land use densities, locating new development near transit, and providing active transportation connectivity – together form two important puzzle pieces to reduce single-occupancy vehicle travel. In the absence of coordinated land use planning and policy changes, multimodal transportation improvements will typically only result in incremental changes to mode split as seen in the forecast summarized above.

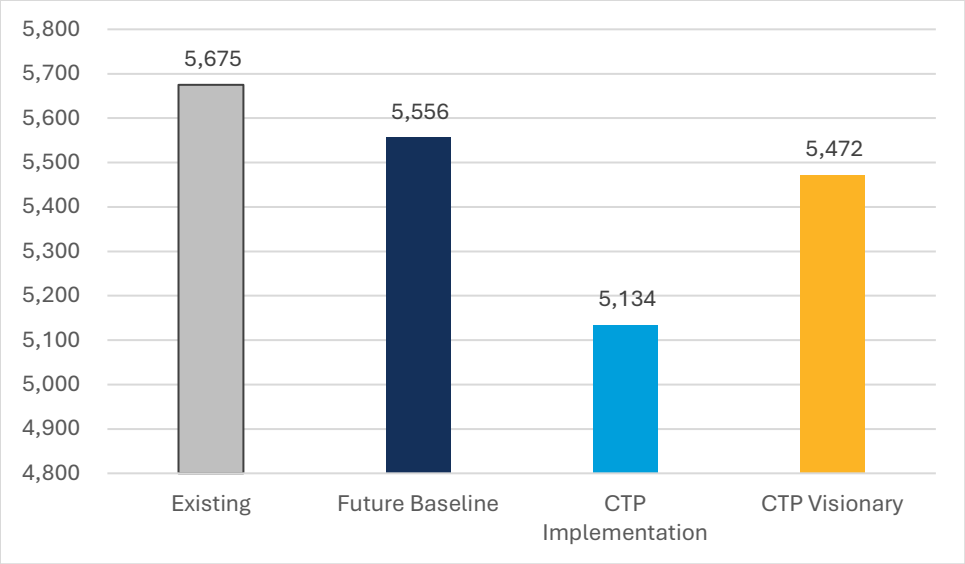
Change in Emissions

Greenhouse gas (GHG) emissions refer to a combination of Carbon Dioxide, Methane, Nitrous Oxide, and Fluorinated Gases, which create a carbon dioxide equivalent (CO2e). These gases are the primary contributors to climate change. The State of California has placed specific emphasis on reducing the contribution of transportation sources to the generation of GHG emissions in California, with several pieces of legislation passed over the past 10-15 years mandating GHG reductions in the transportation sector.

Figure 7-21 below presents forecasted GHG emissions for Ventura County, measured in metric tons per year.

Transportation source emissions are forecasted to decrease between 2016 and 2040 under Future Baseline conditions by about two percent. Emissions are forecasted to further decrease under the CTP Implementation Scenario by six percent from future conditions under Future Baseline conditions and nearly eight percent from Existing Conditions. This is in line with the forecast decrease in VMT under The CTP Implementation Scenario conditions presented earlier in this chapter. In contrast, there is a forecast increase in emissions between Future Baseline and the CTP Visionary Scenario in 2040. This is in line with the slightly higher VMT conditions observed in the CTP Visionary Scenario , resulting from the greater number of freeway and roadway capacity increasing projects contained in this scenario.

Figure 7-21: Vehicle Emission Outputs Across Modeling Scenarios (Metric Tons per Year)



Population within High Quality Transit Areas (HQTA)

A key goal of the CTP is improving access to multimodal transportation, including transit across Ventura County. New and more frequent transit service would help to improve connectivity and could encourage increased transit use. Improving connectivity to transit can also lead to encouraging the development of denser mixed-use land uses around well-serviced transit stations, helping to reduce VMT.

To assess how future scenarios perform at increasing access to transit, the performance analysis examines the number of people living within high-quality transit areas (HQTAs), as defined by SCAG.

The Future Baseline and the CTP Implementation Scenarios are anticipated to result in noticeable increases in the number of people living within an HQTA. The Future Baseline Scenario includes an increased bus route frequency through Oxnard and Ventura, creating new HQTAs along this proposed high frequency transit corridor. the CTP Implementation Scenario would create new HQTAs along U.S. Highway 101 and SR 126 as a result of the proposed freeway-based bus rapid transit along U.S. Highway 101 and the limited stop high frequency route along SR 126. The CTP Visionary Scenario would create a new HQTA around a new Metrolink second station in Simi Valley. Figure 7-23 illustrates existing transit routes compared to existing population density. Figures 7-24 through 7-26 show potential future HQTAs according to each scenario. HQTAs for the Future Baseline align with SCAG projections for 2045 HQTAs, while HQTAs in the CTP Implementation Scenario assume new stations at interchanges along US 101 and SR 126, with limited stops along SR 126. The CTP Visionary Scenario adds a new HQTA around a proposed new Metrolink station in Simi Valley.

As shown in the following figures, each scenario is forecast to result in a positive increase in the number of people living within a HQTA. In the existing condition, about 2.4 percent of Ventura County residents live within an HQTA. In the Future Baseline, this number is forecast to increase to 14.6 percent of the population. With the new and additional transit routes proposed, this number is forecast to increase to 17.8 percent of the population in the CTP Implementation Scenario and 19.4 percent in the CTP Visionary Scenario .

Figure 7-22: Existing Population Within 0.25 Mile of Transit

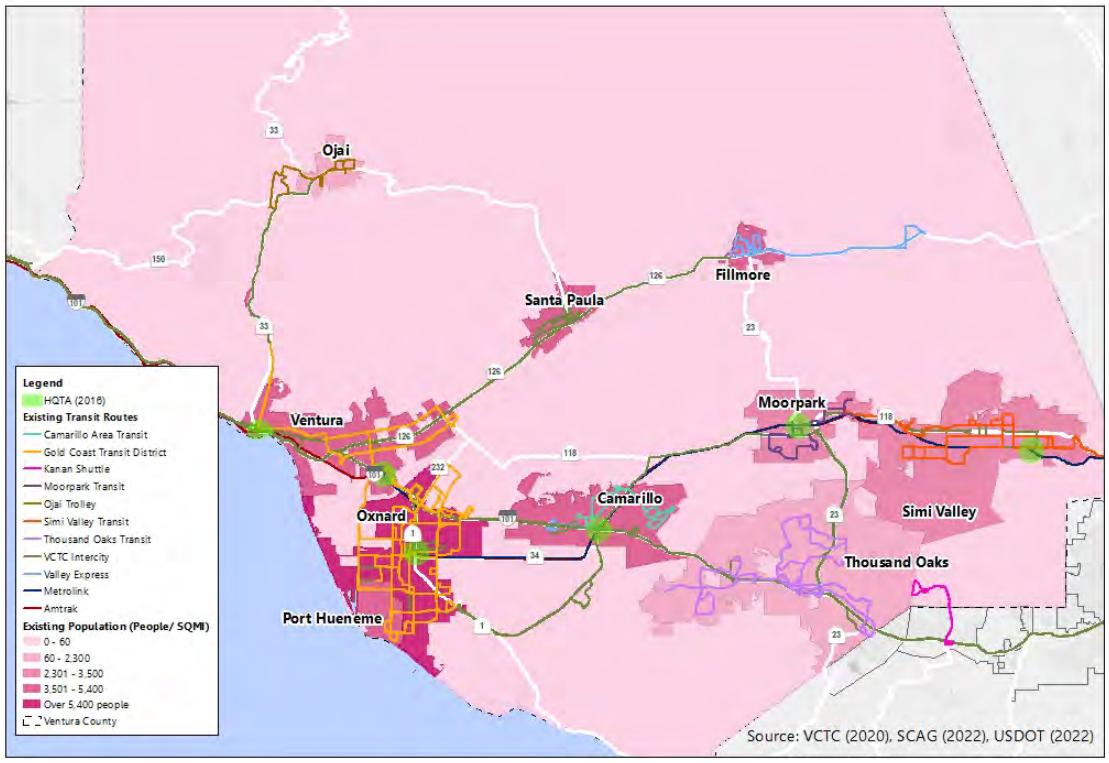


Figure 7-23: Future Population Within Future HQTAs – Future Baseline

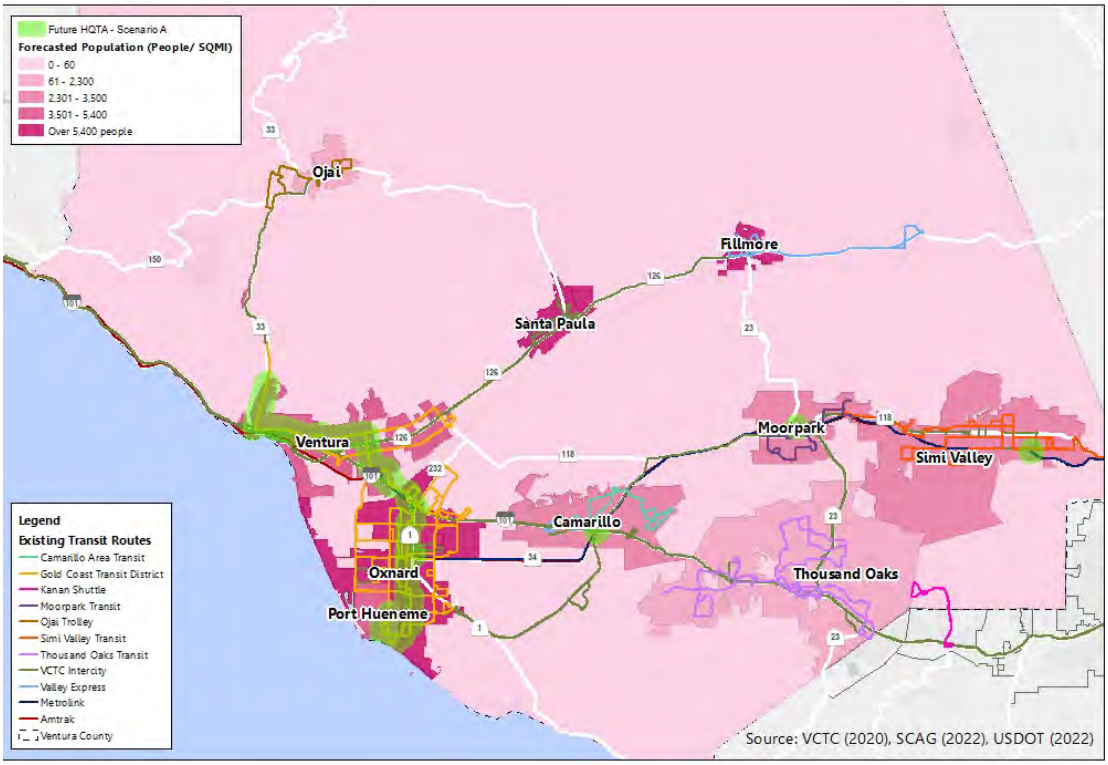


Figure 7-24: Future Population Within Future HQTAs – CTP Implementation Scenario

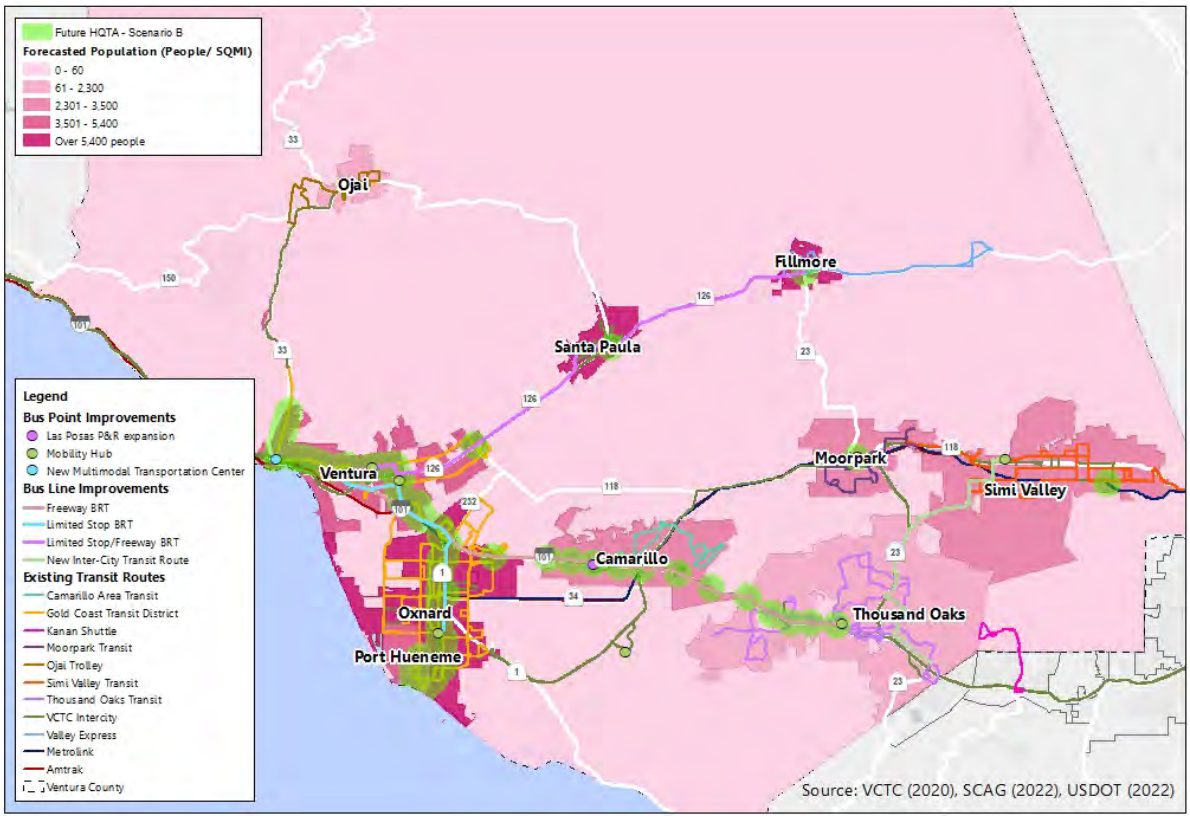


Figure 7-25: Future Population Within Future HQTAs – CTP Visionary Scenario

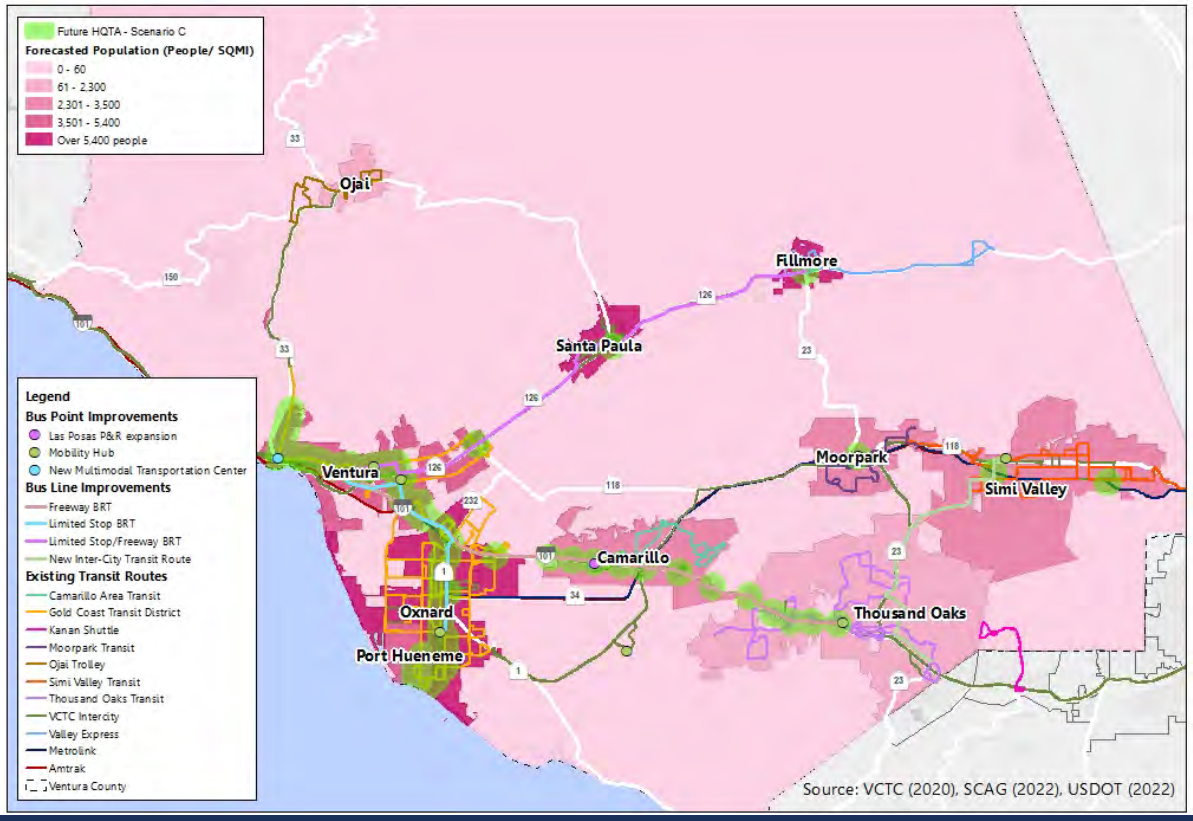
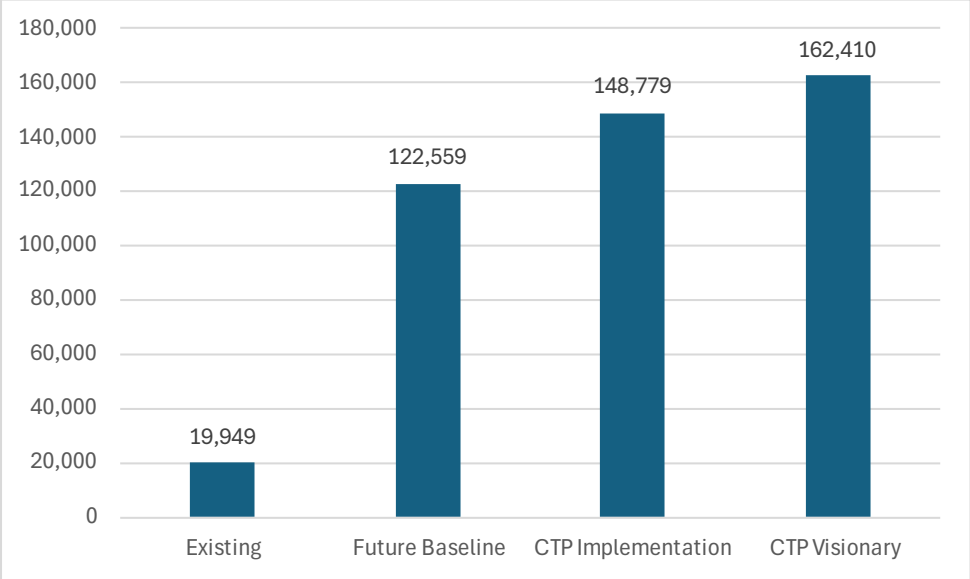


Figure 7-26: Population within HQTAs Across Scenarios



Population Within 0.25 Miles of a Bikeway

Building on the improvements to transit access, improving the bikeway network aligns with ongoing efforts to improve active transportation in Ventura County, particularly for regional connectivity. A focus on closing gaps in the bicycle facility network makes bike travel more feasible, particularly between residential and commercial areas that are often isolated and tend to lack connectivity outside of the denser areas of the county.

The CTP Implementation Scenario proposes a total of 115 miles of new bikeways in Ventura County, including approximately 22 miles of Class I multi-use paths, 67 miles of Class II bike lanes, 11 miles of Class III bike routes, and 15 miles of Class IV cycle tracks. These improvements were identified and developed during the CTP process to address regional network gaps, respond to public input, and to help achieve the CTP's safety goal.

The bikeway projects proposed in the CTP Implementation Scenario would also help increase the number of people in Ventura County living within 0.25 miles of a bikeway. Figures 7-27 illustrates existing bikeways and proposed bikeways under the CTP Implementation Scenario overlaid on population density for 2016 and 2040.

Figure 7-28 compares the number of people living within 0.25 miles of a bikeway in under CTP Implementation conditions. Currently, approximately 60.8 percent of residents in Ventura County live within 0.25 miles of an existing bikeway. In 2040, this shifts to 61.6 percent under Existing Conditions . With the new bikeways proposed under the Future Baseline, approximately 65.7 percent of residents in the county would live within 0.25 miles of a bikeway.

Figure 7-27: Existing Population Within 0.25 Mile of a Bikeway

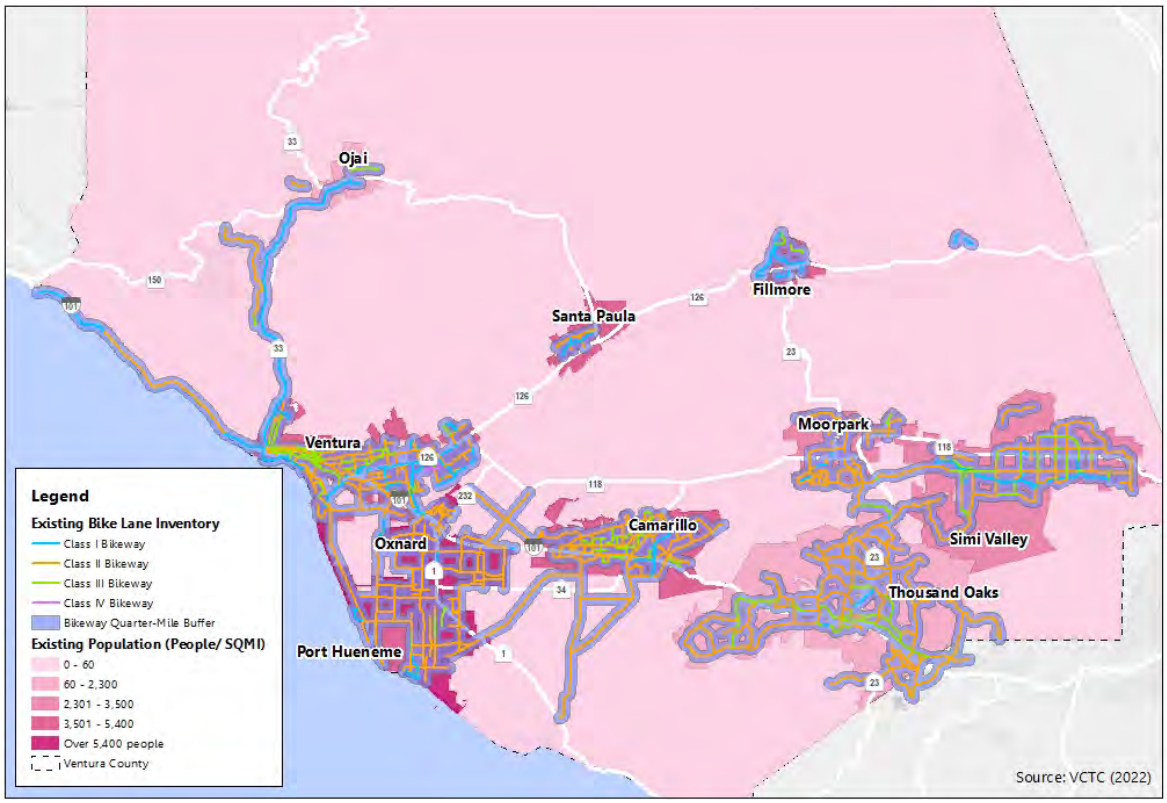


Figure 7-28: Forecasted Population Within 0.25 Mile of a Bikeway – CTP Implementation

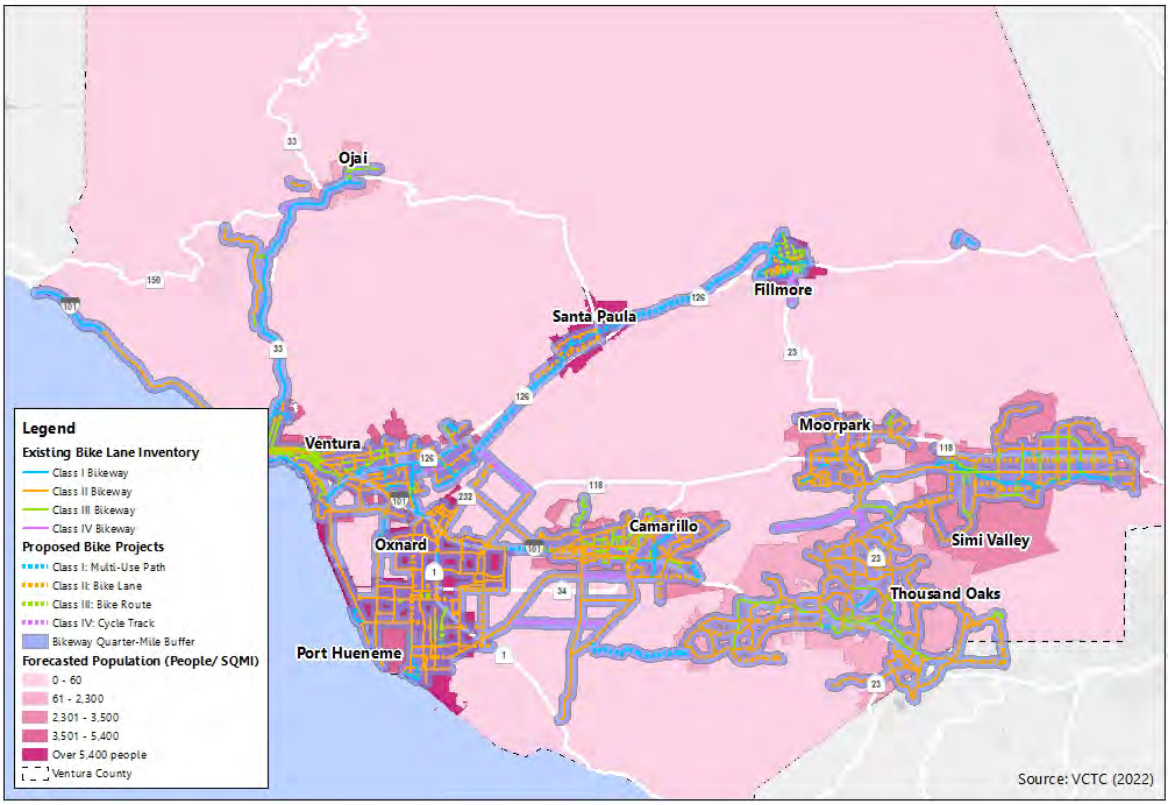
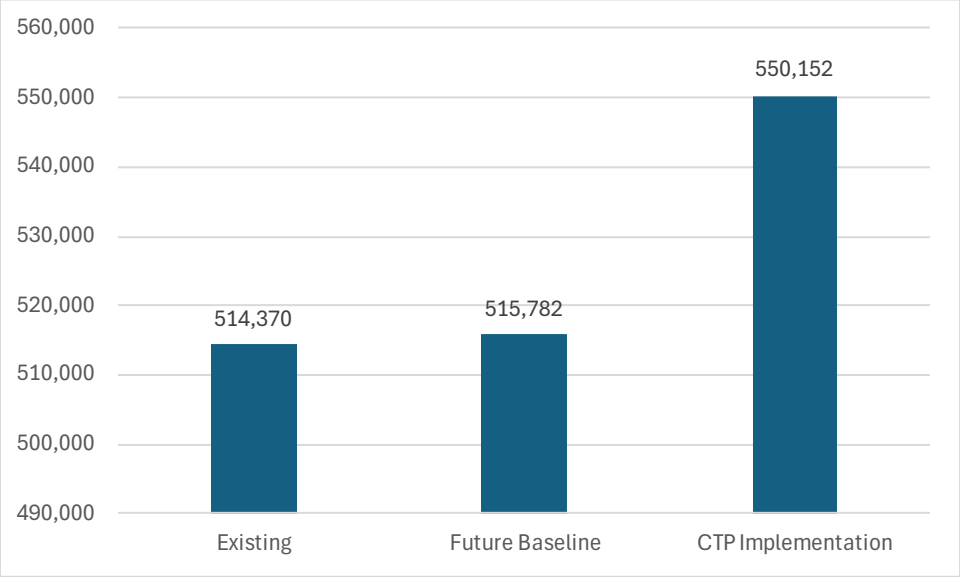


Figure 7-29: Population within 0.25 of a Bikeway Across Scenarios



Environmental Justice Area Population within a High Quality Transit Area

Chapter 5 highlights environmental justice areas (EJAs) as focus area for the CTP. Ongoing planning efforts and this CTP planning process have both identified gaps in transit service and active transportation facilities within EJAs. Bus transit and bikeways projects presented in the CTP Implementation Scenario aim to address these gaps and improve transportation mobility for residents living in these areas. The analysis present here specifically looks at access to transit for people living in EJAs.

Transit projects in the CTP Implementation Scenario include efforts to introduce new transit service operating in portions of the county that are currently underserved by transit. Specifically, high frequency transit routes and limited stop bus rapid transit routes proposed along SR 126 from Fillmore to Santa Paula to Ventura, along US 101 from Ventura to Thousand Oaks, and from Port Hueneme through Oxnard and Ventura – would provide additional transit options for residents living in existing EJAs.

Figure 7-30 illustrates the location of EJAs compared to existing HQTAs. Figures 7-32 through 7-34 illustrate the same EJAs with the estimated boundaries of future HQTAs under each scenario.

Currently, five percent of residents in EJAs live within the boundaries of an HQTA. With the transit projects proposed in the Future Baseline, 39.2 percent of residents in EJAs are projected to live within the boundaries of a HQTA. The transit projects proposed in the CTP Implementation Scenario increase this to 44.4 percent of EJA residents. A smaller increase is seen in the CTP Visionary Scenario which proposes an additional Metrolink station in west Simi Valley, where there are comparatively less EJAs.

The transit improvements proposed in the CTP Implementation Scenario build upon the Future Baseline projects to introduce high-quality transit services across the county. These projects are intended to provide increased transit frequency and high-quality service, resulting in positive improvements to transit access and service for existing EJAs.

Figure 7-30: Environmental Justice Areas Within Existing HQTAs

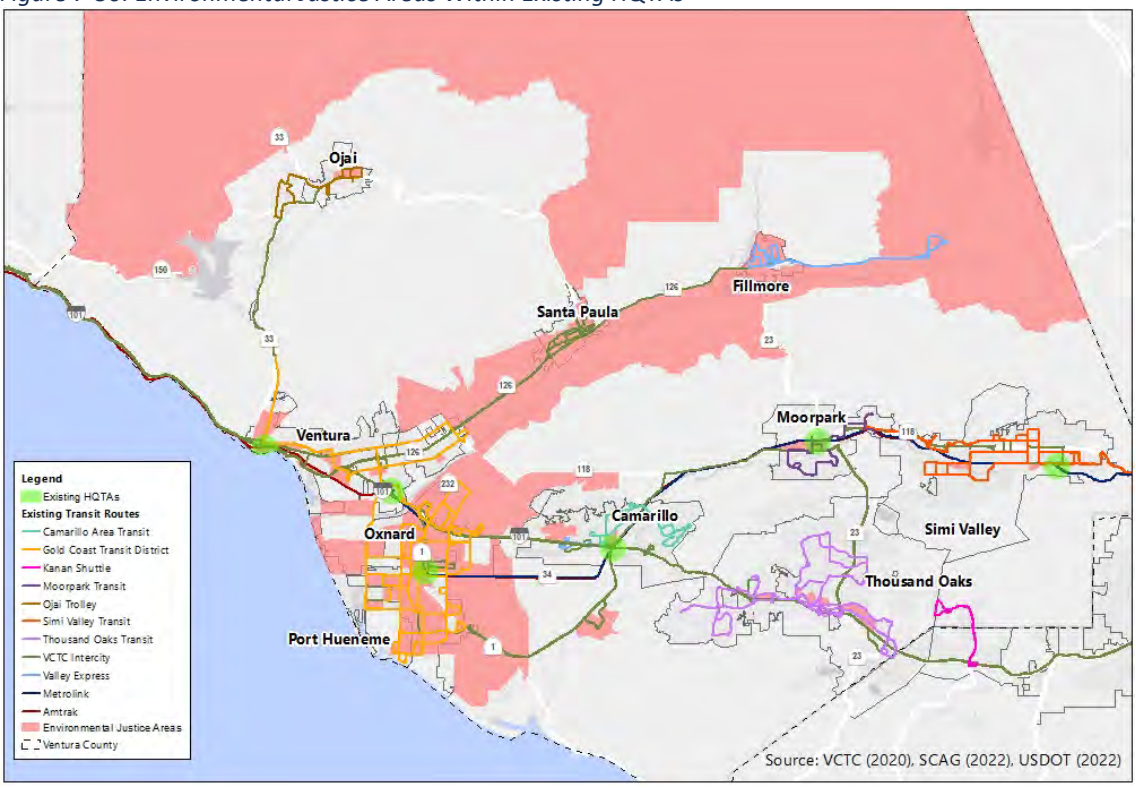


Figure 7-31: Environmental Justice Areas Within Future HQTAs – Future Baseline

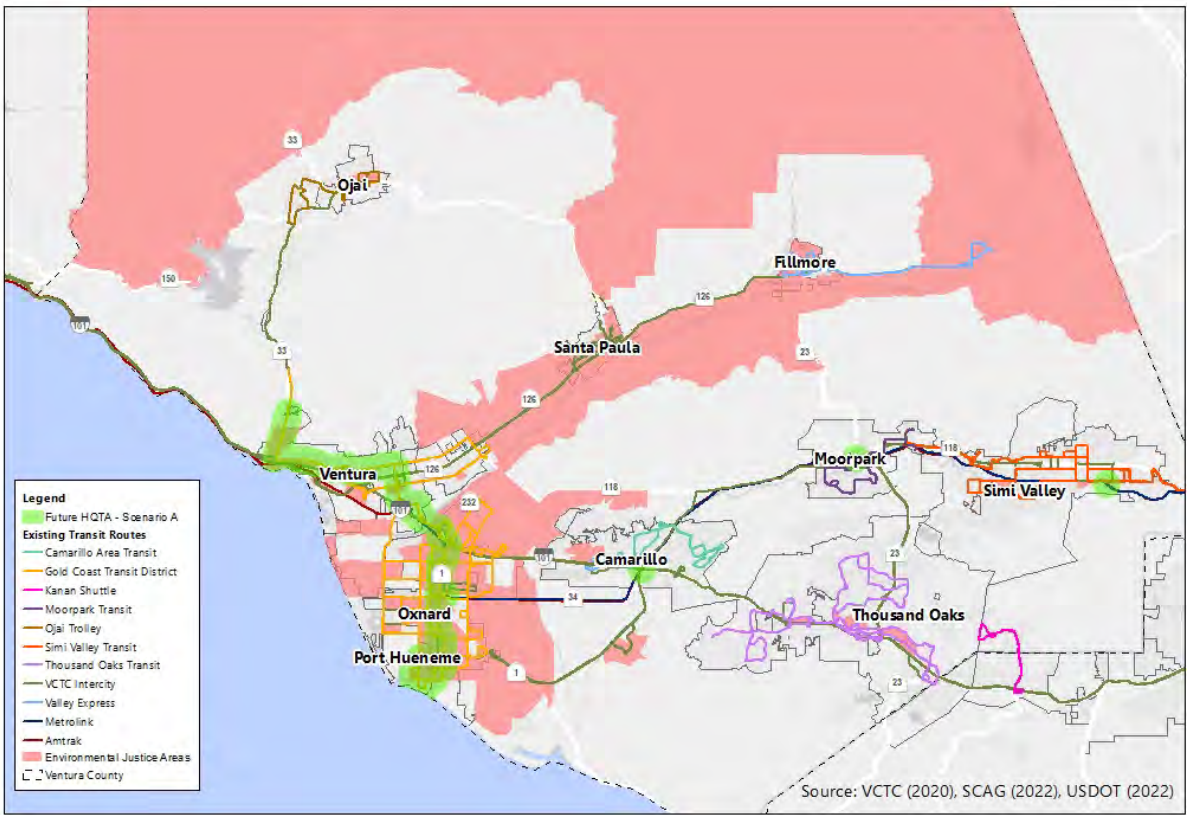


Figure 7-32: Environmental Justice Areas Within Future HQTAs –CTP Implementation Scenario

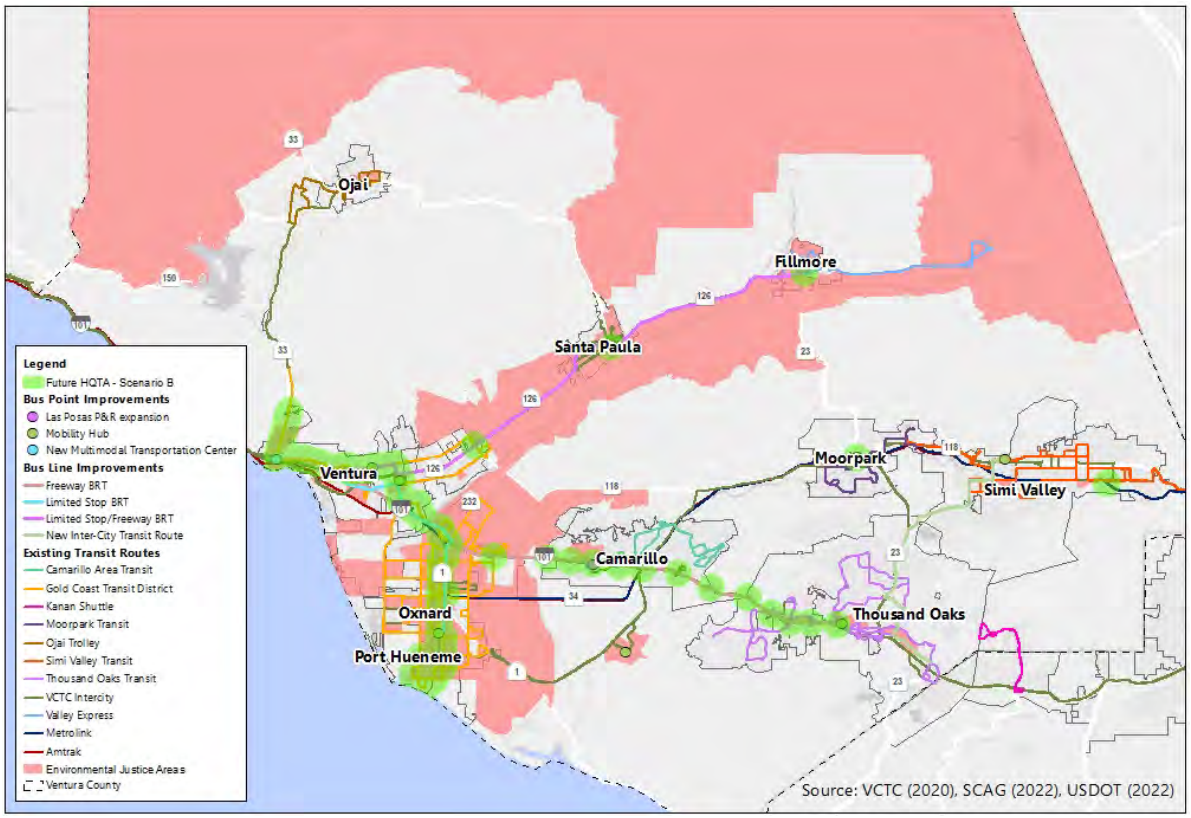


Figure 7-33: Environmental Justice Areas Within Future HQTAs –CTP Visionary Scenario

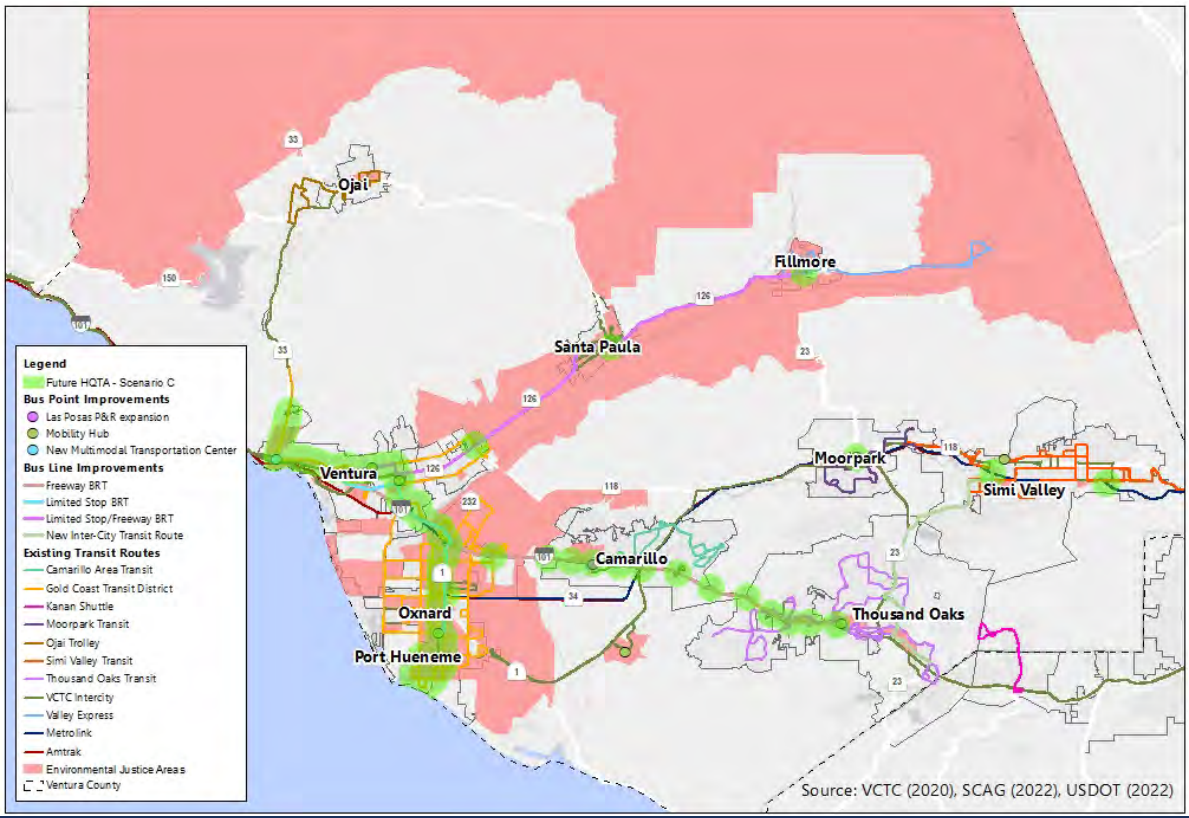
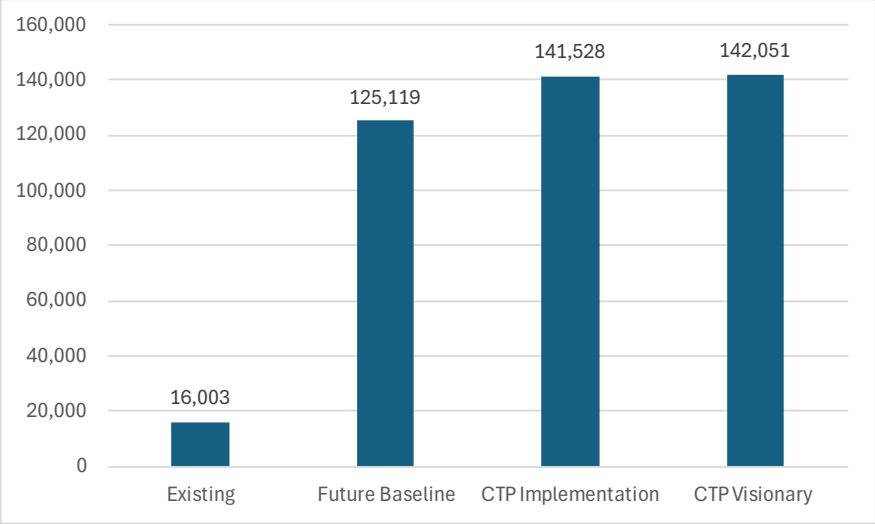


Figure 7-34: Population of Environmental Justice Areas Within HQTAs Across Scenarios



Environmental Justice Area Population within 0.25 Miles of A Bikeway

The bikeway improvements proposed as part of the CTP Implementation are anticipated to increase access to bicycle facilities for residents living in EJAs across Ventura County. For example, new off-street Class I multi-use paths and Class II bike lanes are proposed along SR 126, which would improve active transportation connections for EJAs in Fillmore and Santa Paula. Additionally, Class II bike lanes and other bikeways are proposed to close current gaps in the bike network within the EJAs located in Oxnard, Port Hueneme, and surrounding areas. To the east, another Class I multi-use path is proposed along Potrero Road in an unincorporated EJA, along with a Class IV cycle track along Pleasant Valley Road. Class II bike lanes are proposed throughout Moorpark and Simi Valley as well, especially in or near existing EJAs.

Figures 7-35 and 7-36 illustrate the location of EJAs, with a quarter-mile buffer shown around existing bikeways routes and proposed bikeways under the CTP Implementation Scenario.

As mentioned in Chapter 5, 80 percent of residents in EJAs currently live within 0.25 miles of an existing bikeway. With the bikeway projects proposed in the CTP Implementation Scenario, the number of residents in EJAs living within 0.25 mile of a bikeway increases to 87 percent (Figure 7-36). The increased accessibility to bikeways across the region in EJAs helps to improve mobility options and provide equitable access to jobs, education, and key destinations.

Figure 7-35: Environmental Justice Areas Within 0.25 Mile of An Existing Bikeway

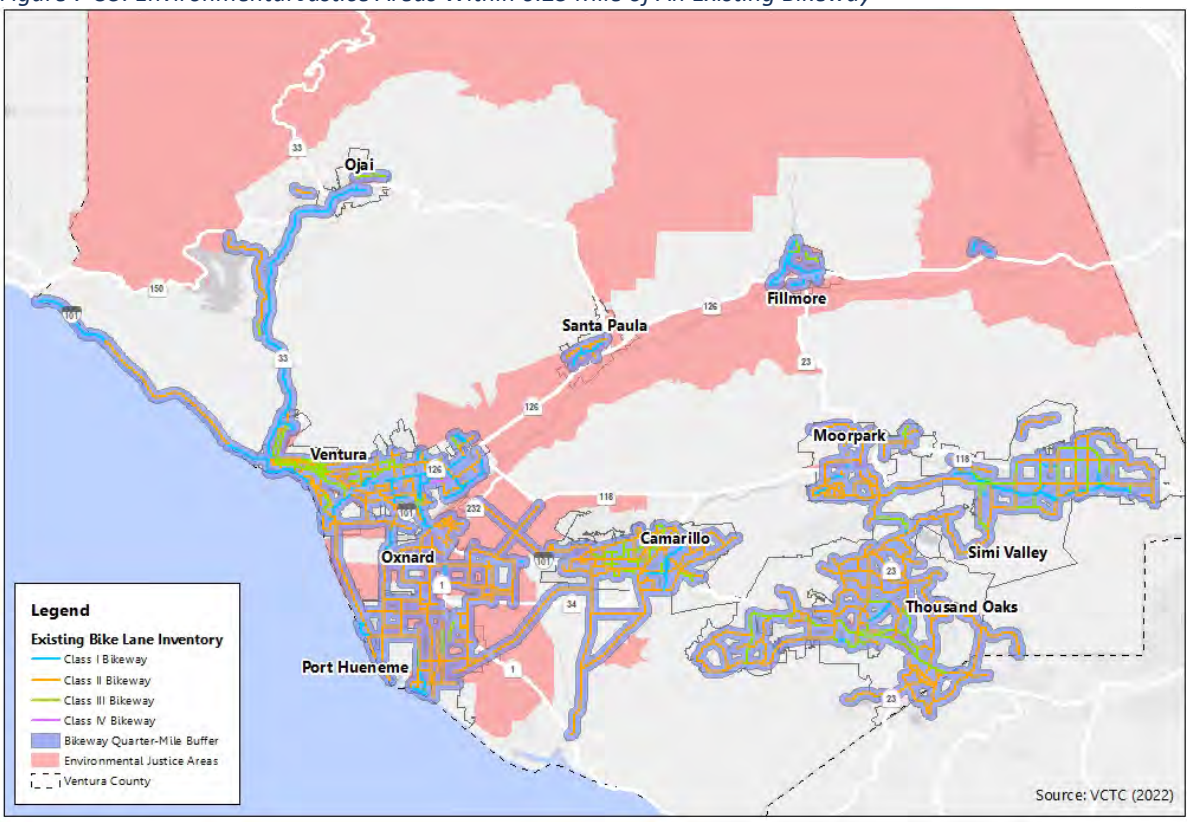


Figure 7-36: Environmental Justice Areas Within 0.25 Mile of Proposed Bikeways – CTP Implementation Scenario

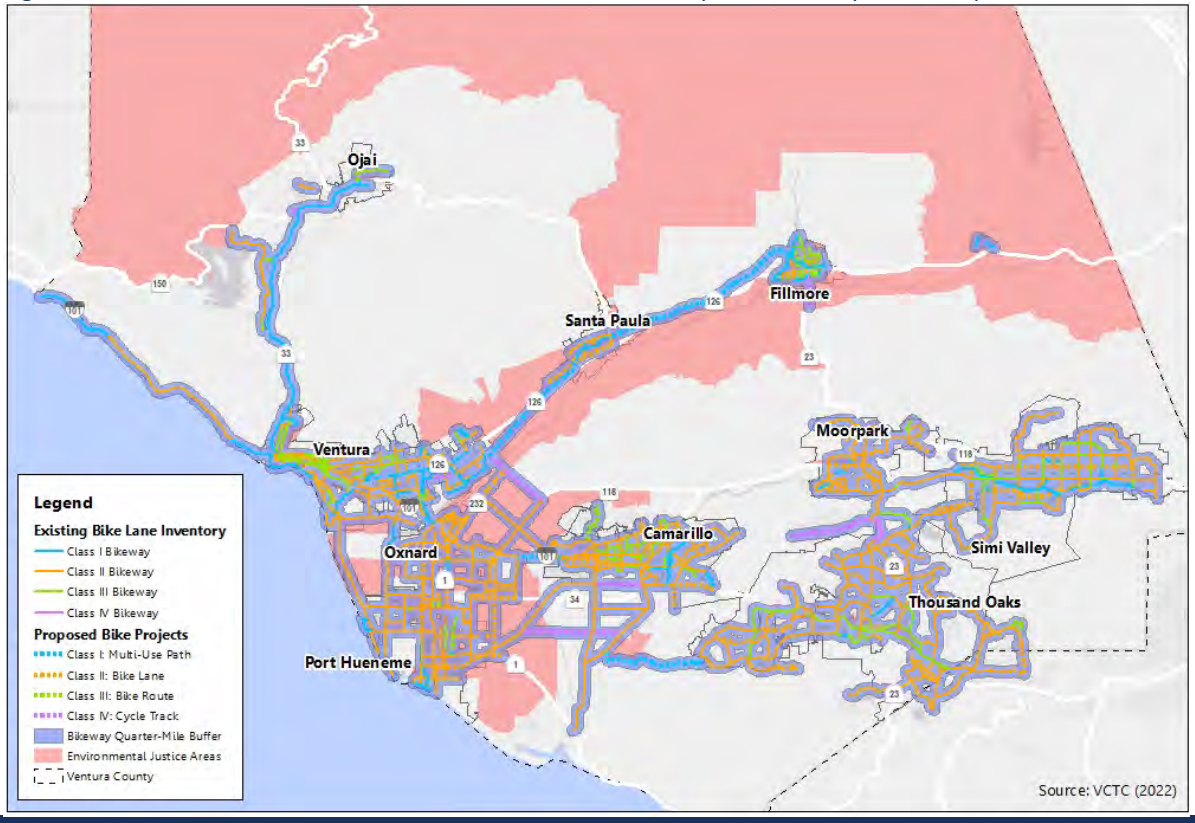
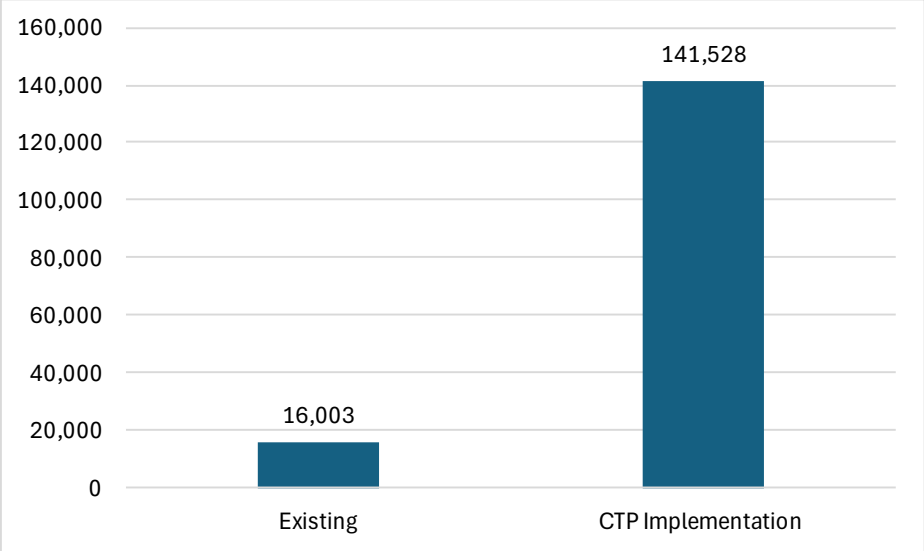


Figure 7-37: Population of Environmental Justice Areas Within 0.25 Mile of a Bikeway Across Scenarios



VMT in Environmental Justice Areas

In addition to examining the improvements to access for transit and active transportation in EJAs, the CTP also analyzes how VMT is forecast to change along major freeway and roadway corridors located within EJAs. Lower levels of VMT along a particular corridor would correspond to reduced transportation source emissions in that corridor, while increased VMT would correlate with increased emissions.
Figures 7-38, 7-39, and 7-40 illustrate total daily VMT by freeway and roadway across the Scenarios, overlaid on EJAs. These figures highlight regional corridors – those connecting different cities and serving long-distance travel – that are forecast to have higher levels of VMT compared to roadways that serve more local travel and shorter distance trips.

Corridors with higher VMT include SR 23, SR 126 and SR 118. These are key corridors for regional and interregional travel within Ventura County. These higher levels of VMT impact EJAs in Fillmore, Santa Paula, and unincorporated parts of the county. In contrast, lower levels of VMT are forecast along roadways within EJAs located in Oxnard, Ventura, and Port Hueneme.

Figure 7-38: VMT Outputs in Environmental Justice Areas – Future Baseline

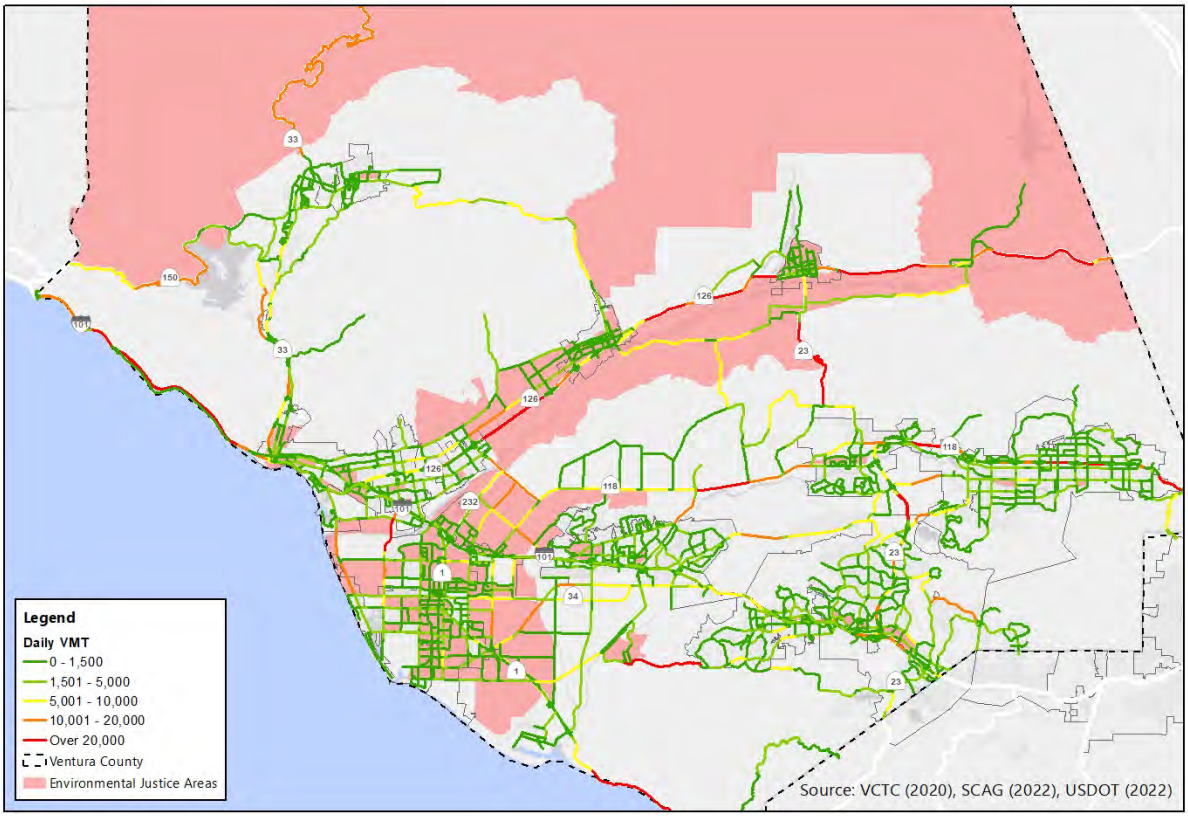


Figure 7-39: VMT Outputs in Environmental Justice Areas – CTP Implementation *Scenario*

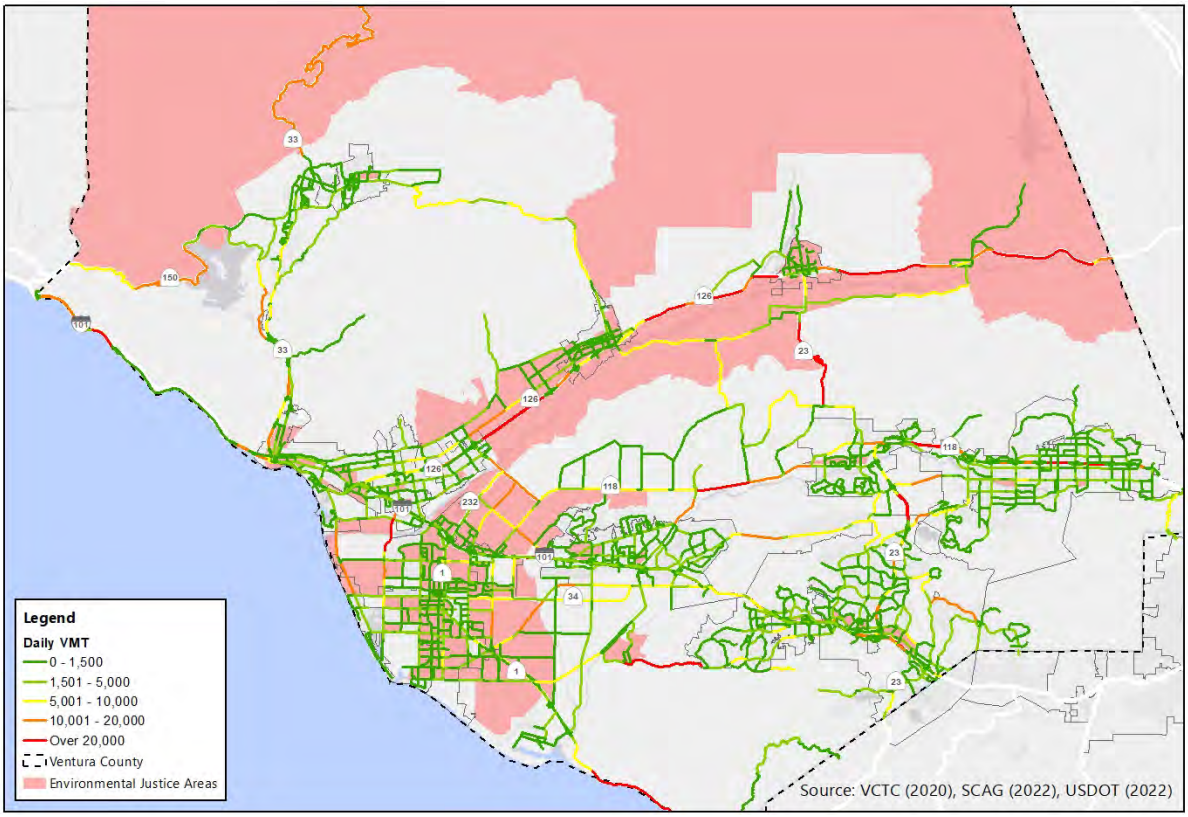
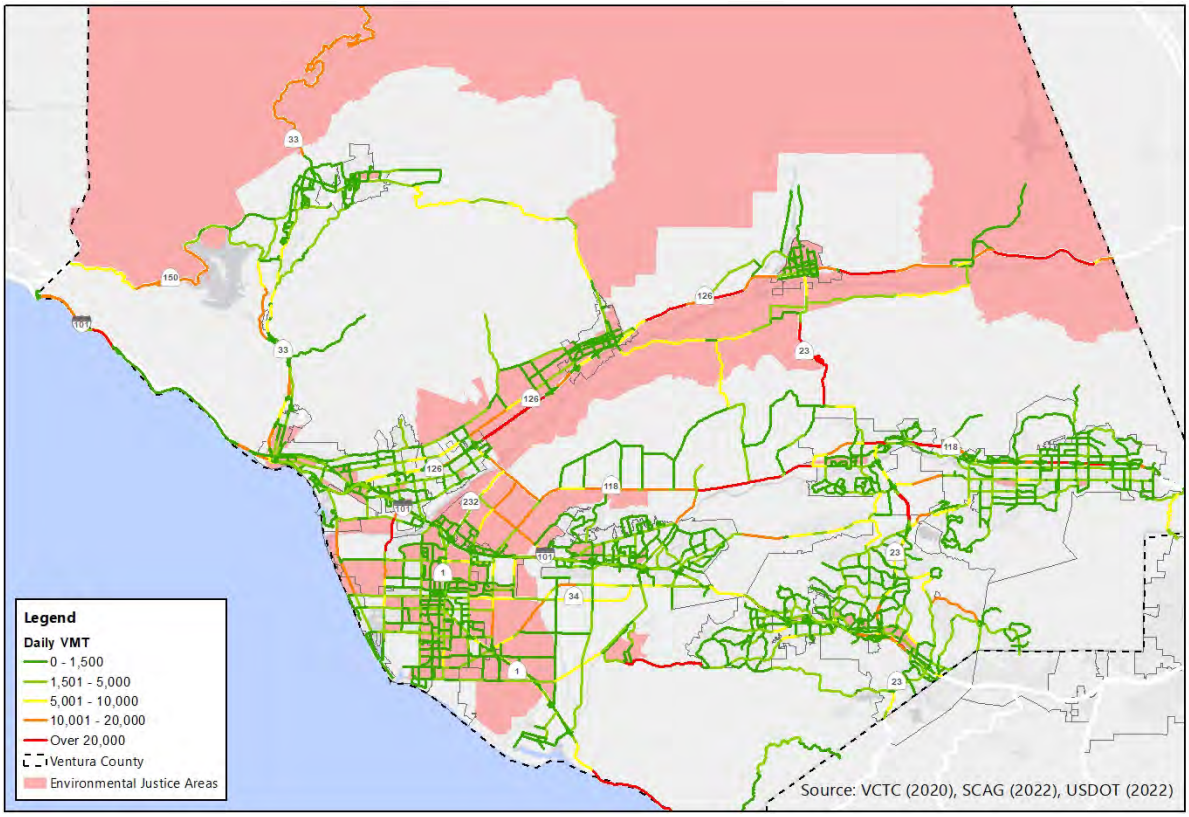


Figure 7-40: VMT Outputs in Environmental Justice Areas – CTP Visionary Scenario



Achieving the CTP's Goals

The performance metrics presented in the previous pages illustrate how the package of projects and programs identified in the CTP Implementation Scenario would help to achieve the goals of the CTP and address stakeholder and community input. Under the CTP Implementation Scenario, both vehicle miles traveled and traffic delay are forecast to be reduced compared to existing conditions, helping to achieve the CTP's goal of reducing emissions and improving sustainability. The CTP Implementation Scenario also introduces new and more frequent transit service to enhance transit mobility, particularly focusing on east-west travel between cities that currently rely largely on vehicle travel due to limited existing transit services. The CTP Implementation Scenario also proposes 115 miles of new bikeways across the county. These projects help to improve multimodal mobility choices and access to destinations for residents in Ventura County. As summarized above, this increase in access helps to foster economic prosperity by providing more mobility options, especially for residents who currently live in EJAs and may encounter barriers to mobility.

Additionally, the proposed bicycle improvements in the CTP Implementation Scenario deliver a more connected network with improved infrastructure to enhance transportation safety for those who may rely on active transportation and can also encourage new users who may currently feel unsafe on the existing network. In addition to diversifying the mode split of the county, these enhancements to active modes of travel also create a network of increased multimodal connectivity. This can encourage the co-location of transit with housing, employment areas, and key destinations and services to balance transportation and land use, ultimately helping to further decrease VMT and emissions in Ventura County.

Although many projects proposed in the CTP Implementation Scenario do not have an identified funding source, several were developed to align with the goals and projects proposed in parallel studies, such as the US 101 Communities Connected Study and the Ventura County Freight Study. Coordinating these efforts could help to build support for funding

these projects, whether through pursuit of funding grants or through a new local transportation funding source.

7.5 Non-Project Policies, Programs, and Strategies

To support the advancement, implementation, and performance of the projects identified in future scenarios , the CTP presents a set of recommended programs, strategies, and policies for VCTC and local jurisdictions to follow and adopt. These recommended policies, programs, and strategies are intended to help implement the goals of the CTP and highlight the potential benefits of the projects proposed in the CTP for metrics like vehicle miles traveled, vehicle delay, mode split, etc.

Tables 7-18 through 7-22 highlight strategies and future planning efforts to be led by VCTC or local jurisdictions. Table 7-23 documents the recommended policies for VCTC to adopt. Many of these policies are applicable to be incorporated into local jurisdiction General Plans as well and can be collaborative efforts with local agencies. For example, during the public comment period for this plan, the County of Ventura Resource Management Agency acknowledged that several of the County's General Plan programs and other transportation-related programs overlap with the strategies listed in this plan, which present opportunities to consolidate efforts.

Complete Streets

Table 7-18: Complete Streets Strategies List

STRATEGY	JURISDICTION
Identify curb management pilot projects for deployment in areas of the county with more compact development, on-street parking, and higher frequency of delivery activities	Countywide
Encourage the implementation of curb extensions at intersections to reduce pedestrian travel times and exposure to traffic when crossing streets	Countywide
Encourage the implementation of high-visibility crosswalks intersections and especially for mid-block crossing locations to improve pedestrian safety	Countywide
Increase pedestrian-scale lighting along sidewalks	Countywide
Increase drought-tolerant landscaping and shade along sidewalks	Countywide
Implement shade structures at transit stops	Countywide
Increase the use of multilingual & inclusive wayfinding signage, especially in areas with higher volumes of pedestrian activity	Countywide
Use multilingual & inclusive wayfinding signage	Countywide
Increase transit connectivity to trailheads within the Los Padres National Forest that are close to the communities of Oxnard, Ojai, Port Hueneme, Ventura, Santa Paula, Fillmore, and the communities that surround the forest	Countywide

Land Use

Table 7-19: Land Use Strategies List

STRATEGY	JURISDICTION
Work with local jurisdictions to implement zoning that permits Transit Oriented Development along high-quality transit corridors and near high-quality transit stops and stations	Countywide
Work with local jurisdictions to encourage mixed land uses and zoning to promote more places to shop/work/play within walking distance to residential neighborhoods	Countywide
Update the Airport Comprehensive Land Use Plan	Airport Land Use Commission
Work with the appropriate local jurisdictions to update local General Plans and zoning ordinances with Air Installation Compatible Use Zone (AICUZ) recommendations	Various

Innovation

Table 7-20: Innovation Strategies List

STRATEGY	JURISDICTION
Develop a Ventura County-specific trip booking app that would connect to multiple transit providers	Various
Integrate mobility services offered across Ventura County onto one app	Various
Enhance and maintain a coordinated GIS data clearinghouse between multiple agencies/stakeholders	Various
Add WI-FI on buses	Gold Coast Transit District
Implement near field communication (NFC)/non-contact payment technology on all transit vehicles	Gold Coast Transit District
Expand deployment of real time arrival signs at transit stops throughout county	Gold Coast Transit District

Sustainability

Table 7-21: Sustainability Strategies List

STRATEGY	JURISDICTION
Install additional shade structures at transit stops*^	Various
Install air quality sensors on buses to monitor changes in air quality over time and in different locations*^	Various
Proceed with planned zero emission bus (ZEB) replacements & ZEB infrastructure (Fixed-Route & Paratransit)	Gold Coast Transit District

Future Studies

Table 7-22: Future Studies List

STUDY	LIMITS	JURISDICTION
Post-pandemic demand management study – understand how travel demand has changed in Ventura County and analyze what changes will be permanent versus transitory	Countywide	VCTC
Targeted Curb management pilot projects	Various	Various
Update the Airport Comprehensive Land Use Plan	Various	Various
Conduct a Transit Oriented Development feasibility study along high-quality transit corridors and at high-quality transit stations	Various	Various
Strategic land use planning to promote co-location of uses; more places to shop/work/play within walking distance to residential neighborhoods	Various	Various
Traffic Modeling Study for area around NBVC to assess roadway capacity levels for egress and ingress of the base	Various	Various
Ventura County Line Service Improvement and Capacity Study	Countywide	Metrolink
Public Truck Parking Study	Countywide	Port of Hueneme
Freeway Express Bus Feasibility Study to examine service along U.S. Highway 101 and SR 126 between cities in Ventura County	Countywide	VCTC
Transit accessibility study to analyze the time it takes for Ventura County residents to reach transit station and key destinations from transit stations. Findings from this report can be used to create a "regional access score" for comparison between residential areas to ensure equitable access	Countywide	VCTC
Post-pandemic transit ridership recovery and cost recovery study	Countywide	TBD
Transportation Feasibility Study for transit connections at Port Hueneme and Point Mugu	Countywide	TBD
Schedule Coordination Study to coordinate fixed-route schedules, especially along underserved transit service areas as well as popular Origin-Destination (O-D) pairings so travelers can make easier transfers	East County	TBD
Class IV bikeway feasibility study to identify Class II bikeways that are good candidates for upgrade to Class IV protected facilities	Countywide	VCTC
"Safe Routes to Transit" Plan/Study	Countywide	Gold Coast Transit District
GCTD Short Range Transit Plan	Countywide	Gold Coast Transit District
Plan for and implement Transit Signal Priority on HQTC's/ other highly utilized corridors	Countywide	Gold Coast Transit District
Evaluate feasibility of offering additional transit service to Ventura Harbor including bus or shuttle, particularly along Spinnaker Drive, as well as a Class I bikeway along Spinnaker Drive	Ventura Harbor	VCTC/Ventura Port District
Evaluate and strengthen bus transit routes between the county's high schools, three community colleges, and two universities	Countywide	Various

Policies

Table 7-23: Policy List

STUDY	LIMITS
Highway Policies	Promote highway improvements that facilitate the movement of goods along US 101, SR 118, SR 23, SR 34, SR 1, SR 126, SR 33
	Capitalize on existing and future technology to support traffic management and limit traffic congestion
	Leverage success/ align with goals of Our Future 101
	Leverage success/ align with goals of US 101 Communities Connected
	Leverage success/ align with goals of Freight Corridors Study
Roadway Policies	Pursue roadway improvements which support transit and complete streets, as well as connectivity between modes
	Promote roadway improvements that facilitate the movements along major arterials
	Capitalize on existing and future technology to support traffic management and manage congestion
	Support roadway improvement projects and policies that improve safety for all users
	Leverage technology to improve parking experience
	Prepare for and enable use of Autonomous Vehicles
	Consider demographic-specific campaigns to reduce driving
	Update the County's Transportation Impact Mitigation Fee (TIMF) Program
	Consider a VMT mitigation fee program
Public Transit Policies	Develop a well-integrated multi-modal transportation environment on highways and local corridors which supports the expansion of local public transit, micro-mobility, and park & ride facilities
	Ensure that access to public transit is achieved equitably in low-income communities, senior communities, disabled communities, and communities of color
	Promote a multi-jurisdiction collaboration between Amtrak, Metrolink, VCTC Intercity, GCTD, CAT, Kanan Shuttle, Ojai Trolley, Moorpark City Transit, Simi Valley Transit, Thousand Oaks Transit, and Valley Express service to ensure connectivity and seamless transfers for long distance trips
	Designate Transit Priority Areas where high densities of transit and employment, commercial, and residential uses are present to increase transit ridership
	Enhance multimodal connections to existing airports
	Implement the final recommendations of the Transit Integration and Efficiency Study (TIES) (regional equity, improve interagency coordination, others to be identified)
	Increase transit mode share
	Increase transit service frequency for both intercity and local services
AT Policies	Promote the construction of a safe, efficient, and well-connected bicycle & pedestrian network
	Implement Active Transportation First-Last Mile projects simultaneously alongside transit corridor projects to ensure connectivity
	Promote multi-jurisdictional active transportation planning to maximize regional connectivity throughout the active transportation network
	Adopt enhanced bicycle parking requirements at residential, commercial, transit stations, and recreational locations
	Provide employer incentives to increase the number of commutes trips made via walking and biking
	Introduce a "Safe Routes to School" program to support and improve connections for students/parents walking and biking to/from school
	Increase active transportation mode share

STUDY	LIMITS
Sustainability Policies	Encourage the use of sustainable building materials and green infrastructure in transportation improvement projects
	Provide commuters and travelers with convenient alternatives to single occupant vehicle travel
	Transition to 100 percent zero emission bus and vanpool fleets by 2030 (Innovative Clean Transit Regulation)
	Support deployment of private and public electric vehicles as well as EV supportive infrastructure to reduce the impacts of greenhouse gas emissions from transportation sources
	Reduce pollution linked to GHG emissions & particulate matter

7.6 Technology and Future Mobility

Technology related to transportation and mobility is advancing at a rapid pace. These technological advancements will change how residents in Ventura County travel during the next 20-25 years. Two key technology changes that are already underway include electric vehicles and autonomous vehicles. While the specific impacts and changes that these technologies will have on the regional transportation network are still not entirely clear, there are elements of planning for these technologies that VCTC can lead on during the next few years.

Key issues related to these technologies and opportunities for VCTC are presented below.

Electric & Zero Emissions Vehicles

The State of California is aggressively promoting the transition of the state's light-duty and heavy-duty vehicle fleets to zero emission over the course of the next 20 years. This transition is aligned with the State's goals and legislation focused on combatting climate change and the negative impacts of climate change on the environment in California.

To support this transition in the vehicle fleet, the State is regulating and incentivizing purchases of new electric vehicles, both for personal use and for commercial and public agency fleets. Selected regulations and incentives related to electric vehicles include the following:

- Public transit agencies must transition their bus fleet to zero emission vehicles by 2040.
- Residents of California are eligible for a rebate of the purchase cost of up to $4,500 for the purchase of new electric vehicles or plug-in hybrid electric vehicles.
- Executive Order N-79-20 requires 100% of new light-duty vehicle sales in California to be zero emission vehicles by 2035.
- The California Air Resources Board's (ARB) Advanced Clean Truck Program requires all new medium- and heavy- duty vehicles sold in California to be zero emission by 2045.

In the first two quarters of 2022, over 160,000 new light-duty electric or plug-in hybrid electric vehicles were sold in California27. Ventura County accounted for ~2.2 percent of these sales with over 3,600 vehicles sold. As the regulations and incentives noted above result in an increased number of electric vehicles on the road in Ventura County, there is a need for appropriate infrastructure for electric vehicle charging and refueling of other zero emission vehicles, such as those powered by hydrogen or other fuels.

This infrastructure could include both public access charging facilities and refueling facilities at private and public properties (malls, transit centers, office buildings, etc.), and charging infrastructure at home, including both single family residences and multi-family residential developments.

There are numerous recent and ongoing electric vehicle planning efforts, such as the California Energy Commission Electric Vehicle Readiness Plan for Ventura, Santa Barbara, and San Luis Obispo Counties, the Central Coast ZEV strategy, and VCTC's and GCTD's Zero Emission Bus Transition Plans. The recommendations from these plans should be considered in development in the strategy for the future of electric and zero emission vehicles in Ventura County.

Autonomous Vehicles

Private industry is advancing the testing and operation of autonomous (or driverless) vehicles for both personal light-duty vehicles and for heavy-duty commercial vehicles. While there are select vehicles that are deploying some limited autonomous capabilities, and different technology companies are testing autonomous vehicles in defined urban areas, it is anticipated that full or significant transition to autonomous vehicle mobility is likely years, if not decades in the future.

While the conversion timeline is uncertain, it is important for the CTP to acknowledge this emerging technology and the potential impact it may have on mobility in Ventura County.

A potential opportunity for improvement as autonomous vehicles become more prevalent is repurposing roadway space for other uses.

27. California Energy Commission (2022). New ZEV Sales in California. Data last updated July 2022.

Autonomous vehicles present opportunities for narrower travel lanes and potential reductions in the number of traffic lanes along roadways. This new public space could be repurposed for use by bicyclists, pedestrians, transit vehicles, or as public space.

There are numerous ongoing research and development efforts in Ventura County for autonomous technology. A few locations hosting autonomous technologies development are:

- Point Mugu - the Navy's center of excellence in remotely operated aviation and underwater vehicles
- Camarillo Airport - currently testing autonomous airplanes
- Santa Paula Branch Line - Parallel Systems is developing autonomous rail vehicles

While these efforts are in the development and testing phases, autonomous technology development in the region may eventually lead to driverless vehicle testing or commercial deployment in Ventura County.

While autonomous vehicle technology is not yet ready for full-scale deployment, there is an opportunity for Ventura County to begin preparing a transportation network that can accommodate autonomous vehicles. In doing so, future local agency policies and programs regarding autonomous vehicles should be consistent.

Next Steps

VCTC plays a lead role in Ventura County in helping identify regional needs related to electric vehicle charging infrastructure, refueling facilities, helping local cities and the county to identify priority locations for charging infrastructure and appropriate modifications and refinements to land use and zoning regulations to expand accommodations for electric and zero emission vehicles.

In close coordination with SCAG and the State of California, VCTC will continue to monitor regulations, policies, and planning efforts related to the accommodation of connected and autonomous vehicles. While the agency does not have jurisdiction or regulatory power over this technology, VCTC is best positioned to coordinate with the noted agencies and monitor how technology advancements, regulations, and funding opportunities may impact local agencies and residents in Ventura County.