



## Ventura County Freight Corridors Study

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## Executive Summary

The Ventura County Transportation Commission (VCTC) and the Southern California Association of Governments (SCAG), in cooperation with Caltrans and the Port of Hueneme (Port), studied freight corridors in Ventura County to identify impacts associated with freight traffic, and develop inclusive freight corridor strategies to promote safer, more efficient, and sustainable freight connections that support the economy, social outcomes, and health of Ventura County.

The Freight Corridors Study process was driven by data, literature review, and stakeholder involvement, which informed Study goals and performance measures, identified opportunities and vulnerabilities, and used each previous step to identify priorities. The Study was developed using extensive stakeholder input through the web-based project portal, 30 one-on-one stakeholder interviews, three public workshops, and email and phone communications with port customers, trucking companies, local and regional agencies, businesses and community stakeholders, and representatives of disadvantaged communities.

### Goals and Performance Measures

The project goals and performance measures bring values into the process and allow for a balanced review of conditions, needs and solutions. This study integrates measures to assess performance of the transportation system and takes a broad view of the role transportation plays in moving goods throughout Ventura County. Study Goals include:

- Multimodal Mobility
- Economic Prosperity
- Environmental Stewardship

- Healthy Communities
- Safety and Resiliency
- Asset Management
- Connectivity and Accessibility

### Ventura County's Freight Assets

Ventura's freight system supports the County's manufacturing, agriculture, construction, and consumer industries. The Freight Corridors Study surveys the roads, rail, port, truck supportive infrastructure, safety, and other assets critical to freight movement.

### Opportunities and Vulnerabilities

The Freight Corridors Study Opportunities and Vulnerabilities section integrates data with stakeholder inputs and literature review into common topic areas to establish a qualitative and quantitative understanding of the transportation system as it relates to freight movement and community health.

### Implementing Freight Corridor Improvements

The Study intent was to move to a deeper understanding of the role of freight movement in Ventura County, by bringing in other complementary values to freight mobility and safety, such as environmental stewardship, community health, and equity. The Freight Corridors Study is not a funding allocation program, but rather an organizing document to focus on priorities of partner implementing agencies in Ventura County. With limited transportation infrastructure funds, several priorities compete for funding, and this Study provides an understanding of those projects and programs which support freight corridors. Ventura County does not have a dedicated source of freight transportation infrastructure, therefore many of the actions to improve freight movement are components of broader mobility, safety, and connectivity strategies

involving passenger travel and mitigation of community impacts from the transportation system.

Understanding the relationship between freight transportation and the economy is critical to future freight transport system decision making to optimize opportunities for economic growth in Ventura County. The Ventura County Comprehensive Economic Development Strategy listed “investments in infrastructure and the development of new resources in hazard mitigation” as the first regional economic development goal.

At the same time, the Freight Corridors Study seeks to address the primary negative externalities of freight movement, such as air pollution emissions, traffic and safety issues, noise pollution and aesthetic impacts. Few areas within southern Ventura County are not located adjacent to an agricultural area, industrial area, or major freight-carrying transportation facility. Thus, all communities in the county are impacted by freight transportation to some degree. Historic siting of low-income housing adjacent to industrial land uses and transportation facilities led to disproportionate burdens of the freight system being placed on disadvantaged residents nationwide and in Ventura County. To summarize the findings in concise principles:

- Sustained involvement in the development of transportation infrastructure investment to ensure capital improvements are both freight corridor and community assets.
- Commitment to safety and the transition to a fleet of zero emission vehicles.
- Favor routes that avoid impacts on communities, especially disadvantaged communities.

## Potential Solutions

Literature review identified a total of 157 planned projects and programs related to freight movement, which were incorporated into a potential solutions list. A gap analysis comparing planned projects to safety data and issues raised by stakeholders resulted in 25 additional concepts added to the solutions list, to bring the total number of potential solution strategies to 182. Implementation status ranges the full spectrum of the project development process from project concepts without an identified lead agency to fully funded projects in the design phase.

While each solution strategy plays a role in improving freight corridors, the performance measures were used to identify the most effective strategies to achieve the goals of the Freight Corridors Study. The top 18 solutions assessed with the Freight Corridors Study performance measures are designated as “Recommended Areas of Focus” to be emphasized over the near-term of five to ten years.

## Recommended Areas of Focus

While each area represents a priority for improving freight movement, a manageable set of solutions needs to be prioritized as the next step for major improvement projects. The following actions met the most performance criteria of the Ventura County Freight Corridors Study, and are presented to help focus agencies, elected officials, businesses, community groups and residents on a set of effective transportation solutions that balance freight mobility with safety and broader community goals. Recommended areas of focus are listed in three categories:



### Strengthen Existing Freight Corridors

- Controlled Access Facility Improvements
  - Enhanced Truck Route Identification (signage, geofencing, etc.)
  - State Route 126 Westbound to US 101 Southbound Connector
  - Improve State Route 126 through the communities of Fillmore and Piru
- Other Existing Freight Corridor Improvements
  - State Route 118 Corridor Safety Project
  - State Route 33 Stanley Avenue / Shell Road Interchange Improvements
  - US 101 / Del Norte Boulevard Interchange Improvements
  - US 101 at Victoria Avenue Interchange Improvements
  - State Route 232 (Vineyard Avenue) pedestrian crossing
  - Community Traffic Calming Program
  - Rail Corridor Fencing / Pedestrian Rail Crossings

### Strengthen the Port Intermodal Corridor

- Rice Avenue Designation of State Route 1
- Hueneme Road Access
- Ventura County Railroad Emission Reduction
- Port of Hueneme Environmental Framework and Policy (Clean Air and Port Decarbonization) and Port Corridor Optimization & Efficiency Projects

### Improve Truck Supportive Infrastructure

- Public Truck Parking
- Commercial Vehicle Enforcement Facility Upgrades
- Transition to Zero Emissions Vehicles

Turning priority ideas into reality requires several steps of procuring funding, designing a project, performing environmental assessments and cost estimation and construction. However, regardless of the funding or process for development, transportation system improvement is a cooperative process that includes significant public involvement and a balancing of transportation and broader community goals. The Freight Corridors Study helps in this process by providing early consensus on priorities, focusing project development efforts and providing momentum to projects that meet countywide goals.

# Freight Corridors Study

## Ventura County Freight Corridors Study

The Ventura County Transportation Commission (VCTC) and the Southern California Association of Governments (SCAG), in cooperation with Caltrans and the Port of Hueneme (Port), studied freight corridors in Ventura County to identify impacts associated with freight traffic, develop freight corridor strategies to promote safer, more efficient, and sustainable freight connections, and position Ventura County for future funding opportunities and investments in the national freight infrastructure.

### Study Background

VCTC works in close partnership with the County of Ventura, incorporated cities, and other regional partners to identify local transportation needs, conduct planning efforts, assist local jurisdictions, and support the statewide transportation planning process to address local mobility challenges for a more efficient, healthy, and safe transportation network. The major freight corridors in the County are the state highways (both the controlled-access freeways and full-access arterials), the railroad corridors, and the arterial roadway access routes to the Port of Hueneme and Naval Base Ventura County.

Completed in 2000, the Port of Hueneme Access Study identified the Port of Hueneme as an important economic asset to both Ventura County and Southern California, and projected significant annual growth in the volume of imported and exported goods. The 2008 Cities of Port Hueneme/Oxnard Truck Traffic Study concluded roadway volumes precipitated a need for infrastructure improvements and future study.

Many of the recommended capital improvements identified in these previous studies were completed or are currently underway, including the conversion of Rice Avenue to State Route 1 (SR 1) and the Rice Avenue Grade Separation Project. Completed projects include Rice Avenue widening and the U.S. 101/Rice Avenue interchange. The Port Access Study focused on improving freight connections between the Port and U.S. 101 but did not emphasize freight movement beyond U.S. 101. Demand for goods movement in Southern California is expected to continue grow through 2045 with the daily hours of delay experienced by heavy-duty trucks forecasted to nearly double from 2016 to 2045 without further investment in infrastructure according to the SCAG Connect SoCal Plan.<sup>1</sup>

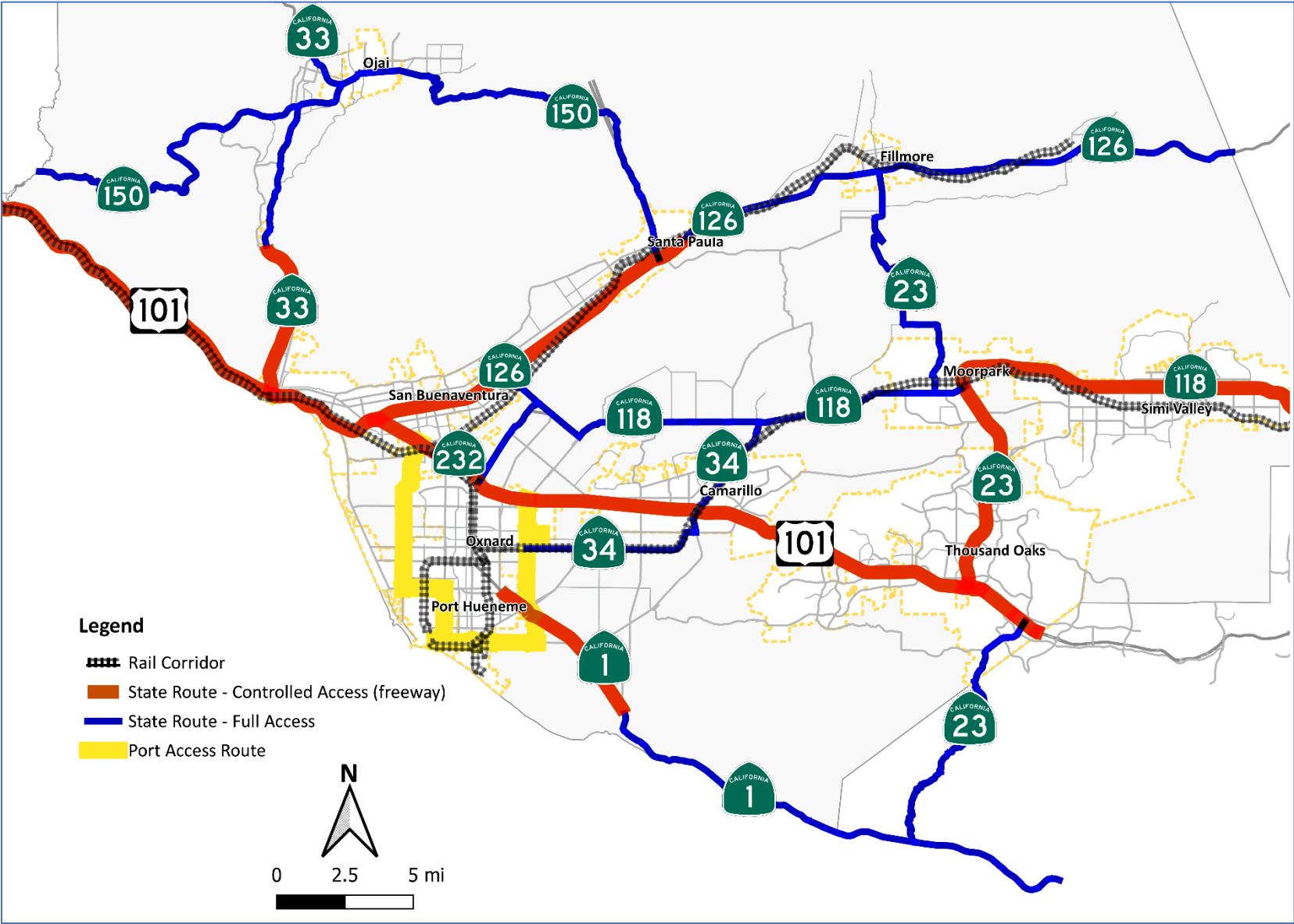
Due to considerable freight interaction between U.S. 101, state highways, and surface streets, goods movement stakeholders have an interest in studying freight to promote ease of commercial travel, relieve congestion, and mitigate negative externalities.

The Study will inform other studies and planning efforts in Ventura County such as the Comprehensive Transportation Plan, the County's long-range planning document, to compliment regional efforts to promote a vision of a world-class, coordinated Southern California goods movement system that accommodates growth in the throughput of freight to the region and nation in ways that support the region's economic vitality, attainment of clean air standards, and quality of life for our communities.<sup>2</sup>

<sup>1</sup> Connect SoCal, page 131, Southern California Association of Governments, September 3, 2020

<sup>2</sup> Connect SoCal Goods Movement Technical Report, Southern California Association of Governments, September 3, 2020

Figure 1: Freight Corridors in Ventura County



## Purpose of the Study

The Ventura County Freight Corridors Study provides a deeper understanding of the role of freight movement within a framework of enhanced economic prosperity, equity, environmental stewardship, healthy communities, safety, and resiliency.

It is the culmination of a process to establish a common understanding of the role of freight corridors as efficient conveyance in a prosperous economy and community connectors that support quality of life in the County.

## Freight Corridors Study Goals

The vision for the Freight Corridors Study is aligned with VCTC's Comprehensive Transportation Plan (CTP) goals and objectives and the SCAG Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, that balances future mobility and housing needs with economic, environmental and public health goals. In addition, the Port of Hueneme's 2020 Strategic Plan<sup>3</sup>, which was developed through a comprehensive public outreach that included port customers, local and regional agencies, businesses, and community stakeholders, informs the development of this study's goals. Three other freight-focused policy plans were consulted in the Study goals development: the National Freight Strategic Plan, the California Freight Mobility Plan 2020, and the Road Repair and Accountability Act of 2017 (SB 1) Trade Corridor Enhancement Program (TCEP) Guidelines.

Following analysis of existing conditions, stakeholder input, and review of goals and policies of relevant plans and programs, a determination was made to follow the goal structure of the California Freight Mobility Plan 2020, which most closely aligned

with this study's objectives and aligned the study with the state's freight mobility priorities.

### *1 - Multimodal Mobility*

Strategic investments to maintain, enhance, and modernize the multimodal freight transportation system to optimize integrated network efficiency, improve travel time reliability, and to achieve congestion reduction.

### *2 - Economic Prosperity*

Grow the economic competitiveness of Ventura County's freight sector through increased system efficiency, productivity, and workforce preparation.

### *3 - Environmental Stewardship*

Support strategies that reduce, avoid and/or mitigate adverse environmental impacts from the freight transportation system.

### *4 - Healthy Communities*

Enhance community health and well-being by mitigating the negative impacts of the goods movement system across Ventura County's communities.

### *5 - Safety and Resiliency*

Reduce freight-related deaths/injuries and improve system resiliency by addressing infrastructure vulnerabilities associated with security threats, effects of climate change, and natural disasters.

### *6 - Asset Management*

Maintain and preserve infrastructure assets using cost-beneficial treatment.

### *7 – Connectivity and Accessibility*

Provide transportation choices and improve system connectivity for all freight modes.

<sup>3</sup> The Port of Hueneme is in the process of developing its [2030 Strategic Plan](#)

Study Process

The Freight Corridors Study was developed based on data analysis, stakeholder engagement, and literature review, which informed opportunities and vulnerabilities, performance measures, and culminated with prioritized solutions as shown in **Figure 2**.

Data

Data collection and analysis provides the foundation for understanding current conditions and a means to compare conditions in different parts of the County to each other, such as the land use, demand for freight movement, freight infrastructure, use of the infrastructure, and the other roles transportation infrastructure plays for passenger travel and community connections.

Technical data collection and analysis of transportation system use by freight is summarized in Appendix 1: Conditions Analysis.

Stakeholders

The Study was developed using extensive stakeholder input through the web-based project portal, 27 one-on-one stakeholder interviews, three (3) public workshops, and email and phone communications with port customers, trucking companies, local and regional agencies, businesses and community stakeholders including representatives of disadvantaged communities. Stakeholder involvement was integral to all aspects of the Study and provided the lens through which values and various considerations

related to freight movement priorities were focused on while also equitably balancing benefits and burdens.

Literature Review

The study did not occur in a vacuum, and several previous and on-going efforts informed identified needs and potential solutions. Over 80 plans, reports, and policies were collected and reviewed for applicability to inform freight corridor planning in Ventura County.

This included identification of issues, proposed improvement projects and programs, and potential mechanisms for implementation.

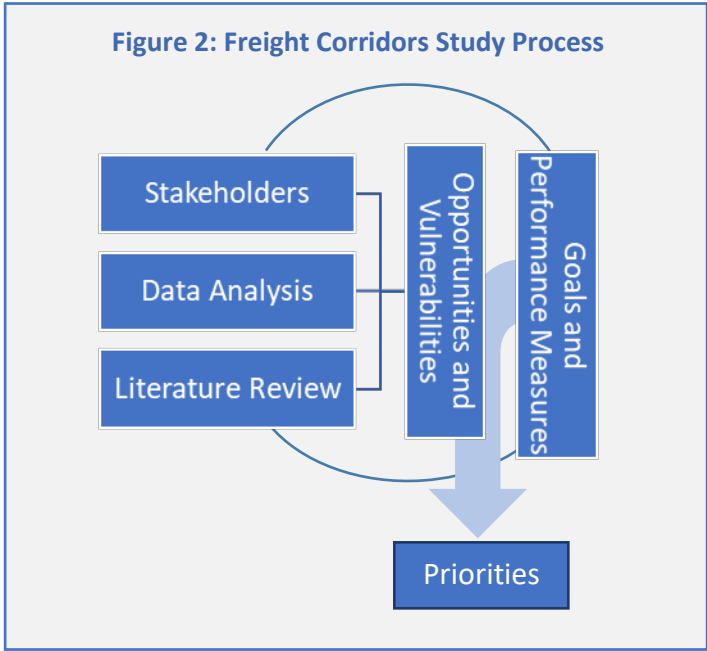
Performance Measures

Performance measures are metrics to assess how the Study’s goals are applied in the review of conditions, needs, and solutions.

If one were to focus solely on transportation system performance to determine long-term priorities, other community goals would be neglected. The transportation system supports the social and economic needs of our society: it connects people with each other and with goods to enhance

productivity, recreation, health, and comfort.

Ventura County Freight Corridors Study performance measures were developed from the California Freight Mobility Plan 2020 objectives, stakeholder involvement, and the Trade Corridor Enhancement Program (TCEP) 2020 guidelines and integrated these



measures to assess performance of the transportation system to take a broad view of the role transportation plays in moving goods throughout Ventura County.

### Opportunities and Vulnerabilities

The Freight Corridors Study identified potential opportunities and vulnerabilities by compiling and integrating pertinent data with stakeholder and literature inputs into common topic areas to establish a qualitative and quantitative understanding of the transportation system as it relates to freight movement and community health. This provides a consolidated foundation for understanding the county's freight patterns, needs, and priorities for future improvements.

### Potential Solutions

A total of 157 planned projects and programs related to freight movement were identified through the literature review and incorporated into a solutions list. A gap analysis comparing planned projects to safety data and issues raised by stakeholders resulted in 25 additional concepts added to the solutions list, to bring the total number of potential solution strategies to 182. Implementation status ranges the full spectrum of the project development process from project concepts without an identified lead agency to fully funded projects in the design phase.

While each solution strategy plays a role in improving freight corridors, performance measures were used to identify the most effective strategies to achieve the goals of the Freight Corridors Study. The projects and programs in the solution list were assessed to determine whether they meet, are neutral to, or are counter to each performance measure.

To focus on the highest priorities, the top 18 solutions assessed with the Freight Corridors Study performance measures are designated as "Recommended Areas of Focus" to be emphasized over the near-term of five to ten years.

The potential solutions and assessment are listed in Appendix 2.

### Implementing Freight Corridor Improvements

The purpose of the Study was to better understand freight movement in Ventura County in a comprehensive context, utilizing key complementary values to freight mobility and safety; environmental stewardship; community health; and equity. By extension, the recommended priority solutions include a mix of projects and programs involving different areas of the County and responsible parties for implementation beyond the Port of Hueneme and Caltrans.

The Freight Corridors Study is not a funding allocation program, but rather an organizing document to focus on priorities of partner implementing agencies in Ventura County. With limited funding for transportation infrastructure improvements, this Study provides an understanding of those projects and programs which support freight corridors for consideration among competing priorities. Ventura County does not have a dedicated source of freight transportation infrastructure funding, and many of the actions to improve freight movement are components of broader mobility, safety, and connectivity strategies involving passenger travel and mitigation of community impacts from the transportation system. The result is a set of priority solutions to improve the County's transportation system and support freight efficiency, safety, and resiliency, strengthen the County's economy, social outcomes, and health, and balance the benefits and burdens of the transportation system more equitably and sustainably.

## Freight Corridors in Ventura County

Ventura County is a vibrant community reliant on a transportation system to move goods produced, consumed or passing through the County. Leading generators of freight movement in Ventura County are production by the manufacturing and agricultural sectors, imports and exports passing through the Port of Hueneme, Naval Base Ventura County logistics, local household and business consumption, and interregional commerce between Los Angeles and Santa Barbara County. Continued economic development and quality of life in Ventura County requires local investments and leveraging of state, federal and private funds for improved roadways and multi-modal connectivity throughout the County.

Demand for freight movement is driven by both producers and consumers of goods. Nearly all businesses rely on the road and rail system for deliveries of materials to supply production and to bring products to market.

Goods imported to, exported from, produced in, and consumed in Ventura County often originate, or are destined for, areas outside of the County. Trucks traveling to or from outside of Ventura County primarily access the Los Angeles area and points beyond from US 101 or State Route 118, the Central Valley, Northern California, and northern points beyond from State Route 126, and Santa Barbara County and the Central Coast from US 101.

Last-mile delivery is the final leg of the supply chain as goods are delivered from production to consumption. Deliveries happen in complex environments, involving the interaction of several

elements, including producers, deliverers, consumers, buildings, delivery space, streets, and other roadway users. Improving the capacity and efficiency of access to and use of end facilities enables more efficient use of arterial corridors shared with passenger vehicles, active transportation, and transit.

## Freight and Ventura County's Economy

Freight transport is a vital component of Ventura County's economy. The agricultural industry, manufacturing, wholesale trade, and transportation and warehousing industries generate approximately 1/3 of the County's economic output. In 2019, agriculture employed 26,125 persons, manufacturing employed 28,330 persons, and transportation and warehousing employed 6,116 persons in the County.<sup>4</sup>

Ventura County has a long history of oil, machine tool, and pharmaceutical manufacturing. The manufacturing sector is the largest single contributor to economic output in the county and the development of small firms in the region along with advanced skills training will contribute to job growth over time. The manufacturing cluster contributes \$8.7 billion in exports and just under \$6 billion in gross regional product per year.<sup>5</sup>

The agricultural sector is the next highest exporter of goods at \$3.1 billion, though the sector's contribution to gross regional product is much lower than manufacturing due to marginal differences in profitability.<sup>6</sup>

According to the 2018 Economic Impact of the Port of Hueneme Study, the Port of Hueneme moved \$10.85 billion worth of cargo in

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<sup>4</sup> Economic Development Collaborative: Ventura County Comprehensive Economic Development Strategy, April 2019

<sup>5</sup> Economic Development Collaborative: Ventura County Comprehensive Economic Development Strategy, April 2019

<sup>6</sup> Ibid.



2018, resulting in a \$1.7 billion overall economic impact, \$119 million paid in annual taxes and supporting over 15,800 jobs.<sup>7</sup>

Understanding the relationship between freight transportation and the economy is critical to future freight transport system decision making to optimize opportunities for economic growth in Ventura County. Freight predominately shares its facilities with passenger transportation both on the roadways and railways with some exclusive freight facilities serving the Port of Hueneme, warehousing, distribution centers, and manufacturing. Shared facilities are cost-effective, as they do not duplicate infrastructure, however they do make goods movement susceptible to passenger congestion, rail timetables, and increased potential for conflict among modes of travel. No single type of freight flow exists in Ventura County. Multiple types of freight trips layer upon each other and interact with the passenger transportation system, and analyzing each element of the freight system will help identify mobility and safety improvements to improve efficiency and access in the delivery of goods to support consumption, manufacturing and agriculture associated with a healthy economy.

The Ventura County Comprehensive Economic Development Strategy listed “investments in infrastructure and the development of new resources in hazard mitigation” as the first regional economic development goal. This included “increase local investments and leveraging of state, federal and private funds for improved roadways and multi-modal connectivity throughout the County” to support a resilient regional economy.<sup>8</sup>

The freight and logistics industry is in the early stages of moving to clean energy and decarbonization. The California Air Resources Board is anticipated to develop zero-emission regulations for much

of the on-road and off-road equipment involved in the logistics industry over the next few years. Providing clean energy fueling infrastructure and having workforce development for new technologies will help ensure Ventura County can address current needs sustainably while making additional growth possible.

### Equity

The primary negative externalities of freight movement include air pollution emissions, traffic and safety issues, noise pollution and aesthetic impacts. Few developed areas within southern Ventura County are not located adjacent to an agricultural area, industrial area, or major freight-carrying transportation facility. Thus, most communities in the county are impacted by freight transportation to some degree. Strategies to reduce impact on communities such as buffering, use of linear parks, sound walls, bicycle paths, and enhanced crossings should be implemented through sustained public engagement of the impacted communities.

Vehicle pollutant concentrations are higher closer to roadways, with the highest levels generally within the first 500 feet of a roadway and reaching background levels within approximately 2,000 feet of a roadway, depending on the pollutant, time of day, and surrounding terrain.<sup>9</sup> Studies compiled by the American Lung Association found people who live, work, or attend school near major roads are more at risk for a variety of short- and long-term health effects, including asthma, reduced lung function, impaired lung development in children, and cardiovascular effects in adults. 75,500 of the 134,900 (56 percent) K-12 students went to school within 2,000 feet of a defined truck route in 2019—77 percent of those students were non-white (including Hispanic). Cities and areas with the highest

<sup>7</sup> 2018 Economic Impact of the Port of Hueneme, Martin Associates, May 20, 2019

<sup>8</sup> Ventura County Comprehensive Economic Development Strategy, April 2019

<sup>9</sup> Environmental Protection Agency, Best Practices for Reducing Near-Road Air Pollution Exposure at Schools, accessed 8/5/2021

proportion of students near a roadway with 500 or more trucks per day are Somis, Camarillo, Oxnard, Port Hueneme, Santa Paula, and Ventura.

Based on land use data from the Southern California Association of Governments and truck volume data collected as part of this study, approximately six percent of the County's population—nearly 49,000 people—live within 500 feet of a roadway that carries more than 1,000 trucks per day<sup>10</sup>.

Park access from residential areas often cross or are located along truck routes in the County. Ensuring safe and deliberate support of walking and biking access to parks from adjacent residential areas, especially across routes supporting large amounts of truck traffic, is an important strategy to balance community interest with freight movement.

### Ventura County's Freight Infrastructure

Ventura's freight system supports the County's manufacturing, agriculture, construction, and consumer industries.

#### Roads

Controlled-access freeways are the backbone of the County's network of truck routes. This freeway network is complemented by a network of truck routes along surface roadways to facilitate the remaining connections and terminal access between the freeway network and truck generators and destinations within the county. US 101 is only one continuous freeway in the county. State routes 1, 23, 33, 118, and 126 each have controlled-access freeway and

full-access arterial sections. Their route signage does not distinguish between the controlled access and full-access portions.

State and local designations of truck routes (see Figure 10) are used to define the types of vehicles allowed to use certain roadways. The designations can be intended to define important roadways for commerce, indicate the best routing to avoid sensitive places such as residential areas and to limit the use of oversized, overweight, or tall vehicles to roadways designed and maintained to accommodate those vehicles. While truck routes and prohibitions generally provide statutory authority to cite and fine vehicles that deviate from defined routes, large vehicles can use any roadway to access a terminal location or make a delivery.

#### Port

The Port of Hueneme, the only deep-water port between Los Angeles and San Francisco, is a hub for the import and export of goods grown, built, and imported into Ventura County and distributed to the western United States and southwestern Canada. The Oxnard Harbor District administers the commercial port which is the 4th largest commercial Port in California.<sup>11</sup> The Port of Hueneme is a joint-use port with Naval Base Ventura County-Port Hueneme and is the only military deep-water port between San Diego and Seattle.

Top imports to the Port are passenger vehicles, commercial vehicles, bananas, avocados and pineapples. Top exports are passenger vehicles, clothing accessories, commercial vehicles, motor vehicle parts and potatoes.<sup>12</sup>

<sup>10</sup> The 1,000 truck per day value was selected based on it being the lowest level of daily truck traffic of the major controlled-access facilities of State Routes 23, 118, 126, and US 101 in the County--State Route 23 north of US-101 was observed to carry 1,050 daily three or more axle truck trips as part of the study.

<sup>12</sup> Port of Hueneme [Trade Statistics](#), Accessed 10/18/21

The Port Intermodal Corridor was established in 1998 to facilitate truck connections between the Port of Hueneme and the regional access of US 101. The primary Port Intermodal Corridor from Hueneme Road to Rice Avenue and the interchange with US 101 is supported by a contingency corridor along Ventura Road to Channel Islands Boulevard to Victoria Avenue with an interchange of Victoria Avenue at US 101. Victoria Avenue is utilized by most freight access to Naval Base Ventura County–Port Hueneme. Las Posas Road and Pacific Coast Highway serve as the interchange with Naval Base Ventura County – Point Mugu.

The Port of Hueneme is located further away from a controlled-access<sup>13</sup> highway than any other port in California. The State of California designates 64 miles of non-state highway roadways as Primary Highway Freight System Intermodal Connectors to connect seaports and airports to the National Highway Freight Network—20.45 miles of which, or approximately 1/3 of the entire state total, are designated for access to the Port of Hueneme.<sup>14</sup>

### Rail

The Ventura County section of the Union Pacific Railroad (UPRR) Coast Main Line bisects the county and is used to transfer goods and autos to and from port facilities and industrial customers, while also accommodating passenger service. Each of the incorporated Cities have active rail lines within their borders except Thousand Oaks and Ojai. There are over one hundred highway/rail crossings in

the County, only 27 of which are grade separated—the Rice Avenue grade separation project would bring that number to 28.

The Oxnard Harbor District owns the Ventura County Railway, a Class III short line railroad that serves the industrial areas of South Oxnard, the Port of Hueneme, and the Naval Base Ventura County Port Hueneme Division. The VCRR connects with the Union Pacific Railroad (UPRR) Coast Main Line in nearby downtown Oxnard.

The Ventura County Transportation Commission owns the Santa Paula Branch Line, a short line railroad that connects with the UPRR Coast Main Line near Montalvo in the City of Ventura and travels eastward through the Santa Clara River Valley and the State Route 126 corridor, serving the cities of Ventura, Santa Paula and Fillmore, and the unincorporated communities of Saticoy and Piru.

### How Freight Moves in the County

Freight activity is concentrated along the major east-west highways, the Coast Line rail corridor, and arterials that crisscross the Oxnard Plain.

### Truck Activity

The predominant truck flows in the county are east/west along State Route 126, State Route 118, and US 101, with large volumes of local access to major truck-trip generating land uses in Oxnard, and to a lesser degree in Camarillo, Ventura, and agricultural areas adjacent to Camarillo, Oxnard, and Ventura.

Screenlines<sup>15</sup> splitting the County into two parts (either east/west or north/south) are used to demonstrate the magnitude of

<sup>13</sup> Controlled-Access facilities are freeways which connect to other roadways via interchange ramps, full-access facilities connect to other roadways at intersections

<sup>14</sup> Federal Highway Administration Office of Operations National Highway Freight Network Map and Tables for California. Accessed 8/5/2021

<sup>15</sup> A screenline is a line on a map used to determine the number of vehicles crossing an area on parallel routes

countywide truck flow. A screenline consisting of State Route 126 between Orcutt Road and Sycamore Road, State Route 118 between Somis Road and Balcom Canyon Road, and US 101 at Camarillo shows approximately 8,800 trucks and 193,000 total vehicles cross the screenline east/west in each direction over the course of a day. A screenline of north/south truck movements shows approximately 11,000 trucks per day south of US 101 and approximately 7,000 truck per day north of US 101.

Analysis of future truck growth using the Ventura County Transportation Model (VCTM) indicates County levels of truck traffic is forecasted increase 50 percent from 2018 to 2040. Forecasted truck volume growth is highest on the major east-west highways of US 101, State Route 126 and State Route 118 with 2,650 additional daily trucks forecasted for US 101 and approximately 1,000 for State Routes 126 and 118. This is representative of substantial growth due to interregional trips in greater proportion to growth of truck trips internal to or having one trip end in the county.

#### *Safety Conditions*

Overall, 456 truck-involved collisions (2.85 percent of the total) occurred in Ventura County from January 1, 2016 to December 31, 2019. Approximately 70 percent of these collisions (319) occurred on arterial roads and 30 percent (137) occurred on freeways. The most common primary factor in truck-involved collisions was unsafe speed which occurred in 52 percent of freeway collisions and 29 percent of arterial collisions. The next highest factors in freeway truck-involved collisions were improper turning (20 percent) and unsafe lane change (13 percent). The next highest non-speeding factors on arterials were improper turning and impeding another vehicle's right-of-way (17 percent each) and failure to abide by signals and signs (10 percent).

Thirty-eight (38) serious injuries and 20 fatalities resulted from the truck-involved collisions. Therefore, truck-involved collisions resulted in a fatality in 4.4 percent of incidents and severe injury in 8.3 percent of incidents. When compared to the 15,544 collisions that did not involve a truck, in which 1.2 percent resulted in fatalities, and 7.0 percent resulted in serious injury, truck-involved collisions are shown to have more severe injury outcomes as compared to other types of collisions.

Thirty-seven (37) locations had more than three truck-involved collisions over the four-year period. Due to their higher relative truck volume, state highways were the location of most of the individual highest collision locations, with US 101 having 13 truck collision hot spots, State Route 118 having six, State Route 23 having three, State Route 34 having two, and State Route 1 (Rice Avenue) having one.

However, 17 of the top 37 locations were on arterial roadways, with SR 118 at Balcom Canyon Road and Rose Avenue at 5th Street averaging more than one truck-involved collision per year. Of the locations with multiple fatal or severe collisions, two of the top three locations were arterial highways in rural areas: State Route 126 at Center Street near Piru and SR 118 at Balcom Canyon Road east of Somis.

#### *Rail Corridor Safety*

Rail safety is a major concern in Ventura County—as the southern part of the County is bisected by both US 101 and the UP/Metrolink rail tracks. The rail tracks are shared by freight and passenger service along the mainline as it crosses through urban, suburban, and rural areas. Safety issues include prevention of trespass onto tracks, enhancing crossing notification and barriers, and separating at-grade crossings to eliminate conflicts.

Incidents of rail trains with persons trespassing across tracks or vehicle stopped at crossings occur throughout the corridor from the Santa Barbara County Line to the Los Angeles County Line.

Concentration of incidents are:

- In the City of Ventura, with both trespasser and at-grade crossing incidents between downtown Ventura and the beach area,
- Trespassers on the Santa Clara River Railroad Bridge,
- Throughout the Union Pacific corridor in the City of Oxnard (whereas the VCRR has fewer incidents in Oxnard due to its lower speed), and
- At the highway-rail crossings along 5th Street in Oxnard and the unincorporated areas south of Camarillo.

The California Public Utilities Commission rail-crossing list includes 199 open highway/rail crossings in Ventura County, 172 of which are at-grade and 27 grade separated. There are no controls at 14 of the at-grade locations, 47 locations have passive controls (signs only), nine have flashers, and 102 of the locations have gates.

Overall, 24 highway/rail grade crossing incidents occurred from 2014 to 2019. These resulted in 11 deaths and 40 injuries. The two locations with the most incidents are Las Posas Road (five incidents) and Rice Avenue (three incidents) accounting for more than half of the fatalities and three-quarters of the injuries at highway/rail at-grade in Ventura County in the six-year period. The majority of the incidents involved Amtrak trains (17 total), followed by freight trains (5 total) and Metrolink (two total). The split of incidents involving either passenger trains or freight train is proportional to the frequency of the two types of trains: six freight trains and 18 passenger trains per day. Therefore this does not indicate either

type of train service is more or less prone to incidents with highway users either crossing or stuck at highway/rail grade crossings.

#### Facilities Related to Truck Travel

Operational Weigh-in-Motion (WIM) commercial vehicle enforcement sites in Ventura County are located at US 101 in the Conejo Grade and a mini-site weigh station along State Route 118 west of Moorpark.

Ventura County, and California as a whole, faces a severe shortage of truck parking. Typically, commercial truck parking is made available at public rest areas, truck stops, or in designated areas along roadsides. The only publicly available truck parking in Ventura County is at the Mac Valley Oil Company at the intersection of Del Norte Boulevard and Sturgis Road in Oxnard, with nine available spaces. The next closest commercial truck parking facilities are located in Castaic along I-5 in Los Angeles County. Hours of service work safety rules for truck operators, combined with the shortage of truck parking areas, likely contributes to the prevalence of trucks parking along roadways.

During the preparation of the Freight Corridors Study, Caltrans is conducting a truck parking study. The purpose of this study is to conduct a statewide truck parking evaluation that will assess the current supply and demand for truck parking in California and identify truck parking needs. The demand for truck parking and current activity patterns of idling or parked trucks has not been quantified in Ventura County. A focused study to evaluate the duration and frequency of trucks idling in unauthorized locations and instances and possibly quantify the emissions resulting from idling observed would define the degree of need and type of improvements needed for truck parking. A focused study of truck

parking should identify areas of concern and disadvantaged communities impacted by unauthorized truck parking.

### Emissions

Medium and heavy-duty trucks with diesel engines are a significant source of particulate matter and nitrous oxide emissions that has disproportionate health impacts on disadvantaged, low-income, and rural communities living along or near major goods movement corridors in Ventura County.<sup>16</sup> On June 25, 2020, the California Air Resources Board (CARB) adopted an Advanced Clean Trucks regulation, a first-in-the-nation rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024 and requiring that all new trucks sold in California by 2045 will be zero emission.

The CARB Truck Idling Regulation prohibits drivers of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds, including buses and sleeper berth equipped trucks, to idle the vehicle's primary diesel engine longer than five minutes at any location.

At the preparation of the Freight Corridors Study, the CARB was in the process of preparing Clean Fleet requirements, a new Drayage Truck Rule, and a revised Clean Bus and Truck Rule. These new regulations are anticipated to begin taking effect in the next three years and are expected to be the regulatory framework for the fleet transition to zero-emission trucks. The public and private stakeholders in Ventura County need to coordinate the facilitation of this transition as it is expected that substantial incentive funding

will be made available by the State, and potentially the federal government.

These ambitious policies reflect the importance of changing the fuel for large vehicles to reduce GHG emissions and criteria air pollutants, and improved health and living conditions across California's most impacted communities.

Access to zero emissions fuels such as hydrogen and fast-charging electrical power is expected to be essential infrastructure within the next ten years. Ventura County agencies must partner with each other as well as State, federal, and private sector efforts to prepare and establish the infrastructure for zero emissions fuels.

### Climate Change

Following Caltrans Climate Change Vulnerability Assessment,<sup>17</sup> and Climate Change Adaptation Priorities Report,<sup>18</sup> various sections of the State Highway System in Ventura County have been identified as vulnerable to climate change. These studies evaluate impacts from climate change stressors such as sea level rise, storm surge, wildfire, change in temperatures, change in precipitation and coastal erosion.

Climate change impacts identified in these studies have the potential to impact freight movement and other state highway system users. The Adaptation Priorities Report further identifies priority Caltrans' assets requiring climate change adaptation measures such as large and small culverts, bridges, and sections of roadway. Caltrans is actively working to identify and improve

<sup>16</sup> Ventura County Air Pollution Control District Fiscal Year 2017-2018 Annual Report

<sup>17</sup> <https://dot.ca.gov/programs/transportation-planning/2019-climate-change-vulnerability-assessments> accessed September 2021

<sup>18</sup> <https://dot.ca.gov/programs/transportation-planning/2020-adapation-priorities-reports> accessed September 2021

climate resiliency measures related to these impacted assets to ensure safe, reliable use of the state highway system.

### Safety and Resilience

Freight shares the transportation network with a wide variety of other users. Truck travel on local streets to access ports, warehouses, and railyards, and may affect pedestrians and bicyclists that share these same roads. Generally, truck traffic volume correlates with frequency of truck-involved incidents due to the greater number of opportunities for conflict. Truck-involved incidents tend to have more severe outcomes to people, vehicles, and infrastructure than incidents between passenger modes due to the heavier weight of trucks.

Roadway/rail at-grade crossings are the locations where rail crosses a road. Since rail is the heaviest, and hardest to stop of ground transportation modes, the risk of severe injury or death during a collision is greatly heightened at these crossings. While grade separation projects remove these conflicts, they are expensive and require significant multi-agency coordination.



## Opportunities and Vulnerabilities

The Freight Corridors Study Opportunities and Vulnerabilities integrated data with stakeholder inputs and literature review findings into common topic areas to provide a qualitative and quantitative understanding of the transportation system as it relates to freight movement and community health. This provides a consolidated foundation for understanding the county's freight patterns and needs and assess priorities for future improvements.

Stakeholders identified 48 topic areas under which opportunities, vulnerabilities, and other issues were categorized through comments submitted in the web-based project portal, 27 one-on-one stakeholder interviews, three (3) public workshops, and numerous email and phone communications. An additional 139 issues identified within the literature review were added to form a comprehensive list for use in the identification of Freight Corridor needs, solutions, and performance measurement.

Major Opportunities and Vulnerabilities identified by stakeholders include:

### Port and Naval Base Access

- Port and Naval Base access from US 101 and the benefits of improving the Rice Avenue Corridor
- Oxnard Boulevard is transitioning from State Route 1 to a community-oriented main street.
- There is a lack of signage to the Port and improved signage to the Port off of major highways would be key to efficient freight transport and cargo movement. Drivers unfamiliar with the area often do not use designated truck routes.
- The need to balance the economic needs of the goods movement sector while addressing the community's social, economic and environmental needs.

- Grow opportunities for social equity, and job skills training (e.g. the Oxnard Harbor District has a project labor agreement for construction contracts).

### Truck Patterns

- US 101 is the only corridor from Ventura County to Santa Barbara County and an important interregional connector.
- Truck signage and wayfinding is a challenge in keeping trucks out of neighborhoods or off of roadways that are not a direct connection to a terminal.
- Unclear truck routing north of US 101 leads to overutilization of local access truck routes for regional travel.
- Most southern California freeways are interstate highways, however in Ventura County US 101 is the only end-to-end freeway facility with other state highways having a mix of arterial and controlled-access sections as shown in **Figure 1**, which is confusing for unfamiliar truck operators.
- Little advanced notice of transitions from industrial and agricultural areas to residential areas for truck operators.

### Truck Parking

- Long haul trucks need overnight parking – a truck stop or secure parking lot.
- A lack of parking for trucks, truck operators need time to rest and the absence of an official parking area results in parking along roadways and near neighborhoods.
- Zero emission charging and fueling locations will need to be developed to accommodate fleet transition to zero emission vehicles.



### **Enforcement and Administration**

- Overweight vehicles either avoid commercial vehicle enforcement facilities or are turned back and need to have loads reduced.

### **Highway/Rail Grade Crossings**

- Stakeholder identified the Five Points intersection in Oxnard as having significant delays.
- Grade crossings along 5th Street from Oxnard to Camarillo can result in delays to arterials.

### **Rail Corridors**

- Attempts to place fencing in the UPRR corridor have been in conflict with City of Ventura ordinances, pedestrian access across tracks, and maintenance.
- At-grade rail crossing improvements are needed and are in development along the Union Pacific corridor.
- Rail tracks are open, people cross the tracks all the time including students.
- Development potential of the Santa Paula Branch Line as a multiuse path (rail trail) or expanded rail service.

### **Multimodal Transportation**

- The importance of crossing Hueneme Road for neighborhoods in Oxnard and the Southwinds community to access Ormond Beach.<sup>19</sup>

- State Route 126 is the only full east-west connection for Piru and Fillmore and is dangerous for non-vehicle users.
- Vineyard Avenue needs better pedestrian crossings between schools and residential areas.

### **Environmental Impacts**

- Most impact on disadvantaged communities comes from diesel exhaust and is an adjacency issue next to corridors, such as US 101 and SR-126, and warehousing.
- Steps need to be taken to facilitate the transition in the long-term, and address related labor issues, to zero-emission vehicles to reduce impacts on disadvantaged communities.

### **Land Use**

- Land use policies such as Save Open Space and Agricultural Resources (SOAR) concentrate future development in Cities and preservation of agricultural and open space areas is very important.
- Accommodation of future goods movement conditions with land use policies.

### **Inadequate Infrastructure and Areas in Need of Improvement**

- A connection is needed between westbound State Route 126 and southbound US 101 other than Victoria Avenue.
- The State Highways that are arterials including Vineyard (State Route 232), Los Angeles Avenue (State Route 118) and parts of State Route 126 have safety, active transportation crossing, and excessive speed issues.

<sup>19</sup> See [Ormond Beach Restoration Public Access Plan](#) for more information

- The State Route 34 5<sup>th</sup> Street and Lewis Road sections have a number of at-grade rail crossings in need of safety improvements.
- The State Route 33 Stanley Avenue and Shell Road interchanges are under-designed and a challenge for all vehicles in entering and exiting State Route 33.
- The Del Norte and Central interchanges with US-101 are under-designed and will need improvements to accommodate demand.
- Infrastructure to support zero-emission vehicles.

### Principles for Freight Corridors in Ventura County

The overwhelming response from stakeholders was an acknowledgement of the important role freight movement plays in the economic and social fabric of the County. However, accommodation of freight movement must be balanced with community values of health, connectivity, and minimization of impacts, especially in historically underrepresented and disadvantaged communities.

To summarize the findings in concise principles:

- Sustained involvement in the development of transportation infrastructure investment to ensure capital improvements are both freight corridor and community assets.
- Commitment to safety and the transition to a fleet of zero emission vehicles.
- Favor routes that avoid impacts on communities, especially disadvantaged communities.

## Potential Solutions

Planned projects and programs (solutions) related to freight movement were identified through the literature review. A total of 154 potential solutions related to freight corridors were incorporated into a solutions list. A gap analysis comparing planned projects to safety data and issues raised by stakeholders resulted in 28 additional concepts added to the solutions list, to bring the total potential solution strategies to 182. The implementation status ranges the full spectrum of the project development process from project concepts without an identified lead agency to fully funded projects in the design phase. The potential solutions are listed in Appendix 2.

While each solution strategy plays a role in improving freight corridors, the performance measures were used to identify the most effective strategies in achieving the goals of the Freight Corridors Study. The projects and programs in the solutions list were assessed as to whether they meet, are neutral to, or are counter to each performance measure. The top 18 solutions assessed with the Freight Corridors Study performance measures, are designated as “Recommended Areas of Focus” as a manageable program of improvement which can be emphasized over the near-term. An additional eight potential solutions were identified for further study to supplement eight planned feasibility studies by the County of Ventura Public Works Department. These are arterial improvement projects which could integrate goods movement considerations during their initial planning phases.

Freight movement and health of communities are not mutually exclusive or a zero-sum game of winners and losers. Differing positions on infrastructure investment is to be expected given limited funds and space for projects. However, inclusive processes to allow for all voices in the shaping of projects minimizes

community impacts, addresses equity needs and meets transportation goals. Community involvement should continue to be approached as a partnership that identifies potential concerns and risks early in the design process.

With limited funding resources to invest in the infrastructure and management of the transportation system, priorities must be developed to ensure resources go to the most effective strategies. The development of priorities builds on the current collaboration of transportation agencies, Cities, residents, community-based organizations, and businesses in the County to reach outcomes that balance the needs of our society, now and into the future.

## Implementation

This study identifies concepts to improve freight corridors while supporting broader community goals. Each requires a separate development process to implement and achieve benefits. Projects successfully completed need cooperation and consensus from the County's transportation asset owners and operators. With so many transportation needs and limited funding to address those needs, priorities must be focused to provide momentum to implement improvements that maximize benefits at the most reasonable cost.

As demonstrated by the success in securing funding for the grade separation of Rice Avenue, sustained and consensus-driven focus on priorities is necessary to accomplish the transportation vision and goals.

Some transportation needs can be met by lower-cost improvements within an agency's maintenance and operations budget, while others require major capital investment from multiple funding partners, such as the Rice Avenue Grade Separation Project.

Overall funding for transportation infrastructure construction, operations, and maintenance costs comes from various sources. Each funding program is limited, so projects must demonstrate eligibility and benefits within the parameters of each funding program. Often, local 'match' funding is used to make projects more competitive by bringing down the cost share of state and federal funding. Since there is no dedicated County sales tax for transportation in Ventura County, few resources are available for both local match and the full funding of projects without state or federal assistance.

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<sup>20</sup> The Federal Transportation Improvement Program (FTIP) is a federally mandated four year program of all surface transportation projects that will receive federal

This study uses performance measures, derived from goals, to assess potential solutions to needs identified through stakeholder engagement, literature review, and data analysis. The recommended areas of focus are prioritized, specific improvements to promote safer, more efficient, and sustainable freight connections that support the economy, social outcomes, and community health of Ventura County.

## Project Development

Turning priority ideas into reality requires several steps of funding, design, environmental assessment, cost estimation, and construction.

Once a solution is identified, a formal sponsoring agency must champion the project, oversee its development and construction, and own, operate and maintain the new asset.

The sponsoring agency would gain approval from its elected officials or senior staff to conduct preliminary studies to refine the idea into a feasible project with a cost estimate.

The sponsoring agency then works with VCTC to include the project in the Comprehensive Transportation Plan (CTP) and the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for large, long-term projects (20-25 years) and the Federal Transportation Improvement Program (FTIP)<sup>20</sup> for near-term projects (within five-years). Many projects have funds for project development included in the near-term FTIP and the construction phases included in the CTP. The FTIP is fiscally constrained to the amount of funding expected to be available for transportation projects from local, state, and federal sources. The FTIP is not a

funding or are subject to a federally required action. For more information see: <https://scag.ca.gov/federal-transportation-improvement-program>

'wish-list' of all projects, but a prioritized set of potential projects that include the highest priorities. Project prioritization is based on countywide consensus -that represents each of the transportation project sponsoring agencies. Studies such as the Freight Corridors Study provide key inputs into VCTC project deliberations.

Once a project is programmed for funding, it progresses through the project development process of environmental review, preliminary engineering, final design, right-of-way acquisition, and construction through the sponsoring agency's process.

VCTC and local and regional agencies partner with Caltrans to design and construct projects, such as the Rice Avenue Grade separation, while also maintaining and improving the state highway system. The Caltrans State Highway Operation and Protection Program (SHOPP) and Minor Program funds repair and preservation, emergency repairs, safety improvements, and some highway operational improvements on the State Highway System. Improvement projects are initiated through a Project Initiation Document (PID), which identifies a project's purpose and need.

Many of those improvements strengthen freight corridors in Ventura County and should be encouraged through letters of support to Caltrans District 7, Caltrans Headquarters, and the California Transportation Commission.

Cities and Ventura County have capital improvement programs that allocate funds from their budgets to the development and construction of transportation projects. Some can be fully funded with local funds, while others are local matches for additional state and federal funds. Since these projects must compete with many other priorities within each agency's budget, studies such as the Freight Corridors Study help to demonstrate countywide consensus and focus priorities to encourage projects through the process.

Improvements to rail systems are also part of the RTP, FTIP, and CTP and involve the owners and operators of the rail system such as Union Pacific Railroad, Metrolink and the Oxnard Harbor District. Rail corridor cities and the County also have a role in the development of projects that cross and are adjacent to the rail lines.

Regardless of the funding or development process, transportation system improvement requires cooperation among agencies, significant public involvement, and balancing transportation with broader community goals. The Freight Corridors Study helps in this process by providing early consensus on priorities, focusing project development efforts, and providing momentum to projects that meet countywide goals.

**Figure 3: Rice Avenue Grade Separation Project Announcement Ceremony**



Source: [Port of Hueneme](#)

### Recommended Areas of Focus

Stakeholder input, technical analysis, and review of existing plans informs an assessment of vulnerabilities and opportunities to improve freight corridors.

While each area represents a priority for improving freight movement, a manageable set of solutions needs to be prioritized as the next step for major improvement projects to build on the success of the Rice Avenue Grade Separation Project. The following actions best met the performance criteria of the Ventura County Freight Corridors Study<sup>21</sup>, and are presented to help focus agencies, elected officials, businesses, community groups and residents on a set of effective transportation solutions that balance freight mobility with safety and broader community goals.

The recommended areas of focus to improve corridors for the movement of goods, reduction of community impacts and improve equity are organized in three categories:

- Improve Existing Freight Corridors;
- Strengthen Port Access; and
- Improve Truck Supportive Infrastructure.

Priority projects are described under each category with a description of the project benefits, status, anticipated responsible party(s), and next steps in **Table 1** and are mapped in **Figure 4**. The narratives that follow expand on the Table 1 descriptions of the projects and highlight those that would be a competitive candidate for the primary funding program for freight corridor projects, the State of California Trade Corridor Enhancement Program (TCEP) grant program.

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<sup>21</sup> Details of the Performance Criteria Assessment of projects is located in Appendix 2

**Table 1: Recommended Areas of Focus****Improve Existing Freight Corridors - Controlled Access Facility Improvements**

Locator	Project	Benefit	Status	Anticipated Responsible Parties	Next Steps
<b>A</b>	Enhanced Truck Route Identification	Signage at decision points to direct truck trips to the freeway system	Concept	VCTC, Caltrans, Ventura County, and Cities	Refine truck route signage plan and truck route mapping for geofencing
<b>B</b>	State Route 126 Westbound to US 101 Southbound Connector	Diversion of 600 trucks per day from the arterial system to the freeway system.	Concept	VCTC, Caltrans	Develop a Project Initiation Document which discusses the feasibility and define the project purpose and need
<b>C</b>	State Route 126 Improvements in Fillmore and Piru	Improve freight efficiency by reducing localized congestion, improving safety and limiting community impacts	Concept	VCTC, Caltrans	Initiate a community-led planning process to review

**Improve Existing Freight Corridors - Other Existing Freight Corridor Improvements**

Locator	Project	Benefit	Status	Anticipated Responsible Parties	Next Steps
<b>D</b>	State Route 118 Safety	Reduced collision incidents, operational improvements at intersection	Concept	Caltrans, County of Ventura, VCTC	Develop safety plan involving community stakeholders
<b>E</b>	State Route 33 Stanley Avenue / Shell Road Improvements	Improved safety and operation at interchanges and merge sections of State Route 33	Concept	Caltrans, City of Ventura (Stanley Avenue) County of Ventura (Shell Road)	Develop PSRs for ramp improvement projects.
<b>F</b>	US 101 / Del Norte Boulevard Interchange Improvements	Develop PSRs for ramp improvement projects.	Concept	Caltrans, City of Oxnard	Develop PSR for ramp improvement project.
<b>G</b>	State Route 232 (Vineyard Avenue) pedestrian crossing	Enhances safety for pedestrians crossing roadway	Concept	Caltrans	Study potential pedestrian crossing locations and options
<b>H</b>	Community Traffic Calming Program	Reduced vehicle speeds, improved safety, reduced noise impacts.	Concept	California Highway Patrol, County, and Cities	Work with enforcement agencies to target areas with excessive speeds.
<b>I</b>	US 101 at Victoria Avenue Interchange Improvements	Improve freeway access and ramp operations, reduce mainline congestion	Concept	Caltrans	Develop PSR for ramp improvement project.
<b>J</b>	Rail Corridor Fencing / Pedestrian Rail Crossings	Reduced trespass incidents	Concept	UPRR, Metrolink, County and rail corridor Cities	Coordinate corridor City/rail owner meetings to determine if rail corridor fencing is feasible and desired.
<b>K</b>	Integrate Freight Considerations in Corridor Feasibility Studies	Accommodation of large vehicles and mitigation measures in roadway planning	Pre-feasibility study	County of Ventura	Involve community stakeholders in the development of feasibility studies



**Table 1: Recommended Areas of Focus (Continued)****Strengthen Port Access**

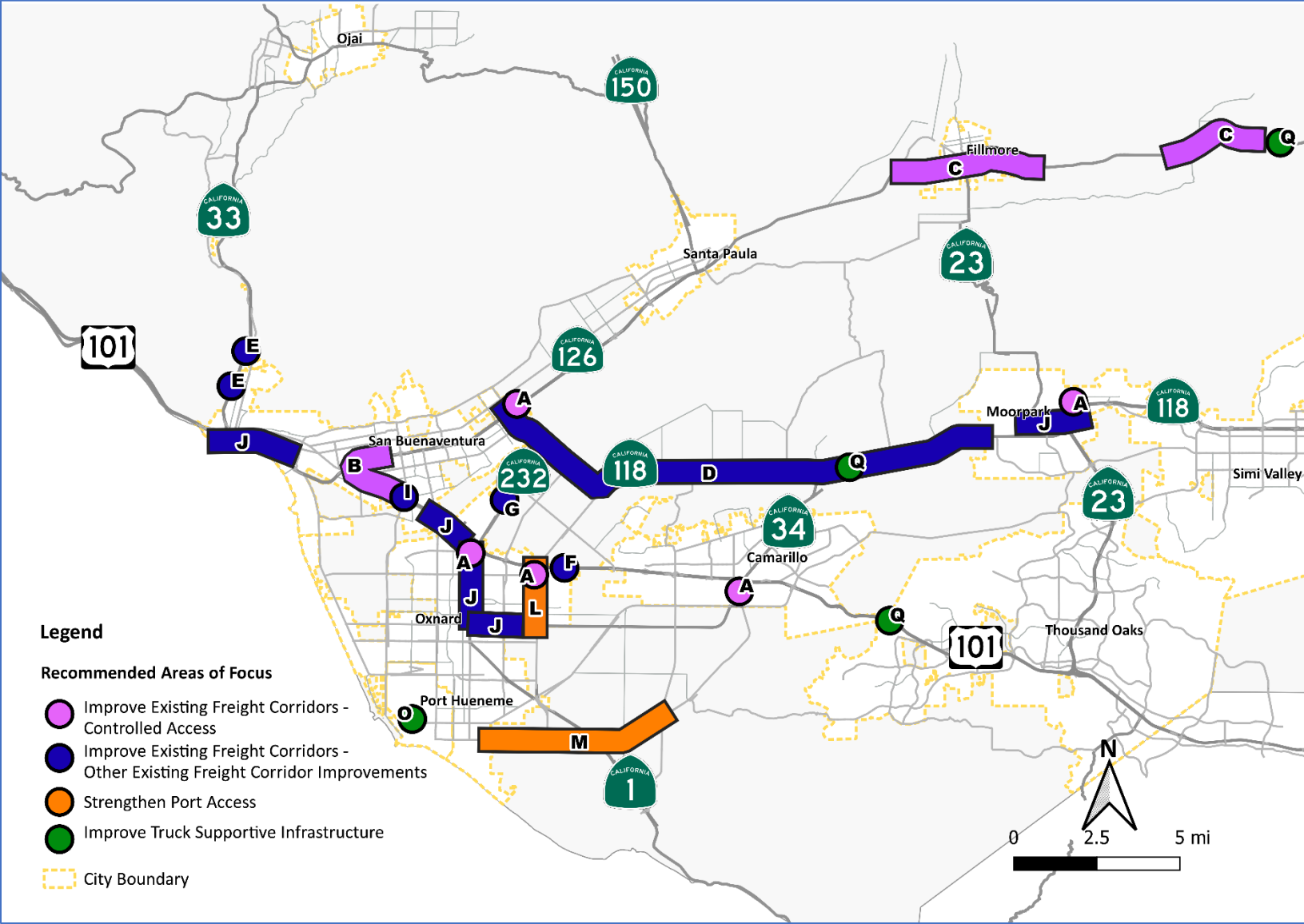
Locator	Project	Benefit	Status	Anticipated Responsible Parties	Next Steps
<b>L</b>	Rice Avenue Designation of State Route 1	Improved roadway condition, state highway continuity	Key transportation project priority	Caltrans, City of Oxnard, Port of Hueneme	Coordinate City of Oxnard and Caltrans transfer process
<b>M</b>	Hueneme Road Access	Improved Port access, improved coastal access for communities	Feasibility study by the County of Ventura	City of Oxnard, City of Port Hueneme, County of Ventura, Port of Hueneme	Coordinate City of Oxnard and County of Ventura Improvements with community stakeholders.
<b>N</b>	Ventura County Railroad Emission Reduction	Reduced diesel and greenhouse gas emissions	Conceptual – potential TCEP candidate project	VCRR, Oxnard Harbor District	Perform feasibility study of the conversion of VCRR locomotives to low or zero emissions vehicles.
<b>O</b>	Oxnard Harbor District (Port of Hueneme)	Reduced environmental and community impacts from the Port of Hueneme	Ongoing in partnerships and community engagement	Port of Hueneme	Support the Port Environmental Framework implementation

**Improve Truck Supportive Infrastructure**

Locator	Project	Benefit	Status	Anticipated Responsible Parties	Next Steps
<b>P</b>	Public Truck Parking	Reduced environmental and community impacts from truck parking along public roads	Various	Port of Hueneme	Work with Cities to identify potential public truck parking locations
<b>Q</b>	Commercial Vehicle Enforcement Facility Upgrades	Improved protection and preservation of pavement, efficiency of tracking and enforcing assets, operation/turn-around time, freight data for planning	Programmed by Caltrans	Caltrans	Work with Caltrans to develop enforcement facilities
<b>R</b>	Transition to Zero Emissions Vehicles	Reduce greenhouse gas emissions, improve electrical infrastructure	Ongoing	Caltrans, VCTC, Port of Hueneme, County of Ventura, Cities	Coordinate policies and actions for zero-emissions fleet transition



Figure 4: Recommended Areas of Focus



### 1. Improve Existing Freight Corridors

A comprehensive network of freight corridors serves the county with designated truck route roadways carrying the majority of truck traffic. Prioritized actions accommodate efficient truck travel while limiting conflicts with other modes of travel, reducing air emissions, noise, and aesthetic impacts on adjacent land uses to strengthen corridors as community assets.

Trucks must be clearly directed to the closest access to the regional controlled-access (freeway) system in the County to prevent local access roads being used for regional access. Freeway facilities offer better efficiency and opportunity to buffer from communities:

- US-101 from the Los Angeles County line to Santa Barbara County Line
- State Route 118 from the Los Angeles County line to State Route 23
- State Route 23 from US 101 to State Route 118
- State Route 126 from Los Angeles County to US 101 (portions are a full-access highway in the Fillmore area)

Recommendations for controlled-access facilities:

- A. Enhanced Truck Route Identification
- B. State Route 126 Westbound to US 101 Southbound Connector
- C. State Route 126 Improvements in Fillmore and Piru

**Figure 5: Southbound Santa Clara Avenue north of Auto Center Drive**



## Controlled-Access Facility Improvements

### A. Enhanced Truck Route Identification

Signage and identification of truck routes are limited in the County and can lead to confusion as to where trucks can travel—especially for out-of-town drivers, which can lead to unnecessary travel on arterial roadways and through neighborhoods.

Drivers tend not to divert unless they are confident that the alternate route will save a significant amount of time. Drivers are less likely to divert onto roads with unpredictable travel times, many traffic control devices, and numerous navigational maneuvers. The introduction of signage can help to shift travel to the most appropriate roadways. Signs should be located sufficiently upstream of major diversion decision points, such as interchanges, to provide adequate distance over which road users can change lanes to reach one destination or the other. In some cases, “No Truck” signage and necessary enforcement could be placed where local roadways are used as an undesired cut-through route.

To give the regional freeway system greater identity and overcome truck routing based on route designation and travel distance, it is recommended a series of uniform directional signage and dynamic travel-time signage be placed at major junctions and decision points in the roadway system. Signage anatomy and destination determination are based on technical standards and local knowledge. It is recommended that VCTC work with the California Traffic Control Devices Committee to develop a comprehensive highway signage program for the County to encourage regional travel on the controlled-access facility routes.

The signage program would start with an inventory of existing signage. Then priority signage locations at key decision points

would be determined along with a determination of right-of-way ownership and signage responsibility. The owner/responsible agency would develop a cost estimate for signage. VCTC could consolidate signage costs into a consolidated program to pursue either grant funding or be paid through capital improvement budgets.

Since the most effective signage locations would be both in Caltrans right-of-way and local jurisdiction right-of-way, coordination among agencies will be critical to the implementation of a comprehensive wayfinding signage program.

In addition, local jurisdictions and the Port of Hueneme should coordinate with Caltrans District 7 Traffic Operations regarding the posting of signage for state highway, local truck routes and Port access within each other’s jurisdiction.

Based on the travel patterns in the County, the following signage locations and types are recommended:

#### Port Access Directional Signs

- US 101 Northbound south of Rice Avenue
- US 101 Southbound north of Rice Avenue
- Rice Avenue Southbound north of Hueneme Road
- Hueneme Road west of Rice Avenue (Rice Avenue to US 101)
- State Route 126 Westbound east of Victoria Avenue (via Victoria and US 101 Southbound to Rice Avenue)
- State Route 118 Westbound east of State Route 23 (via State Route 23 and US 101 Northbound to Rice Avenue)



Directional Signs South of US 101

Signage placed at northbound Lewis Road (State Route 34), Rice Avenue (future State Route 1), and Vineyard Avenue (State Route 232) south of US 101 would direct vehicles to US 101 to access Santa Barbara and Los Angeles County via US 101.

Dynamic Travel Time Signs

Dynamic or changeable message signs can display different messages or information. Dynamic signage can display duplicates of standard signs and symbols while displaying updated information such as travel time.

Three dynamic travel time signs would be placed at key decision points to direct trucks to the regional freeway system by showing travel times to key locations in Ventura, Los Angeles and Santa Barbara Counties.

Signs at northbound Rice Avenue and Victoria Avenue south of US 101 could show the following travel times:

- Northbound US 101 to:
  - State Route 126 to Castaic Junction
  - Santa Barbara County
- Southbound US 101 to:
  - Interstate 405
  - State Route 118 via State Route 23

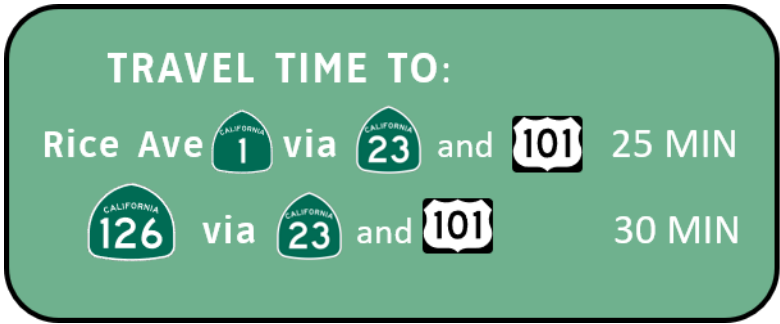
Figure 6: Example of a Travel Time Dynamic Sign Located northbound at Rice Avenue and Victoria Avenue



A sign at Westbound State Route 118 east of State Route 23 could indicate travel times for vehicles remaining on the roadway as it changes designation to State Route 23:

- Rice Avenue via US 101
- State Route 126 via US 101

Figure 7: Example of Dynamic Travel Time Sign Located at Westbound State Route 118 east of State Route 23.



### Geofencing of County Truck Routes

Work with fleet operators based in Ventura County to geofence county truck routes in GPS routing software for vehicle routing optimization along truck routes as primary travel routes. By providing a consolidate digital truck route map, truck fleets operating in the county can comply with local ordinance, improve efficiency and limit large vehicle exposure in communities.<sup>22</sup>

**Benefit:** Signage placed upstream of major route decision points to maximize the channeling of truck trips to the freeway system.

**Status:** Concept

**Responsible Parties:** VCTC, Caltrans, Ventura County, and Cities

**Next Steps:** VCTC to refine truck route signage plan and comprehensive County truck route mapping for geofencing. Work with California Traffic Control Devices Committee for best practice in directional signage. Ensure cooperative approach with Cities and the County.

### B. State Route 126 Westbound to US 101 Southbound Connector

There is no direct highway connection from Westbound State Route 126 to Southbound US 101 as one travels from Santa Paula to Ventura. Vehicles must exit the State Route 126 Santa Paula Freeway and travel 1.5 miles down Victoria Avenue to reconnect with the freeway system as the US 101 ramps. There are ten traffic signal controlled intersections between the ramps for the westbound State Route 126 and US 101 southbound along Victoria Avenue. The Victoria Avenue corridor has a mix of retail, office, institutional and residential and uses and does not serve any major

industrial land uses, which are primarily located south of US 101 in the City of Ventura.

A new connection would shift traffic patterns to keep more vehicles on freeways and off local streets. A modeling analysis prepared using the Ventura County Transportation Model indicates 4,000 vehicles per day would shift to the new southbound connector from other roadways.<sup>23</sup>

An estimate of truck share of the redirected vehicles is between 265 and 600 trucks per day. The 265 trucks per day value is based on the amount of trucks traveling southbound on Victoria Avenue from westbound State Route 126 (115 trucks) and the difference between the westbound trucks exiting State Route 126 at Wells Road and the eastbound State Route 126 entering trucks at Wells Road (150 trucks). The 600 trucks per day value is based on the difference in the volume of daily trucks traveling eastbound on State Route 126 at Victoria Avenue (1,170 trucks) and those traveling westbound (570 trucks).

The project is likely to have significant construction and right-of-way costs and therefore would require sustained community engagement and support at the outset of the project development process.

**Benefit:** Diversion of 265 to 600 trucks per day from Wells Road (State Route 118) and Victoria Avenue from the arterial system to the freeway system.

**Status:** Concept

<sup>22</sup> College of Engineering – Center for Environmental Research and Technology – University of California Riverside, [Geofencing as a Strategy to Lower Emissions in](#)

[Disadvantaged Communities](#), prepared for the California Air Resources Board, December 2020

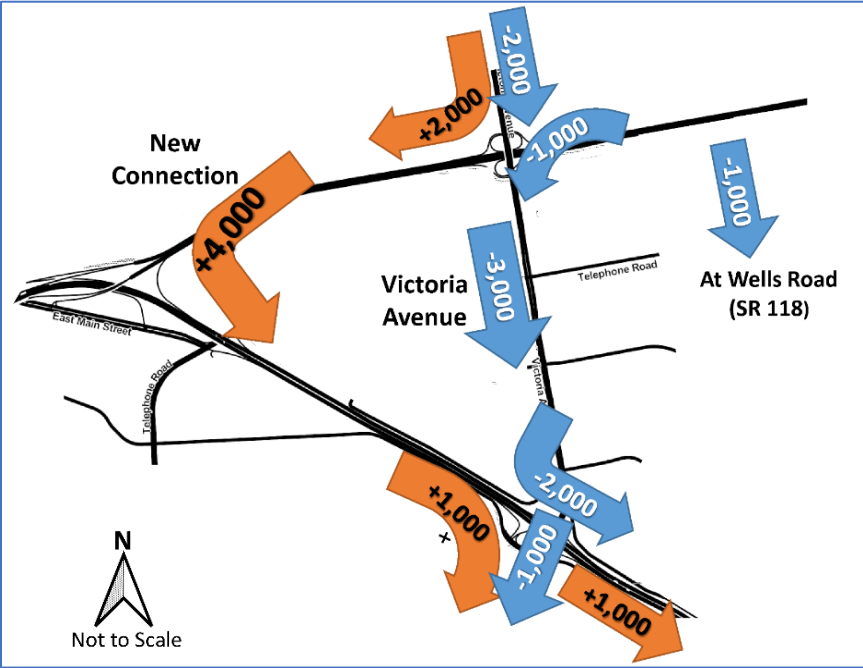
<sup>23</sup> The model scenario used a base year (2018) analysis



**Responsible Party:** VCTC, Caltrans

**Next Steps:** Develop cost estimate. Work with Caltrans to develop a Project Initiation Document which discusses the feasibility of the State Route 126 Westbound to US 101 Southbound Connector to define the project purpose and need, estimate high-level costs, and become considered for inclusion in the CTP and RTP.

**Figure 8: Forecasted Redistribution of Daily Trips with Westbound SR 126 to Southbound US 101 (Orange Arrows are More Trips, Blue Arrows are Fewer Trips)**



**Figure 9: State Route 126 Westbound to US 101 Southbound Connector Sign**



### C. State Route 126 Improvements in Fillmore and Piru

Improving vehicle operations and the consideration of converting State Route 126 through the communities of Fillmore and Piru, similar to Santa Paula, should be considered as part of a comprehensive programs to improve freight, and highway, efficiency while limiting community impacts.

The elimination of full-access intersections and and/or limiting access to State Route 126 in Fillmore and Piru would need to be studied with due consideration for the current and future proposed private, local, and State improvement projects along the highway segment of this Route between Hallock Dr. and the County Line.

Engagement of the Fillmore, Piru and surrounding agricultural communities would be necessary from the outset to ensure continuous, reliable, and safe access would be preserved along with thoughtful consideration of managing truck and overall travel patterns.

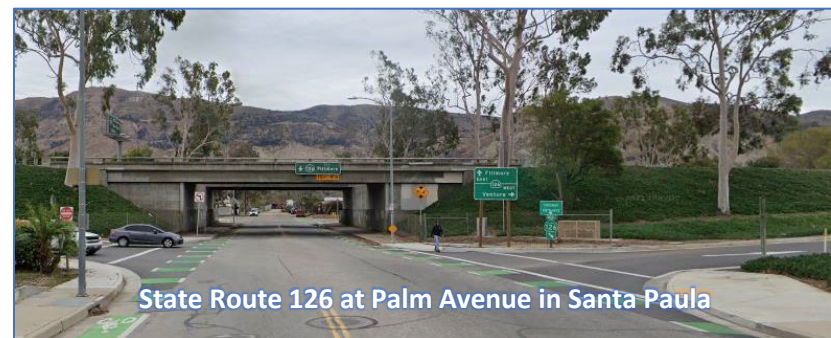
**Benefit:** Improve freight efficiency by reducing localized congestion, improving safety and limiting community impacts with the elimination of full-access intersections. However, the concept has the potential for increased community impacts if State Route 126 becomes a barrier to community trip-making or significant right-of-way is required or vehicle speeds increase noise and particulate matter emissions along an elevated facility. Therefore careful, community-led planning is required.

**Status:** Concept

**Responsible Party:** Caltrans, VCTC

**Next Steps:** Initiate a community-led planning process to review the potential for limiting access to State Route 126 in Fillmore and Piru.

**Figure 10: State Route 126 in Piru, Fillmore and Santa Paula**



### Other Existing Freight Corridor Improvements

Other important projects to improve existing freight corridors and connections recommended for priority are:

- D. State Route 118 Corridor Safety Improvements
- E. State Route 33 Stanley Avenue / Shell Road Interchange Improvements
- F. US 101 / Del Norte Boulevard Interchange Improvements
- G. State Route 232 (Vineyard Avenue) Pedestrian Crossing
- H. Community Traffic Calming Program
- I. US 101 at Victoria Avenue Interchange Improvements
- J. Rail Corridor Fencing / Pedestrian Rail Crossings
- K. Integrate Freight Corridor Considerations in Upcoming Feasibility Studies of Corridor Improvements

#### *D. State Route 118 Safety Improvements*

Caltrans designated State Route 118 from Saticoy to Moorpark as a safety corridor due to several locations of safety concerns including a lack of turning lanes, roadway curves, and shoulder conditions to accommodate the demand of large vehicles and overall traffic. Several options for long-term roadway configuration modifications to improve safety can be considered.

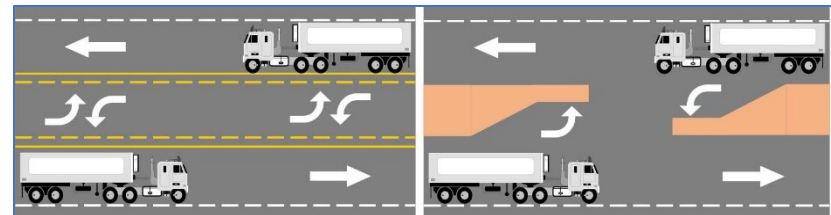
These improvements are not recommended to include added lane capacity but rather to address current safety issues of large vehicles, passenger vehicles, bicycles and pedestrians in the corridor.

### Median Reconfiguration

Medians are a common roadway feature used to improve roadway mobility and manage roadway accessibility. However, the rural section of the highway from Saticoy to Moorpark has no median. There are 20 striped left-turn lanes at intersections in the corridor and four locations with pull-out lanes.

Due to their size and weight, trucks require more space and time to make left turns when exiting or entering a roadway. Therefore, appropriate median treatments are critical for roadways with substantial truck traffic. The two-way left-turn lanes (TWLTL) and raised medians are the two types of median most commonly used to control left turns.

**Figure 11: Highway Median Treatments - Two-way left-turn lanes and raised medians**



Roadways with TWLTL are popular from a perspective that desires greater convenience for both drivers and owners of businesses along the road. However, studies have shown that roadways with TWLTL have significantly higher crash frequency on roadways with a high percentage of trucks as compared to raised medians. This supports the observation that the greater control and channelization to remove trucks from the main roadway provides increased safety benefits.



TWLT options could include the continuing of the five-lane configuration of the roadway from west of Vineyard Avenue (State Route 232) to Santa Clara Avenue to provide for passing by adding two general purpose lanes to the roadway.

#### Passing and Turn Out Lanes

Passing lanes or extended turn-out areas that are commonly used in mountainous sections of roadways (as the State Route 154 through the San Marcos Pass in Santa Barbara County) could be applied to the SR 118 to allow slower-moving vehicles to turn off the roadway and allow vehicles to pass.

The roadway corridor has an example right-of-way footprint for a passing area (albeit for a different purpose). While the existing mini weigh station is for safe portable scale operations and not for passing or parking, potential outside passing lanes or extended turn-out areas could have a similar right-of-way footprint.

#### Commercial Vehicle Enforcement

Upgrading the existing mini weigh station to a full commercial vehicle enforcement facility is in the early stages of planning by Caltrans and is discussed in more detail under recommendation Q. Commercial Vehicle Enforcement Facility Upgrades.

Further community involvement in the development of safety improvements that support the mobility, safety, and economic context of the roadway.

#### Crossings

**Benefits:** Reduced collision incidents, operational improvements at intersections.

**Status:** Realignment of Hitch Boulevard with Grimes Canyon Road and associated intersection improvements is programmed in the SCAG RTP for \$4.2 million by 2032 (Lead Agency is Ventura County Public Works). The County of Ventura's Mobility Technical Report for the Saticoy Area Plan proposes improvement to the Wells Road intersections. The Connect SoCal Goods Movement Technical Report identifies the grade separation of State Route 118 at the UPRR tracks. Passing lane, turning lane, and shoulder lane improvements are currently not under consideration for the corridor.

**Responsible Parties:** Caltrans, County of Ventura, VCTC

**Next Steps:** Complete project development of Hitch Boulevard and Grimes Canyon Road alignment. Develop corridor safety plan to involve community stakeholders to define and develop improvements to safety in the corridor and begin the Caltrans project development process.

#### *E. State Route 33 Stanley Avenue / Shell Road Interchange Improvements*

The interchanges of Stanley Avenue and Shell Road in west Ventura are not able to efficiently accommodate large vehicles due to tight turning radii and short merge and diverge areas. In each interchange, acceleration and deceleration lanes are too short to allow for vehicles to safely enter and exit the highway, especially the southbound on-ramp at Stanley Avenue where slow-moving vehicles merge into the inside lane of the freeway and force mainline drivers to break suddenly.

**Benefits:** Improved safety and operation at interchanges and merge sections of State Route 33.

**Status:** Concept

**Responsible Parties:** Caltrans, City of Ventura (Stanley Avenue) County of Ventura (Shell Road)

**Next Steps:** Develop PSRs for ramp improvement projects.

#### *F. US 101 / Del Norte Boulevard Interchange Improvements*

The US 101/Del Norte Boulevard interchange will experience additional growth in truck trips due to adjacent industrial and commercial development. The interchange is an important alternative to the adjacent Rice Avenue interchange. The interchange layout should be reviewed for its ability to accommodate large vehicles and its relationship to the Rice Avenue interchange, its merge and diverge areas and modifications due to a future US 101 HOV lane project which would necessitate the widening of the Del Norte overcrossing.

**Benefits:** Improve freeway access and ramp operations, reduce mainline congestion.

**Status:** Concept

**Responsible Party:** Caltrans, City of Oxnard

**Next Steps:** Develop PSR for ramp improvement project.

#### *G. State Route 232 (Vineyard Avenue) Pedestrian Crossing*

Students living on the opposite side of Vineyard Avenue from Rio Plaza Elementary School, Rio Vista Middle School, Rio Del Mar School must cross the highway to access school. An improved crossing would reduce potential conflicts in a corridor that carries approximately 1,100 trucks per day. The only two crossings

between Forest Park Boulevard and Thames River Drive are at Walnut Drive and Thames River Drive.

Enhanced pedestrian crossings or a pedestrian crossing bridge at the Walnut Drive Crossing would complement the Safe Routes to School project, reduce pedestrian crossing conflicts and allow for smoother vehicle operations in the corridor.

The Rio Pedestrian Improvement and Safe Routes to School Project (\$6.95 million) was funded under the State Active Transportation Program for construction of pedestrian facilities and intersection improvements. The project is located at Stroube Street from Vineyard Avenue to Rose Avenue, Walnut Drive from Vineyard Avenue to Rose Avenue, and Cortez Street from Stroube Street to the Rio Plaza Elementary School. It does not include funding to improve crossings of Vineyard Avenue.

**Benefits:** Enhances safety for pedestrians crossing roadway.

**Status:** Concept, El Rio Pedestrian Improvement and Safe Route to School Project (\$6.95 million) was funded under the State Active Transportation Program however there was no funding for an enhanced pedestrian crossing or overpass at Walnut Drive to cross Vineyard Avenue.

**Responsible Party:** Caltrans, City of Oxnard

**Next Steps:** Study potential pedestrian bridge crossing locations.

#### *H. Community Traffic Calming Program*

Speed was identified as the primary factor in in 52 percent of truck-involved collisions on freeway facilities and 29 percent of truck-involved collisions on arterial roadways, and was a contributing

factor in most other collisions. Vehicle speed also can increase the emission of particulate matter, noise, and levels of discomfort for nearby pedestrians and cyclists. Strategies include use of variable message signs, targeted educational campaigns, partnering with trucking companies and the Port of Hueneme, and targeted enforcement areas working with the California Highway Patrol and the Ventura County Sheriff's Department.

In addition, community stakeholders described excessive speeding by large vehicles as a contributor to on-road noise and level of discomfort walking, biking and parking along roadways.

**Benefits:** Reduced vehicle speeds, reduced collisions and collision severity, reduced noise impacts.

**Status:** Concept

**Responsible Party:** VCTC, Caltrans, California Highway Patrol, Ventura County, and Cities

**Next Steps:** Work with enforcement agencies to target areas with excessive vehicle speeds. Identify violation hot spots to determine if permanent infrastructure improvements such as signage and/or vertical or horizontal roadway treatments are necessary for changes to driver behavior. Explore possible grant funding opportunities to develop and implement a comprehensive traffic calming program.

#### *I. US 101 at Victoria Avenue Interchange Improvements*

The US 101 interchange with Victoria Avenue has been a congestion hot spot in the County for several years due to its proximity to the State Route 126 interchange, short ramp areas, multiple arterial signals in the ramp area, and overall demand. Interchange improvements to decrease congestion and improve operations and safety will support the access from US 101 to Victoria Avenue,

which is a Naval Base Ventura County Mobilization Corridor and the contingency route for the Port of Hueneme Intermodal Corridor.

**Benefits:** Improve freeway access and ramp operations, reduce mainline congestion, and improve access to Naval Base Ventura County and Port of Hueneme.

**Status:** Concept

**Responsible Party:** Caltrans, City of Ventura

**Next Steps:** Develop PSR for ramp improvement project.

#### *J. Rail Corridor Fencing / Pedestrian Rail Crossings*

From 2014 to 2019, nearly twice as many rail trespasser incidents (44) occurred as incidents at highway/rail crossings (24). Preventing trespass onto tracks while providing new pedestrian crossings to reduce trespass, improves reliability, speed, and service in rail corridors. This would improve operating conditions for both freight rail and passenger rail which was described as an important transportation mode to achieve performance goals and greenhouse gas reductions outlined in SCAG's Sustainable Communities Strategy.

Fencing raises challenges of access for construction and maintenance, local fencing ordinances, and community opposition.

**Benefits:** Reduced trespass incidents.

**Status:** Concept

**Responsible Party:** UPRR, Metrolink, VCTC, County and rail corridor Cities

**Next Steps:** Coordinate corridor City/rail owner meetings to determine if rail corridor fencing is feasible.

#### *K. Integrate Freight Corridor Considerations in Corridor Projects*

Early planning of corridor improvement projects should account for freight operations and the integration of community-oriented elements such as safe crossings and buffering. For example, the County of Ventura Public Works Agency has planned feasibility studies for roadway improvements on designated truck routes in the next five years. Priority County corridors for freight movement are Santa Clara Avenue which connects Rice Avenue/US 101 to State Route 118 and Hueneme Road which serves the Port on the Port Intermodal Corridor. Overall, six corridors slated for feasibility studies by the County of Ventura are freight corridors:

- Santa Clara Avenue Corridor (identified by several stakeholders as an issue for residents of Nyeland Acres)
- Hueneme Road Corridor (key transportation project priority of the Port of Hueneme Strategic Plan and potential TCEP project)
- Pleasant Valley Corridor
- Las Posas Road Corridor
- Victoria Avenue Corridor
- Channel Islands Boulevard Corridor

Other efforts such as the Central Avenue Bicycle Lanes project in Camarillo are opportunities to improve transportation conditions for other modes while reducing community impacts of freight corridors through buffering and multimodal improvements.

**Benefits:** Consideration of large vehicles accommodation and mitigation in roadway corridor planning.

**Status:** Feasibility study

**Responsible Party:** County of Ventura

**Next Steps:** Involve community stakeholders in the development of feasibility studies to ensure community impacts are addressed.

**Figure 12: The Perkins Road Crossing at Hueneme Road**



## 2. Strengthen Port Access

The Port of Hueneme is located further away from a controlled-access highway than any other port in California. There is no single access route to the Port of Hueneme and Naval Base Ventura County – Port Hueneme. The Port Intermodal Corridor was designated to focus investment and concentrate port-related traffic onto roadways designed for heavy vehicle use while minimizing impacts on the community. The corridors leading to the Port are also home to other industrial and commercial activities that are reliant on goods movement.

The priority projects identified through the Study’s process to strengthen access to the Port are:

- L. Rice Avenue Designation of State Route 1
- M. Hueneme Road Access
- N. Ventura County Railroad Emission Reduction
- O. Oxnard Harbor District (Port of Hueneme)

### *L. Rice Avenue Designation of State Route 1*

Resurfacing and/or reconstruction is needed to allow for Rice Avenue to be designated State Route 1. The 2020 Port of Hueneme Strategic Plan identifies this designation as a key Port Intermodal Corridor project.

**Benefits:** Improved roadway condition, state highway continuity.  
**Status:** Key transportation project priority of the Port of Hueneme Strategic Plan, portions funded by the Sakioka Farms development mitigation.  
**Responsible Party:** Caltrans, City of Oxnard

**Next Steps:** Coordinate City of Oxnard and Caltrans transfer process, ensure funding is allocated to finalize improvements, coordinate construction with Rice Avenue Grade Separation schedule.

### *M. Hueneme Road Access*

Hueneme Road is the primary last-mile access to the Port of Hueneme from Rice Avenue. The roadway also will provide access to the restored Ormond Beach as part of the California Coastal Trail, providing access to coastal outdoor space for communities in Oxnard.<sup>24</sup> The Hueneme Road Corridor is a key transportation project priority of the Port of Hueneme Strategic Plan, is one of the three Naval Base Ventura County – Port Hueneme mobilization corridors, and is identified for a feasibility study by the County of Ventura to widen to four lanes and the addition of bicycle lanes from the Oxnard City Limits to Rice Avenue. Improvements in this corridor should be developed to accommodate safe crossing of the roadway for active transportation users in coordination with the City of Oxnard’s Ormond Beach Restoration and Public Access Plan and other City efforts along Saviers Road, Perkins Road, Edison Road and the VCRR crossings

**Benefits:** Improved Port access, improved coastal access for communities.  
**Status:** Identified for a feasibility study by the County of Ventura to widen to four lanes and the addition of bicycle lanes from the Oxnard City Limits to Rice Avenue  
**Responsible Party:** City of Oxnard, City of Port Hueneme, County of Ventura, Port of Hueneme

<sup>24</sup> <https://www.oxnard.org/ormond-beach-restoration-public-access-plan/>

**Next Steps:** Coordinate City of Oxnard and County of Ventura Improvements with community stakeholders. Improvements could be developed as a project to apply for TCEP funding due to its connection to the Port of Hueneme.

*N. Ventura County Railroad Emission Reduction*

Convert to low or zero emissions locomotives for operation by the Ventura County Railroad (VCRR).

**Benefits:** Reduced diesel and greenhouse gas emissions.

**Status:** Conceptual – potential TCEP candidate project

**Responsible Party:** VCRR (owned by the Oxnard Harbor District)

**Next Steps:** Perform feasibility study of the conversion of VCRR locomotives to low or zero emissions vehicles.

*O. Port of Hueneme (Oxnard Harbor District)*

The Port of Hueneme has several strategies to strengthen freight corridors that should be supported and coordinated with agency and community partners:

**Port Environmental Framework and Board-adopted environmental policy:** Includes the Clean Air and Port Decarbonization Program, Clean Water Program, Geographic Information Systems, Soil/Sediment Programs, Energy Programs, Climate Change Programs, Marine Resources, Fisheries and Wildlife Programs and Sustainability Programs.

**Benefits:** Reduced environmental and community impacts from the Port of Hueneme.

**Status:** Ongoing partnerships and community engagement

**Responsible Party:** Port of Hueneme

**Next Steps:** Support the Port Environmental Framework implementation

**Port-Naval Base Freight Corridor Optimization & Efficiency Project:**

Reconfigure terminal traffic circulation, intelligent transportation systems, electrical system upgrades for reefers, and a solar power component to advance zero emission and energy resilience initiatives.

**Benefits:** Reduced air pollution and greenhouse gas emissions.

**Status:** \$12 million identified in the 2020 SCAG Regional Transportation Plan.

**Responsible Party:** Port of Hueneme

**Next Steps:** Work with Port of Hueneme to ensure funds are secured for project.

**LEAP: Leading Electric Advancements for Ports Project:** Solar panel installation, clean energy storage, and the infrastructure for new clean energy charging stations for zero emission vehicles.

**Benefits:** Reduced air pollution and greenhouse gas emissions.

**Responsible Party:** Port of Hueneme

**Status:** \$2.3 million identified in the 2020 SCAG Regional Transportation Plan.

**Next Steps:** Work with Port of Hueneme to ensure funds are secured for project.

**Coordinate truck access and egress routes:** with Cities of Port Hueneme and Oxnard and Naval Base Ventura County

**Benefits:** Improve truck travel efficiency in Port Intermodal Corridor.

**Responsible Party:** Port of Hueneme, City of Oxnard, Naval Base  
Ventura County

**Status:** Ongoing, part of the Port of Hueneme 2030 Strategic Plan  
process.

**Next Steps:** Implementation steps are components of the  
*Strengthen Existing Freight Corridors* and *Strengthen the Port Access*  
categories.



### 3. Improve Truck Supportive Infrastructure

The following actions improve the operational conditions of trucking in the county.

P. Public Truck Parking

Q. Commercial Vehicle Enforcement Facility Upgrades

R. Transition to Zero Emissions Vehicles

#### *P. Public Truck Parking*

Investing in and encouraging the development of public truck parking would reduce the number of trucks parking along roadway shoulders, provide security, amenities, and the opportunity to provide zero emission charging and fueling. There is currently no public truck parking in the County, this leads to parking in undesignated lots or road shoulders.

A focused truck parking study is recommended to evaluate the duration and frequency of trucks idling in unauthorized locations and instances and possibly quantify the emissions resulting from idling observed. Particular attention to specific areas of concern and disadvantaged communities should be made for better evaluation and prioritization results. The study would include coordination with Caltrans involving support of state truck parking efforts.

**Benefits:** Improved truck driving conditions, reduce truck parking along side of roadway and in residential areas.

**Status:** The City of Fillmore is in the process of developing a truck parking facility near State Route 126, no other currently planned locations.

**Responsible Party:** County of Ventura, Cities, Caltrans

**Next Steps:** Work with Cities to identify potential public truck parking locations in commercial and industrial areas through focused collaboration and study.

#### *Q. Commercial Vehicle Enforcement Facility Upgrades*

Commercial Vehicle Enforcement Facilities perform essential monitoring and enforcement of vehicle weight, emissions, and registration. The US 101 facility requires ongoing operations and maintenance. The State Route 118 facility west of Moorpark operates as a part-time mini-site and is planned to be upgraded to a permanent Commercial Vehicle Enforcement Facility in the eastbound direction between Hitch Boulevard and Montair Drive. State Route 126 has a weigh-in-motion site.

**Benefits:** Improved protection and preservation of pavement, efficiency of tracking and enforcing assets, operation/turn-around time, freight data for planning.

**Status:** A project to construct new modular office facility and install overhead truck scale on/off message signs at the State Route 118 facility is in the Caltrans SHOPP program for \$5.2 million in the 2021-2022 timeframe. A project to construct a new weigh station is programmed in the SCAG RTP for \$21.8 million by 2031. Capital maintenance to replace concrete slabs and repair and replace asphalt concrete is planned for the US 101 Commercial Vehicle Enforcement Facilities and is allocated \$4.4 million in the Caltrans SHOPP program in 2021.

**Responsible Party:** Caltrans

**Next Steps:** Work with Caltrans to develop State Route 118 and State Route 126 enforcement facilities, consider virtual weigh stations.

*R. Transition to Zero Emissions Vehicles*

A California Air Resources Board rule to require truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024 will make every new truck sold in California zero-emission by 2045.

A complimentary buildout of charging stations and fueling stations for electric and hydrogen powered vehicles will need to be established to ensure vehicles will have the power to operate. New charging technologies will need to be put in place to enable faster charging, new financing models will need to be put in place, new development sites will need to incorporate charging infrastructure, and the electrical grid will need to be updated to provide reliable power distribution.

In July 2019, the Ventura County Regional Energy Alliance, in partnership with the Community Environmental Council and EV Alliance, released the Ventura County Electric Vehicle Ready Blueprint, which is intended to accelerate and support electric vehicle and charging infrastructure deployment throughout Ventura County. This comprehensive blueprint includes several strategies and funding-ready programs to support freight transportation in the County:

- Commission a comprehensive E-Truck electrical load study to determine electrical infrastructure requirements to support comprehensive goods movement electrification (in partnership with Southern California Edison).
- Partner with local utilities to explore development of innovative utility-linked financing strategies for commercial EV batteries, utilizing the “Pay as You Save” tariff model.
- Develop vehicle-grid integration pilot projects with leading fleets and industry partners

- Link Electric Vehicle Supply Equipment incentives to networked electric vehicle charging infrastructure
- Develop electric vehicle charging station projects paired with freight destinations
- Facilitate access and applications to Southern California Edison’s utility incentive programs for electric vehicle infrastructure development that will advance fleet electrification
- Develop electric fleet transition plans with leading trucking companies
- Support fleet transition planning for the region's public agencies - including school districts and the Port of Hueneme
- Establish fleet electrification pilot projects
- Collaborate with key regional transportation electrification stakeholders on regionwide goods movement electrification planning
- Partner with leading local fleets to win public funding for new electric vehicle charging infrastructure and E-Truck procurement

Corridors with the highest demand (US 101, State Route 118 and State Route 126) are good candidates for the siting of charging infrastructure.

**Benefits:** Reduce greenhouse gas emissions, improve electrical infrastructure.

**Status:** Ongoing

**Responsible Party:** State of California, Caltrans, VCTC, Port of Hueneme, County of Ventura, Cities

**Next Steps:** Coordinate policies and actions to facilitate the transition of vehicles to zero tailpipe emissions at the local agency level for supportive charging and fueling.

## A Framework for Implementation of Freight Corridors

The study identifies and prioritizes the most significant freight corridors in the County with attention to mitigating impacts of GHG emissions, particulate matter, and other criteria pollutants, as well as traffic, aesthetic and noise pollution that disproportionately affect disadvantaged communities adjacent to these corridors. The study looks to establish a framework for a cleaner freight movement future to promote Ventura County's industries, strong agricultural economy, and contribute to the State's economic growth.

The Study provides priority actions to:

- Strengthen existing corridors to build out the system and improve connectivity safety and minimize routing on local streets.
- Strengthen programs, options, activities and investments to reduce emissions from port activity and vehicles moving freight to help Port of Hueneme and the Ventura County region to move towards achieving the State and regional emission goals.
- Promote sustainable movement of goods through Ventura County and the region by understanding and optimizing routes by improving truck wayfinding, off-street truck parking and improved monitoring and enforcement of overweight vehicles.
- Increase social equity by planning for a transportation system that does not disproportionately burden disadvantaged communities.
- Integrate freight considerations into the planning of arterial corridors, safety for roadways and rails, and provide for safe pedestrian crossings across freight corridors.

The recommended areas of focus were developed from stakeholder input, technical analysis, and review of existing plans, and were organized into three categories: Improve Existing Freight Corridors, Strengthen the Port Intermodal Corridor, and Improve Truck Supportive Infrastructure consisting of 18 specific actions. The responsible transportation agencies within the County each have roles in the funding, development, construction, operations and maintenance of freight corridor infrastructure. However, the study creates a framework to inform future transportation planning and investment decisions with a multi-dimensional stakeholder process to integrate elements of transportation industry, the community and environmental considerations. By providing access to decision making, not only for final project approval, but in the shaping of priorities and project elements early for consensus in the project development process.

Sustained and inclusive community engagement through the implementation phase is necessary to support the development of mobility connections that minimize impact. The project prioritization and evaluation framework hold all parties accountable to maintain continued inclusive engagement with the community throughout the development and implementation of projects.

# Appendices

The Appendices contain details of the working input and analysis to develop the Freight Corridors Study Recommended Areas of Focus:

1. Conditions analysis of the technical data sources
2. Details the development of the study goals and performance measures and the assessment of potential solutions
3. Stakeholder input and literature review summarized as opportunities and vulnerabilities

# Appendix 1: Conditions Analysis

## 1. Conditions Analysis

Understanding and evaluating truck travel patterns in the County entails differentiating the purpose of truck travel, whether it be interregional trips on the highway system, intraregional trips involving transport of agriculture and movement of manufactured bulk items, port-related trips (involving containers, bulk freight, and roll-on/roll-off cargo), or local deliveries. The 2019 Ventura County Comprehensive Economic Development Strategy listed “investments in infrastructure and the development of new resources in hazard mitigation” as the first regional economic development goal. This included “increase local investments and leveraging of state, federal and private funds for improved roadways and multi-modal connectivity throughout the County” to support a resilient regional economy.<sup>25</sup>

Freight goods produced, consumed, and flowing through Ventura County are transported on the county’s roadway and rail systems. Freight predominantly shares these facilities with passenger transportation both on the roadways and railways with some exclusive freight facilities serving the Port of Hueneme. Shared facilities can be cost-effective, as they do not duplicate infrastructure, however they do make goods movement susceptible to passenger congestion, rail timetables, and increased potential for conflict among modes of travel.

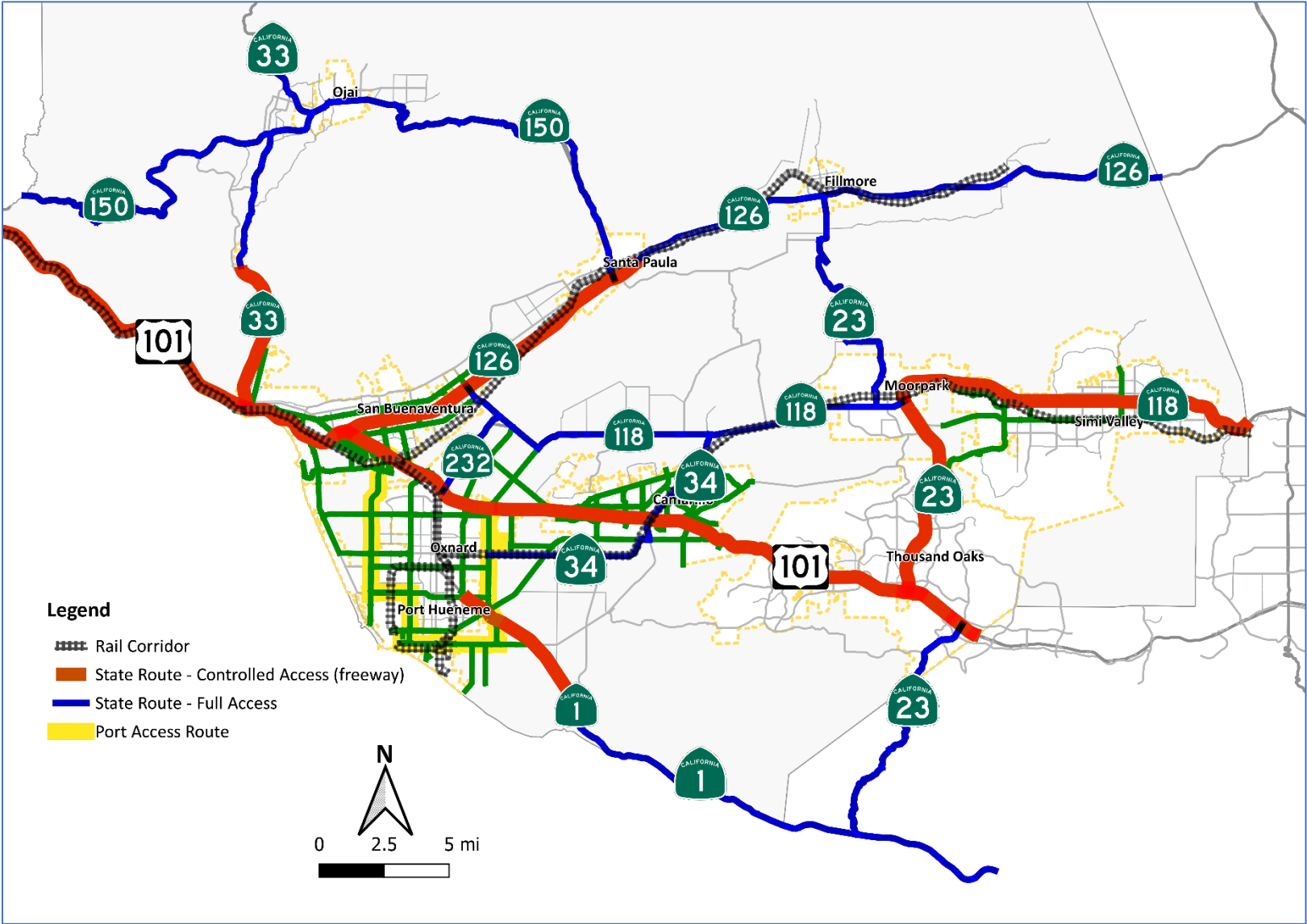
Freight is moved throughout Ventura County with these trips layered upon each other and interacting with the passenger transportation system. Analyzing each element of the freight system will help identify mobility and safety issues to identify improvements to efficiency and access in the delivery of goods to support consumption, manufacturing, and agriculture associated with a healthy economy. The Conditions Analysis is divided into five subsections:

- 1.1 Regulatory Framework – The Rules of Freight Movement** provides the existing setting for freight, what regulates its movement and how these regulations affect the use of the transportation system.
- 1.2 County Land Use Patterns – The Demand for Freight** describes major generators of trips, and the primary facilities they use.
- 1.3 Freight Corridors – The Transportation System Elements Available for Freight Movement** describes the transportation system for freight movement.
- 1.4 Freight Activity – How the Freight System Moves Through the County** describes the typical daily volume of freight, an inventory of prior safety incidents, and how freight relates to disadvantaged communities and sensitive land uses.
- 1.5 Data Sources and Standards – How Existing Conditions Were Collected** describes how data was obtained and analyzed in the report.

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<sup>25</sup> Ventura County Comprehensive Economic Development Strategy, April 2019 <https://edcollaborative.com/wp-content/uploads/2019/10/Final-CEDS-Adopted-2019.pdf>

Figure 13: Ventura County Freight Corridors





## 1.1 Regulatory Framework – The Rules of Freight Movement

This section provides an overview of federal, state, and local legislation, regulation, and plans that create the regulatory framework for Ventura County’s freight system. A summary of each legislative act and planning document at the federal, state, regional, and county levels, along with explanations of their primary intentions and implications, is provided below.

### 1.1.1 Federal Regulations

**Surface Transportation Assistance Act of 1982 (STAA)** – established a comprehensive system for transportation funding and policy, specifically to address concerns regarding surface transportation infrastructure, such as highways and bridges. The Act contained the Highway Revenue Act of 1982 (Title V), adding the first increase to the federal gasoline tax since 1961 of five cents per gallon, of which four cents was dedicated specifically for interstate highway and bridge restoration. Most notably, the act authorized the establishment of the National Network of federal and state highways designated for use by commercial freight-hauling truck drivers.

The National Network includes nearly the entirety of the Interstate Highway System in addition to other specified non-Interstate highways within both the National Highway System and state highway networks that are considered primary

corridors for goods movement and meet the same criteria for use by large trucks. The National Network Criteria designates such routes, known as STAA routes, based on their general adherence to the following<sup>26</sup>:

- The route is a geometrically typical component of the Federal-Aid Primary System, serving to link principal cities and densely developed portions of the States.
- The route is a high-volume route utilized extensively by large vehicles for interstate commerce.
- The route does not have any restrictions precluding use by conventional combination vehicles.
- The route has adequate geometrics to support safe operations, considering sight distance, severity, and length of grades, pavement width, horizontal curvature, shoulder width, bridge clearances and load limits, traffic volumes and vehicle mix, and intersection geometry.
- The route consists of lanes designed to be a width of 12 feet or more or is otherwise consistent with highway safety.
- The route does not have any unusual characteristics causing current or anticipated safety problems.

National Network corridors are generally recommended for accommodating pass-through truck traffic. However, the law allows for “reasonable access” to and from the network for truck terminals, truck stops, deliveries, repairs, etc. Roadways

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<sup>26</sup> Federal Motor Carrier Safety Administration Size and Weight, Route Designation – Length, Width and Weight Limitations. Accessed 8/16/21

that otherwise have truck restrictions are superseded by this law and allowed to accommodate trucks if there is no other reasonable means of access to the destination.

**Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)** – presented the first federal legislative intermodal approach to highway and transit funding, mandating collaborative planning requirements and giving significant additional powers to metropolitan planning organizations (MPOs). ISTEA defined a number of High Priority Corridors as part of the National Highway System and offers the most recent amendments to the definition of the National Network criteria for route designations and truck size and weight limitations. ISTEA was reauthorized as Transportation Equity Act for the 21st Century (TEA-21) in 1998, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012, and Fixing America’s Surface Transportation (FAST) Act in 2015.

**FAST Act** – is the current federal transportation authorization which provides long-term funding certainty for surface transportation infrastructure planning and investment while encouraging a broader scope of performance-based planning first introduced by its preceding authorization law, Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21). The FAST Act was set to expire on September 30, 2020. However, on September 22, 2020, within the "Continuing Appropriations Act of 2021 and Other Extensions Act of 2020," Congress

extended the FAST Act for one additional year through September 30, 2021. FAST enabled the establishment of the National Highway Freight Network<sup>27</sup>, consisting of the following subsystems of roadways:

- Primary Highway Freight System (PHFS) – a network of highways considered most critical to the US freight transportation system.
- Non-PHFS Interstate Highways – remaining portion of Interstate highways not included in the PHFS, providing continuity and access to freight transportation facilities.
- Critical Rural Freight Corridors (CRFCs) – public roads not in an urbanized area that provide access and connection to the PHFS and Interstate highway system along with important ports, public transportation facilities, and/or intermodal freight facilities.
- Critical Urban Freight Corridors (CUFCs) – public roads in urbanized areas that provide access and connection to the PHFS and Interstate highway system along with important ports, public transportation facilities, and/or intermodal freight facilities.

States and in certain cases, Metropolitan Planning Organizations (MPOs), are responsible for designating public roads for the CRFCs and CUFCs in accordance with section 1116 of the FAST Act. In 2018, SCAG worked with the California State Transportation Agency to add Rice Avenue and the remaining freeway portions of State Route 118 and

<sup>27</sup> <https://www.fhwa.dot.gov/fastact/summary.cfm>

State Route 23 in the County to the PHFS since the initial defining of routes in 2015.

In addition to the NHFN, the FAST Act continues the Federal Transportation Improvement Program (FTIP), a key mechanism in the allocation of federal grant money for transportation projects including in Ventura County.

**Federal Motor Carrier Safety Regulations** are developed by the Federal Motor Carrier Safety Administration to address interstate motor carrier safety. One of the most impactful regulations on trucking operations is the hours-of-service regulations found in Part 395 of the Federal Motor Carrier Safety Regulations. In general, a truck weighing more than 10,000 pounds for commercial purposes is subject to hours-of-service regulations. This regulation places specific limits on the amount of time an operator can drive a truck before requiring a rest period and a limit on the total work week hours. There is a 14-hour “driving window” limit, 11-hour driving limit, and 60-hour/7-day and 70-hour/8-day duty limits. There are exceptions from the hours-of-service regulations for agricultural, emergency, short-haul, construction, and other types of operations.<sup>28</sup>

These regulations require trucking companies to ensure drivers rest when they have reached their drive time limits, also known as “timed out” of service. This, combined with a shortage of private and public parking options may result in drivers being unable to find a designated truck parking

location and to instead park on the side of roadways or in other undesignated parking areas.

**National Ambient Air Quality Standards** (NAAQS) are set by the Environmental Protection Agency to protect public health with an “adequate margin of safety,” including the health of at-risk groups. Ventura County is classified as a “serious” non-attainment area for the 2015 federal 8-hour ozone standard. Ground level ozone, or “smog,” can reduce lung capacity, cause acute respiratory problems, and aggravate asthma.

Any reduction of the nitrogen oxides pollutant precursors, including GHG emissions, reduces ground-level ozone to help meet the federal ozone standard deadline in year 2026.

#### 1.1.2 State of California Regulations

**California Vehicle Code** sets the regulations for vehicles in the state. The California speed limit for any truck with three or more axles is 55 miles per hour ([Section 22406 CVC](#)). Because of this, trucks are included with vehicles required to use a designated lane or lanes on the curb side (outside) of a roadway. When overtaking and passing another vehicle proceeding in the same direction, the driver can use the lane to the immediate left of the right-hand lane, or the right-hand lane for traffic ([Section 21655 CVC](#)). Therefore, to large vehicles, every roadway has a maximum of two useable lanes.

The maximum gross weight for a vehicle combination is 80,000 pounds in the State of California. There are additional weight limits specifically for number of axles and vehicle

<sup>28</sup> Federal Motor Carrier Safety Administration [Summary of Hours of Service Regulations](#), accessed 8/15/21

length and some exceptions to exceed the weight limit. Any county or city may permit loads that exceed State weight limits on highways under their jurisdictions, but only on locally owned roads—not state facilities ([Section 35700 CVC](#)). Both the state and local roadway owners have processes to obtain overweight vehicle permits.

The California Highway Patrol (CHP) operates California's "Commercial Vehicle Enforcement Facilities," commonly called weigh stations or truck scales. Every driver of a commercial vehicle shall stop and submit the vehicle to an inspection of the size, weight, equipment, and smoke emissions at any location where members of the CHP are conducting tests and inspections of commercial vehicles and when signs are displayed requiring the stop ([Section 2813 the CVC](#)). There is a weigh station in the Conejo Grade along US 101 and mini-site weigh stations along State Route 118 eastbound near the intersection of Wailing Siren Ranch Drive and westbound east of Hitch Boulevard between Moorpark and Somis.

**Truck and Bus Regulation Engine Requirements** are promulgated by the California Air Resources Board (CARB). CARB administers a number of programs to regulate and provide funding for actions to reduce air emissions.

On September 23, 2020, Governor Gavin Newsom's Executive Order N-79-20 was signed. Among its components, it stated, "It shall be a goal of the State that 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. It shall be a further goal of the State that 100 percent of medium- and heavy-duty vehicles in the State be

zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks. It shall be further a goal of the State to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible."

Among the mechanisms to achieve the zero-emission targets are regulations and incentive grants under current and in-development CARB programs.

As part of the Executive Order, the Governor's Office of Business and Economic Development (GO-Biz) was tasked with preparing a Zero-Emission Vehicle Market Development Strategy along with the accompanying California State agency ZEV Action Plans.

New regulations include a manufacturers ZEV sales requirement and a one-time reporting requirement for large entities and fleets to help CARB achieve its emission reduction strategies as outlined in the State Implementation Plan, Sustainable Freight Action Plan, Senate Bill 350, and Assembly Bill 32.

At the time of the preparation of this Study, CARB was working on the development of several programs to supporting the transition of the vehicle fleet to zero emissions. Those in place at the time of the FCS preparation were:

California's Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) accelerates commercialization by providing point-of-sale vouchers to make advanced vehicles more affordable to purchasers. CARB opens voucher requests as funding become available each fiscal year.

The Carl Moyer Memorial Air Quality Standards Attainment Program provides incentive grants for cleaner-than-required engines, equipment, and other sources of pollution providing early or extra emission reductions. Eligible uses include a wide range of on-road heavy-duty trucks and buses, drayage trucks, transit vehicles, solid waste collection vehicles, and emergency vehicles. These grants are issued locally by the Ventura County Air Pollution Control District (VCAPCD).

CARB also offers a Truck Loan Assistance Program to help small-business fleet owners affected by CARB's In-Use Truck and Bus regulation secure financing to upgrade their fleets with newer trucks. The program is open to qualified trucking fleets with 10 or fewer heavy-duty vehicles. In addition to meeting CARB's program criteria, California Pollution Control Financing Authority's California Capital Access Program requires that an eligible trucking company meet basic requirements by qualifying as a small business (fewer than 100 employees), generate less than \$10 million in annual revenue, and operate primarily in California.

In addition to regulating truck engine year, CARB has regulations for diesel-fueled Transport Refrigeration Units (TRUs), low-rolling resistance tires, and aerodynamic devices on 53-foot or longer trailers.

The California Energy Commission also administers a Clean Transportation Program (also known as the Alternative and Renewable Fuel and Vehicle Technology Program), which provides funding to support innovation and accelerate the development and deployment of advanced transportation and fuel technologies.

Enacted in 2006, **California Global Warming Solutions Act (AB 32)** established the first statewide mandate to reduce greenhouse gas (GHG) emissions in California, aiming for a reduction to 1990 levels by the year 2020. To achieve these goals, California's Sustainable Communities and Climate Protection Act (SB 375) was enacted, directing each Metropolitan Planning Organization (MPO) within the state to develop a Sustainable Communities Strategy (SCS) as part of its mandated Regional Transportation Plan (RTP) to demonstrate how each region will attain its targeted emissions reductions.

The first **California Freight Mobility Plan (CFMP)** was adopted in 2014 under requirements set forth in Assembly Bill (AB) 14 (Lowenthal, 2013) and codified under California State Government Code (GC) Section 13978.8, to create a statewide freight plan, to be updated every five years. The FAST Act (2015) required states to develop FAST Act compliant state freight plans and update them every five years to be able to obligate National Highway Freight program funding. The latest plan, published in 2020, recapped the federally required elements addressed in the 2014 plan with the addition of three new FAST Act elements – the designation of Critical Urban Freight Corridors (CUFC) and Critical Rural Freight Corridors (CRFC), the consideration of any significant congestion or delay caused by freight movements and strategies to mitigate said congestion or delay, and a freight investment plan.

The California Freight Advisory Committee, composed of a cross-section of representative public and private sector

freight stakeholders, guided the 2020 CFMP, which is structured to provide the following<sup>29</sup>:

- A consistent vision across the state by showcasing overarching goals and objectives that enhance California’s economy, protect the environment, and support a transportation system that can meet current and future freight demands. A framework for sound policy decisions in relation to the overall economy by developing competitiveness in the twenty-first century.
- A review of the current performance and conditions of California freight infrastructure that are critical to making proper investments to enhance the movement of goods.
- A detailed look at current trends, issues, and challenges facing the freight network and supply chain, including E-commerce, omni-channel distribution, first-and-last mile delivery, 3-D printing, and autonomous vehicles all pose opportunities for the State’s aging infrastructure as technology advancements speed forward, placing excess burden on highway capacity and travel demand. A detailed look at the current state of trends, issues, and challenges facing the State’s freight network and supply chain are explored in-depth.
- A strategic public outreach effort to understand the challenges of maintaining and preserving its environmental assets including air and water while

reducing negative environmental impacts on communities due to land development and transportation practices specifically related to goods movement.

Seven Regional Freight Investment Strategies highlight the uniqueness of each region’s freight needs. Using this structure, the CFMP 2020 focuses on the seven primary goals of multimodal mobility, economic prosperity, environmental stewardship, healthy communities, safety and resiliency, asset management, and connectivity and accessibility, as they relate to the state’s freight and goods movement system.

**California Sustainable Freight Action Plan (CSFAP)** formed in response to an executive order by Governor Brown and published in 2016, the CSFAP provides a vision for California’s transition to a freight system that maintains economic competitiveness while reducing harmful pollution and greenhouse gas emissions in pursuit of environmental sustainability<sup>30</sup>. This includes recommendations on a long-term 2050 vision for California’s freight transport system, 2030 targets to guide the state toward said vision, and outlines specific opportunities and action items to leverage investment, highlighting pilot projects and additional concepts for further exploration.

<sup>29</sup> <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp-2020>

<sup>30</sup> California Air Resources Board, [California Sustainable Freight Action Plan](#), accessed 8/21/21



The **Climate Action Plan for Transportation Infrastructure (CAPTI)** was released in July 2021<sup>31</sup> by the California State Transportation Agency (CalSTA). The plan details how the state recommends investing billions of discretionary transportation dollars annually to aggressively combat and adapt to climate change while supporting public health, safety and equity. In addition to supporting Executive Order N-79-20 that directed new commercial trucks sold in the state to be zero-emission by 2045 for all operations where feasible, the CAPTI framework supports sustainable transportation solutions for goods movement, such as:

- Improving freight rail lines in major goods movement corridors to support mode shift from truck to zero-emission rail, increase passenger rail service, and promote zero emission locomotives;
- Improving multimodal connectivity in local street networks (including overcrossing opportunities of Caltrans facilities) in order to enable more direct routing and efficient access to destinations for short trips, thereby removing trips from the state highway system;
- Adding and improving connected facilities for walking and bicycling in the corridor and for first/last-mile connections to local, interregional, and regional transit routes;
- Converting to truck-only lanes in major goods movement corridors, utilizing the Caltrans right-of-way or other lands to provide safe truck parking opportunities, and installation of charging facilities

that support zero-emission trucks, especially in neighborhoods burdened by poor air quality; and,

- Deploying zero-emission vehicle charging or fueling infrastructure—including for battery electric, fuel cell (hydrogen) electric, and other zero-emission vehicle technologies.

The **California Transportation Plan 2050 (CTP 2050)**<sup>32</sup> provides a common framework for guiding transportation decisions and investments by all levels of government and the private sector. The CTP 2050 provides challenges, opportunities and a plan to address mobility needs.

The CTP 2050 describes California as home to one of the nation’s most critical freight networks. The multimodal freight system drives California’s economy, supporting a broad range of commercial and industrial activities. Our ability to keep businesses running, workers commuting, and goods moving throughout the state is based on the reliability of our freight rail, trucking, airports, seaports, international ports of entry (POE), maritime facilities, intermodal facilities, and other goods movement infrastructure.

**Road Repair and Accountability Act of 2017 (SB 1)** is a legislative act passed in 2017 with the aim of repairing surface transportation networks, improving traffic safety, and expanding public transportation systems across the state, using a fuel tax increase as its primary funding mechanism. The legislation allocates \$300 million annually in state funding and approximately \$515 million annually in National Highway

<sup>31</sup> California State Transportation Agency, [Climate Action Plan for Transportation Infrastructure](#), July 2021

<sup>32</sup> Caltrans, [California Transportation Plan](#), February 2021

Program funds for freight projects seeking to enhance trade corridors throughout the state, guided by the adoption of Trade Corridor Enhancement Program (TCEP) disbursed mostly to local governments. The TCEP guidelines used by the California Transportation Commission to evaluate project applicants in the second cycle of the program (in 2020) included the following:<sup>33</sup>:

- Freight System Factors
  - Throughput – Project provides for increased volume of freight traffic through capacity expansion or operational efficiency to improve the interregional transportation network and move goods to, through, and from ports.
  - Velocity – Project increases the speed of freight traffic moving through the distribution system, including critical freight corridors and ports.
  - Reliability - Project reduces the variability and unpredictability of travel time.
- Transportation System Factors
  - Safety - Project increases the safety of the public, industry workers, and traffic.
  - Congestion Reduction/Mitigation - Project reduces daily hours of delay on the system and improves access to freight facilities.
  - Key Transportation Bottleneck Relief - Project relieves key freight system bottlenecks where forecasts of freight traffic growth rates indicate infrastructure or system needs are inadequate to meet demand, this includes bottlenecks on critical freight corridors and near our state’s borders.
- Multi-Modal Strategy - Project employs or supports multi-modal strategies to increase port and transportation system throughput while reducing truck vehicle miles/hour traveled (VMT/VHT) or truck idling times.
- Interregional Benefits - Project links regions/corridors to serve statewide or national trade corridor needs and to improve the interregional transportation network.
- Advanced Technology – Project employs advanced and innovative technology and integrates transformative ideas to increase the amplitude of benefits for the state’s people, economy, and environment. Examples include Intelligent Transportation Systems (ITS) or supporting infrastructure for deployment of current and future technologies, such as zero and near-zero emission equipment or ITS elements.
- Community Impact Factors.
  - Air Quality Impact - Project reduces local and regional emissions of diesel particulate (PM 10 and PM 2.5), carbon monoxide, nitrogen oxides, greenhouse gases, and other pollutants.
  - Community Impact Mitigation – Project reduces negative impacts on communities (noise, localized congestions, safety, public health, etc.).
  - Economic/Jobs Growth – Project stimulates local economic activity, enhances trade value, and

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<sup>33</sup> California Transportation Commission, [Trade Corridor Enhancement Program \(TCEP\)](#), accessed 8/15/21

preserves/creates jobs. Project enhances California's competitiveness while protecting its community and environmental assets.

The Commission also considered the following factors:

- The overall need, benefits and cost, of the project in the context of its contribution to advancing the California Freight Mobility Plan, the California Sustainable Freight Action Plan, and if applicable, an adopted regional freight plan.
- Project readiness and reasonableness of the schedule for project implementation, including the following:
  - Progress towards achieving environmental protection requirements.
  - The comprehensiveness and sufficiency of agreements with key partners (particularly infrastructure owning railroads) that will be involved in implementing the project.
- The leveraging and coordination of funding from other private, federal, state, local or regional sources, with consideration of those sources that are discretionary compared to those that are nondiscretionary.
- The commitment of multiple partners in the delivery of the project, as evidenced by joint nomination and/or joint funding of a project.
- The level of demonstrated support for the project from community-based organizations.

The Trade Corridor Enhancement Program funds projects designed to move freight more efficiently on corridors with high volumes of freight. These projects may increase the use of on-dock rail, improve safety by eliminating at-grade crossings, reduce impacts to surrounding communities,

reduce border wait times, and/or increase rail capacity with double tracking. The third cycle of TCEP is scheduled to begin in 2022. At the time of this writing, third cycle program guidelines and performance metrics were being developed by the California Transportation Commission.

### 1.1.3 Regional Plan

**Regional Transportation Plans (RTP)** are produced every four years by metropolitan planning organizations (MPOs) under federal mandate since the establishment of MPOs under the 1962 Federal-Aid Highway Act. Aims and objectives for RTPs include improving accessibility, efficient management and operation, integration and connectivity, economic vitality, and environmental preservation by prioritizing and directing investment toward transportation projects within the region. In California, the passage of AB 35 in 2005 led to the additional mandate of including a Sustainable Communities Strategy (SCS) to achieve the state's GHG emission reduction targets via planning and investment in the regional transportation system.

SCAG is the regional MPO for Ventura County, as well as five other counties in Southern California, and is the nation's largest, directing planning for a population estimated at 18.5 million as of 2016. Connect SoCal, the 2020 RTP/SCS, includes \$66 billion in investment needed to enhance and improve upon Southern California's freight system in pursuit of the

mentioned goals<sup>34</sup>, with plans that ultimately guide investment for seaports, air cargo facilities, Class I railroads, warehouse and distribution center linkages, the PHFS, and the broader road network.

The goods movement system vision of Connect SoCal is a world-class, coordinated Southern California goods movement system that accommodates growth in the throughput of freight to the region and nation in ways that support the region's economic vitality, attainment of clean air standards, and quality of life for our communities.

Connect SoCal promotes this vision by:

- Maintaining the long-term economic competitiveness of the region
- Promoting local and regional job creation and retention
- Increasing freight and passenger mobility
- Improving the safety of goods movement activities
- Mitigating environmental impacts of goods movement operations

#### 1.1.4 Ventura County

**Ventura County adopted its 2040 General Plan** on September 15, 2020. Chapter 4: Circulation, Transportation and Mobility Element identifies goals, policies, and programs that establish a framework for decisions in Ventura County concerning the countywide transportation system.

Ventura County has a goal to ensure the design, construction, and maintenance of a safe and efficient roadway system for the movement of persons and goods. Specific to goods movement, the County has the following policies:

- The County shall coordinate with Caltrans and cities to ensure that truck routes are appropriately designed and designated for the safe and efficient movement of goods throughout the county, particularly to the Port of Hueneme.
- The County shall work with Union Pacific Railroad, the Port of Hueneme, owner of the Ventura County Railroad, Caltrans, cities, and the VCTC to continue to enhance roadway safety along railroad grade crossing surfaces through improvements including the installation of concrete railroad grade crossing surface panels.
- The County shall work with Naval Base Ventura County (NBVC) and neighboring jurisdictions to enhance circulation for identified roadway mobilization corridors/Strategic Highway Network.
- Within Existing Communities, the County shall provide/retrofit separated or buffered pedestrian and bicycle paths from the outside travel lane along County Road Network roads that are designated Overweight Vehicle Corridors and STAA designated Terminal Access Routes. Where the application or retrofitting of separated or buffered facilities is not feasible, the County shall prioritize alternative pedestrian and bicycle connections that encourage and attract pedestrian and

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<sup>34</sup> Ventura County General Plan Update – Transportation and Mobility Element Chapter 6.5

bicycle traffic off designated Overweight Vehicle Corridors or STAA designated truck routes.

The **Ventura County Comprehensive Transportation Plan** (CTP) is a long-range policy document, built from community-based, local priorities and community-expressed need to enhance regional connections. The Ventura County Transportation Commission, communities, residents and other key stakeholders collaborated to create a transportation vision for Ventura County and identify ways of achieving this vision within constrained resources. It is aimed at ensuring mobility and enhancing the quality of life for all Ventura County residents. The CTP also fully examines various funding strategies and options from the federal, state, regional and local levels. It is intended to provide a framework for future community-based planning and collaboration and inform Ventura County's long-range transportation decisions. At the time of this writing, VCTC is in the initial stages of preparing an update to the 2013 CTP.

**Ventura County EV Ready Blueprint** is intended to support electric vehicle and associated charging infrastructure development throughout Ventura County. The Blueprint highlights the existing market, funding, and policy context informing electric vehicle ecosystem development at regional and local levels for Ventura County. The Ventura County Electric Vehicle Ready Blueprint provides a set of recommendations to accelerate the adoption of electric vehicles, expand access to electric vehicle charging through infrastructure improvements, and align Ventura County's transportation electrification initiatives with California's statewide electric vehicle programs, projects, and incentives.

The Blueprint's companion Electric Vehicle Accelerator Plans provide distinct community-specific Electric Vehicles Plans for the Cities of Ventura and Oxnard, and the Port of Hueneme. The Accelerator Plans provide program strategies for helping each jurisdiction transition its own fleet to electric vehicles, catalyze greater electric vehicle adoption amongst their own employees, and develop sufficient charging infrastructure for their communities. The Port's plan takes a special look at the health and environmental impact of electrifying drayage and heavy-duty trucks and powering these trucks and off-port warehouses with renewable energy.

**Naval Base Ventura County (NBVC) Joint Land Use Study** (JLUS) is a joint, collaborative effort between the cities of Camarillo, Oxnard, and Port Hueneme, County of Ventura, NBVC, and other stakeholders and was completed in 2015. The JLUS was undertaken to guide planning and land use decisions about development in local governments surrounding NBVC and its operational areas at NBVC Point Mugu, NBVC Port Hueneme, and NBVC San Nicolas Island.

NBVC uses local roadways for military mobilization of troops and equipment to and from the base to strategic locations throughout the US. The 2008 NBVC Encroachment Action Plan (EAP) identified three major corridors outside the fence that are strategic assets to the NBVC mobilization mission. Additionally, the corridors are used to transport ordnance from NBVC Port Hueneme to NBVC Point Mugu for storage. Due to the multiple users of these roadways and for planning purposes, the Navy has recommended coordination with local jurisdictions to ensure adequate level of service during

mobilization activities. **Figure 10** includes the three mobilization corridors:

- Victoria Avenue to US Highway 101
- South Patterson Road to East Wooley Road to State Highway 1
- East Port Hueneme Road to Lincoln Court to South Rice Avenue to US 101

The study states continued community growth can potentially increase traffic congestion on mission-critical and community roadways, delaying or interrupting mission activities and military readiness. These roadways include the following:

- Traffic flow on Hueneme Road where it necks down to two lanes;
- Growth may result in freight access issues from Victoria Gate to the US 101;
- Traffic flow issues on Rice Avenue due to railroad crossings; and
- Traffic flow issues on Rose Avenue.

**Save Open-Space and Agricultural Resources (SOAR)** is a series of voter-approved initiatives initially adopted in 1995 in the City of Ventura and subsequently by the other jurisdictions in Ventura County. Measures set to expire in 2020 were extended by voters in 2016 through measures in the unincorporated County and eight cities. Key features are:

- Requires a countywide vote on amendments to the Ventura County General Plan land use designations from Agricultural, Open Space or Rural to more intense

land use designations or weaken the land use policies protecting agricultural resources.

- Establishes City Urban Restriction Boundaries (CURBs) and requires a citywide vote to alter these lines.
- LAFCO endorsed the use of city SOAR initiatives/ordinances in consideration of proposed amendments to city Spheres of Influence and city annexations.
- Reinforces existing greenbelts, city spheres of influence (SOI), Guidelines for Orderly Development, and Ventura County General Plan.

SOAR has preserved strong boundaries between agriculture and open space and land developed for residential, industrial, and commercial uses and is intended to support the viability of the agriculture sector in the County.

#### **Ventura County Air Pollution Control District Incentive**

**Programs** are directed at reducing emissions of criteria pollutants by reducing the amount of nitrous oxide (NOx) generated from mobile sources. NOx when combined with reactive organic compounds (ROCs or VOCs) can react with sunlight to create ground-level smog. The two types of programs, Incentive Programs and Transportation Outreach Program, have a co-benefit in indirectly reducing GHG emissions as older, dirtier equipment and vehicles are traded in for newer engines that have stricter air quality emission standards or as VMT are reduced due to an increase in alternative modes of transportation. The District's Incentive Programs include grant programs<sup>35</sup> and the Transportation Outreach Program.<sup>36</sup>

<sup>35</sup> Ventura County Air Pollution Control District [Incentive Programs](#)

<sup>36</sup> Ventura County Air Pollution Control District [Transportation Outreach Program \(Rule 211\)](#)



## 1.2 County Land Use Patterns – The Demand for Freight

As people demand goods for shelter, food, and other consumer purposes, the transportation of those goods is essential to maintain vitality in the region. Ventura County is home to a seaport, manufacturing and agricultural operations, and a population of approximately 850,000 people who consume goods on a daily basis.

The agricultural industry, manufacturing, wholesale trade, and transportation and warehousing industries generates approximately 1/3 of the County's economic output. In 2019, agriculture employed 26,125 people, manufacturing employed 28,330 people, and transportation and warehousing employed 6,116 people in the County.<sup>37</sup>

Ventura County has a long history of oil, machine tool and pharmaceutical manufacturing. The manufacturing sector is the largest single contributor to economic output in the county and the development of small firms in the region along with advanced skills training will contribute to job growth over time. The manufacturing cluster contributors \$8.7 billion in exports and just under \$6 billion in gross regional product per year. The agricultural sector is the next highest producer of goods value at \$2 billion, though the sector's contribution to gross regional product is much lower than manufacturing due to marginal differences in profitability.<sup>38</sup>

An aerial survey<sup>39</sup> was used to identify locations of loading docks and truck parking. Most large buildings have loading docks and generate truck trips to provide supplies. However, office buildings and institutional buildings such as schools and hospitals receive supplies but heavy-duty trucks are not generated in the frequency of manufacturing, industrial or large retailers. Storage such as personal storage or parking lots for RV retailers were not included in the identified buildings and parking areas expected to generate heavy-duty truck trips.

The aerial survey identified the following types of buildings and parking areas:

- Distribution/Warehousing
- Manufacturing
- Large Retailers
- Agricultural
- Other uses such as construction yards or concentrations of heavy-duty truck parking

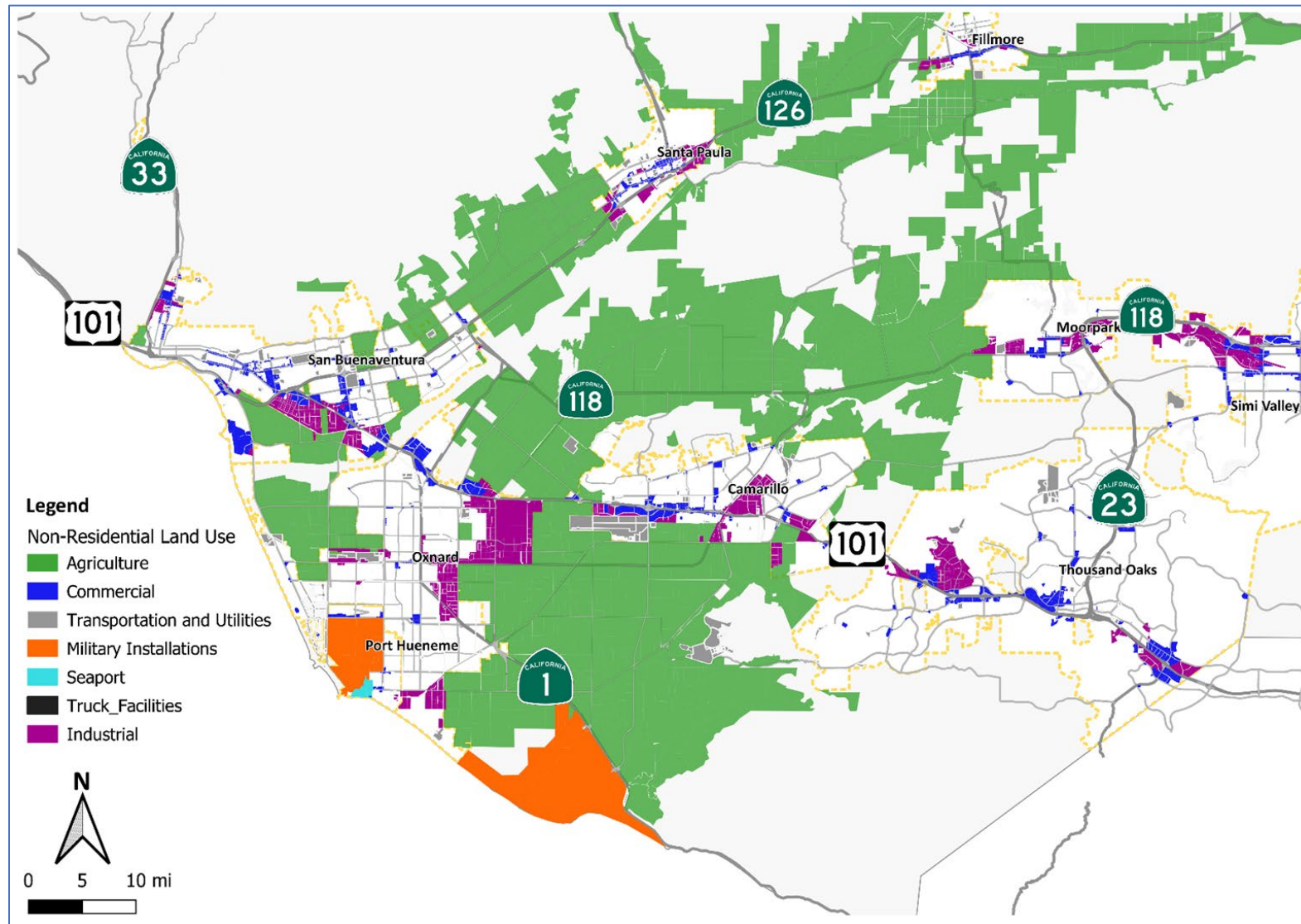
As shown in **Figure 14**, most commercial and industrial land uses are clustered along US 101, State Route 118 and State Route 126, and in and around the City of Oxnard.

<sup>37</sup> Economic Development Collaborative: Ventura County Comprehensive Economic Development Strategy, April 2019

<sup>38</sup> Ventura County Agricultural Commissioner, 2018 Crop and Livestock Report

<sup>39</sup> Google Earth Imagery Date 5/17/2019

Figure 14: Ventura County Non-Residential Land Use



Source: Southern California Association of Governments [2016 Land Use Dataset](#)

### 1.2.1 Truck Trip Generation

A substantial amount of the County's goods movement activity is associated with local pickup and delivery activity, construction, utilities and other service activities. The local goods movement-dependent industries involved in these activities rely on all modes of transportation as a key part of their business models, and generally utilize every part of the transportation network.

There is no specific data set of the amount of total truck trips occurring within the County, however there are tools specifically designed to estimate truck travel. The Southern California Association of Governments (SCAG) maintains a regional Travel Demand Model to better understand traffic and transportation features in relationship to land use and air quality. The Ventura County Transportation Model (VCTM) is a countywide model developed as a sub-area model of the SCAG model. VCTM has base year and forecast year land-use projections and transportation networks. Both models use the SCAG Heavy Duty Truck Model module to specifically analyze truck trips.

The model uses computerized transportation network utilized by trip productions and attractions from socioeconomic (population and employment) data. The model is calibrated using travel surveys and counts of vehicles at key locations. The SCAG travel demand modeling defines medium-heavy trucks as 14,001 to 33,000 lbs. gross vehicle weight (FHWA Class 4 to 7) and heavy-heavy trucks as greater than 33,000 lbs. (FHWA Class 8 to 13). VCTM's existing conditions daily

truck trip generation is the best source for the proportionality of truck origins and destinations in the County.

The existing conditions daily truck trip generation of the zones of the model located within Ventura County were summarized by location in **Table 2** which shows 56,600 daily truck trips. This data includes one-way truck trips starting and/or stopping in the County-not trips passing through and not stopping in the County.<sup>40</sup> A truck visiting a site to make a delivery would be one trip, and when it leaves the site, there would be a second trip. Some key observations from the data:

- The land use in the City of Oxnard and Port Hueneme generates 26 percent of the County total.
- The next highest generating Cities are Thousand Oaks (17 percent), Ventura (12 percent) and Simi Valley (10 percent).
- Twenty percent of trucks were generated in unincorporated areas with concentrations adjacent to Oxnard (six percent), Camarillo (four percent) and Ventura (three percent).
- Based on the January 26, 2021 Port Hueneme Road daily gate count, 350 trucks, which represented an average day with a ship in port, the Port of Hueneme commercial port directly generated 0.6 percent of total daily trucks in the County. This number is only those trucks specific to the commercial Port of Hueneme property, not those trucks that are generated by moving or transloading cargo from secondary distribution sites or warehouses.

<sup>40</sup> Note, these values differ from those reported in the SCAG Connect SoCal [Goods Movement Technical Report](#) Table 6 for Ventura County (45,164

trucks trips per day) as that table only included heavy-heavy duty trucks and this analysis includes medium-heavy trucks., September 3, 2020 page 48

**Table 2: Ventura County Daily Truck Trip Generation**

Location		Truck Trip Generation	Percent of Total
<b>Camarillo</b>		4,300	8%
<b>Fillmore</b>		600	1%
<b>Moorpark</b>		2,000	4%
<b>Ojai</b>		200	0%
<b>Oxnard</b>		13,300	23%
<b>Port Hueneme</b>		1,600	3%
<b>San Buenaventura</b>		6,700	12%
<b>Santa Paula</b>		1,300	2%
<b>Simi Valley</b>		5,800	10%
<b>Thousand Oaks</b>		9,500	17%
<b>Unincorporated Total</b>		11,300	20%
Camarillo Area		2,200	4%
Fillmore Area		100	0%
Las Posas Area		500	1%
Moorpark Area		400	1%
Oak Park Area		400	1%
Ojai Area		800	1%
Oxnard Area		3,600	6%
Piru Area		100	0%
Santa Paula Area		700	1%
Simi Valley Area		800	1%
Ventura Area		1,600	3%
North County		100	0%
<b>Total</b>		56,600	100%

Source: Ventura County Transportation Model

### 1.2.1 Industrial and Retail Land Use

The square footage of retail<sup>41</sup> and industrial<sup>42</sup> development in Ventura County at the beginning of 2020 is shown in **Table 3**.

**Table 3: Ventura County Retail and Industrial Square Footage**

Area	Retail	Industrial	Total
West (Moorpark, Simi Valley, Thousand Oaks)	24,377,000	20,312,000	44,689,000
East (Oxnard, Ventura, Camarillo, Santa Paula, Fillmore, Ojai)	19,093,000	48,773,000	67,866,000
<b>Total Ventura County</b>	<b>43,470,000</b>	<b>69,085,000</b>	<b>112,555,000</b>

Source: Ventura County Retail Market Outlook and Ventura County Industrial Market Report

As shown, there is approximately 43.5 million square feet of retail space along with 69 million square feet of industrial square footage in the County. **Table 4** shows a more specific location for industrial square footage (retail square footage was aggregated to the West County and East County from the data source).

**Table 4: Ventura County Industrial Square Footage**

Area	Industrial Square Footage
Camarillo/Somis	11,604,000
Fillmore/Santa Paula	2,471,000
Oxnard/Port Hueneme/Saticoy	23,440,000
Simi Valley/Moorpark	12,359,000
Newbury Park/Thousand Oaks	7,953,000
Ventura/Mira Monte/Oak View/Ojai	11,258,000
<b>Total Ventura County</b>	<b>69,085,000</b>

Source: Ventura County Industrial Market Report

<sup>41</sup> [Ventura County Retail Market Outlook Q1 2020](#), NAI Capital

<sup>42</sup> [Ventura County Industrial Market Report Q4 2019](#), CoStar and Lee & Associates

The Oxnard area has the highest concentration of industrial square footage in the County with approximately 1/3 of the total for the County. Simi Valley/Moorpark, Camarillo, and Ventura have the next highest concentrations of industrial space with 16 to 17 percent of the County total apiece.

#### *Heavy-Duty Vehicle Registration Zip Code*

The California Department of Motor Vehicles zip code registration data for the fuel type of heavy-duty engine vehicles from January 1, 2020 shows over 22,000 heavy duty vehicles registered in Ventura County.<sup>43</sup> While this value is inclusive of the heavy-duty vehicle registrations for buses, agricultural, yard and construction equipment, and do not describe on-road travel patterns, it is an indicator of truck domicile locations in the County.

**Table 5** summarizes the data by location, showing Oxnard and Ventura having the most heavy-duty vehicle registrations in the County with Camarillo, Simi Valley and Thousand Oaks having the next most heavy-duty vehicle registrations. The majority of heavy-duty vehicles domiciled in the County were diesel or diesel hybrid (59%), with the next most common fuel being gasoline. There were three battery-electric heavy-duty vehicles and 127 natural-gas-powered heavy-duty vehicles registered in Ventura County.

<sup>43</sup> [1/1/2020 Vehicle Fuel Type Count by Zip Code](#), Department of Motor Vehicles, Accessed 8/8/2021

**Table 5: Ventura County Heavy Duty Truck Registration by Fuel Type**

Location	Registered Heavy-Duty Vehicles						Total
	Battery Electric	Diesel and Diesel Hybrid	Flex-Fuel	Gasoline	Natural Gas	Other	
Oxnard	-	3,291	129	1,408	58	5	4,891
Ventura	-	2,797	168	1,493	39	1	4,498
Camarillo	-	1,427	60	1,042	-	3	2,532
Simi Valley	-	1,098	57	986	5	5	2,151
Santa Susana	-	767	37	813	12	-	1,629
Thousand Oaks	3	696	51	653	4	-	1,407
Newbury Park	-	463	41	486	-	-	990
Moorpark	-	606	24	293	5	-	928
Santa Paula	-	598	17	279	-	1	895
Ojai	-	414	17	292	1	3	727
Fillmore	-	362	7	179	-	1	549
Oak View	-	218	6	133	-	-	357
Somis	-	259	10	61	-	-	330
Point Mugu	-	135	14	104	3	-	256
Agoura Hills	-	45	4	39	-	-	88
Piru	-	40	1	21	-	-	62
Port Hueneme	-	9	-	10	-	2	21
<b>Total</b>	<b>3</b>	<b>13,225</b>	<b>643</b>	<b>8,292</b>	<b>127</b>	<b>21</b>	<b>22,311</b>

Source: California Department of Motor Vehicles

### 1.2.1 Agriculture

The unique natural capital of Ventura County places agriculture as a major economic contributor to the regional economy. With trucking accounting for 92 percent of fresh produce shipments, efficiency and reliability on California's highways are critical to the growth and global competitiveness of the agricultural sector.<sup>44</sup>

The estimated gross value of Ventura County's agriculture for calendar year 2018 was \$2,103,232,000.<sup>45</sup> Top crops by value and acreage are shown in **Table 6**.

Top valued crops are strawberries, lemons, and celery. The most acreage is used to produce avocados, lemons and celery. Each of these agricultural crops have different production and harvest seasons as shown in **Figure 15**. The distribution of the different types of farmland in the County is shown in **Figure 16**. As shown, agricultural land is concentrated around the State Route 126 and State Route 118 to Santa Clara Avenue corridors, the unincorporated area south of Camarillo and east of Oxnard, and the unincorporated area between Ventura and Oxnard. Movement of farm equipment and transport of supplies to and agricultural products from agricultural land utilizes local roadways to access regional facilities.

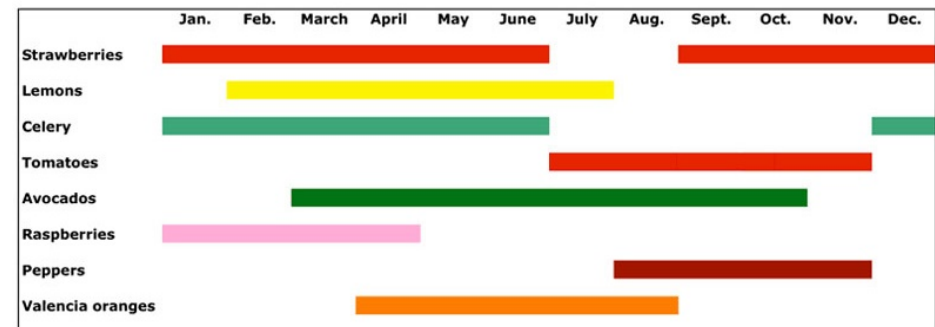
<sup>44</sup> California State Transportation Agency, California Transportation Plan 2050, February 2021

**Table 6: Ventura County Crop Value and Field Acreage 2018**

Rank	Crop	Value	Acreage
1	Strawberries	\$670,716,000	9,109
2	Lemons	\$244,173,000	14,201
3	Celery	\$198,680,000	12,151
4	Nursery Stock	\$194,495,000	3,118
5	Raspberries	\$181,730,000	4,008
6	Avocados	\$103,252,000	17,116
7	Tomatoes	\$48,932,000	381
8	Cut Flowers	\$48,442,000	605
9	Peppers	\$43,519,000	3,065
10	Cabbage	\$36,972,000	3,795
-	Other Fruit and Nut Crops	\$72,844,000	5,970
-	Other Vegetable Crops	\$240,438,000	17,816
-	Field Crops (e.g. hay and seed)	\$3,566,000	221,145
-	Livestock and Poultry	\$5,564,000	-
-	Apiary Products	\$3,972,000	-

Source: Farm Bureau of Ventura County Crop Data, 2018

**Figure 15: Typical Harvest Seasons for County's Food Crops**

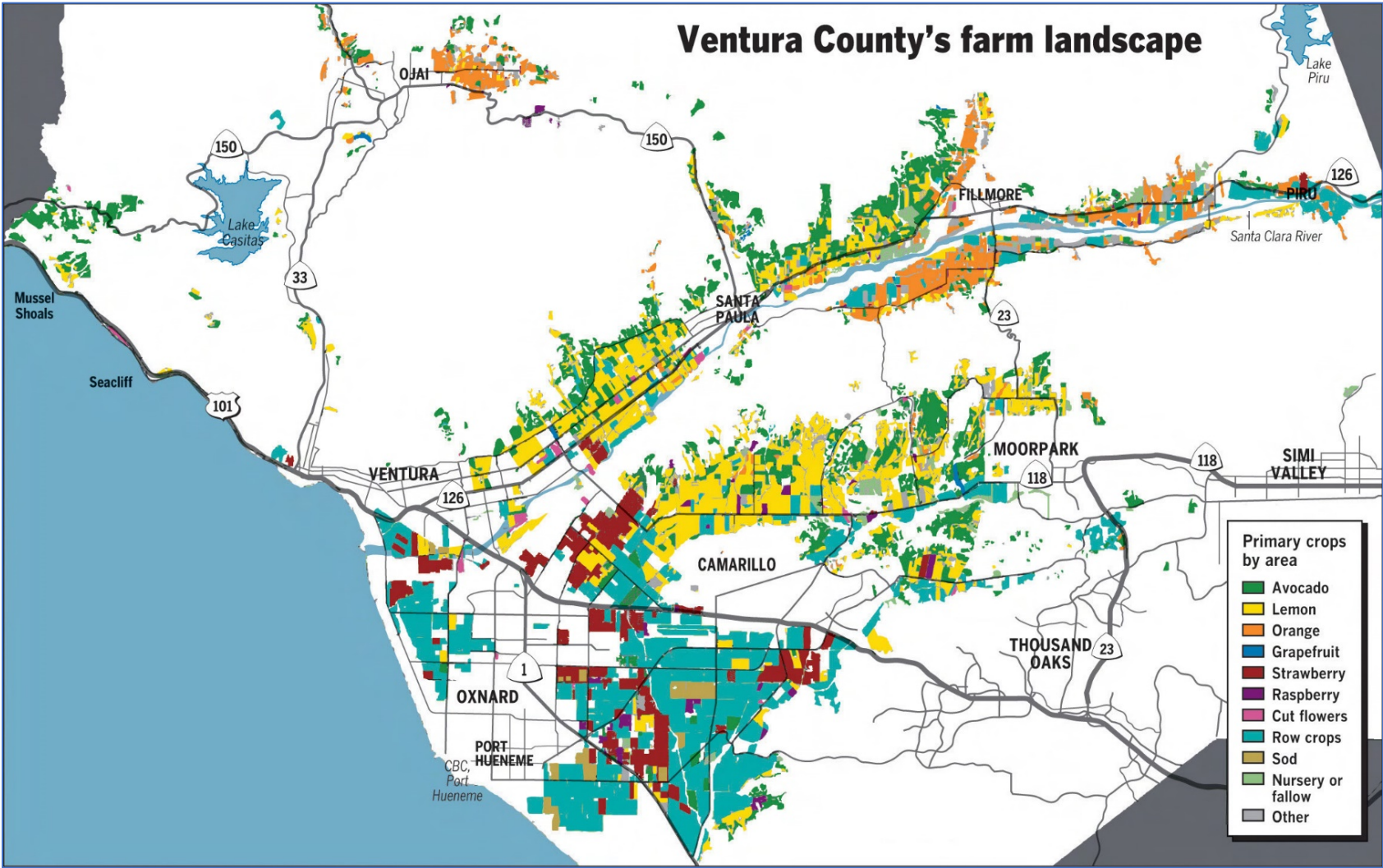


Source: Ventura County Farm Bureau

<sup>45</sup> Ventura County Agricultural Commissioner, [2018 Crop and Livestock Report](#)



Figure 16: Ventura County Farmland



Source: Ventura County Farm Bureau

### 1.2.1 Seaports

The County's major port of entry is the Port of Hueneme (Oxnard Harbor District). Two-way trade activities through the Port are valued at \$10 billion and generated nearly \$1.7 billion in economic activities in the immediate region providing over 15,000 direct and indirect jobs.<sup>46</sup>

While the Port of Hueneme generates relatively few truck trips on a Countywide scale, the cargo processed through the port has an outsized economic role as a primary economic generator providing a critical gateway for consumer and industrial goods.

The majority of its business (60 percent) is the import and export of automobiles and other vehicles. The Oxnard Harbor District has contracts with three vehicle distribution companies for the handling of vehicles transiting the Port. These companies perform inspection, technical service, and coordination of delivery. Vehicles are either moved by truck, rail, or are individually driven to dealerships. Approximately 300,000 autos and 50,000 high-and-heavy units are processed through the port annually. Other goods processed through the Port are fruits, vegetables and seafood; liquid bulk fertilizer; and industrial fluids.

Autos are driven from port terminals for processing in close proximity to the Port, and then trucked to retail dealerships. Containerized freight is placed on a chassis for transportation to off-port distribution centers where they are primarily

transloaded to 53-foot trailers for distribution. Liquid bulk freight is loaded into tanker trucks for distribution.

Port Hueneme is a shared use port with NBVC Port Hueneme, a strategic West Coast deep-water seaport, a National Defense Resource with a significant freight aspect. It serves inbound and outbound military cargo as the only military deep-water port between San Diego and Seattle. NBVC Port Hueneme serves all branches of the military and connects to other installations across Southern California, such as Barstow Marine Corps Logistics Base and Camp Pendleton.

The San Pedro Bay Ports of Los Angeles and Long Beach generate approximately 57,000 or 4.6 percent of the heavy-duty truck trips in the SCAG Region.<sup>47</sup> This higher proportion of truck trips is due to the larger scale and focus on containerized freight imported and exported from the San Pedro Bay Ports. The international containerized trade value process through the San Pedro Bay Ports was \$366 billion in 2018—35 times the value of that processed through Port Hueneme.<sup>48</sup> Many of the machinery, electronics, furniture apparel, and other consumer goods imported for consumption in Ventura County, were likely imported through the San Pedro Bay Ports.

#### Port of Hueneme/Naval Base Ventura County Access

The Port Intermodal Corridor was established in 1998 to facilitate truck connections between the Port of Hueneme and the regional access of US 101. The corridor also serves

<sup>46</sup> Connect SoCal [Goods Movement Technical Report](#), September 3, 2020

<sup>47</sup> Ibid

<sup>48</sup> <https://www.portoflosangeles.org/business/statistics/facts-and-figures>

distributors, warehouses, retailers, and manufacturers in Oxnard south of US 101.

The primary roadway corridor servicing the Port is Hueneme Road to Rice Avenue and the interchange of Rice Avenue at US 101. The contingency corridor serving the port is Ventura Road to Channel Islands Boulevard to Victoria Avenue and the interchange of Victoria Avenue at US 101.

A new interchange at US 101 and Rice Avenue was dedicated in 2014 after being improved and expanded from a two-lane overpass with narrow freeway ramps inadequate for truck movement. The interchange and the future grade-separated overpass of Rice Avenue over East 5th Street (State Route 34) and rail tracks make Rice Avenue the main connection between US 101 and Pacific Coast Highway (State Route 1).

### 1.2.3 Warehousing

Warehouses play the important roles of consolidating transported shipments from ports, airports, and a multitude of manufacturers and deconsolidating of shipments to many interim users and end consumers; and act as a storage buffer to avoid disruptions in supply chains and to meet surges in goods demand.<sup>49</sup>

The overall warehouse inventory in Ventura County consists of nearly 1,700 buildings totaling over 60 million square feet.<sup>50</sup> The Sakioka Farms development of a 430-acre vacant industrial lot in the City of Oxnard is planned to include two

million square feet of buildings on 75-acres supporting an Amazon fulfillment center warehouse. Other development on the site includes cold storage warehousing. These industrial warehouses will add new truck trips to the Rice Avenue and Del Norte Boulevard corridors and their interchanges with US-101.

The Economic Development Collaborative (EDC) produced a 2015 study describing the need for agricultural processing facilities in to support the County's agricultural sector and increase the level of value-added agricultural products. Currently most of the County's crops are transported outside of the county for processing. Local processing would have the potential of changing the trip distance and truck types transporting agricultural products for processing. EDC estimated 223 to 453 acres of industrial development to support agricultural processing.<sup>51</sup>

SOAR restrictions on food processing development in agricultural and open space zones, limited developable industrial sites in City boundaries, and the lower economic output of food processing compared to industrial development limits the development of food processing facilities in the County.

### 1.2.4 First/Last Mile Delivery

First and last mile delivery is the beginning and final leg of the supply chain as goods are delivered from production to consumption. It is a primary driver of cities' economies with

<sup>49</sup> *Industrial Warehousing in the SCAG Region*, Southern California Association of Governments, April 2018

<sup>50</sup> Research and Forecasting Report—San Fernando Valley and Ventura County Industrial Q4 2020, Colliers International

<sup>51</sup> Food Processing in Ventura County, Economic Development Collaborative, December 2015

building loading docks, alleys, driveways and curb areas serving as points of delivery. Last-mile deliveries happen in complex environments: they involve the interaction among several elements, including producers, deliverers, consumers, buildings, delivery space, streets, and vehicles. Because of this, last-mile deliveries compete for limited space in transit, as their vehicles park and are received. Improving the capacity and efficiency of access to and use of end facilities enables more efficient use of arterial corridors shared with passenger vehicles, active transportation and transit which is as much a land use/zoning issue as a transportation issue.

### 1.2.5 Interregional Goods Movement

The goods imported to, exported from, produced in, consumed in Ventura County often originate or are destined for outside of the County. Trucks traveling to or from outside of Ventura County are accessing Santa Barbara County via US 101, State Route 118, or State Route 126.

The major regional freeway traversing Ventura County is US 101, which bisects the southern portion of the county. US 101 carries most of the interregional truck traffic traveling to, from and through the county. According to the Caltrans Traffic Census in 2019, US 101 carried approximately 4,000 trucks per day across the eastern county border to Los Angeles County in Thousand Oaks and approximately 2,000 trucks per day cross the western County border into Santa Barbara County. Approximately 3,000 trucks cross the County border along SR 118 in Simi Valley and approximately 2,000 trucks cross the border along SR 126 to the north based on Caltrans Traffic Census counts.

### 1.2.5 Freight Concentrations in Cities and Unincorporated Areas

Each of the communities in Ventura County have particular land use considerations related to freight production, delivery, and movement. The following section provides brief descriptions of communities as they relate to freight corridors in the County:

#### Cities

**Oxnard** is bisected north to southeast by Oxnard Boulevard, previously designated State Route 1. Upon the City's request, State Route 1 and portions of State Routes 34 and 232 within the City limits were relinquished by Caltrans in 2013. The City's older industrial areas are in the Five Points neighborhood, which abuts Downtown Oxnard and residential areas. Other industrial areas in the northeast of the City off Rose Avenue, Rice Avenue and Del Norte Boulevard are more isolated from the rest of the city. Approximately 400 undeveloped acres between Rice Avenue, Del Norte Avenue and US 101 is planned for eight million square feet of light industrial/warehouse space as the Sakioka Farms development. The roadways carrying the most trucks are the north/south roadways of Rice Avenue, Rose Avenue, and Victoria Avenue that connect to US 101, and the east/west roadways of Gonzales Road, 5<sup>th</sup> Street, Wooley Road, Channel Island Boulevard and Hueneme Road to access industrial areas and the port area.

**Thousand Oaks** is centered in the Conejo Valley and its development and transportation infrastructure is defined by topography. It is served by the regional highways of US 101 and SR 23. The major industrial areas of the city are off of

Rancho Conejo Boulevard north of US 101. The City does not define truck routes, however Thousand Oaks Boulevard and Rancho Conejo Boulevard carry trucks that access local businesses.

**Simi Valley** is bisected by State Route 118, which is the City's highway connection to Moorpark and Los Angeles. Industrial areas include to the west of the Simi Valley Metrolink Station and in the western part of the City between Los Angeles Avenue and State Route 118. North of the city, sand and gravel operations are located off Tapo Canyon Road. Other roadways serving trucks include 1<sup>st</sup> Street and Madera Road serving local businesses and Viewline Drive to access the Simi Valley Landfill.

**Ventura** is at the confluence of State Route 126 and US 101. Industrial areas are located along Market Street south of US 101, and along Ventura Avenue adjacent to SR 33 in the north of the city. The City has a well-defined, albeit unsigned, network of truck routes with most major roadways designated for truck usage as well as the local roads south of US 101 off of Telephone Road. The lack of a westbound State Route 126 to southbound US 101 connector along with Victoria Avenue in central Ventura being signed as the connection "To US 101 South" at the State Route 126 westbound off-ramp, results in through-vehicle traffic traveling through central Ventura along Victoria Avenue.

**Camarillo** is located at the western foot of the Conejo Grade and the majority of the developed parts of the city are north of US 101. Lewis Road (State Route 34) runs southwest to northeast and connects US 101 and State Route 118. Major industrial areas are along Lewis Road north of US 101 and

near the airport along Las Posas Road/Ventura Boulevard. South of the city an unincorporated industrial area is accessed from Pleasant Valley via Pancho Road.

**Moorpark** is bisected by State Route 118 and the rail line carrying UP freight rail, Amtrak and Metrolink. There are industrial areas in the eastern and western parts of the city along State Route 118. North of the city, sand and gravel operations are located off State Route 23. State Route 118 carries significant volumes of east/west traveling trucks between the confluence of State Routes 23 and 118 and points west such as Somis, Oxnard, and Saticoy.

**Santa Paula** is located along State Route 126 between Ventura and Fillmore. There are industrial areas in the eastern part of the city around the railroad tracks between Santa Paula Street and Main Street. The city also has nearby industrial land use in the unincorporated areas to the west of the city served by Mission Rock Road and east of the city along Lemonwood Drive.

**Port Hueneme** contains the Port area of the Oxnard Harbor District and Naval Base Ventura County along with the surrounding residential neighborhoods. The City-approved truck routes are Victoria Avenue, Channel Island Boulevard, Ventura Road and Port Hueneme Road. Patterson Road, Bard Road, and Pleasant Valley Road are not designated truck routes.

**Ojai** is located in the Ojai Valley north of Ventura and northwest of Santa Paula and is primarily a residential and tourist-oriented community. Access to Ojai is from State Route 33 and State Route 150.

### Unincorporated Areas

**El Rio/Del Norte** is an unincorporated area adjacent to the City of Oxnard north of US 101. The character of the El Rio/Del Norte area is defined by its small town, semi-rural qualities, consisting of several separate and distinct neighborhoods situated within the Oxnard agricultural plain. El Rio is the only SCAG-defined Community of Concern in Ventura County due to its high percentages of residents living in poverty (18 percent) and of minority residents (87 percent). The communities are adjacent to a 167-acre industrial area located west of Vineyard Avenue north of US 101.

**Somis** is a community located in the center of the Las Posas Valley, north of the City of Camarillo, and consists of three separate areas containing residential, industrial, and commercial land uses. State Route 34 terminates at State Route 118 in Somis.

**Saticoy** is located to the east of the City of Ventura and has a mix of industrial and residential land uses. It is centered around State Route 118 south of its interchange with State Route 126. The Santa Paula Branch Line (SPBL) railroad, owned by the Ventura County Transportation Commission, bisects Saticoy perpendicular to SR 118.

**Piru** is an unincorporated community of 2,000 inhabitants seven miles east of Fillmore along the Santa Clara River. State Route 126 provides the primary connection both east and west. The previous version of the Piru Area Plan (2011) included a planned improvement of a northbound left-turn lane into the Fillmore-Piru Citrus Association packinghouse that was not implemented.



## 1.3 Freight Corridors – The Transportation System Elements Available for Freight Movement

### 1.3.1 Freeway (Controlled Access) System

The controlled-access highway system includes US 101, State Routes 1, 23, 33, 118, and 126. Each of these highways, with the exception of US 101, also contain signed portions that are full-access (has intersections with crossing roadways).

**United States Highway 101** (US 101) is the primary freeway facility serving Ventura County. While signed as north/south, US 101 generally runs east/west through Ventura County. It is known as El Camino Real in southern and central California and was built upon the colonial trail connecting Spanish missions and pueblos. While the construction of I-5 in the 1950s supplanted US 101 as the primary north/south roadway through California, US 101 remains an important connection for the central coast. It is the primary freeway connecting Ventura County to Santa Barbara County to the west and north and Los Angeles County to the east and south, and it connects many of the primary urbanized areas of the county.

US 101 is a six-lane thoroughfare through the majority of Ventura County, widening to four lanes in each direction east of Moorpark Road in Thousand Oaks as it enters Los Angeles County.

The truck travel volumes along US 101 are fairly consistent throughout the County with about 3,000 to 4,500 trucks per day accounting for two to four percent of total volume on

nearly all sections of the freeway. Local trucks access US 101 from major interchanges in Camarillo, Oxnard and Ventura. Based on ramp counts conducted for the Our Future 101 Project, the highest truck volume interchange approaches for US 101 are:

- Rice Avenue south of US 101 – 1,600 trucks per day
- Rice Avenue north of US 101 – 1,490 trucks per day
- Del Norte Boulevard south of US 101 – 770 trucks per day
- Victoria Avenue south of US 101 – 620 trucks per day
- Rose Avenue south of US 101 – 610 trucks per day
- Vineyard Avenue north of US 101 – 510 trucks per day
- Victoria Avenue north of US 101 – 490 trucks per day

Approximately 4,000 trucks per day pass between Ventura and Los Angeles Counties and 3,000 trucks per day pass between Ventura and Santa Barbara Counties.

Community and agency stakeholders identified the interchanges at Del Norte Boulevard and Central Avenue as in need of improvement and the need for a direct SR-126 westbound to US 101 southbound connection. Victoria Avenue is the current signed connection between the two freeways. The California Street Off-Ramp Relocation Project would improve access to the coast from Ventura across US 101, however it would not have a major effect on freight movement.



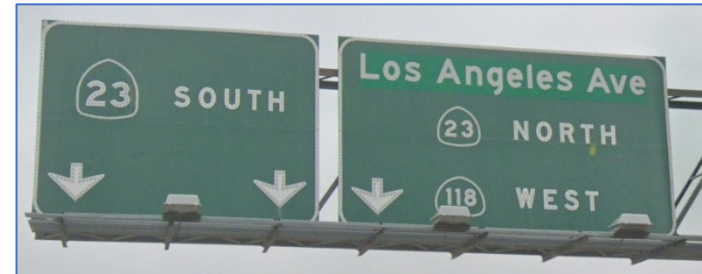
**State Route 1** traverses Ventura County at a northwest-southeast orientation from Santa Barbara County to Los Angeles County. It exists as a freeway between Las Posas Road near Calleguas Creek in southeast Ventura County to the interchange with Pleasant Valley Road and Oxnard Boulevard, where it continues northward as a surface roadway coterminous with Rice Avenue to the Oxnard City Limit at State Route 34 (5<sup>th</sup> Street). Between State Route 34 and US 101, State Route 1 is discontinuous, however, there is an agreement to designate the segment as State Route 1 once the condition of the roadway is improved for transfer. State Route 1 and Rice Avenue from Hueneme Road to US 101 are part of the Port of Hueneme Primary Intermodal Corridor for trucks to access the Port.

The only portion of the roadway with a large number of trucks is the Rice Avenue section between Hueneme Road and US 101. Approximately 2,200 trucks per day are carried on Rice Avenue at Camino Del Sol, with approximately 1,000 trucks per day traveling between Hueneme Road at the Rice Avenue/State Route 1 interchange, and the rest from the agricultural areas in south Ventura County and industrial areas in Oxnard between 5<sup>th</sup> Street and US 101.

The lack of the state highway designation of Rice Avenue has led to maintenance and roadway identification issues. The absence of signage at US 101 leads to confusion about the lack of a continuation of the state highway north of US 101 as it transitions to Santa Clara Avenue.

**State Route 23**, alternatively known as the Moorpark Freeway, is the primary north/south thoroughfare in eastern Ventura County. It exists as a freeway from its interchange

with US 101 in Thousand Oaks to its transition to State Route 118 at Los Angeles Avenue in Moorpark. State Route 23 is an eight-lane thoroughfare from US 101 north to Janss Road, narrowing to a six-lane thoroughfare along the remainder of freeway portion. State Route 23 has an arterial portion that connects Moorpark to Fillmore through Grimes Canyon.



State Route 23 carries approximately 1,000 trucks per day based on a 24-hour traffic count conducted for the Freight Corridors Study. The freeway portion of State Route 23 is underutilized as a regional connector due to the more direct, and state route signed, arterial section of State Route 118. A lack of signage and information listing the route as a travel-time competitive option to the arterial SR-118 for east-west access limits its use as a connection for regional truck trips.

**State Route 33**, alternatively known as the Ojai Freeway, is the primary north/south connection in western Ventura County, providing connections between Ventura northward toward Ojai along the Ventura River Valley. As a freeway, it exists from its interchange with US 101 on the western edge of the City of Ventura north to its intersection with Ventura Avenue and Casitas Vista Road. State Route 33 is a four-lane thoroughfare, with two lanes in each direction, along the entirety of its length as a freeway.

North of Casitas Vista Road, State Route 33 transitions to the two-lane arterial of Ventura Avenue to the City of Ojai, where it meets State Route 150. The shared route of Ojai Valley Trail diverges at Maricopa Highway where the roadway proceeds north through the mountains to Ventucopa in Santa Barbara County where it ends at State Route 166.

Stakeholders identified the Stanley Avenue and Shell Road interchanges as issues with their tight turning radii and short merge and weave areas onto and off of State Route 33.

**State Route 118** is the primary connection linking communities in Northeast Ventura County to the San Fernando Valley in Los Angeles County. It exists as a freeway from the Los Angeles County line west to Moorpark where it turns south and transitions into the freeway portion of State Route 23 southward to Thousand Oaks. The freeway portion of State Route 118 is a six-lane thoroughfare from the Los Angeles County line westward to Madera Road, and then continues as a four-lane thoroughfare to its transition to State Route 23. State Route 118 carries approximately 3,000 trucks per day in its freeway section.

The signage of Los Angeles Avenue in Moorpark as the continuation of State Route 118, along with its continued east/west alignment results in many trucks exiting the freeway portion of State Route 118 to continue on the designated arterial portion as opposed to continuing to State Route 23 to US 101 and vice-versa. This is despite a travel time advantage to vehicles remaining on the controlled-access freeway system. The distance and uncongested travel time to Rice Avenue from the State Route 118 / State Route 23 interchange are:

- 25.8 miles, 24 minutes via State Route 23 and US 101
- 19.8 miles, 28 minutes via the arterial portion of State Route 118 and Santa Clara Avenue

**State Route 126**, alternatively known as the Santa Paula Freeway, serves as the primary east/west connection in northern Ventura County, providing connections between cities along the Santa Clara River Valley. It provides the primary connection from Ventura County to/from points north along Interstate 5. State Route 126 exists as a freeway from its interchange with US 101 in central Ventura to its intersection with Hallock Drive in Santa Paula, where it continues east as a surface roadway. State Route 126 was adopted as a freeway by the California Freeway Commission in 1958, but lost this designation in 1974. However, it remains included in the State's freeway and expressway system. State Route 126 is a four-lane thoroughfare, with two lanes in each direction, along the entirety of its length as a freeway.

The freeway portion of State Route 126 has rural highway and freeway sections that shows consistent truck volume of approximately 2,000 per day along its length. It is the primary regional connection through the disadvantaged communities of Piru, Fillmore, Santa Paula and Saticoy. East of Santa Paula the State Route 126 is a full-access arterial roadway that has intersections with crossing roadways.

State Route 126 lacks a direct westbound connection to southbound US 101. The vehicles that would normally utilize this connection either use 1.3 miles of Victoria Avenue or Wells Road (State Route 118) to Vineyard Avenue (State Route 232) for connections between the two freeways. Approximately 1,800 trucks per day pass through the Wells

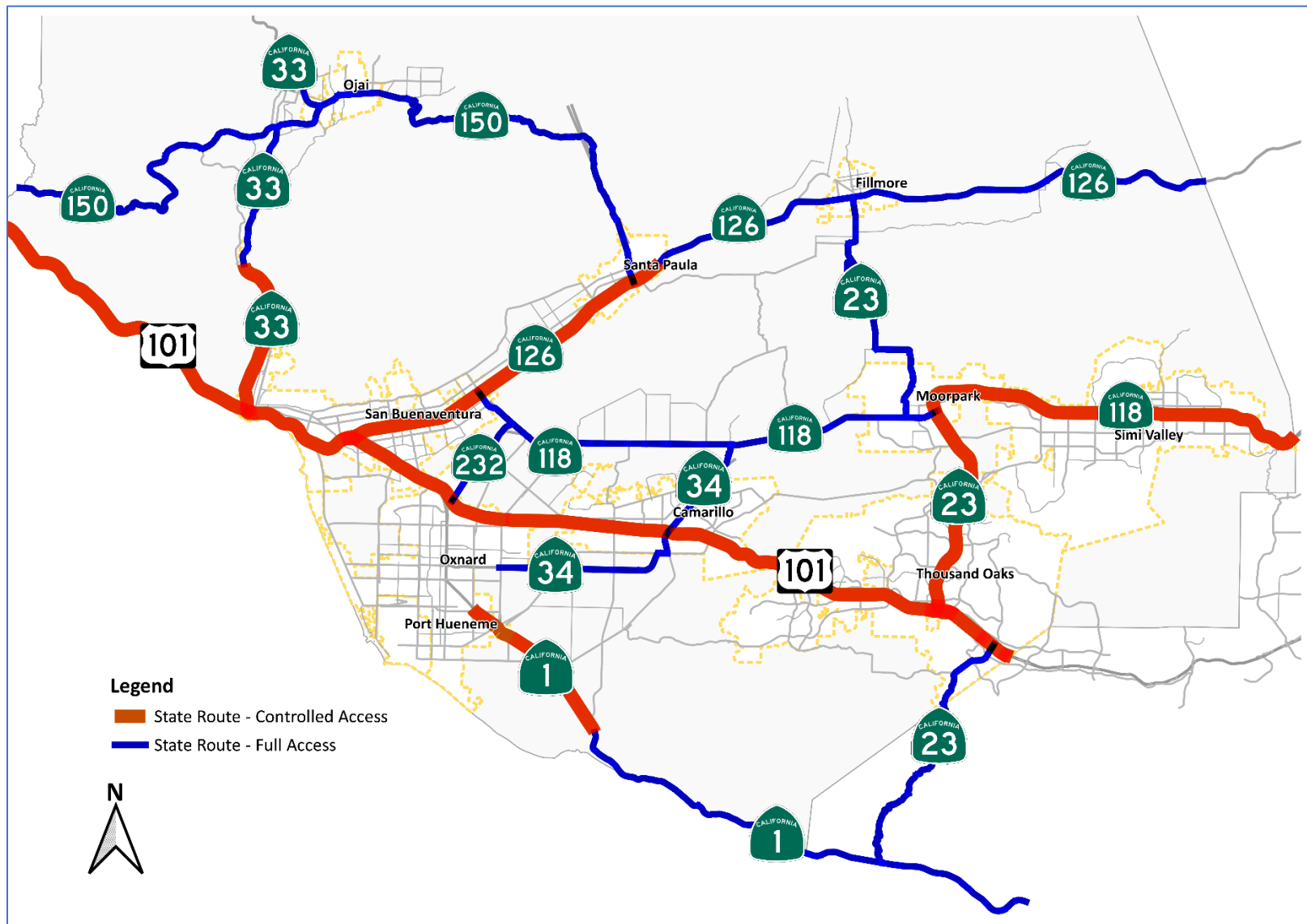
Road (State Route 118) interchange ramps, with approximately 150 more trucks per day using the westbound State Route 126 to southbound Wells Road ramp than in the opposite direction. The directional imbalance is more pronounced at the State Route 126 at Victoria Avenue interchange where eastbound truck trips are approximately 1,200 per day and westbound truck trips are approximately 600 per day.

Stakeholders had the following observations about State Route 126:

- Northbound State Route 23 to State Route 126 a tough intersection, especially for bicyclists
- State Route 126 is the only choice for bicyclists between Santa Paula and Fillmore but is dangerous—Caltrans plans to stripe a bicycle lane
- It is a very narrow highway compared to the others and would really make it difficult for Santa Paula, Fillmore and Piru residents to get to and from work and creates difficulties during periods of natural disasters.

The controlled-access (freeway) and full-access State Highways in Ventura County facilities are shown in **Figure 17**.

Figure 17: State Highway System in Ventura County



### 1.3.2 Arterial Highway System

The corridor arterial highway system, including state highway arterials, are the connection from the regional freeway system to terminal and customer access. The arterial highways of Ventura County are owned and maintained by a mix of the County of Ventura, Cities and Caltrans. Many arterials run for long distances and change character as they pass through urban and rural areas. Major Arterial roadways that carry large numbers of trucks in the County include:

**State Route 118 Arterial Portion of Los Angeles Avenue / Wells Road** from its transition point with State Route 23, State Route 118 continues as an arterial west through Moorpark and Somis to Ventura along the valley of the Arroyo Simi. Within the City of Moorpark, Los Angeles Avenue is a high-speed urban arterial that serves as the primary east/west thoroughfare in the city. From its eastern terminus as a surface roadway westward to its intersection with Gabbert Road and Tierra Rejada Road, it varies between a four-lane and six-lane thoroughfare divided by a center median with left-turn pockets.

To the west of Moorpark, Los Angeles Avenue continues westward as a two-lane undivided rural highway through the unincorporated community of Somis, where it intersects with State Route 34. It continues westward, still as a two-lane undivided rural highway, until its intersection with Santa Clara Avenue northwest of Camarillo. Here, it continues northwestward as Los Angeles Avenue, crossing the Santa Clara River and entering the City of Ventura, where it becomes Wells Road. The western terminus of State Route 118 is its interchange with State Route 126 in eastern

Ventura. It is defined as an Expressway/Convention Highway in the Ventura County General Plan.

carries approximately 2,600 trucks per day west of Moorpark Avenue (State Route 23) 2,400 trucks per day at Somis Road (State Route 34), 1,500 trucks per day at Santa Clara Avenue, and 1,800 trucks per day east of the Wells Road interchange with State Route 126.

Stakeholders identified issues of safety, lighting and lack of turning lanes in the corridor.

**State Route 34** connects the industrial areas of Oxnard and Camarillo with US 101 and State Route 118. The roadway starts at Rice Avenue in Oxnard and proceeds as 5<sup>th</sup> Street east/west two-lane roadway until it meets Pleasant Valley Road for one block before continuing as Lewis Road. As State Route 34 turns north at Lewis Road, it continues as a four-lane roadway to the US 101 ramps in Camarillo. North of the US 101 ramps the road proceeds adjacent to the rail tracks as a two-lane road with brief four-lane sections at Adolfo Road and Las Posas Road. The Roadway diverges from the rail tracks as Somis Road to where it terminates at State Route 118. State Route 34 is defined as an Expressway/Convention Highway in the Ventura County General Plan.

It is adjacent and south of the Union Pacific Railroad tracks from Pleasant Valley Road in Camarillo to Oxnard Boulevard. The at-grade crossing of the tracks approximately 700 feet east of Oxnard Boulevard can result in delays for vehicles both on Fifth Street and Oxnard Boulevard. State Route 34 carries large numbers and a high percentage of trucks between US 101 and State Route 118 as the roadway serves truck-generating land uses in Camarillo and the agricultural area

around Somis as well as interregional truck trips traveling between US 101 and State Route 118. It carries approximately 500 trucks per day east of Rice Avenue, 2,500 trucks per day north and south of US 101 and 1,150 trucks per day south of State Route 118.

The 5<sup>th</sup> Street section of State Route 34 contains a number of at grade rail crossings on the north leg of the intersections as the Coastal Corridor parallels 5<sup>th</sup> Street.

**State Route 23** changes character as it passes through rural, mountainous, urban portions before connecting to its freeway portion. State Route 23 provides access from agricultural land south of Fillmore before proceeding as Grimes Canyon Road to access gravel and sand pits north of Moorpark. Entering Moorpark as Walnut Canyon Road, it turns east to share Los Angeles Avenue with State Route 118. At the Los Angeles Avenue State Route 118 interchange, State Route 23 proceeds southbound as a freeway. Truck volumes in the unincorporated area north of Moorpark can reach 900 trucks per day.

**State Route 150** starts at US 101/State Route 1 near the Ventura County Line with Santa Barbara County. It proceeds as a two-lane roadway to where it meets State Route 33 in Ojai. The roadway continues as Ventura Avenue through Ojai and then becomes Ojai Road to its terminus at State Route 126 in Santa Paula. State Route 150 is defined as an Expressway/Convention Highway in the Ventura County General Plan.

State Route 150 is primarily a rural roadway connecting Ojai to State Route 126 and provides primarily local delivery truck trips. It does connect to State Route 1 past the Santa Barbara

County border, but due to the mountainous nature of the roadway, few trucks travel on the western portion of the roadway. Daily truck volume is about 200 to 300 trucks per day.

**Vineyard Avenue (State Route 232)** provides an important connection between US 101 and Oxnard to the south and to State Route 118 to the north. Between the US 101 interchange and Oxnard Boulevard, Vineyard Avenue is a six-lane divided facility, narrowing to four-lanes to Diamond Head Way, and then two-lanes as it becomes Patterson Road. The State Route 232 portion Vineyard Avenue extends from US 101 to State Route 118 for four miles. It starts as a six-lane roadway, before narrowing at Olive Street to four-lanes to its terminus at State Route 118. State Route 232 is defined as an Expressway/Convention Highway in the Ventura County General Plan. In addition to connecting US 101 and State Route 118, Vineyard Avenue provides local access to industrial and agricultural land north of Oxnard. Daily truck volumes are about 1,100 trucks per day. Schools located west of Vineyard Avenue serve neighborhoods to the east of Vineyard Avenue which requires school-age pedestrians and bicyclists to cross the highway to access Rio Plaza Elementary School, Rio Vista Middle School, Rio Del Mar High School.

**Oxnard Boulevard** is the commercial corridor of the City of Oxnard as it parallels the UPRR tracks running north/south through Downtown Oxnard. Formerly State Route 1, Rice Avenue is intended to replace Oxnard Boulevard as State Route 1 from the Pleasant Valley intersection to US 101, bypassing most of Oxnard. Oxnard grew around Oxnard Boulevard which, along with portions of Vineyard Avenue and Fifth Street, is referred to as the Corridor. The City is planning

Oxnard Boulevard as a transit-oriented, bicycle and pedestrian friendly main street for Downtown Oxnard.

**Pleasant Valley Road** runs from the Port of Hueneme, crosses Rice Avenue and turns northeast through unincorporated agricultural land before turning east/west past its crossing of 5<sup>th</sup> Street (State Route 34) before it turns into Santa Rosa Road past the US 101 interchange. Pleasant Valley Road is defined as a secondary arterial in the Ventura County General Plan. The roadway's physical layout changes as it passes through different types of land uses:

- A brief two-lane section from Pacific Road to Ventura Road from Naval Base Ventura County Port Hueneme through residential land uses.
- A four-lane section with intermittent raised medians and two-way left-turn medians from Ventura Road to Dodge Road as it passes primarily residential areas and enters agricultural land.
- A two-lane undivided section as it passes through agricultural lands east of Dodge Road to where it meets 5<sup>th</sup> Street for the second time moving east and briefly is designated State Route 34.
- Four-lane undivided section where between 5<sup>th</sup> Street and Lewis Road where it is briefly designated as State Route 34 with light industrial land uses on the north side of the roadway and rural land to the south.
- Four-lane section with raised medians from US 101 to Lewis Road (State Route 34) where it passes residential areas to the west and north side of the roadway and agricultural land uses to the south of the roadway.

- A brief six-lane section near US 101.

In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County Transportation Department's projects include adding a two-way left turn lane from Dodge Road and Hailes Road and to study the feasibility of widening to four lanes from Rice Avenue to the Camarillo city line.<sup>52</sup>

**Lewis Road** in its non-State Highway section south of Camarillo is a four-lane roadway between Pleasant Valley Parkway and University Drive and narrows to two lanes as it becomes Hueneme Road south of Potrero Road. Lewis Road is defined as a secondary arterial in the Ventura County General Plan.

**Hueneme Road** connects the Port of Hueneme to Lewis Road. Hueneme Road also serves as an important link between Naval Base Ventura County's Port Hueneme and Point Mugu facilities and serves Channel Islands Air National Guard Station. It is a four-lane road east of Ventura Road as it passes through residential areas in the City of Port Hueneme and as it transitions to industrial areas in the unincorporated area to the west of Saviers Road. Hueneme Road is a two-lane roadway as it passes Edison Street and transitions to an agricultural area, passes beneath the Pacific Coast Highway, and becomes Lewis Road near California State University Channel Islands. The intersection with Wood Road is currently stop-controlled and is the only stop-controlled intersection on Hueneme Road. The western portion of

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<sup>52</sup> Ventura County Roads and Transportation Capital Improvement Program 2022-2026, Ventura County Public Works Department, accessed 8/15/21



Hueneme Road is on the Port of Hueneme Primary Intermodal Corridor to Rice Avenue. Hueneme Road is defined as a secondary arterial from the Port to Wood Road and from east of Laguna Road to Camarillo and as a Collector from Wood Road to east of Laguna Road in the Ventura County General Plan.

In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County Transportation Department's projects include studying the feasibility of widening Hueneme Road to four lanes from the Oxnard City line to Rice Avenue.<sup>53</sup>

**Victoria Avenue** runs from Foothill Road in Ventura, serving the Ventura County Government Center and commercial areas in the City of Ventura, and continues south of US 101 through the City of Oxnard to Naval Base Ventura County Port Hueneme and the Silver Strand residential and beach neighborhood in unincorporated Ventura County. Victoria Avenue is the signed connection between State Route 126 westbound to US 101 southbound, and is an eight-lane roadway between the two freeways. South of Valentine Road, the road transitions to a four-lane roadway before widening to six lanes south of 5<sup>th</sup> Street and narrows again to four lanes south of Hemlock Street and finally narrows to two lanes as it passes the Naval Base. Past the Naval Base, Victoria Avenue becomes Island View Avenue in the Silver Strand neighborhood.

In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County

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<sup>53</sup> Ventura County Roads and Transportation Capital Improvement Program 2022-2026, Ventura County Public Works Department, accessed 8/15/21

Transportation Department has a planned capital improvement project to study the feasibility of widening Victoria Avenue to six lanes from the Gonzales Road to Park Drive.<sup>54</sup>

**Camino Del Sol** is a four-lane secondary arterial roadway serving industrial uses between Rice Avenue and Del Norte Boulevard in Oxnard.

**Del Norte Boulevard** is a four-lane secondary arterial connecting US 101 and 5<sup>th</sup> Street (State Route 34) in Oxnard. It passes through agricultural and industrial land uses, including the future Sakioka Farms development.

**Wooley Road** is an east/west primary arterial in the City of Oxnard. It is bordered by residential land uses between Harbor Boulevard and "E" Street, and central business commercial and industrial uses between "E" Street and Rose Avenue. The roadway is four lanes west of Rose Avenue and two-lanes east of Rose Avenue.

**Ventura Road** is a predominantly four-lane north/south arterial in the Cities of Port Hueneme and Oxnard between Surfside Drive and north of US 101.

**Ventura Avenue** is a two-lane roadway from US 101 to the north of Ventura along State Route 33. It serves a mix of industrial and residential uses. South of Stanley Avenue the roadway has a number of pedestrian-oriented elements such as enhanced crosswalks and sidewalk bulb-outs.

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<sup>54</sup> Ventura County Roads and Transportation Capital Improvement Program 2022-2026, Ventura County Public Works Department, accessed 8/15/21

**Channel Islands Boulevard** is a two- to four-lane east/west primary arterial in the Cities of Port Hueneme and Oxnard. Within the City of Port Hueneme, Channel Islands Boulevard is bordered by commercial land uses to the north, and Naval Base Ventura County Port Hueneme to the south. Between Ventura Road and Rice Avenue in the City of Oxnard, Channel Islands Boulevard is bordered by residential and commercial uses.

In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County Transportation Department has a planned capital improvement project to widen Channel Island Boulevard to four lanes from the Oxnard city limits to Rice Avenue.<sup>55</sup>

**Las Posas Road** is a four-lane arterial that travels east/west from Lewis Road (State Route 34) in the City of Camarillo, before turning south in the west of the city, and proceeds through the unincorporated agricultural area, reducing to a two-lane roadway south of Pleasant Valley Road to its termination at Pacific Coast Highway. Las Posas Road crosses the rail tracks to the north of the 5<sup>th</sup> Street intersection. Las Posas Road is defined as a secondary arterial north of Hueneme Road and a Collector south of Hueneme Road in the Ventura County General Plan. In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County Transportation Department has a planned capital improvement project to widen Las Posas Road to four lanes from Hueneme Road to Pleasant Valley Road.<sup>56</sup>

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<sup>55</sup> Ventura County Roads and Transportation Capital Improvement Program 2022-2026, Ventura County Public Works Department, accessed 8/15/21

**Rice Avenue** transitions from State Route 1 north of the Pacific Coast Highway / Pleasant Valley Road Interchange. It proceeds as a four-lane arterial until Sturgis Road, where it transitions to a six-lane roadway. The roadway remains six lanes until the US 101 interchange where it reduces to four-lanes before Ventura Boulevard where it changes names to Santa Clara Avenue and transitions to a two-lane roadway. Santa Clara Avenue ends at its intersection with SR 118. Rice Avenue is not officially designated State Route 1 between Pleasant Valley Road and US 101, and there is no directional signage for vehicles to utilize US 101 for regional access and there is no indication of the Port Intermodal Corridor along US 101 at the Rice Avenue/Santa Clara Avenue Interchange.

**Santa Clara Avenue** is the two-lane extension of Rice Avenue between US 101 to State Route 118 in unincorporated Ventura County west of Camarillo. The roadway passes the Nyeland Acres residential area near US 101 and agricultural areas. Santa Clara Avenue is defined as a secondary arterial in the Ventura County General Plan. Santa Clara Avenue carries approximately 1,500 trucks per day.

The transition from Rice Avenue at US 101 is not indicated due to Rice Avenue not being designated as State Route 1. Stakeholders observed in response to the anticipated neckdown of Santa Clara Avenue north of US 101, vehicles speed to avoid other merging vehicles adjacent to the Nyland Acres community in anticipation of the merging lanes. Stakeholders also observed operational issues between the

<sup>56</sup> Ibid

Ventura Boulevard Intersection and the Auto Center Drive/ US 101 northbound off-ramp intersection 300 feet to the south.

In its Roads and Transportation Five-Year Capital Improvement Program for 2022 to 2026, the Ventura County Transportation Department has a planned capital improvement project to study the feasibility of widening Santa Clara Avenue to four lanes from the Oxnard city line to State Route 118.<sup>57</sup>

**Rose Avenue** runs from Pleasant Valley Road to State Route 118. The roadway is predominantly four-lanes, however it widens to six-lanes in the vicinity of US 101 and narrows to two-lanes north of Central Avenue to its terminus at State Route 118. The roadway provides access to industrial land uses in the central part of Oxnard.

**Central Avenue** is an east/west two-lane roadway that connects agricultural land in unincorporated Ventura County between Camarillo and Oxnard with US 101. It intersects the roadways of Vineyard Avenue (State Route 232), Rose Avenue and Santa Clara Avenue. Central Avenue is classified as a secondary arterial south of Santa Clara Avenue and a collector north of Santa Clara Avenue in the Ventura County General Plan.

**Grimes Canyon Road/Walnut Canyon Road and Happy Camp Road/Roseland Road** are two-lane roadways that provide access to agricultural land and the gravel and sand pits north of Moorpark. Parts of the roadways are designated as State

Route 23. The roadways are classified as collectors in the Ventura County General Plan.

**Tapo Canyon Road** is a two-lane road that provides access between State Route 118 and gravel and sand pits north of Simi Valley. Tapo Canyon Road is defined as a minor roadway in the Ventura County General Plan.

### 1.3.3 Defined Truck Routes and Restrictions

The Federal, State and local designations of truck routes are used to define the types of vehicles allowed to use certain roadways. The designations can be intended to define important roadways for commerce, indicate the best routing to avoid sensitive places such as residential areas and to limit the use of oversized, overweight or high vehicles to roadways designed and maintained to accommodate those vehicles. While truck routes and prohibitions generally provide statutory authority to cite and fine vehicles that deviate from defined routes, California Vehicle Code Section 35703 allows deliveries and pickups for vehicles coming from an unrestricted street by direct route to and from a restricted street.

Roadways designated as truck routes and those restricting truck usage were inventoried from each jurisdictional level based on information made available from the state (Caltrans), County (VCTC), and local municipalities. As the following discussion demonstrates, these designations are often layered upon one another. One key finding is that the

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<sup>57</sup> Ventura County Roads and Transportation Capital Improvement Program 2022-2026, Ventura County Public Works Department, accessed 8/15/21

sheer number of designations and changing roadway ownership itself is a major issue from the user perspective.

The backbone of the County's network of truck routes are its freeways. This freeway network is complemented by a network of truck routes along surface roadways that are also designated within the State Highway System. This network includes continuations of each of the aforementioned state highways as surface roadways beyond their termination as freeways. Together, these highways close essential gaps in the freeway network for goods movement while also providing direct connections between freight generators and destinations within the broader region. Each of these surface highways is defined differently as a truck route by the various jurisdictions they traverse, with a high degree of overlap.

Municipal and County arterials and collectors facilitate the remaining connections and terminal access between the freeway network and truck generators and destinations within the county. Municipal and County roadways may also levy varying degrees of truck restrictions, prohibiting certain roadways from truck travel or limiting travel to certain types of trucks based on weight or size.

#### National Highway Freight Network

Created by the FAST Act, the National Highway Freight Network (NHFN) is used to strategically direct federal resources and policies toward improved performance of portions of the freight transportation system. The NHFN contains the Primary Highway Freight System (PHFS), PHFS Intermodal Connectors, Critical Rural Freight Corridors

(CRFCs) and Critical Urban Freight Corridors (CUFCs). The designation does not allow or prohibit any type of truck but is rather a means to identify priority corridors.

Within Ventura County, freeways that constitute the PHFS include US 101 from Vineyard Avenue east to the Los Angeles County line and State Route 23 from its interchange with US 101 north to Tierra Rejada Road in Moorpark. PHFS Intermodal Connectors are non-highway roads that connect airports and seaports to the regional highway system. Of the 60 miles of PHFS Intermodal Connectors identified in the State of California, 20.5 miles (1/3 of the State total) are designated to access Port Hueneme. This is due to the Port of Hueneme being located relatively distant from the regional highway access to US 101 as compared to the other ports in California.

The PHFS Intermodal Connectors identified in Ventura County are<sup>58</sup>:

- **Hueneme Road** from Port Hueneme to Las Posas Road;
- **Las Posas Road** from Hueneme Road to US 101;
- **Ventura Road** from Hueneme Road to Channel Islands Boulevard;
- **Channel Islands Boulevard** from Ventura Road to Victoria Avenue;
- **Victoria Avenue** from Port Hueneme to US 101.

The CUFCs and CRFCs in the County are defined as:

- CUFCs

<sup>58</sup> National Highway Freight Network, Federal Highway Administration Freight Management and Operations, accessed 8/15/21

- **State Route 118** from West Hills Court/Simi Valley city boundary east to Los Angeles County line.
- **State Route 118** from State Route 118/ State Route 23 transition east to Collins Drive.
- **State Route 23** from State Route 118/ State Route 23 transition south to Tierra Rejada Road.
- **State Route 1 and Rice Avenue** from Hueneme Road north to US 101.
- CRFCs
  - **State Route 118** from Collins Drive in Moorpark east to West Hills Court/Simi Valley city boundary.

The NHFN built upon NHS intermodal connectors that were previously defined by the US Department of Transportation. The two Port of Hueneme routes defined as freight corridors were Hueneme Road and Victoria Avenue, and together represented one-third of the roadway mileage of intermodal connectors in California. The Port of Hueneme is the farthest seaport, airport or intermodal rail facility in California from a freeway. The Port is 8.7 miles from US 101 via the primary corridor of Hueneme Road to Rice Avenue and 8.8 miles from US 101 along the contingency corridor of Victoria Avenue. The National Highway Network is shown in **Figure 18**.

Figure 18: National Highway Freight Network in Ventura County



### National Hazardous Materials Route Registry

The Federal Motor Carrier Safety Administration (FMCSA) maintains the National Hazardous Materials Route Registry which compiles hazardous material routes and restrictions in each state. The hazardous materials routes in Ventura County are nonradioactive hazardous materials (NRHMs) transportation routes. The controlled-access facility NRHMs in the County are:

- US 101 from State Route 34/Lewis Road to Interstate 405
- US 101 from State Route 232 to Las Posas Road
- State Route 126 from Interstate 5 to State Route 118
- State Route 118 from State Route 23 to the Los Angeles county line (restricted route for Class 1 – explosives)

The arterial NRHM designated routes in Ventura County are:

- State Route 118 from State Route 232 to State Route 23 (restricted route for Class 1 – explosives)
- State Route 232 from State Route 118 to US 101
- Las Posas Road from US 101 to Naval Base Ventura County Point Mugu
- E. Hueneme Road from S. Las Posas Road to W. Hueneme Road to E. Port Hueneme Road to end of road at Port Hueneme Harbor
- State Route 1 from Hueneme Road to Las Posas Road

The hazardous materials routes overlap with other truck route designations except for Las Posas Road from Pleasant Valley Road to Navy Base Ventura County Point Mugu and Hueneme Road from State Route 1 to Las Posas Road.

### Caltrans Truck Routes and Restrictions

The backbone of the County's network of designated truck routes utilizes the National Network of approved state, national, and interstate highways for commercial truck drivers as authorized by STAA, or "STAA truck routes." In addition to the National Network of STAA truck routes, California utilizes an additional set of highways that meet the criteria for STAA trucks, referred to as "Terminal Access" STAA truck routes.

**Figure 19a** displays the criteria concerning STAA and California Legal truck classifications for truck tractor semitrailers, while **Figure 19b** displays the same for doubles.



Figure 19a: Truck Tractor Semitrailer Classification Criteria











Lengths	"Green" STAA Trucks		"Black" California Legal Trucks
			
Route Colors:			
Overall Length:	unlimited	unlimited	65 feet Max
Semitrailer:	53 feet Max	48 feet Max	unlimited
KPRA (kingpin-to-rearmost-axle distance):	40 feet Max (two-axle semitrailer); 38 feet Max (single-axle semitrailer)	unlimited	40 feet Max (two-axle semitrailer); 38 feet Max (single-axle semitrailer)

Figure 19b: Truck Doubles Classification Criteria

Lengths	"Green" STAA Trucks	"Black" California Legal Trucks	
			
Route Colors:			
		Option A	Option B
Overall Length:	unlimited	75 feet Max	65 feet Max
Trailers:	28 ft - 6 inch Max (each trailer)	28 ft - 6 inch Max (each trailer)	28 ft - 6 inch Max (one trailer) unlimited (other trailer)

Source: [Caltrans](#)

The sole National Network STAA truck route in Ventura County is US 101, constituting its entire length between Los Angeles County and Santa Barbara County.

Terminal Access STAA truck routes in Ventura County include the following:

- **State Route 23** from US 101 to State Route 118;
- **State Route 126** from US 101 to the Los Angeles County border;
- **State Route 118** from State Route 126 to the Los Angeles County border;
- **State Route 33** from US 101 to intersection of El Roblar Road & Cuyama Road in Ojai;
- **State Route 1 and Rice Avenue** from Las Posas Road to US 101;
- **State Route 232** from US 101 to State Route 118;
- **State Route 34** from Oxnard Boulevard to State Route 118;
- **State Route 150** from State Route 126 to Railroad Avenue in Santa Paula.

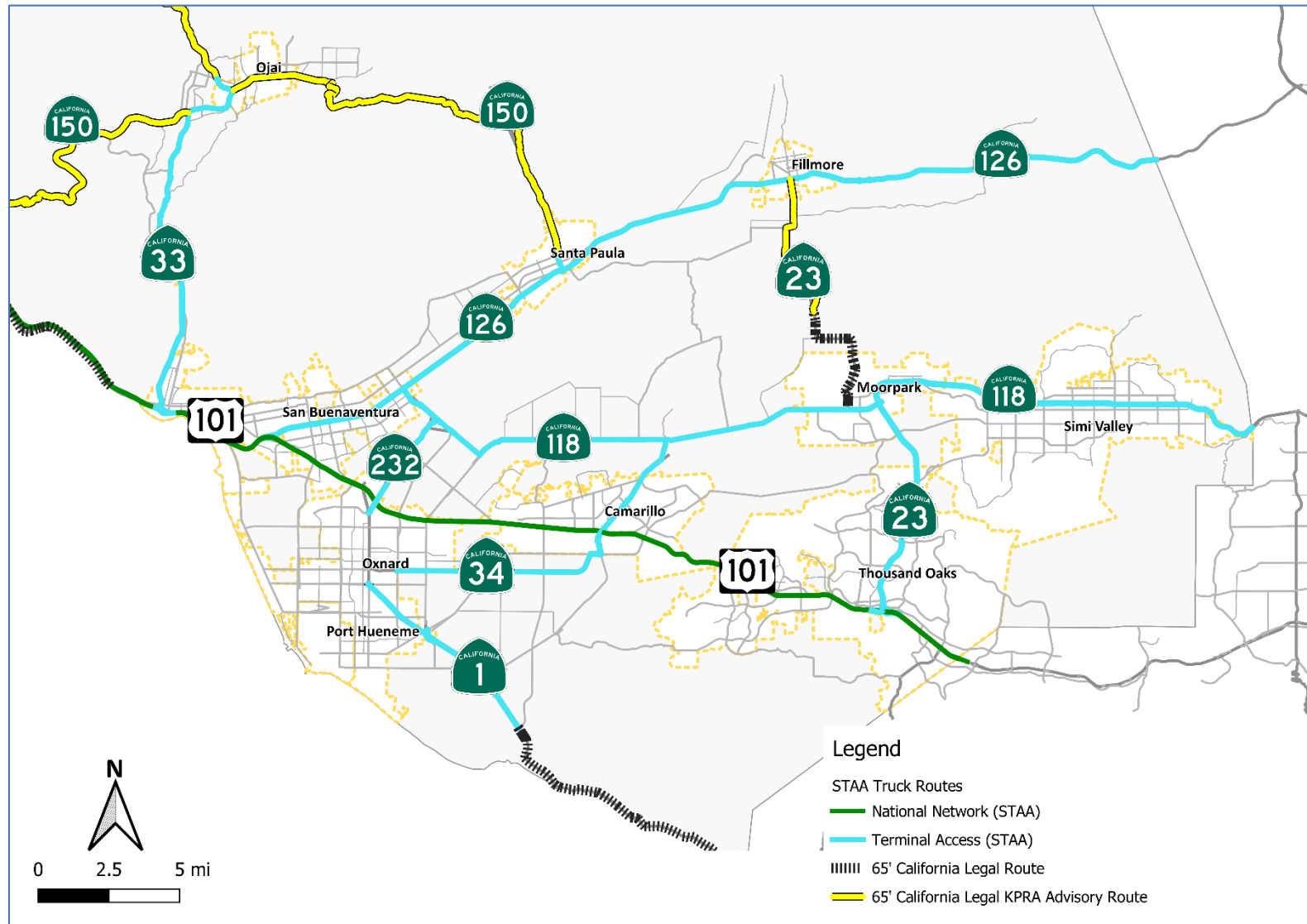
Additional classes of truck routes within the State Highway Network fall outside the designation of the STAA network and thus prohibit STAA trucks but allow California legal trucks. These roadways are considered part of the PHFS and include two additional truck route classifications. These are designated on the map as California Legal truck routes, which carry no further restrictions beyond barring STAA trucks, and KPRA Advisory truck routes that recommend against travel for trucks with a KPRA (kingpin-to-rearmost-axle distance) length of greater than 30 feet.

The Caltrans District 7 truck network map designates the following California Legal and KPRA Advisory Routes within Ventura County:

- California Legal Routes
  - **State Route 1** from US 101 to Mobil Pier Road;
  - **State Route 23** from State Route 118 to Shekell Road.
- KPRA Advisory Routes:
  - **State Route 23** south of US 101 to Los Angeles County border and from Shekell Road to State Route 126;
  - **State Route 150** from Santa Barbara County border to State Route 33 and from State Route 33 to Railroad Avenue in Santa Paula;
  - **State Route 33** from the intersection of El Roblar Road & Cuyama Road in Ojai north to Santa Barbara County border.

The STAA and California Legal Truck Routes in Ventura County are mapped in **Figure 20**.

Figure 20: STAA and California Legal Truck Routes in Ventura County

Source: [Caltrans](#)

## Ventura County

As discussed in Chapter 6: Transportation and Mobility of the September 2020 dated Ventura County 2040 General Plan Update Background Report, “Most truck designation applications involve County roads, therefore, the County of Ventura must periodically coordinate with Caltrans to designate additional routes to the PHFS.”<sup>59</sup>

In addition to the STAA and PHFS network mapped by Caltrans, Ventura County has a number of surface highways and arterials designated as PHFS truck routes. These are primarily corridors that service Port Hueneme and the Naval Base and direct trucks to and from the Port and the freeway network, and include following roadways<sup>60</sup>:

- **Hueneme Road** from Port Hueneme to Las Posas Road;
- **Ventura Road** from Hueneme Road to Channel Islands Boulevard;
- **Channel Islands Boulevard** from Ventura Road to Victoria Avenue;
- **Victoria Avenue** from Channel Islands Boulevard to US 101.

Ventura County also maintains a list of 30 roadway segments on which commercial trucks are explicitly restricted, typically using the number of axles or truck weight as the restricting factor. Many of these restrict trucks from using local streets in unincorporated residential areas of the county, notably the communities of La Conchita, Channel Islands Beach, El Rio, and Nyeland Acres. The remaining truck restrictions set forth

by the County generally constitute collector roads that connect major arterials and/or municipalities but do not provide adequate dimensions for the safe maneuvering of large commercial trucks. Such roadways include all or portions of the following:

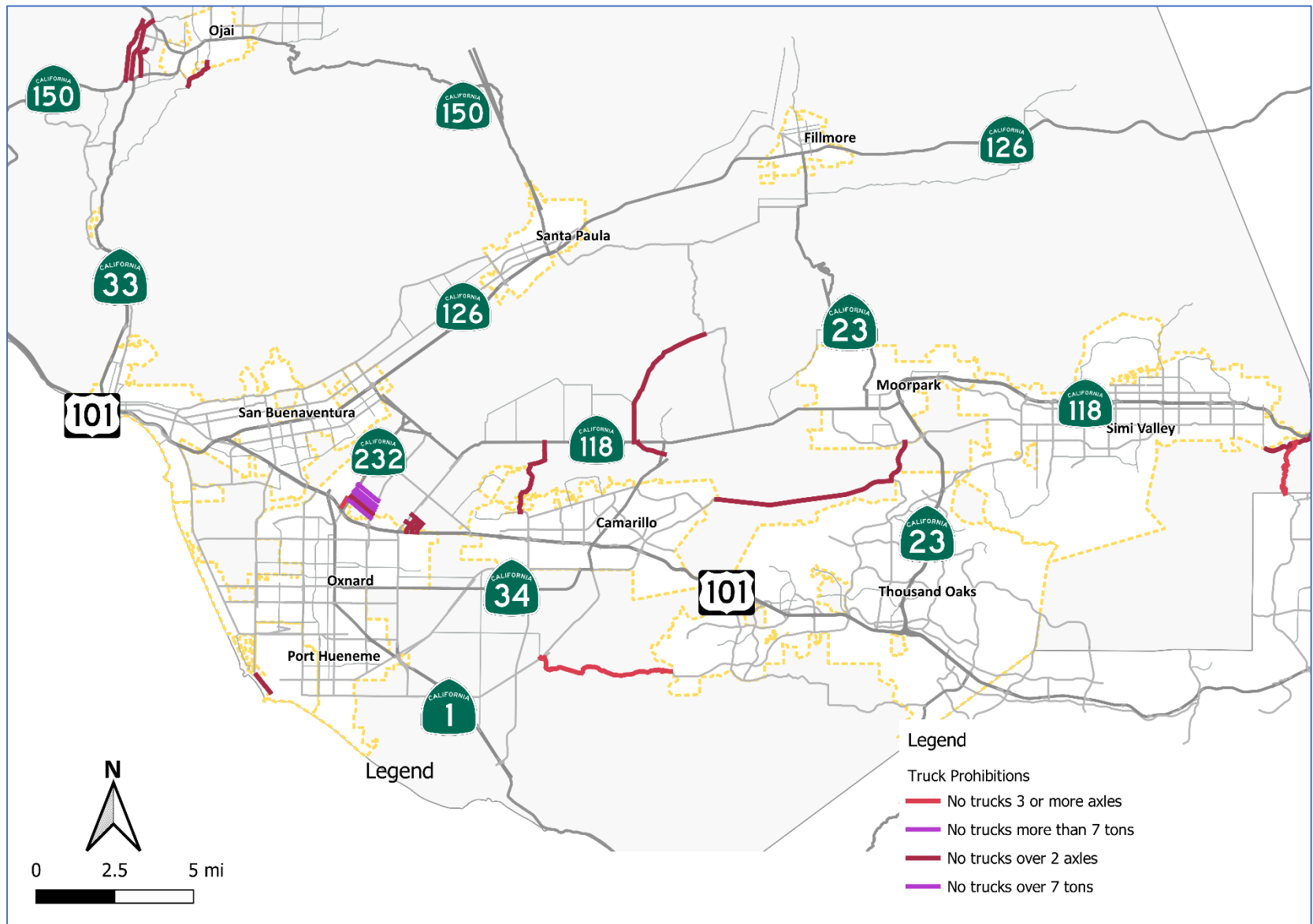
- **Rice Road, La Luna Avenue, and Tico Road** between State Route 33 and State Route 150 in the unincorporated communities of Meiners Oaks and Mira Monte;
- **Creek Road** between Ojai and the unincorporated community of Oak View;
- **Central Avenue** between Rose Avenue and Vineyard Avenue;
- **Center School Road, Fairway Drive, and Valley Vista Drive** between State Route 118 and Crestview Avenue in Camarillo;
- **Bradley Road and North Street** between Balcom Canyon Road and State Route 118 to State Route 34 in the unincorporated community of Somis;
- **Moorpark Road and Santa Rosa Road** between Tierra Rejada Road in Moorpark and Camarillo;
- **Potrero Road** between Lewis Road and Rancho Dos Vientos in Thousand Oaks;
- **Santa Susana Pass Road and Box Canyon Road** from State Route 118 south to the Los Angeles County border.

Truck prohibitions and restrictions in the County are mapped in **Figure 21**.

<sup>59</sup> County of Ventura, Ventura County 2040 General Plan Update Background Report, accessed 8/16/21

<sup>60</sup> County of Ventura, Ventura County 2040 General Plan Update Background Report, accessed 8/16/21

Figure 21: Truck Prohibitions



### Port Corridors

The Port of Hueneme established an Intermodal Corridor in 1998 to facilitate truck connections between the Port and US 101. The primary roadway corridor servicing the Port is Hueneme Road to Rice Avenue with an interchange of Rice Avenue at US 101. The contingency corridor serving the port is Ventura Road to Channel Islands Boulevard to Victoria Avenue with an interchange of Victoria Avenue at US 101. An overweight section is defined to include Hueneme Road to Rice Avenue with an extension to Camino Del Sol and Sturgis Road between Rice Avenue and Kinetic Drive and the section of Arcturus Avenue south of Hueneme Road to access port customer sites.

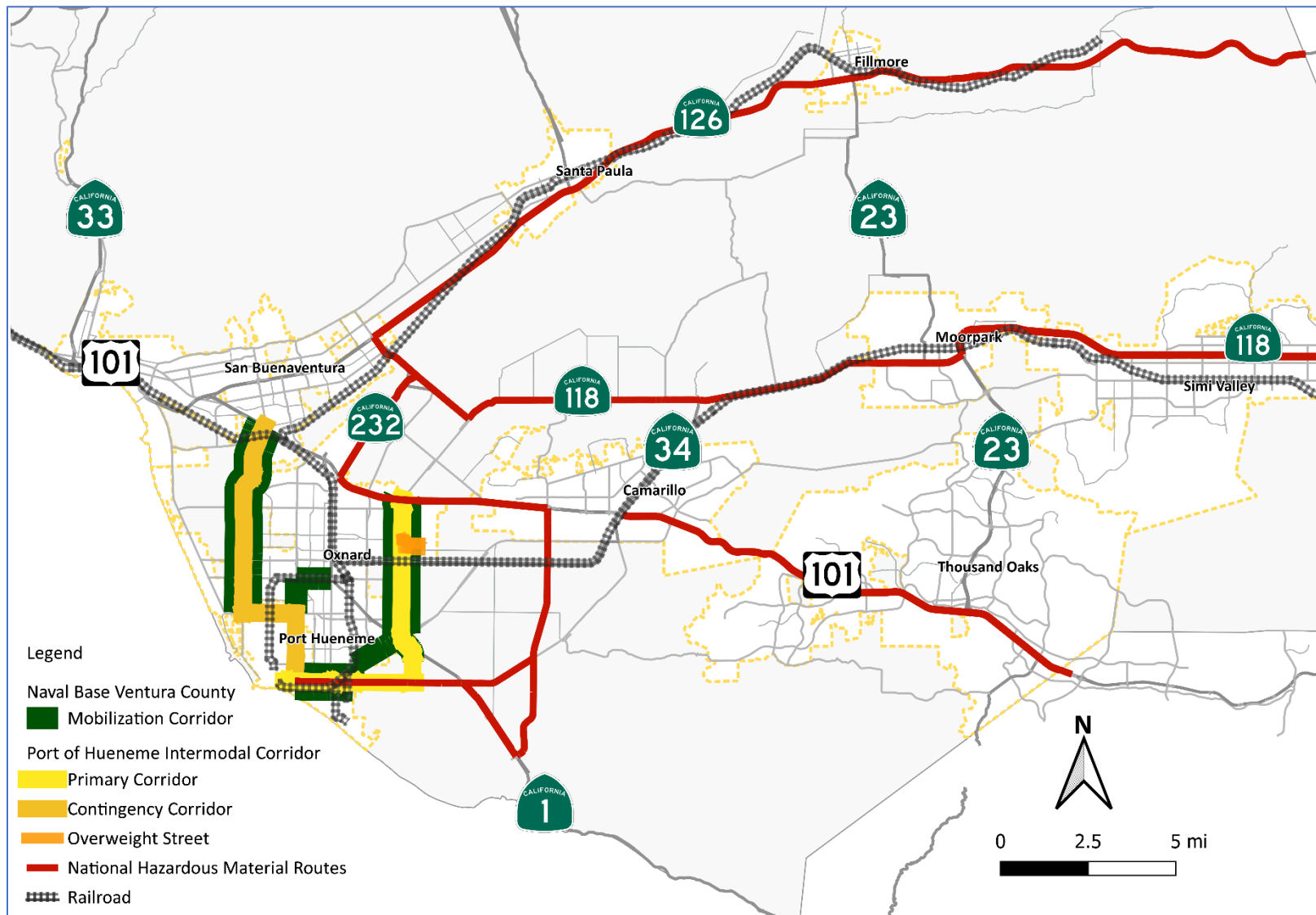
Naval Base Ventura County (NBVC) uses local roadways for military mobilization of personnel and equipment to and from the base to strategic locations throughout the US. The 2008

NBVC Encroachment Action Plan identified three major corridors outside the fence that are strategic assets to the NBVC mobilization mission. Various segments of these corridors are publicly owned by the cities and county. The three corridors are:

- Victoria Avenue to US 101
- South Patterson Road to East Wooley Road to State Route 1
- Port Hueneme Road to Lincoln Court to South Rice Avenue to US 101

**Figure 22** maps the Port Intermodal Corridor and the Naval Base Ventura County – Port Hueneme Mobilization Corridors along with the National Hazardous Material Routes.

Figure 22: Port Access Routes





### Municipalities

Each of the ten incorporated municipalities in Ventura County approaches goods movement differently within their municipal codes. The level of detail outlined in municipal codes varies widely from city to city. Whereas some municipalities explicitly define individual roadways as specifically designated truck routes, other municipalities use broader language that indicates whether trucks are allowed or restricted on certain roadways based on the roadway classifications within their General Plans.

A list of each Ventura County municipality and how truck routes and restrictions are defined in their municipal code is as follows:

- **City of Camarillo** – No roadways specifically defined as truck routes or as restricted to trucks. Clause states that freight trucks are to be directed to arterials and industrial collectors.
- **City of Fillmore** – No roadways specifically defined as truck routes or as restricted to trucks. No clause to otherwise use as definition.
- **City of Moorpark** – No roadways specifically defined as truck routes or as restricted to trucks. Clause establishes process for defining routes that permit vehicles exceeding gross weight limit of three tons, authorizing city engineer to use appropriate signage to designate such routes.
- **City of Ojai** – No roadways specifically defined as truck routes or as restricted to trucks. The City is preparing a truck management plan for delivery access to commercial sites along Ojai Avenue.
- **City of Oxnard** – Roadways specifically defined as truck routes in “Oxnard Truck Routes” map for use by commercial vehicles exceeding gross weight limit of five tons, including load, marked with appropriate signage as authorized by city traffic engineer. No roadways specifically defined as restricted to trucks.
- **City of Port Hueneme** – All trucks are required to use designated truck routes if they exceed a gross weight limit of three tons. No roadways specifically defined as restricted to trucks.
- **City of San Buenaventura** – Roadways specifically defined as truck routes for vehicles exceeding gross weight limit of 3.5 tons, plus load. Roadways specifically defined as restricted to such trucks if not included in specified list of truck routes.
- **City of Santa Paula** - No roadways specifically defined as truck routes or as restricted to trucks. No clause to otherwise use as definition.
- **City of Simi Valley** - The City defines both truck routes and hazardous waste material routes.
- **City of Thousand Oaks** – No roadways specifically defined as truck routes. Clause enables truck restrictions by authorizing Public Works Director to use signage to prohibit trucks exceeding gross weight limit of six tons at City road entrances, with exceptions made for local deliveries.

Local truck routes are mapped in **Figure 23** and they are mapped with the STAA routes, Port access corridors and truck prohibitions and restrictions are mapped in **Figure 24**.

Figure 23: County and Municipal Truck Routes

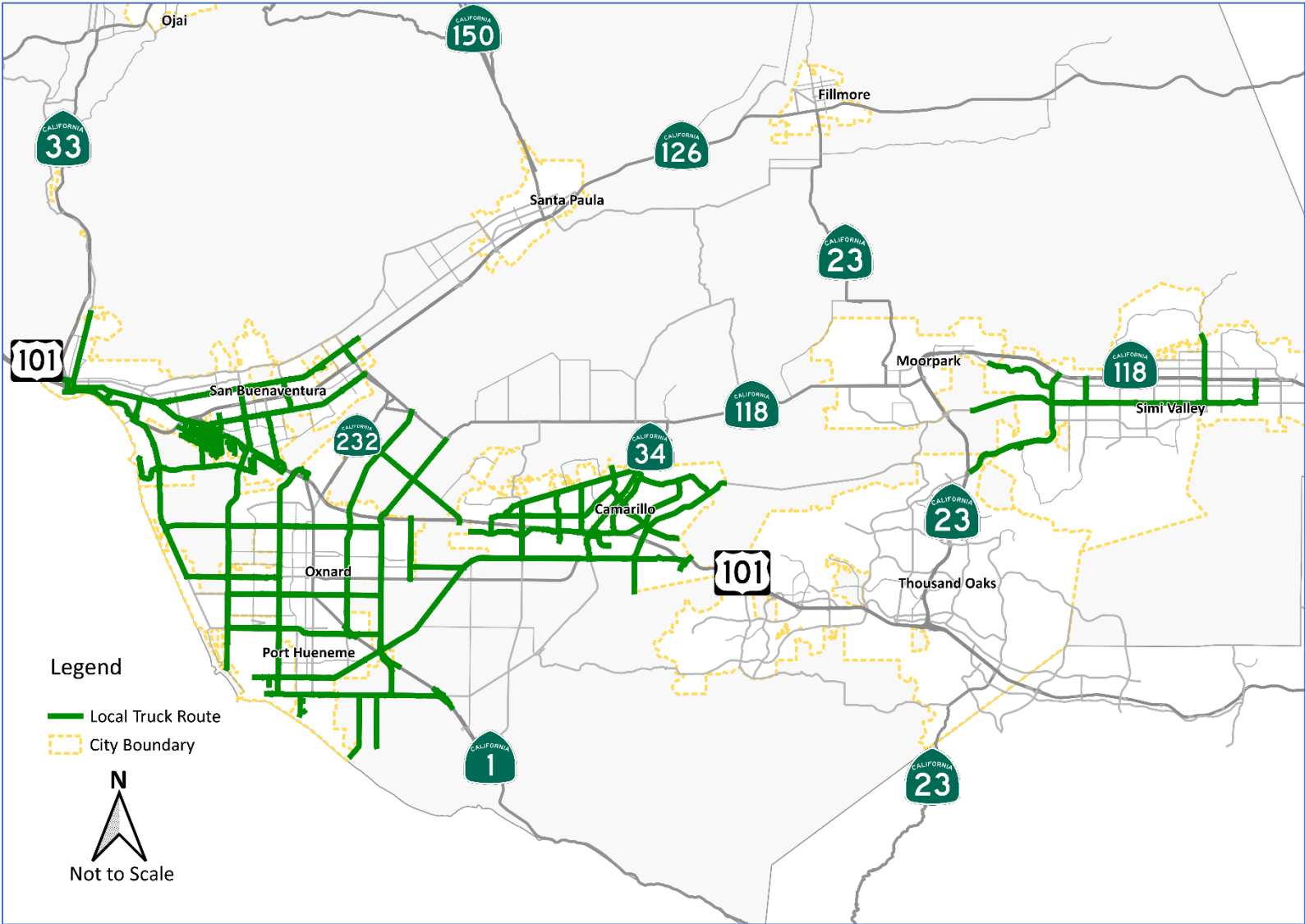
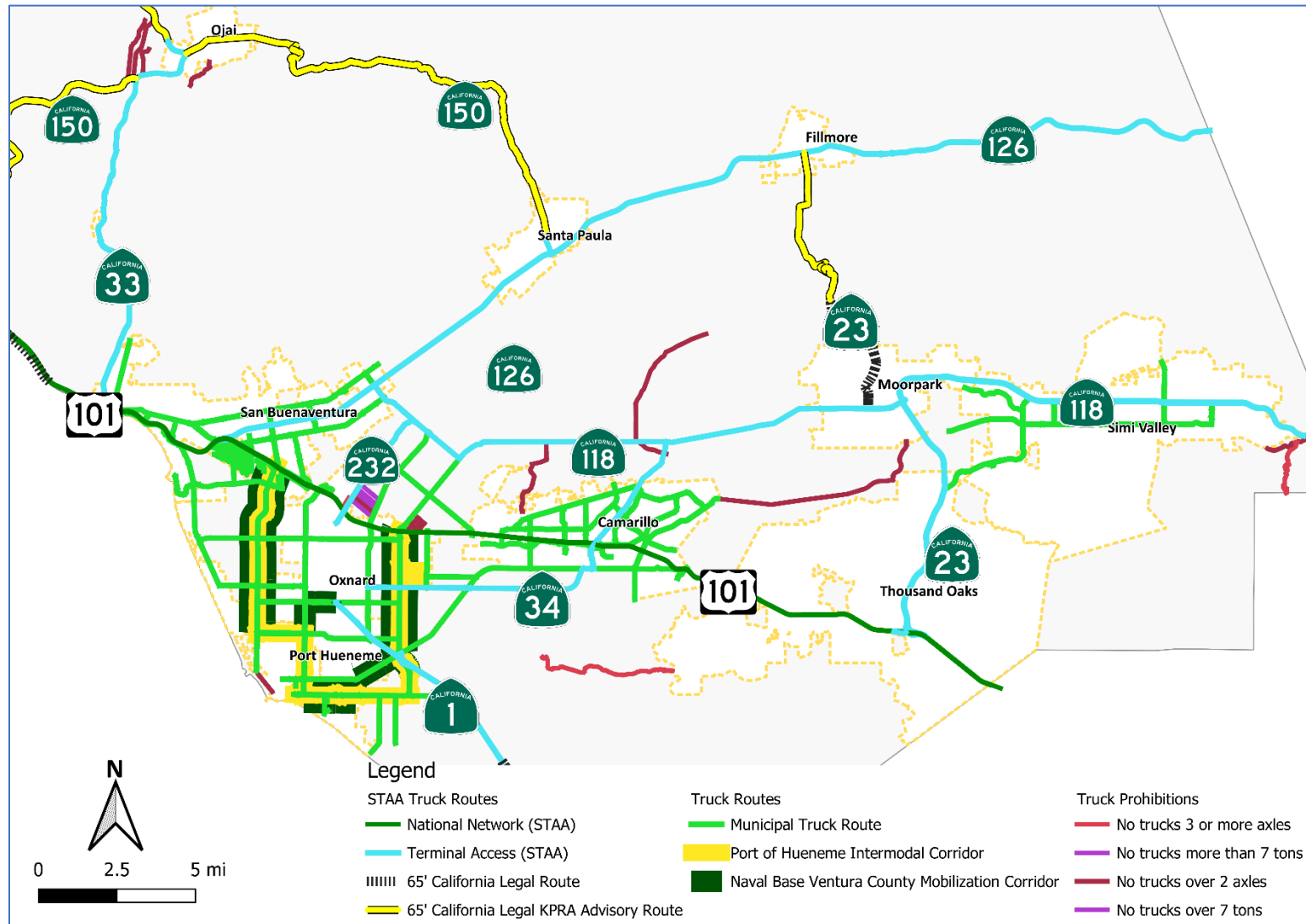


Figure 24: STAA Truck Routes and County and Local Truck Routes and Prohibitions



### 1.3.4 Rail Corridors

Ventura County's rail system transfers bulk goods to and from port facilities, industrial customers, and intermodal transfer facilities, while also accommodating passenger service. Each of the county's Cities have active rail lines within their borders except Thousand Oaks and Ojai as shown in **Figure 25**.

The primary rail corridor in the County is Los Angeles – San Diego – San Luis Obispo (LOSSAN) corridor which enters the County in Simi Valley and turns south to meet the US 101 corridor in Camarillo, then continues along the corridor to the border with Santa Barbara County. The Union Pacific Railroad (UPRR) owns the portion from the Santa Barbara County line to Moorpark with VCTC owning the portion from Moorpark to the Los Angeles County line. The corridor is served by commuter rail (Metrolink from East Ventura to Los Angeles), interregional rail (Amtrak) and freight rail operated by UPRR.

The corridor is a segment of UPRR's "Coast Line" system and is primarily utilized by the freight operator as an "overflow" for their more heavily utilized lines through Fresno and Bakersfield and over the Tehachapi Mountains.

The Ventura County Railroad (VCRR) serves industrial areas in Oxnard including the Port of Hueneme and Naval Facilities Expeditionary Logistics Center at Naval Base Ventura County. The 12-mile Class III short line VCRR is owned by the Port of Hueneme and operated by Genesee & Wyoming. VCRR is an integral corridor for the movement of autos and freight

through the port and its processing facilities. It interchanges with Union Pacific tracks at 5<sup>th</sup> Street, providing an important intermodal link throughout North America. On average there are two trains per day on the VCRR. According to the 2013 California State Rail Plan, VCRR hauls approximately 2,000 carloads annually, carrying automobiles, paper, petroleum and wood pulp.<sup>61</sup> This line also serves Naval Base Ventura County (NBVC) Port Hueneme, and is a designated military mobility corridor, as further discussed in the NBVC Joint Land Use Study (2015).

The Santa Paula Branch track is owned by VCTC. The track currently terminates east of Piru, however, there is right-of-way to connect to Santa Clarita. There is currently no scheduled freight use on the Santa Paula Branch. However, there is one continued freight customer located in Santa Paula and is used intermittently for movement and storage of rail cars in the area between Fillmore and Piru.

The railroads in the county are shown in **Figure 25**.

There are two hundred highway/rail crossings in the County, only 27 of which are grade separated—the Rice Avenue grade separation project would bring that number to 28. The locations of the at-grade and grade separated highway/rail crossings in the county are shown in **Figure 26**.

Within the incorporated areas of Ventura County, there are 41 at-grade and grade separated crossings of the Coastal Corridor rail tracks along 30 miles of track available to

<sup>61</sup> The 2018 California State Rail Plan used freight rail volume from the 2013 California State Rail Plan

pedestrians. On average that is a crossing every  $\frac{3}{4}$  of a mile along the corridor.

Ventura has ten crossings available to pedestrians along seven miles of the Coastal rail corridor

- Oceanfront Bikeway
- Garden Street
- Figueroa Street
- California Street
- Ash Street
- Sanjon Road
- Seaward Avenue
- Telephone Road
- Victoria Avenue
- Johnson Drive

Oxnard has ten crossings available to pedestrians along six miles of the rail corridor.

- Ventura Road
- Oxnard Boulevard
- Vineyard Avenue
- Gonzales Road
- Colonia Road
- Cooper Road
- 3<sup>rd</sup> Street
- Rose Avenue
- Rice Avenue
- Del Norte Boulevard

Camarillo has three crossings available to pedestrians along three miles of the rail corridor.

- Lewis Road
- Adolfo Road
- Upland Road

Moorpark has five crossings for pedestrians along five miles of the rail corridor.

- Gabbert Road
- Moorpark Avenue
- Spring Road
- Virginia Colony Place
- Arroyo Drive

Simi Valley has 13 crossings available to pedestrians along nine miles of the rail corridor.

- Quimisa Drive
- Los Alamos Canyon Road
- Madera Road
- First Street
- Erringer Road
- Sycamore Drive
- Sequoia Avenue
- Tapo Canyon Road
- Tapo Street
- Los Angeles Avenue
- Hidden Ranch Drive
- Katherine Road
- Kuehner Drive

Additional demand for pedestrians crossing the rail corridor are evidenced by visual review of aerial photography which revealed desire lines (informal walking paths revealed by an erosion of vegetation) at several locations in Ventura (e.g. from Ocean Avenue Park to Vista Del Mar Drive), to access the homeless encampment south of Johnson Dive near the Santa Clara Bridge, Downtown Oxnard (e.g. from Briana Circle to cross the Oxnard Trail, rail tracks and Oxnard Boulevard), and in Camarillo (e.g. at Via Dulce and at the storm drain south of Maya Linda).

Figure 25: Railroads in Ventura County

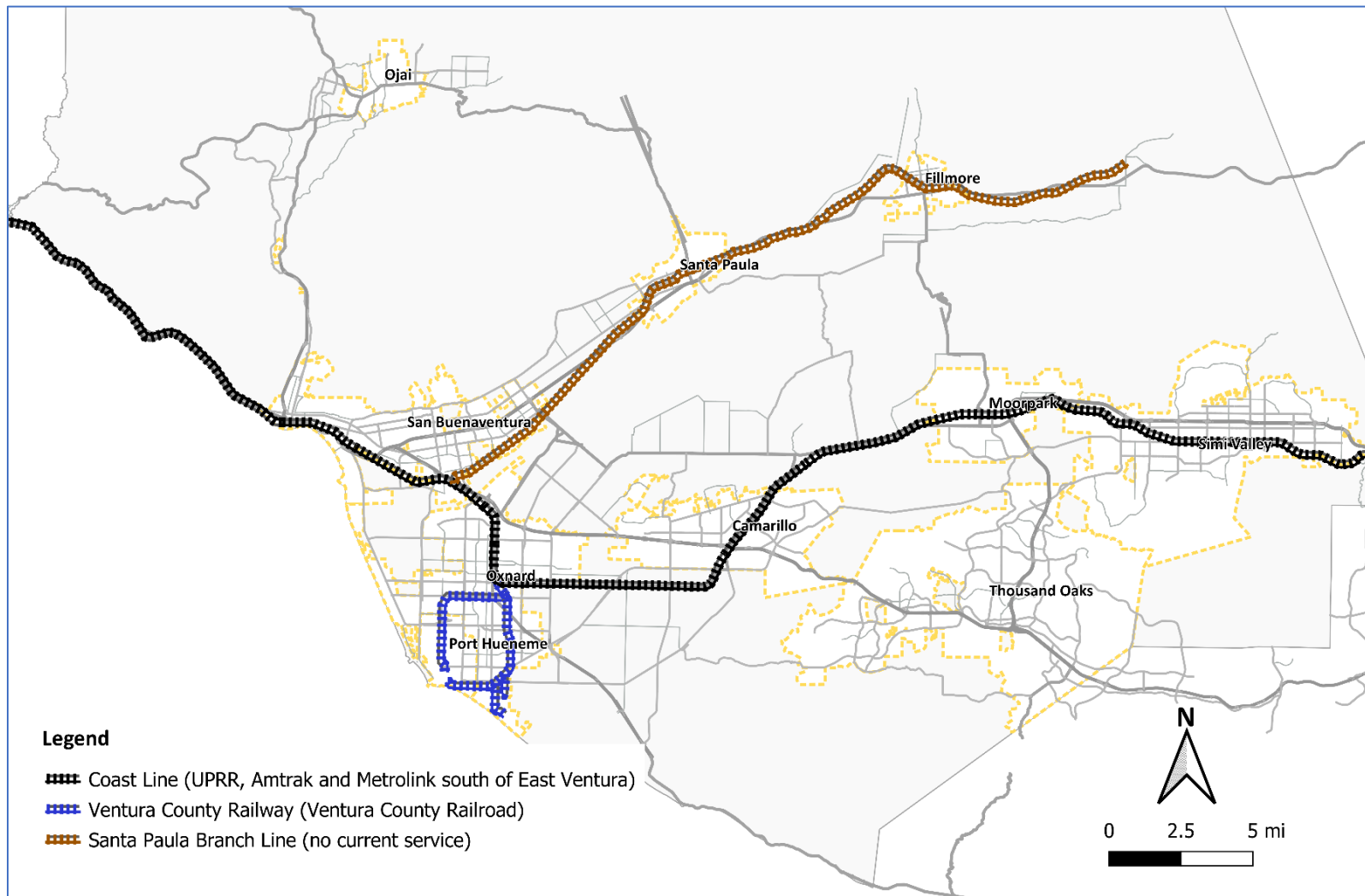
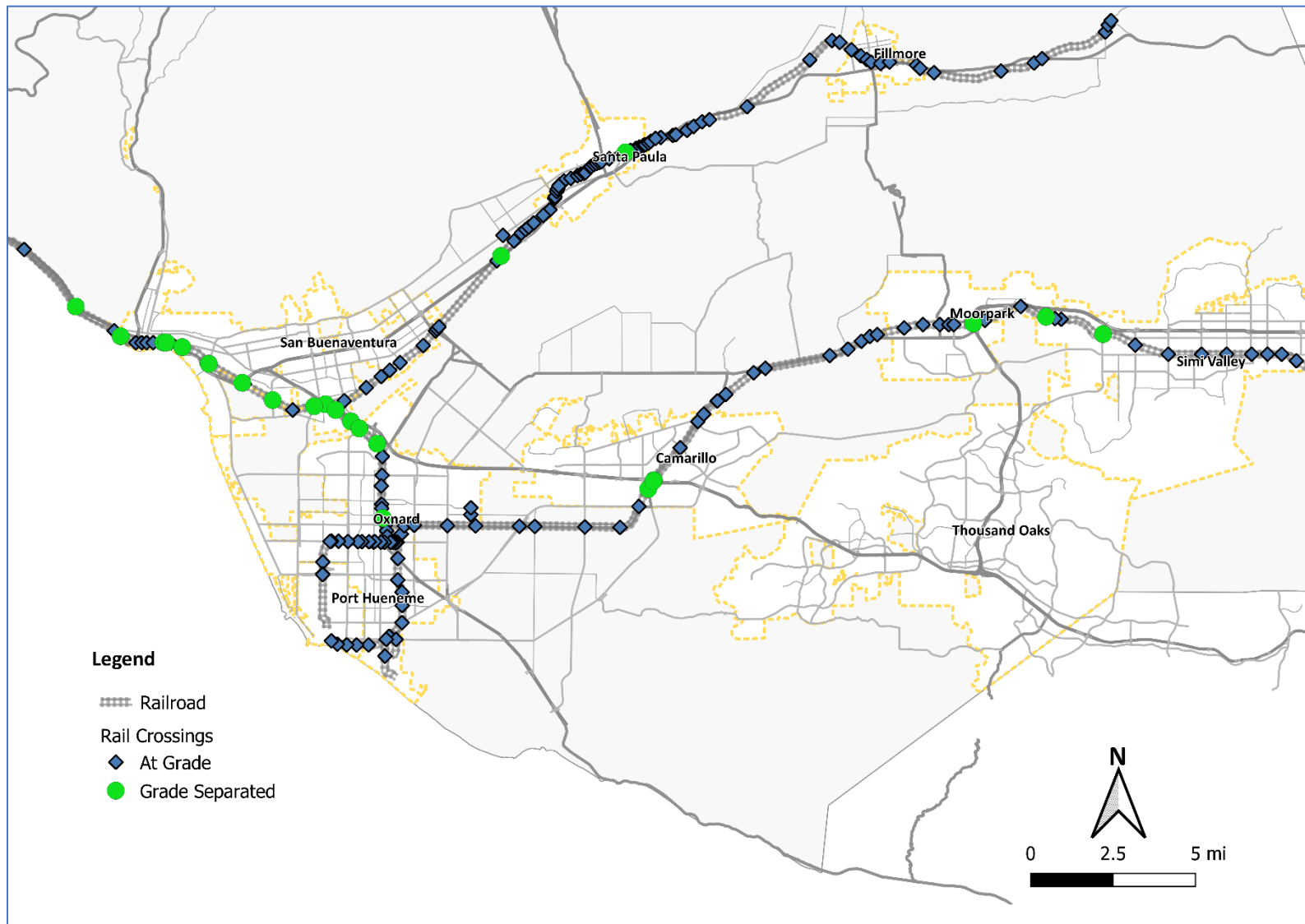


Figure 26: Rail Crossings in Ventura County



Source: California Public Utilities Commission



### 1.3.5 Facilities Related to Truck Travel

Infrastructure that supports truck freight operations include weigh stations and scales, truck parking and fueling locations.

#### Weigh Stations & Scales

There are three Weigh-in-Motion (WIM) sites in Ventura County<sup>62</sup>. WIM scales are designed to capture and record both axle and gross vehicle weights as vehicles pass over the measurement site. Thus, they do not require trucks to come to a complete stop for their weight to be measured and can be installed directly into the pavement on a truck thoroughfare. Other information, including axle spacing, vehicle classification, vehicle speed, and overall length, are provided by WIM stations as well. Two of these WIM sites are located along the Conejo Grade of US 101 between the cities of Camarillo and Thousand Oaks, one on the northbound and one on the southbound side of the freeway. The other WIM site is located on State Route 126 east of Piru near the Los Angeles County line.

The Conejo Inspection/Enforcement Facility, owned and operated by the California Highway Patrol, is located along the Conejo Grade on US 101 between the cities of Camarillo and Thousand Oaks. All commercial trucks traveling US 101 in either direction must exit the freeway and be weighed, in accordance with posted signage, unless they are authorized for weigh station bypass via a PrePass transponder or Drivewyze PreClear mobile application<sup>63</sup>.

The CHP operates a mini-site weigh station along State Route 118 near Moorpark. The westbound facility is located at postmile 15.1 west of Grimes Canyon Road, and the eastbound facility is located at postmile 13.8 west of Balcom Canyon Road. Mini-sites are designed as safe locations for portable scale operations and are strategically located on highways with an above-average volume of commercial vehicle traffic to screen vehicles that may use alternative routes to avoid public weigh stations. Operational equipment for mini-sites is normally transported from offsite. Truck traffic is directed into the site by traffic control signs and devices.

Five (5) privately-owned scale facilities offer truck-weighing services in Ventura County according to the California Department of Food and Agriculture's Division of Measurement Standards Public Scales Listing<sup>64</sup>. These facilities are listed below:

- Oaks Self Storage – 2501 W Hillcrest Drive, Thousand Oaks
- Mac Valley Oil Company – 100 Del Norte Boulevard, Oxnard
- Silvas Oil Co., Inc. – 1757 E Wooley Road, Oxnard
- AG RX – 751 South Rose Avenue, Oxnard
- OST Trucks and Cranes, Inc. – 2951 N Ventura Avenue, Ventura

<sup>62</sup><https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/trucks/wim/wim07-a11y.pdf>

<sup>63</sup> <https://dot.ca.gov/programs/traffic-operations/wim/bypass>

<sup>64</sup> <https://apps1.cdfa.ca.gov/publicscales/view.aspx?c=56>

### Truck Parking

According to the Federal Highway Administration’s report “Jason’s Law Truck Parking Survey Results and Comparative Analysis<sup>65</sup>,” California faces a severe shortage of truck parking and is one of three states with the lowest rates of commercial vehicle truck parking spaces per 100,000 miles of daily combination truck VMT. Typically, commercial truck parking is made available at public rest areas, truck stops, at highway weigh stations or in designated areas along highway roadsides. The only publicly available truck parking in Ventura County is at the Mac Valley Oil Company at the intersection of Del Norte Boulevard and Sturgis Road in Oxnard, with nine available spaces.

The next closest commercial truck parking facilities are located in Los Angeles County at Castaic Truck Stop and Valley Gas Station, both along Interstate 5—approximately 45 miles from the State Route 126 / US 101 interchange in Ventura. Apart from these locations, truck parking can only be found at trip origin and destination sites or occurs with varying legality along streets.

Due to hours of service work safety rules for truck operators, which could become a factor during pick-up or drop off at the Port or a worksite, and the lack of designated truck parking area trucks may be found parked in areas along roadways not specifically designated for parking.

<sup>65</sup> Federal Highway Administration, [Jason’s Law Truck Parking Survey Results and Comparative Analysis](#), 2015

<sup>66</sup> Federal Highway Administration, [Alternative Fuel Corridors Interactive GIS Maps](#), accessed 8/12/2021

The results of not having public truck parking in the county is extensive use of highway shoulders for truck parking which leads to degradation of shoulder areas and impediments to bicycle travel along roadways. For example, shoulder use for truck parking along State Route 126 resulted in removal of striping for bicycle lanes from a pavement preservation project in Fillmore.

### Alternative Fueling Locations

At the national level, the Federal Highway Administration (FHWA) has designated alternative fuel corridors to establish a national network of alternative fueling infrastructure along the National Highway System. In Ventura County, US 101 and State Route 1 are designated as Electric Vehicle Signage Ready, Compressed Natural Gas Signage Ready, and Hydrogen Signage Ready.<sup>66</sup> Through the efforts of the FHWA and the State of California’s own initiatives to reduce greenhouse gas emissions and promote renewable energy, alternative fueling locations are particularly prolific in California, with many located along California’s Highway Freight Network and available for use by commercial trucks.

The California Sustainable Freight Plan developed by CARB, Caltrans, the California Energy Commission, and the Governor’s Office of Business and Economic Development called for 100,000 E-Trucks to be deployed across the state by 2020.<sup>67</sup> While the ambitious goal was not met, it reflects the importance of the truck segment to driving GHG reduction, criteria air pollutant reduction, and improved health and living

<sup>67</sup> ARB. 2016. [California Sustainable Freight Action Plan](#), accessed 8/12/2021.

conditions across California’s most impacted communities. The Ventura County Electric Vehicle Ready Blueprint<sup>68</sup> states benefits of E-Truck adoption, in addition to emissions reduction include:

- Noise reduction when compared to internal combustion engines
- Competitive acceleration times, hauling capacity, and gradeability to internal combustion engines
- Improved fuel efficiency
- Potential grid benefit when paired with managed charging practices
- Workforce and local economic development resulting from local fueling, and EVSE installation and maintenance

Alternative fueling stations catalogued by the US Department of Energy’s Alternative Fuels Data Center include biodiesel, compressed natural gas (CNG), electric, ethanol, hydrogen, liquefied natural gas (LNG), and liquefied propane gas (LPG) fueling stations. According to their database,<sup>69</sup> there are 218 alternative fueling stations in Ventura County, with the vast majority being electric fueling stations.<sup>70</sup> These are distributed throughout the county but are most heavily concentrated along the US 101 corridor and in the cities of Ventura, Oxnard, Port Hueneme, Camarillo, and Thousand Oaks. The breakdown of alternative fueling sites by type in Ventura County is:

- 197 Electric sites – 45 in Ventura, 35 in Thousand Oaks, 35 in Oxnard, 18 in Simi Valley, 16 in Camarillo, 14 in Port Hueneme, six in Ojai, nine in Moorpark, 13 in Oak Park, one in Santa Paula, one in Fillmore.
- Eight LPG sites – three in Oxnard, two in Ventura, one in Santa Paula, one in Thousand Oaks, and one in Simi Valley;
- Seven CNG sites – three in Simi Valley, two in Oxnard, two in Thousand Oaks;
- Three Biodiesel sites – one in Port Hueneme, and two in Ventura;
- Two Hydrogen sites in Thousand Oaks;
- One LNG site in Simi Valley.

If left unmanaged, E-Bus and E-Truck charging may result in major grid reliability and stability concerns. However, if managed appropriately, both the charging equipment and vehicles batteries can become grid resources that offer valuable frequency regulation, voltage control, and demand response value for local utilities and grid managers. Further opportunities for grid integration become viable when E-Bus and E-Truck charging is integrated with onsite renewable energy generation and energy storage. When used in concert, these resources can enable fleet managers to prevent nearly all demand charges, enable resilient charging from an onsite renewable source, and unlock potential new revenue streams from demand response programs, or energy dispatch to the grid.

<sup>68</sup> VCREA, Community Environmental Council, and EV Alliance, Ventura County Electric Vehicle Ready Blueprint, July 2019, accessed 8/15/2021

<sup>69</sup> US Department of Energy Alternative Fuels Data Center, accessed 8/15/21

<sup>70</sup> During the course of the FCS development from September 2019 to August 2021, 51 alternative fuel locations were added to the Alternative Fuels Database in Ventura County.

## Pipelines

Currently 43 companies operate oil and gas facilities in the 34 active oil and gas fields located in Ventura County. These oil and gas facilities operate under the authority of 145 conditional use permits (CUPs) granted by the County of Ventura. In addition, there are two major consolidated oil and gas processing facilities located onshore in the coastal zone that receive oil and gas from offshore oil leases.

Oil and gas facilities include pipelines that convey produced fluids from wells to storage and processing facilities located on lease areas within the oil and gas fields and to connections with the major transmission pipelines that transport oil and gas to regional refineries in the Los Angeles area. These are shown in **Figure 27**. The major pipelines that convey crude oil and natural gas are generally located along highways and railroad lines and are owned by companies such as Crimson LP and Southern California Gas Company.<sup>71</sup>

**Figure 27: Pipelines in Ventura County**



Source: Southern California Gas<sup>72</sup>

<sup>71</sup> County of Ventura Resource Management Agency, [Oil and Gas Program](#)

<sup>72</sup> [Gas Transmission Pipeline Interactive Map – Ventura](#)

## 1.4 Freight Activity – How the Freight System Moves Through the County

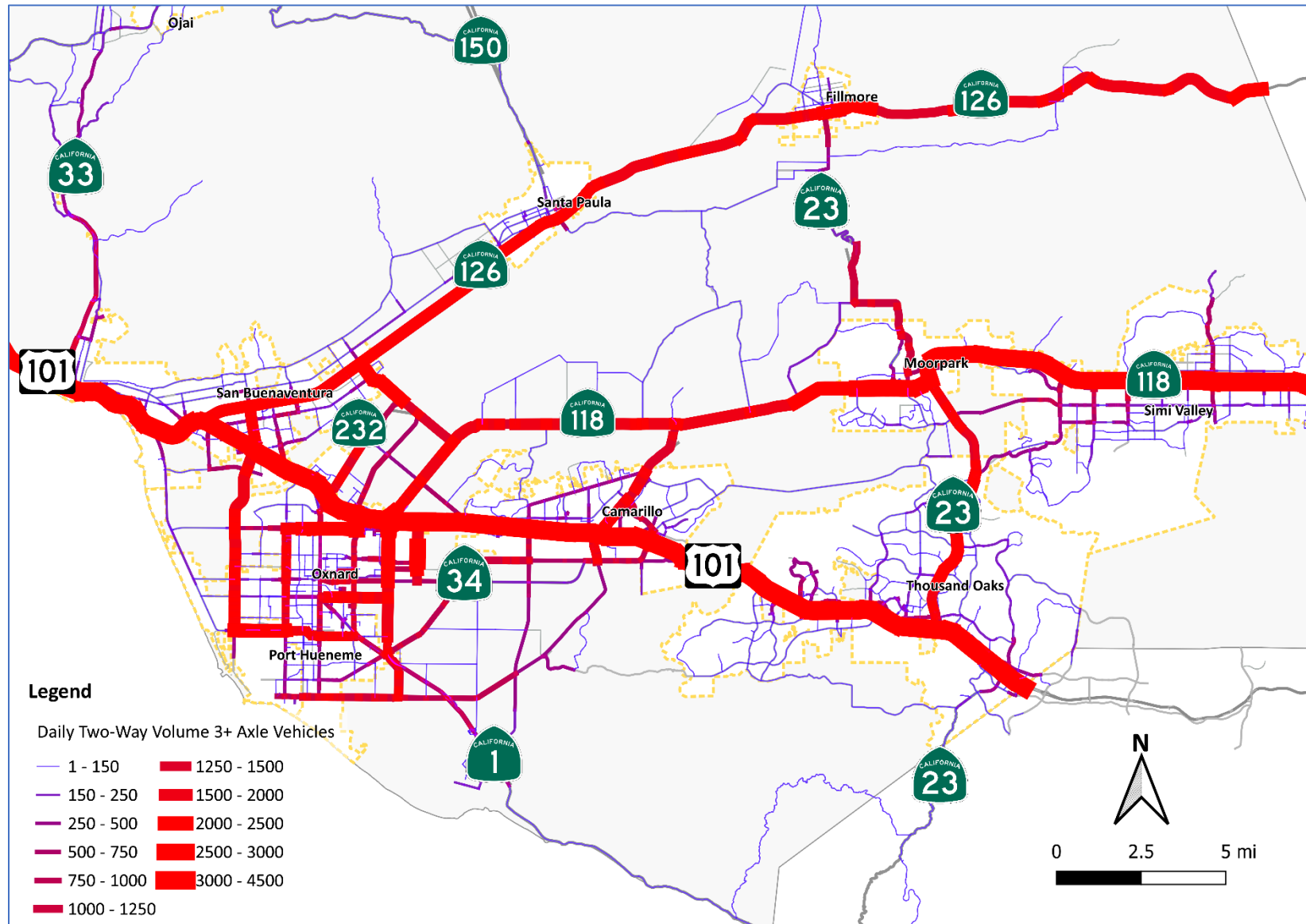
### 1.4.1 Freight Volume

The daily freight volume estimate for all roadways in Ventura County was developed by utilizing traffic counts and backfilling missing gaps with the Ventura County Transportation Model (VCTM) data. In areas with differences between the traffic counts and VCTM volumes, the traffic counts were used with volumes between traffic count points interpolated with the count location data.

As shown in **Figure 28**, the predominant truck flows in the county are east/west along State Route 126, State Route 118 and US 101, with large volumes of local access to major truck generating land uses in Oxnard, and to a lesser degree in Camarillo, Ventura, and agricultural areas adjacent to Camarillo, Oxnard, and Ventura.

Very few sections of the developed areas of the County do not have major through or adjacent freight flows. The dispersed nature of the truck flows has to do with the dispersal of industrial areas, distance of the Seaport area from a freeway facility, mountain and valley topography concentrating travel within the valleys and widespread agricultural areas.

Figure 28: Daily Truck Volume (Vehicles with 3 or more Axles)



### East/West County Truck Traffic Flow

A snapshot of the major east/west highways of State Route 126, State Route 118 and US 101 was analyzed to show regional truck patterns. From north to south, following an imaginary line (screenline) of State Route 126 between Orcutt Road and Sycamore Road, State Route 118 between Somis Road and Balcom Canyon Road and US 101 at Camarillo (postmile 50.36) was compiled from the SCAG screenline counts from 2017 for State Route 126 and State Route 118 and US 101 counts conducted during this study in 2021. US 101 southbound is considered eastbound and northbound is considered westbound for the purposes of this analysis

**Table 7** shows the total volume of all traffic in the screenline for each hour. Overall, approximately 95,000 vehicles cross the screenline in each direction over the course of a day. The morning peak is 7am to 8am and the evening peak is between 4pm and 6pm for both directions. The peaks of US 101 travel are in the eastbound in the morning commute and in the westbound in the evening commute. The opposite occurs along State Route 126 and State Route 118 that sees higher volume eastbound in the evening commute times and westbound in the morning commute.

**Table 8** shows only the FHWA Class 6 and above vehicles in the east/west screenline. In contrast to the values for total volume, truck volumes are concentrated in the middle of the day with the peak hours occurring after the morning

commute and in the early afternoon. This is consistent with trucks being used as vehicles during the work-day making deliveries, traveling to work sites, hauling materials and performing utility work.

Overall, approximately 8,000 trucks per day cross the east/west screenline.

**Table 9** shows the percentage of traffic in the screenline that is comprised of FHWA Class 6 and above vehicles by hour. Trucks make up a very large percentage of early morning of traffic in both directions along State Route 126 and US 101. Trucks peak at approximately 10 to 20 percent of vehicles on State Route 118 from 8am to 2pm.

The values in the tables are color-coded by column to visualize differences in the levels of volumes and percent truck traffic at individual locations:

Lowest
Midpoint
Highest



**Table 7: Total Volume by Hour in the State Route 126, State Route 118 and US 101 Screenline**

Hour	Eastbound					Westbound			
	SR-126	SR-118	US 101	Total		SR-126	SR-118	US 101	Total
0	93	57	316	466		81	68	402	551
1	62	27	241	330		56	41	253	350
2	78	31	257	366		48	25	284	357
3	103	87	391	581		92	38	348	478
4	203	144	862	1,209		289	123	579	991
5	682	492	2,170	3,344		744	372	1,677	2,793
6	828	846	3,635	5,309		1,169	710	2,956	4,835
7	802	905	4,645	6,352		1,493	871	4,057	6,421
8	848	884	4,360	6,092		1,167	692	4,512	6,371
9	753	658	3,630	5,041		1,095	660	4,465	6,220
10	704	559	3,599	4,862		847	612	4,042	5,501
11	768	519	3,756	5,043		833	605	4,498	5,936
12	839	546	3,978	5,363		809	620	4,880	6,309
13	911	582	4,102	5,595		816	639	4,859	6,314
14	1,049	687	4,336	6,072		871	698	4,516	6,085
15	1,312	876	4,979	7,167		1,013	874	5,835	7,722
16	1,558	1,023	4,644	7,225		1,102	921	5,418	7,441
17	1,591	1,129	4,773	7,493		1,032	920	6,200	8,152
18	1,047	779	4,110	5,936		726	679	4,127	5,532
19	747	434	2,538	3,719		528	495	2,835	3,858
20	525	324	1,810	2,659		394	353	2,066	2,813
21	412	246	1,205	1,863		299	249	1,427	1,975
22	253	151	798	1,202		238	211	1,087	1,536
23	148	89	526	763		118	111	118	347
Total	16,316	12,075	65,661	94,052		15,860	11,587	71,441	98,888

**Table 8: Truck Volume by Hour in the State Route 126, State Route 118 and US 101 Screenline**

Hour	Eastbound				Westbound			
	SR-126	SR-118	US 101	Total	SR-126	SR-118	US 101	Total
0	10	4	53	67	7	8	50	65
1	16	1	70	87	9	4	40	53
2	24	2	63	89	10	9	53	72
3	32	5	91	128	9	13	95	117
4	23	9	110	142	23	20	108	151
5	32	26	112	170	47	49	142	238
6	54	61	96	211	69	94	156	319
7	44	49	107	200	85	75	109	269
8	58	86	165	309	94	86	117	297
9	80	82	172	334	84	87	85	256
10	81	74	156	311	72	104	125	301
11	70	68	192	330	77	106	124	307
12	63	57	146	266	68	128	114	310
13	67	73	116	256	97	99	93	289
14	52	64	86	202	65	84	69	218
15	90	56	103	249	74	56	75	205
16	69	48	69	186	49	53	66	168
17	51	38	72	161	53	54	39	146
18	41	43	71	155	30	52	60	142
19	30	26	50	106	28	29	64	121
20	25	22	83	130	22	21	52	95
21	21	24	68	113	16	25	62	103
22	20	11	90	121	16	16	63	95
23	12	6	82	100	9	11	15	35
Total	1,065	935	2,423	4,423	1,113	1,283	1,976	4,372

Table 9: Truck Percentage by Hour in the State Route 126, State Route 118 and US 101 Screenline

Hour	Eastbound				Westbound			
	SR-126	SR-118	US-101	Total	SR-126	SR-118	US-101	Total
0	11%	7%	17%	14%	9%	12%	12%	12%
1	26%	4%	29%	26%	16%	10%	16%	15%
2	31%	6%	25%	24%	21%	36%	19%	20%
3	31%	6%	23%	22%	10%	34%	27%	24%
4	11%	6%	13%	12%	8%	16%	19%	15%
5	5%	5%	5%	5%	6%	13%	8%	9%
6	7%	7%	3%	4%	6%	13%	5%	7%
7	5%	5%	2%	3%	6%	9%	3%	4%
8	7%	10%	4%	5%	8%	12%	3%	5%
9	11%	12%	5%	7%	8%	13%	2%	4%
10	12%	13%	4%	6%	9%	17%	3%	5%
11	9%	13%	5%	7%	9%	18%	3%	5%
12	8%	10%	4%	5%	8%	21%	2%	5%
13	7%	13%	3%	5%	12%	15%	2%	5%
14	5%	9%	2%	3%	7%	12%	2%	4%
15	7%	6%	2%	3%	7%	6%	1%	3%
16	4%	5%	1%	3%	4%	6%	1%	2%
17	3%	3%	2%	2%	5%	6%	1%	2%
18	4%	6%	2%	3%	4%	8%	1%	3%
19	4%	6%	2%	3%	5%	6%	2%	3%
20	5%	7%	5%	5%	6%	6%	3%	3%
21	5%	10%	6%	6%	5%	10%	4%	5%
22	8%	7%	11%	10%	7%	8%	6%	6%
23	8%	7%	16%	13%	8%	10%	13%	10%
Average	7%	8%	4%	5%	7%	11%	3%	4%

### North/South County Truck Traffic Flow

Data for the North/South County FHWA Class 6 and above truck traffic flow was only available at the daily truck traffic level (not at the hourly level). Total truck flow on the north/south screenlines of north and south of US 101 in the Oxnard Plain are shown in **Tables 10** and **11**. Major arterial roadway data was collected from different sources and source years and are intended to demonstrate the magnitude of truck trips.

While the volume data on the north/south roadways was not as detailed as the east/west values, and required modeled volumes from VCTM, the results do show extensive truck traffic south of US 101 of approximately 11,000 trucks per day. North of US 101 the volume of trucks is approximately 7,000 per day.

**Table 10: North/South Two-Way Truck Volumes North of US 101**

Road	Location	Est. Daily Trucks	Source
Victoria Ave	N/O US 101	1,590	VCTM
Vineyard (SR 232)	S/O SR 118	1,070	Caltrans Census
Rose Ave	S/O SR 118	700	VCTM
Santa Clara Ave	S/O SR 118	1,530	FCS Count
State Route 34	S/O SR 118 in Somis	1,130	FCS Count
SR 23	N/O US 101	1,050	FCS Count
<b>Total</b>		<b>7,070</b>	

**Table 11: North/South Two-Way Truck Volumes South of US 101**

Road	Location	Est. Daily Trucks	Source
Victoria Ave	North of 5th St	1,770	Port Hueneme/ Oxnard Study
Vineyard Ave	S/O US 101	1,140	Caltrans Census
Oxnard Blvd	At Oxnard Blvd	640	Caltrans Census
Rose Ave	North of 5th St	900	FCS Count
Rice Ave	North of 5th St	2,165	FCS Count
Las Posas Rd	S/O US 101	820	VCTM
Del Norte Blvd		1,240	VCTM
Lewis Road	S/O US 101	2,770	Caltrans Census
<b>Total</b>		<b>11,445</b>	

### Forecasted Truck Volumes

The Ventura County Transportation Model (VCTM) was used to forecast future truck volume growth based on land use development and demand for goods both inside and outside the County. The socioeconomic inputs (demand for freight) for baseline conditions were year 2018 (pre-COVID-19 pandemic conditions) and the future year conditions used the year 2040 socioeconomic forecast. The incremental growth modeled between 2018 and 2040 was added to traffic counts. The overall system level of truck traffic is forecasted to increase 50 percent from 2018 to 2040.

Representative state highway locations are shown in **Table 12**. As shown, volume growth varied from zero percent to 100 percent on state highways. In general, forecasted truck volume growth is highest on the major east-west highways of US 101, State Route 126 and State Route 118 with 2,650 additional daily trucks forecasted for US 101 and approximately 1,000 for State Routes 126 and 118. This is representative of substantial growth due to interregional trips in greater proportion to growth of truck trips internal to or having one trip end in the county.

**Table 12: Daily Truck Volume Growth - State Highways**

Highway	Location	Daily Truck Volume			
		Existing	Yr 2040	Change	% Change
<b>State Route 1</b>	Calleguas Creek	250	500	250	100%
<b>State Route 23</b>	At State Route 118	1,350	1,600	250	19%
<b>State Route 33</b>	At State Route 150	150	150	-	0%
<b>State Route 34</b>	At Rice Avenue	500	700	200	40%
<b>State Route 34</b>	At State Route 118	1,250	1,650	400	32%
<b>US 101</b>	At State Route 23	4,000	6,650	2,650	66%
<b>US 101</b>	At State Route 232	3,400	6,050	2,650	78%
<b>US 101</b>	At State Route 33	3,300	5,950	2,650	80%
<b>State Route 118</b>	At Spring Street	3,100	3,900	800	26%
<b>State Route 118</b>	At State Route 34	2,275	3,275	1,000	44%
<b>State Route 118</b>	At State Route 232	2,800	4,200	1,400	50%
<b>State Route 118</b>	At Tapo Road	2,800	3,800	1,000	36%
<b>State Route 126</b>	In Piru	1,950	2,950	1,000	51%
<b>State Route 126</b>	At State Route 118	1,950	2,950	1,000	51%
<b>State Route 150</b>	At State Route 33	375	475	100	27%
<b>State Route 232</b>	At US 101	1,150	1,550	400	35%

Source: Ventura County Transportation Model

**Table 13** shows forecasted volume growth varied from four percent to sixty-nine percent on arterial roadways. The highest absolute volume growth on arterials is forecasted for Del Norte Boulevard, Rice Avenue, Santa Clara Avenue and Victoria Avenue. The growth of future truck volumes at Del Norte Boulevard and Rice Avenue reflect future development of warehousing and industrial uses in Oxnard which would generate new truck trips.

**Table 13: Daily Truck Volume Growth on Arterial Highways**

Arterial	Location	Daily Truck Volume			
		Existing	Year 2040	Change	Percent Change
<b>Victoria Ave</b>	North of 5th St	1,770	1,970	200	11%
<b>Victoria Ave</b>	N/O US 101	1,590	1,990	400	25%
<b>Rose Ave</b>	S/O SR 118	700	925	225	32%
<b>Santa Clara Ave</b>	S/O SR 118	1,530	1,930	400	26%
<b>Vineyard Ave</b>	S/O US 101	1,140	1,190	50	4%
<b>Oxnard Blvd</b>	At Oxnard Blvd	640	670	30	5%
<b>Rose Ave</b>	North of 5th St	900	980	80	9%
<b>Rice Ave</b>	North of 5th St	2,165	2,665	500	23%
<b>Las Posas Rd</b>	S/O US 101	820	970	150	18%
<b>Del Norte Blvd</b>	S/O US 101	1,240	2,090	850	69%
<b>Lewis Road</b>	S/O US 101	2,770	2,870	100	4%

Source: Ventura County Transportation Model

### 1.4.2 Rail Volume

Rail traffic along the Moorpark to Los Angeles County portion of the rail tracks are 26 to 32 trains per weekday, and 18 trains per day on the Moorpark to Santa Barbara portion of the tracks.

From East Ventura to Santa Barbara there are four daily UPRR freight trains and 12 passenger trains (ten Pacific Surfliner and two Amtrak Coast Starlight). The entire segment is operated using centralized traffic control and is dispatched by the UPRR.

The East Ventura to Moorpark segment is the northern most section of the Metrolink system along the LOSSAN corridor, with 18 passenger trains currently operating along this portion of the corridor. As with the San Luis Obispo to Santa Barbara and Santa Barbara to East Ventura segments, this one is also owned and operated by the UPRR. The segment dispatched by the UPRR. The UPRR operates up to six trains each day during the week. One of these trains is the local that services the Santa Paula industries and originates and terminates its workdays from the yard in Oxnard.

### 1.4.3 Vehicle Collisions

Vehicle collision data was collected for the four-year period between January 1, 2016 to December 31, 2019. The collision data was obtained from the UC Berkeley Transportation Injury Mapping System (TIMS) website and modified to standardize primary and secondary street names and add geographic coordinates where missing. TIMS data comes from the California Highway Patrol (CHP) Statewide Integrated Traffic Records System (SWITRS). City of Oxnard data was not available for the years 2014 and 2015—therefore those years

were excluded from the analysis of overall study area characteristics.

Overall, 456 truck-involved collisions (2.85 percent of the total) occurred in Ventura County in the four-year study period. Approximately 70 percent of these collisions (319) occurred on arterial roads and 30 percent (137) occurred on freeways. Approximately 2/3 of the arterial truck-related collisions were in or near (within 500 feet) of an intersection.

The majority of truck-involved collisions were rear end collisions (56 percent of freeway and 33 percent of arterial). These generally occur due to excessive speed or low visibility causing one vehicle not to break in time to avoid a collision. The next highest type of collision on freeways was sideswipe from changing lanes (20 percent) and hit objects (15 percent). Following rear-end collisions on arterials were broadside, usually from intersection conflicts, at 30 percent and sideswipe at 16 percent.

The most common primary factor in truck-involved collisions was unsafe speed that occurred in 52 percent of freeway collisions and 29 percent of arterial collisions. The next highest factors in freeway truck-involved collisions were improper turning (20 percent) and unsafe lane change (13 percent). The next highest non-speeding factors on arterials were improper turning and impeding another vehicle's right-of-way (17 percent each) and failure to abide by signals and signs (10 percent).

There were 38 serious injuries and 20 fatalities resulting from the truck-involved collisions. Therefore, truck-involved collisions resulted in a fatality in 4.4 percent of incidents and severe injury in 8.3 percent of incidents. When compared to



the 15,544 collisions that did not involve a truck in which 1.2 percent resulted in fatalities and 7.0 percent resulted in serious injury, truck-involved collisions are shown to have more severe injury outcomes as compared to other types of collisions.

This means that while truck-involved collisions made up 2.85 percent of all collisions, they did result in 9 percent of fatalities and 5 percent of severe injuries. This included 12

pedestrians and 12 bicyclists injured in truck-involved collisions—there were no pedestrian fatalities but one bicyclist fatality from truck-involved collisions. The bicycle fatality occurred along US 101 north of the City of Ventura near the county line.

252 of the 456 (55 percent) truck-involved collisions occurred on state highways. **Table 14** shows the total and truck-involved collisions on state highways.

**Table 14: State Highway Total and Truck-Involved Collisions 2016-2019**

State Route	All Collisions	Truck Collisions	Truck-Involved % of total Collisions	Fatal	Severe Injury
SR 1	331	17	5.1%	0	2
US 101	2,107	91	4.3%	2	9
SR 118 (Freeway)	637	23	3.6%	0	1
SR 118 (Arterial)	254	31	12.2%	4	0
SR 126 (Freeway)	322	19	5.9%	1	0
SR 126 (Arterial)	207	27	13.0%	6	4
SR 150	225	3	1.3%	0	0
SR 23	502	19	4.4%	0	2
SR 232	105	4	1.0%	0	0
SR 33	301	4	1.3%	0	1
SR 34	185	14	6.5%	0	0
<b>Total</b>	<b>4,845</b>	<b>252</b>	<b>4.9%</b>	<b>13</b>	<b>17</b>

Source: California Highway Patrol, Statewide Integrated Traffic Records System (SWITRS)

The arterial portions of State Route 118 and State Route 126 had the highest percentage of truck involved collisions as a percentage of total collisions and were also the location of ten of the 13 fatality collisions in the times period.

Traffic collisions are rare and often random events. However, locations that show a concentration of collisions over a years-long period should be reviewed as “hot spots” for possible safety countermeasures to reduce conflict, reduce speed, improve visibility and other improvements to safety conditions. A review of collisions data from 2016-2019 shows 37 locations with more than three truck-involved collisions over the four-year period. The locations with three or more truck-related collisions in the 2016-2019 period are listed in **Table 15**.

Due to their higher relative truck volume, state highways were the location of most of the individual highest collision locations with US 101 having 13 truck collision hot spots, State Route 118 having six, State Route 23 having three, State Route 34 having two, and State Route 1 (Rice Avenue) having one.

The location with the highest number of collisions, US 101 at Camarillo Springs Road, was identified in the US 101 Improvement Project Approval/Environmental Documentation (PAED) and realignment of the ramps and provision of longer acceleration/deceleration lanes to increase safety is included in the design of the project.

However, 17 of the top 37 locations were on arterial roadways, with SR 118 at Balcom Canyon Road and Rose Avenue at 5<sup>th</sup> Street averaging more than one truck-involved collision per year. Of the locations with multiple fatal or severe collisions, two of the top three locations were arterial highways in rural areas: State Route

126 at Center Street near Piru and SR 118 at Balcom Canyon Road east of Somis.

Table 15: Location of Truck-Involved Collision Locations 2016-2019

Roadway	At	Type	Total	Near Int.	Fatal or Severe	Most Common Factor
US 101	Camarillo Springs Rd	Freeway	6	-	-	Unsafe Speed
US 101	Ventu Park Rd	Freeway	5	-	1	Unsafe Speed
Rose Av	5th St	Arterial	5	5	-	Signals and Signs
SR 118	Balcom Canyon Rd	Arterial	5	2	2	Auto right-of-way violation
US 101	Borchard Rd	Freeway	4	-	-	Unsafe Speed
US 101	Carmen Dr	Freeway	4	-	-	Unsafe Speed
US 101	Rice Av	Freeway	4	-	-	Unsafe Speed
US 101	Victoria Av	Freeway	4	-	2	Unsafe Speed
SR 118	Collins Dr	Freeway	4	-	-	Unsafe Speed
SR 118	Kuehner Dr	Freeway	4	-	-	Improper Turning
SR 23	Janss Rd	Freeway	4	-	-	Unsafe Speed
SR 118	Santa Clara Av	Arterial	4	3	-	Unsafe Speed
SR 126	C St	Arterial	4	3	1	Unsafe Lane Change
SR 126	Center St	Arterial	4	2	3	Improper Turning
SR 126	Hallock Dr	Arterial	4	1	-	Improper Turning
SR 23	Spring Rd	Arterial	4	4	-	Unsafe Speed
SR 34	Las Posas Rd	Arterial	4	0	-	Unsafe Speed
SR 23	Olsen Rd	Freeway	3	-	-	Unsafe Speed
US 101	Hampshire Rd	Freeway	3	-	-	Unsafe Speed
US 101	Rose Av	Freeway	3	-	-	Unsafe Speed
US 101	California St	Freeway	3	-	-	Unsafe Lane Change
US 101	Conejo Inspection Facility	Freeway	3	-	1	Unsafe Speed
US 101	Del Norte Bl	Freeway	3	-	1	Improper Turning
US 101	Wendy Dr	Freeway	3	-	1	Unsafe Speed
US 101	Westlake Bl	Freeway	3	-	1	Unsafe Speed
SR 126	Kimball Rd	Freeway	3	-	-	Unsafe Speed
SR 126	SR 118	Freeway	3	-	-	Unsafe Speed
SR 126	Saticoy Av	Freeway	3	-	1	Improper Turning
Olsen Rd	SR 23	Arterial	3	3	-	Unsafe Speed
Esplanade Dr	Vineyard Av	Arterial	3	3	-	Unsafe Speed
Gonzales Rd	Oxnard Bl	Arterial	3	3	-	Unsafe Lane Change
SR 34	Pleasant Valley Rd	Arterial	3	3	-	Improper Passing
Pleasant Valley Rd	Southfield Rd	Arterial	3	1	1	Auto right-of-way violation
Rice Av	Camino Del Sol	Arterial	3	3	-	Auto right-of-way violation
SR 118	Grimes Canyon Rd	Arterial	3	2	-	Unsafe Speed
SR 118	Rose Av	Arterial	3	1	-	Unsafe Speed
Santa Clara Av	Wright Rd	Arterial	3	3	1	Unsafe Speed

Source: California Highway Patrol, Statewide Integrated Traffic Records System (SWITRS)

### Incidents on State Highways

Caltrans compiles incidents that occur on state highways. Collisions are included in the incidents, but other roadway impedances such as animal hazards, traffic hazards, and weather events of fire, flooding and wind are also included. The incident data show the proportional types of incidents causing non-recurring (not traffic related) congestion affecting goods movement.

As shown in **Table 16**, US 101 has the most Caltrans incidents followed by the State Route freeways of 118, 23, and 126.

**Table 16: Number of Caltrans Incidents 2016-2018**

Type of Incident	US101		SR1		SR23		SR33		SR118		SR126		SR150	
	NB	SB	NB	SB	NB	SB	NB	SB	EB	WB	EB	WB	EB	WB
<b>Animal Hazard</b>	117	117	4	5	33	37	22	22	27	39	36	41	3	1
<b>Traffic Hazard</b>	3,362	3,022	29	25	584	484	130	292	1,173	1,177	395	407	8	3
<b>Defective Traffic Signals</b>	31	28	1	4	6	3	0	2	9	5	3	2	0	0
<b>Traffic Collision</b>	1,990	1537	43	46	230	225	58	100	453	437	292	252	7	7
<b>Hit and Run</b>	254	214	3	5	28	16	3	3	48	81	31	31	1	0
<b>Fire</b>	162	218	4	5	15	27	33	15	118	70	25	20	2	1
<b>Flooding</b>	9	7	0	0	0	0	0	3	0	1	1	1	0	0
<b>Hazardous Material/Spill</b>	2	3	1	0	0	0	0	0	0	0	0	0	0	0
<b>Wrong Way Driver</b>	44	64	7	6	9	7	5	9	8	14	24	10	0	0
<b>Spinout</b>	14	7	0	1	2	1	0	0	1	3	1	0	0	0
<b>Wind/ Weather</b>	5	0	0	0	1	0	0	0	9	1	0	1	0	0
<b>Construction</b>	95	62	0	5	13	15	4	3	11	6	21	6	0	0
<b>Other</b>	8	3	0	0	1	0	0	0	7	12	2	3	0	0
<b>Slide</b>	1	0	2	0	0	0	1	0	0	0	0	0	6	2

Source: Caltrans [Performance Measurement System \(PeMS\)](#)

Rail Accidents and Incidents

Rail safety is a major concern in Ventura County—as the southern part of the County is bisected by both US 101 and the UP/Metrolink rail tracks. The rail tracks are shared by freight and passenger service along the mainline as it crosses through urban, suburban and rural areas.

The primary groups of accidents and incidents to be reported monthly by railroads are:

- Casualties to persons death and non-fatal injuries to all types of persons,
  - Trespassers on rail tracks
  - Non-trespassers—accidents/incidents and occupational illnesses involving railroad employees or passengers
- Highway-rail grade crossing accidents/incidents.
- Rail equipment accidents/incidents.

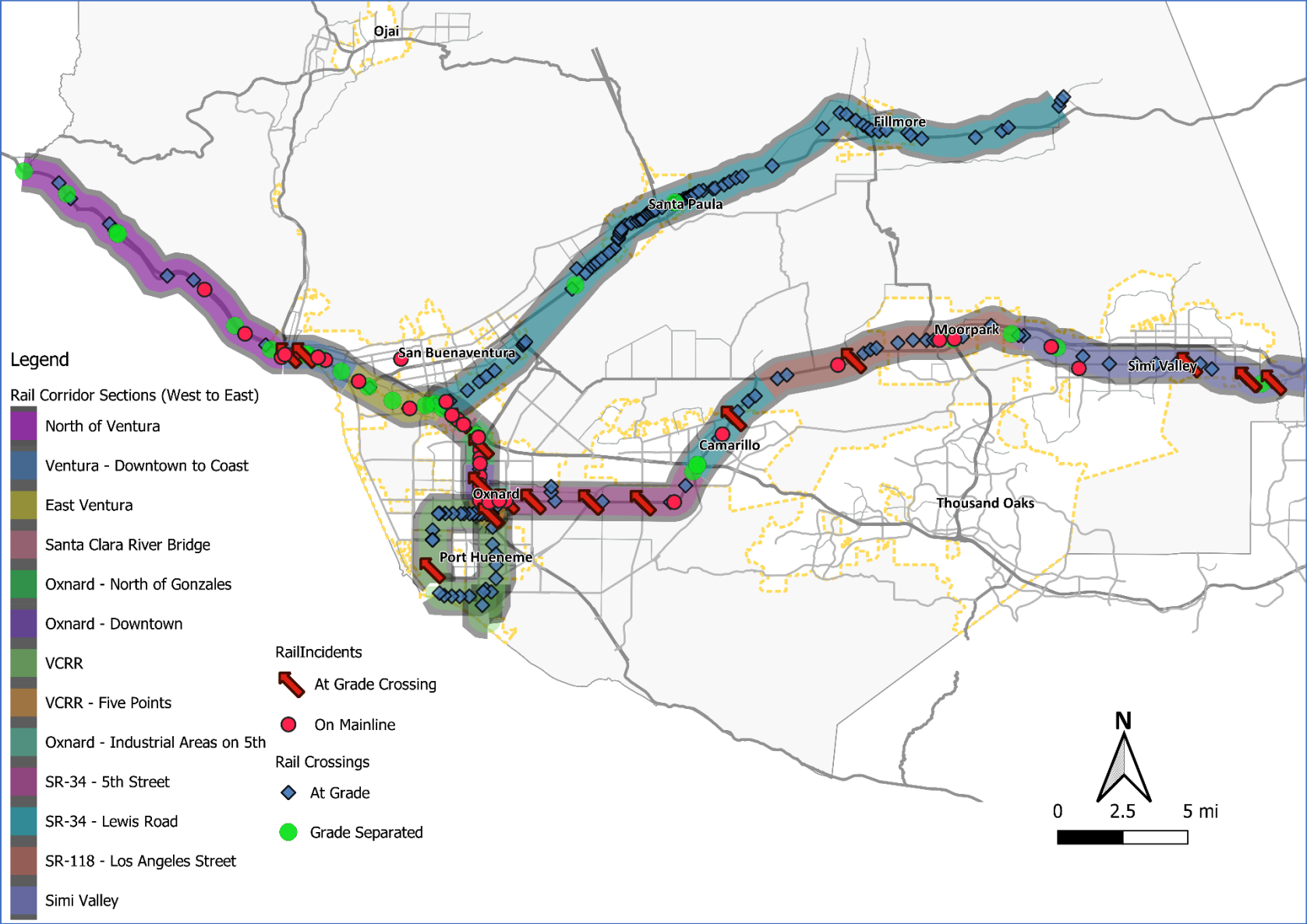
This analysis looks at accidents and incidents involving trains, pedestrians and on-road vehicles of all types—casualties with

trespassers and incidents at highway-rail crossings from 2014 to 2019. Given the high variability in the settings through which rail corridors pass through Ventura County, areas with trespasser and highway/rail incidents in the Union Pacific / Metrolink rail corridor and VCRR was divided into 12 segments as shown in **Table 17** and **Figure 29**.

The segmentation was developed based on areas of relative uniformity in character and surrounding land use conditions. The table shows the total number of trespasser and highway/rail crossing incidents as well as the number of total incidents per mile of segment along with the number of injuries and fatalities. Incident location is distinguished by those occurring at grade crossings and along the mainline (not at a crossing).

There were no reported incidents in the time period on the Santa Paula Branch line railroad.

Figure 29: Rail Accidents and Incidents by Rail Corridor Section



Source: California Public Utilities Commission, Federal Railroad Administration

As shown in **Table 17**, incidents of trespasser (not at crossing) and highway users (at a crossing) with rail occur throughout the corridor from the Santa Barbara County Line to the Los Angeles County Line. Concentration of incidents are:

- In the City of Ventura with both trespasser and highway/rail incidents between downtown Ventura and the beach area
- Trespassers on the Santa Clara River Bridge
- Throughout the Union Pacific corridor in the City of Oxnard.
- At the highway-rail crossings along 5<sup>th</sup> Street

**Table 17: Trespasser and Highway/Rail Incidents by Rail Corridor Section from 2014-2019**

Rail Corridor Section	Location Description	Incidents					
		Trespasser on Mainline	Hwy / Rail	Tot	Per Mile	Injuries	Fatalities
<b>N/O Ventura</b>	Coastal Access	3	0	3	0.3	2	1
<b>Ventura - Downtown</b>	Access to Fairgrounds, Parks and beaches	7	3	10	4.5	6	6
<b>East Ventura</b>	Few crossings: Telephone Road (1.3 miles) to Victoria Ave, (1.2 miles) to Johnson Dr	4	0	4	1.3	3	1
<b>Santa Clara River Bridge</b>	Pedestrian access across Santa Clara River	5	1	6	6.0	1	6
<b>Oxnard North of Gonzales</b>	Crosses Oxnard Blvd. and Vineyard Ave. to south of US 101	4	1	5	4.2	2	2
<b>Oxnard - Downtown</b>	Runs along the east side of Oxnard Boulevard with no barriers	5	1	6	6.1	3	3
<b>VCRR</b>	Branches serving the Port Area	0	1	1	0.9	1	0
<b>VCRR - Five Points</b>	Two VCRR lines come together to connect to UP line	0	2	2	0.2	1	0
<b>Oxnard - Industrial Area on 5th</b>	From Oxnard Boulevard to Rose Ave	5	1	6	7.0	5	1
<b>State Route 34 - 5th Street</b>	Rural section with the tracks crossing the north leg of intersections	1	9	10	1.6	32	7
<b>State Route 34 - Lewis Road</b>	Parallels SR 34 with no fencing between road and rail	1	1	2	0.6	1	1
<b>State Route 118 - Los Angeles Avenue</b>	Passes through rural section before bisecting urbanized Moorpark.	6	0	6	0.7	4	3
<b>Simi Valley</b>	Crosses southern Simi Valley	3	4	7	0.8	2	3
<b>Total</b>	From Santa Barbara County Line to Los Angeles County Line	44	24	68	1.2	63	34

Source: Federal Railroad Administration



### Highway/Rail Grade Crossing Incidents

Highway/rail at-grade crossings are the locations where rail crosses with highway users. Since rail is the heaviest, and hardest to stop of ground transportation types the risk of severe injury or death during a collision is greatly heightened at these crossings. While grade separation projects remove conflicts with highway users, they are expensive and require significant coordination with private railroad companies and multiple agencies.

The California Public Utilities Commission rail-crossing list states there are 199 open highway/rail crossings in Ventura County, 172 of which are at-grade and 27 grade separated. There are no controls at 14 of the at-grade locations, 47 locations have passive controls, nine have flashers and 102 of the locations have gates. **Table 18** shows the number of crossings by type and control for each of the rail lines in the County.

The Federal Railroad Administration (FRA) Office of Safety Accident models predicted annual collision rates at highway/rail at-grade crossings based on site specific information including physical and operating characteristics and five-year safety history. The twenty-two crossings in Ventura County with either a predicted collision value or an incident between 2014 and 2019 are shown in **Table 19**.

The table includes the crossing roadway, its average daily traffic, along with the number of incidents, the crossing control type and the estimated daily trains through the crossing. Crossing control provides train approach warnings either by gates or quad gates, crossbuck signs, or a watchman/lookout.

**Table 18: Open Highway-Rail Crossings in Ventura County**

Crossing Type	Control	SCRRRA	UPRR	VCRR	Santa Paula	Total
<b>Grade Separated</b>	Roadway Below Track	0	9	0	1	10
	Roadway Above Track	3	11	0	3	17
<b>At-Grade</b>	Gates	14	30	19	39	102
	Flashers	0	2	4	3	9
	Passive	1	2	12	32	47
	None/Other/Unknown	1	10	0	3	14
<b>Total</b>		19	64	35	81	199

Source: California Public Utilities Commission

SCRRRA - Metrolink (east of Moorpark)

UPRR – Union Pacific Railroad (west of Moorpark)

VCRR – Ventura County Railroad

F&W – Fillmore and Western Santa Paula Subdivision

**Table 19: FRA Predicted Highway/Rail Crossing Annual Collision Rate Compared to Number of Actual Incidents**

Predicted Collision Value	Railroad	Roadway	Average Daily Traffic	City	2014-2019 Incidents	Control Device	Total Daily Trains
<b>0.209</b>	UP	Las Posas Rd	8,244	Camarillo	5	Gates	16
<b>0.151</b>	UP	Rice Avenue	33,000	Oxnard	3	Gates	16
<b>0.109</b>	SCAX	Sycamore Drive	21,400	Simi Valley	1	Gates	32
<b>0.104</b>	UP	South California Street	5,411	Ventura	3	Gates	16
<b>0.104</b>	UP	South Rose Avenue	35,409	Oxnard	1	Gates	16
<b>0.104</b>	UP	Harbor Blvd	5,411	Ventura	1	Gates	16
<b>0.091</b>	SCAX	Los Angeles Avenue	27,000	Simi Valley	1	Gates	26
<b>0.087</b>	UP	Upland Road	14,459	Camarillo	1	Gates	16
<b>0.068</b>	UP	East Pleasant Valley Road	12,314	Camarillo	1	Gates	16
<b>0.056</b>	SCAX	Katherine Road	2,800	Simi Valley	2	Gates	26
<b>0.054</b>	UP	East Gonzales Road	36,193	Oxnard	1	Gates	16
<b>0.053</b>	SCAX	First Street	32,270	Simi Valley	0	Gates	32
<b>0.050</b>	SCAX	Erringer Road	22,700	Simi Valley	0	Gates	32
<b>0.050</b>	SCAX	Spring Road	25,000	Moorpark	0	Quad Gates	54
<b>0.045</b>	UP	East Vineyard Avenue	42,856	Oxnard	1	Gates	16
<b>0.042</b>	SCAX	Tapo Canyon Road	14,000	Simi Valley	0	Gates	26
<b>0.041</b>	SCAX	Tapo Street	20,700	Simi Valley	1	Gates	26
<b>0.039</b>	UP	Olive Street	468	Ventura	1	Gates	16
<b>0.039</b>	SCAX	Sequoia Avenue	15,500	Simi Valley	0	Gates	26
<b>0.037</b>	VCRR	Commercial Avenue	500	Oxnard	1	Crossbucks	2
<b>0.037</b>	VCRR	Mercantile Street	500	Oxnard	1	Crossbucks	2
-	VCRR	Lehmer Road	-	Port Hueneme	1	Watchman	2

Source: Federal Railroad Administration Office of Safety Analysis, [Web Accident Prediction System](#)

The individual incidents from 2014 to 2019, the type of train operator and highway user-involved, and the involved fatalities and injuries are shown in **Table 20**. Overall there were 24 incidents in the six-year period. These resulted in 11 fatalities and 40 injuries. The three locations with the most incidents of Las Posas Road (five incidents), South California Street (three incidents), and Rice Avenue (three incidents) accounted for more than half of the fatalities and three quarters of the injuries at highway/rail at-grade in Ventura County in the six-year period. The majority of the incidents involved Amtrak trains (17 total), followed by freight trains (five total) and Metrolink (two total).

The Rice Avenue Grade Separation Project will construct a grade separation structure at the existing Rice Avenue (SR 1) and Fifth Street (SR 34) intersection in order to eliminate an existing at-grade railroad crossing. The northern portion of the project is in the City of Oxnard and the southern portion is in Ventura County. Rice Avenue would be constructed over Fifth Street, and the Union Pacific Railroad tracks. The location was the scene of several train-vehicle collisions, including a 2015 incident that injured 33 and killed one and one in 2014 that resulted in two fatalities.

The nearly \$120 million project is funded through a variety of sources. The California Transportation Commission allocated \$68 million from 2018 Trade Corridors Enhancement Program (Cycle 1) of SB 1. Those funds, along with City of Oxnard funds, federal Surface Transportation Program Local-Regional funds programmed by VCTC, Railroad Safety Grants for Safe Transportation of Energy Products funds from a Federal Railroad Administration grants and Public Utilities Commission Section 190 Grade Separation Program funds will combine to fund the project.

The final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact was certified in May 2018. Construction is scheduled to begin December 2022 and end August 2026.<sup>73</sup>

This project will further reinforce Rice Avenue as the primary access roadway to the industrial areas of Oxnard and the Port of Hueneme and improve the flow of goods movement.

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<sup>73</sup> Trade Corridor Enhancement Program (TCEP) Project List April 1 - June 30, 2019.

**Table 20 Highway/Rail Grade Crossing Incidents 2014-2019**

Year	Railroad	Highway	City	Highway User	Action	Crossing Protection	Fatal	Injury.
2017	Amtrak	California St	Ventura	Car	Stopped on crossing	Gates	1	-
2014	Amtrak	California St	Ventura	Pedestrian	Went around the gate	Gates	1	-
2017	VCRR	Commercial Ave	Oxnard	Car	Stopped on crossing	Crossbucks	.	1
2019	Amtrak	Gonzales Rd	Oxnard	Pedestrian	Went around the gate	Gates	1	-
2019	UP	Harbor Blvd.	Ventura	Car	Stopped on crossing	Gates	-	4
2019	Amtrak	Katherine Rd	Simi Valley	Other Vehicle	Went around the gate	Gates	-	1
2018	Metrolink	Katherine Rd.	Simi Valley	Pedestrian	Moving over crossing	Gates	1	.
2018	Amtrak	Las Posas Rd	Unincorp.	Other Vehicle	Went thru the gate	Gates	-	2
2016	Amtrak	Las Posas Rd	Unincorp.	Car	Went around the gate	Gates	-	1
2015	Amtrak	Las Posas Rd	Unincorp	Other Vehicle	Went around the gate	Gates	1	1
2016	Metrolink	Las Posas Rd	Unincorp	Motorcycle	Went thru the gate	Gates	1	1
2015	UP	Las Posas Rd	Unincorp	Pickup Trk	Went thru the gate	Gates	1	.
2019	VCRR	Lehmer Rd	Port Hueneme	Car	Stopped on crossing	Watchman	-	1
2017	VCRR	Mercantile St	Oxnard	Car	Stopped on crossing	Crossbucks	-	-
2016	Amtrak	Olive St	Ventura	Other Vehicle	Other	Gates	-	-
2015	Amtrak	Pleasant Valley Rd	Camarillo	Car	Stopped on crossing	Gates	-	1
2015	Amtrak	Private Rd	Simi Valley	Car	Stopped on crossing	Stop signs	-	-
2017	Amtrak	Rice Ave	Oxnard	Car	Went thru the gate	Gates	-	.-
2015	Amtrak	Rice Ave	Oxnard	Pickup Trk	on tracks	Gates	1	26
2014	Amtrak	Rice Ave		Car	Went thru the gate	Gates	2	0
2014	Amtrak	Rose Ave	Oxnard	Pedestrian	Went around the gate	Gates	0	1
2019	Amtrak	Tapo St	Simi Valley	Car	Went around the gate	Gates	-	-
2016	Amtrak	Upland Rd		Pedestrian	Went around the gate	Gates	1	-
2019	Amtrak	Vineyard Ave (SR 232)	Oxnard	Car	Went around the gate	Gates	-	-

Source: Federal Railroad Administration

## 1.5 Data Sources and Standards – How Existing Conditions Were Collected

### 1.5.1 Traffic Counts

Traffic counts provide the level of truck and overall traffic volumes to help understand demand on roadway capacity, major trucking routes, and facilities whose design should accommodate large vehicles.

Traffic volume counts can be taken using different types of classification systems. The most commonly used system is the 13-class FHWA vehicle classification system. The classes include all types of motorized vehicles from motorcycles (Class 1) to seven-axle multi-unit trucks (Class 13). The FHWA classes are shown in **Table 21**.














To simplify truck counts, heavy trucks are usually defined as either class 5, 6, or 7 and above. The Caltrans Traffic Count Census only defines trucks based on the number of axles. The two-axle class includes 1 1/2-ton trucks with dual rear tires and excludes pickups and vans with only four tires. The SCAG travel demand modeling

defines light-heavy trucks as FHWA class 3 vehicles, medium-heavy trucks as FHWA Class 4 to 7 trucks and heavy-heavy trucks as FHWA Class 8 to 13.

For the purposes of this Study, heavy trucks are defined as FHWA Class 6 to 13 to line up with the Caltrans Traffic Census truck counts. Overall, 220 truck traffic count data points were collected for the FCS. The sources of these counts are:

- Caltrans Traffic Census – Average annual daily truck volume at 88 locations
- SCAG Screenline Counts – Daily classified vehicle counts at 24 locations
- US 101 HOV PAED – Peak hour classified vehicle counts at 80 ramp intersections
- Port Hueneme/Oxnard Study (2008) – daily truck counts at 13 locations (primarily used for historic comparison)
- Freight Corridors Study Traffic Counts – 15 locations conducted to fill data gaps in the aforementioned sources.

Table 21: FHWA Vehicle Classifications

Class	Vehicle Type	Configuration Example	Description
<b>Class 1</b>	Motorcycles		All two or three-wheeled motorized vehicles. This vehicle type may be reported at the option of the State.
<b>Class 2</b>	Passenger Cars		All sedans, coupes, and station wagons manufactured primarily for the purpose of carrying passengers and including those passenger cars pulling recreational or other light trailers.
<b>Class 3</b>	Other Two-Axle, Four-Tire Single Unit Vehicles		All two-axle, four-tire, vehicles, other than passenger cars. Included in this classification are pickups, panels, vans, and other vehicles such as campers, motor homes, ambulances, hearses, and minibuses along with other two-axle, four-tire single-unit vehicles pulling recreational or other light trailers.
<b>Class 4</b>	Buses		All vehicles manufactured as traditional passenger-carrying buses with two axles and six tires or three or more axles. This category includes only traditional buses (including school buses) functioning as passenger-carrying vehicles.
<b>Class 5</b>	Two-Axle, Six-Tire, Single-Unit Trucks		All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with two axles and dual rear wheels.
<b>Class 6</b>	Three-Axle Single-Unit Trucks		All vehicles on a single frame including trucks, camping and recreational vehicles, motor homes, etc., with three axles.
<b>Class 7</b>	Four or More Axle Single-Unit Trucks		All trucks on a single frame with four or more axles.
<b>Class 8</b>	Four or Fewer Axle Single-Trailer Trucks		All vehicles with four or fewer axles consisting of two units, one of which is a tractor or straight truck power unit.
<b>Class 9</b>	Five-Axle Single-Trailer Trucks		All five-axle vehicles consisting of two units, one of which is a tractor or straight truck power unit.
<b>Class 10</b>	Six or More Axle Single Trailer Trucks		All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.
<b>Class 11</b>	Five or fewer Axle Multi-Trailer Trucks		All vehicles with six or more axles consisting of two units, one of which is a tractor or straight truck power unit.
<b>Class 12</b>	Six-Axle Multi-Trailer Trucks		All six-axle vehicles consisting of three or more units, one of which is a tractor or straight truck power unit.
<b>Class 13</b>	Seven or More Axle Multi-Trailer Trucks		All vehicles with seven or more axles consisting of three or more units, one of which is a tractor or straight truck power unit.

\*Configuration Example Image from [FHWA Office of Highway Policy Information](#)

### Caltrans Traffic Census

State highway system truck traffic is classified by the number of axles. For any given location on the State Highway system, some years the truck percentages are verified, other years they are estimated. Additionally, regarding truck traffic on California State Highways, selected points on a route are counted and the ones in between are estimated. At some locations, truck volumes are static and no new counts are made until there is a change in traffic on the route. Average daily traffic of vehicle with three or more axles were considered to be trucks for the FCS analysis. **Table 22** shows key locations of truck volume at state highway junctions or the County borders.

**Table 22: Daily Truck Volumes at Representative State Route Junctions and County Borders**

Highway	Daily Truck Volume	Location
<b>State Route 1</b>	250	Calleguas Creek
<b>State Route 23</b>	1,350	At State Route 118
<b>State Route 33</b>	150	At State Route 150
<b>State Route 34</b>	500	At Rice Avenue
<b>State Route 34</b>	1,250	At State Route 118
<b>US 101</b>	4,000	At State Route 23
<b>US 101</b>	3,400	At State Route 232
<b>US 101</b>	3,300	At State Route 33
<b>State Route 118</b>	3,100	At Spring Street
<b>State Route 118</b>	2,275	At State Route 34
<b>State Route 118</b>	2,800	At State Route 232
<b>State Route 118</b>	2,800	At Tapo Road
<b>State Route 126</b>	1,950	In Piru
<b>State Route 126</b>	1,950	At State Route 118
<b>State Route 150</b>	375	At State Route 33
<b>State Route 232</b>	1,150	At US 101

Source: Caltrans Traffic Census Program, 2019 Truck Traffic: Annual Average Daily Truck Traffic



### SCAG Screenline Counts

SCAG conducted fully classified counts of a screenline in eastern Ventura County. The twelve locations were counted in each direction in 15-minute increments for 24-hours and fully classified with FHWA classifications. The highest volumes were found on State Route 126 and State Route 118 with two-way volumes of approximately 2,200 heavy trucks per day on each segment. US 101 was not counted as part of the SCAG screenline counts.

US 101 High Occupancy Vehicle Lanes Project Approval & Environmental Document Project Peak hour volumes were collected in the US 101 corridor for the US 101 High Occupancy Vehicle Lanes Project Approval & Environmental Document Project (US 101 HOV PAED) also known as the “Our Future 101” Project. Classified counts were taken from 7:00 -9:00 AM and 4:00 -6:00 PM at 69 freeway ramp intersections in October 2018. The two-way arterial segment volume from the counts was used to assess daily truck traffic on arterials adjacent to US 101. The highest volume locations were Rice Avenue north and south of US 101, Del Norte Boulevard south of US 101, Rose Avenue on either side of US 101, and Victoria Avenue on either side of US 101.

Ramp volumes were also consolidated. During the peak periods counted, 865 heavy trucks generated from points north of Ventura County, and 1,007 heavy trucks were generated to the south of Ventura County—a 45/55 percent split.

**Table 23** shows the consolidated directional ramp volumes at major interchanges in the AM and PM peak hours. The largest volume interchanges are Daily Drive, Del Norte Boulevard, Rice Avenue, Vineyard Avenue and Victoria Avenue.

**Table 23: US 101 Interchange AM and PM Peak Hour Truck Volumes Combined**

Interchange	Location	NB On-Ramp / SB Off- Ramp	SB On-Ramp / NB Off Ramp	Total
<b>Daily Drive</b>	Camarillo	105	50	155
<b>Las Posas Road</b>	Camarillo	28	46	74
<b>Central Avenue</b>	Camarillo	19	68	87
<b>Del Norte Boulevard</b>	Oxnard	75	101	176
<b>Rice Avenue</b>	Oxnard	174	91	265
<b>Rose Avenue</b>	Oxnard	74	53	127
<b>Vineyard Avenue</b>	Oxnard	53	90	143
<b>Oxnard Boulevard</b>	Oxnard	52	21	73
<b>Victoria Avenue</b>	Ventura	70	130	200
<b>Main Street</b>	Ventura	24	52	76
<b>Total US 101 Corridor</b>	-	865	1,007	1,872

### Freight Corridors Study Traffic Counts

After the available traffic count data was reviewed, the following data gaps were identified as in need of additional information to gain a full understanding of county truck patterns:

- Urbanized Oxnard truck patterns
- Truck travel on SR-118
- Truck travel between SR-126 and US-101
- Industrial Areas of Oxnard
- Port of Hueneme Area Truck Patterns
- Hourly Truck Volume Data Along US-101

In review of these identified data gaps, traffic counts were conducted in January 2021. Intersection counts were performed at

nine locations, three in the port area and six at other locations in the county. These locations included three freeway mainline locations and two state highway interchanges.

The intersection and interchange locations were counted for 13 hours between 6am and 7pm, while the freeway mainline locations were counted for a 24-hour period. The 24-hour freeway mainline counts were also used to develop a factor to convert the 13-hour counts to 24-hour values. The hourly distribution of trucks (and all vehicles) was largely similar to the 2017 SCAG screenline counts—with 82.4 percent of trucks and 82.9 percent of all vehicle volume occurring between 6am and 7pm based on the freeway counts. A factor of 82.5 percent was used to factor up the 13-hour, 6am to 7pm counts to daily values for trucks and all vehicles in the study.

Vehicles were classified as autos, small trucks (to FHWA Classification 5), large trucks (> FHWA Classification 6). Four intersections also classified Port of Hueneme customer trucks: Channel Island Logistics, Del Monte, Chiquita, Fresh Express, Hamburg Sud, Maersk, Mission Produce, Pantoja, and Ryder. The intent of the Port customer count was to identify port customers coming and going through the port gate.

The four locations with classified Port of Hueneme customer counts shown in **Table 24** are:

- Victoria Avenue at 5<sup>th</sup> Street
- Ventura Road at Wooley Road
- Hueneme Road at Rice Avenue
- State Route 118 (Los Angeles Avenue) at Moorpark Avenue (State Route 23)

The intersection of Hueneme Road at Rice Avenue is located on the Port Intermodal Corridor, and 299 of the 350 trucks leaving the Port of Hueneme Gate were counted—85.5 percent of the total. There

are a few port customers located along the corridor between the count location and the Port gate, such as Channel Islands Logistics, which could account for the difference.

Victoria Avenue at 5th Street and Ventura Road at Wooley Road had no observed port customer trucks on the day intersection counts occurred. This indicates trucks entering and exiting through the Port of Hueneme gate utilize the Port Intermodal Corridor. It should be noted the counts do not include all secondary trips made by Port customers from their terminals to other locations.

**Table 24: Intersection Daily Truck Traffic – Port Customers**

Location	Type	N/O	S/O	E/O	W/O
<b>Victoria Avenue at 5<sup>th</sup> Street</b>	Total Trucks	328	303	63	38
	Port Customer Trucks	59	59	0	0
	Percent Port Customers	18%	19%	0%	0%
<b>Ventura Road at Wooley Road</b>	Total Trucks	105	114	133	127
	Port Customer Trucks	1	1	0	0
	Percent Port Customers	1%	1%	0%	0%
<b>Hueneme Road at Rice Avenue</b>	Total Trucks	802	0	509	1,115
	Port Customer Trucks	250	0	69	299
	Percent Port Customers	31%	-	14%	27%
<b>SR-118 (Los Angeles Street) at Moorpark Avenue (SR-23)</b>	Total Trucks	638	32	2,542	1,982
	Port Customer Trucks	0	0	23	23
	Percent Port Customers	-	-	1%	1%

Since Port-related trucks passing through Moorpark were specifically mentioned by stakeholders, the port classification was also made at the intersection of State Route 118 (Los Angeles Avenue) at Moorpark Avenue (State Route 23). The count captured 23 port customer trucks which accounts for one percent of the trucks passing through the location.

The five other intersections counts filled data gaps within Oxnard and at key points along State Route 118 and State Route 126. **Table 25** shows the two-way volumes by intersection quadrant (approach and departure from intersection). Key findings of the intersection traffic volumes were:

- State Route 118 at State Route 34 – State Route 34 (Lewis Road) carried over 1,000 trucks south of State Route 118 and with approximately 500 trucks per day for northbound right-turns and westbound right turns, most of these vehicles travel to and from the east on State Route 118
- State Route 118 at Santa Clara Avenue – Santa Clara Avenue carried approximately 1,500 vehicles south of State Route 118 to US 101.
- State Route 126 at A Street (State Route 23) – over 2,000 trucks per day go in each direction at this location, 470 trucks travel on State Route 23 south of State Route 126
- Rose Avenue at 5th Street – is a major intersection surrounded by industrial uses in the City of Oxnard.
- Rice Avenue at Camino Del Sol – is located along the Port intermodal corridor and has approximately 600 two-way truck trips generated from west of the intersection along Camino Del Sol and 300 trucks per day generated east of the intersection along Camino Del Sol.

**Table 25: Intersection Daily Truck Traffic**

Intersection	N/O	S/O	E/O	W/O
<b>SR-118 at SR-34</b>	70	1,130	2,380	1,470
<b>SR-118 at Santa Clara Ave</b>	-	1,530	1,580	1,190
<b>SR-126 at A Street (SR-23)</b>	80	470	2,220	2,310
<b>Rose Avenue at 5th Street</b>	890	760	820	700
<b>Rice Avenue at Camino Del Sol</b>	2,160	1,730	320	610

The freeway mainline locations counted are shown in **Table 26** are:

- State Route 23 north of US 101
- US 101 at Lewis Road/State Route 34
- State Route 126 at Victoria Avenue

**Table 26: Freeway Mainline Daily Truck Traffic**

Freeway	Location	NB/WB	SB/EB
<b>State Route 23</b>	North of US 101	658	389
<b>US 101</b>	at State Route 34 (Lewis Road)	1,679	2,207
<b>US 101 NB-On Ramp</b>	at State Route 34 (Lewis Road)	273	-
<b>US 101 SB Off-Ramp</b>	at State Route 34 (Lewis Road)	-	259
<b>State Route 126</b>	at Victoria Avenue	579	1,168

These locations filled the 24-hour truck patterns at key points within the freeway system that were not covered by previous traffic count collection.

Two freeway interchange locations along State Route 126 were counted as shown in **Table 27**:

- State Route 126 at Wells Rd/Los Angeles Avenue (State Route 118)
- State Route 126 at Victoria Avenue

**Table 27: State Route 126 Ramp Daily Truck Traffic**

Freeway	Direction	On-Ramp		Off-Ramp	
		From North	From South	to North	to South
<b>At Wells Road/Los Angeles Street (State Route 118)</b>	Westbound	20	135	10	830
	Eastbound	5	680	135*	
<b>At Victoria Avenue</b>	Westbound	5	10	10	115
	Eastbound	10	200	25*	

\*Shared Off-Ramp

These locations indicated the flow of trucks through the State Route 126 interchanges which indicate the level of redistributed truck trips due to a lack of a westbound State Route 126 to southbound US 101 connection.

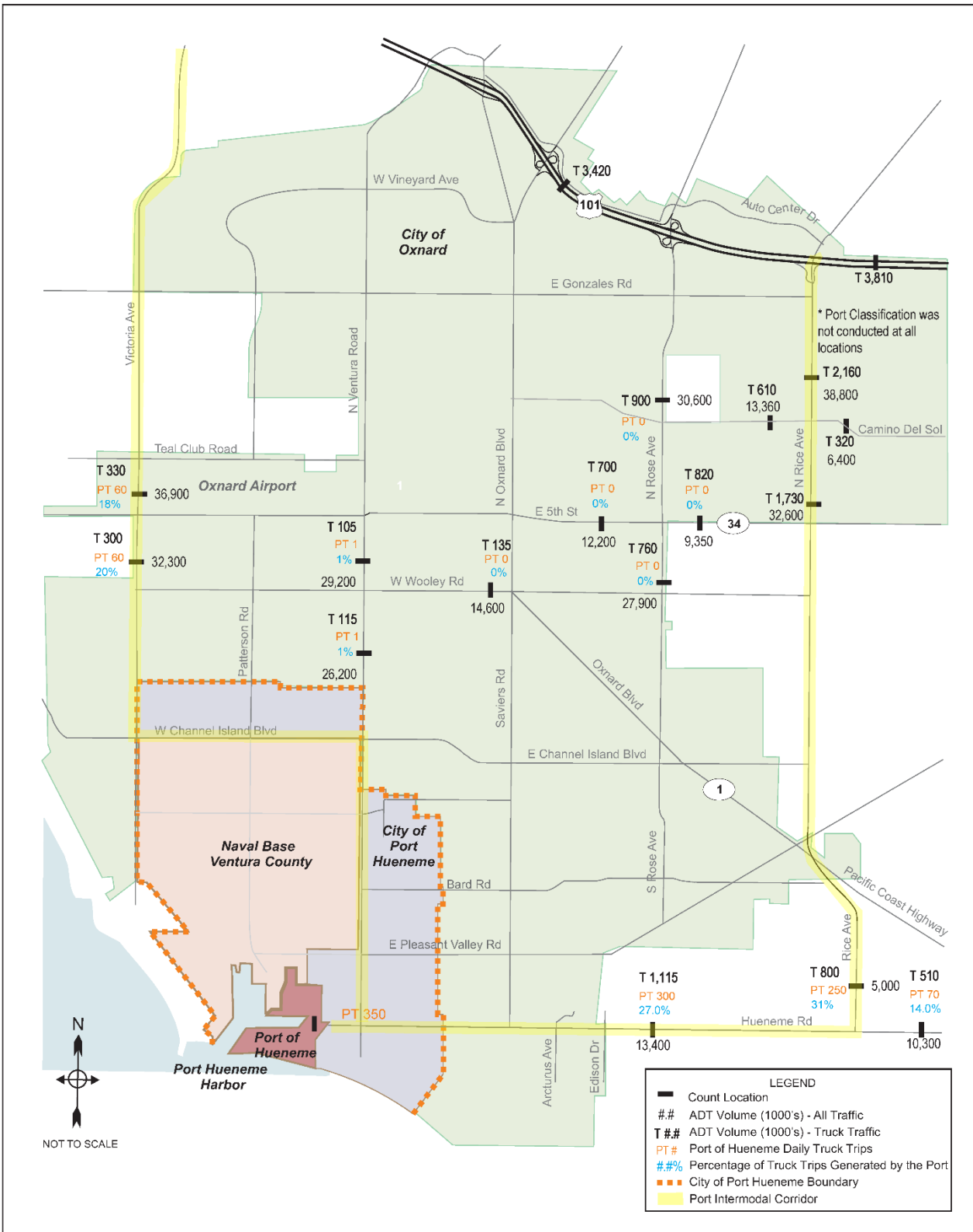
### Port Area and Oxnard Counts

The Final Report for the Cities of Port Hueneme/Oxnard Truck Traffic Study (June 5, 2008) collected daily traffic counts on January 15, 2008. It defined heavy trucks as FHWA Class 7 to Class 13. While the traffic volumes were collected more than ten years ago, before the completion of the Rice Avenue Interchange, they provide a historical frame of reference of truck activity in the area and can help identify how the use of arterials in the Cities of Port Hueneme and Oxnard have changed. The study showed Rose Avenue, Rice Avenue and Victoria Avenue carried between 2,500 and 1,500 trucks per day total for both directions. The east/west roads of Channel Islands Boulevard and Port Hueneme Road averaged about 1,000 trucks per day. Network improvements to Rice Avenue and the designation of Port truck routes have altered local truck volumes in recent years by reorienting many truck trips from the former State Route 1 (Oxnard Boulevard) to the Rice Avenue corridor.

As part of the FCS, several of the locations counted in the 2008 study were updated to reflect change in travel patterns since the State Route 1 designation was removed from Oxnard Boulevard and the Rice Avenue / US 101 interchange was constructed.

**Figure 30**, shows the Port of Hueneme and Oxnard industrial area truck traffic patterns as measured in 2021. As shown, truck travel has reoriented towards the Rice Avenue corridor.

Figure 30: Port Area Truck Traffic (Port Customer and Total Truck Volume)

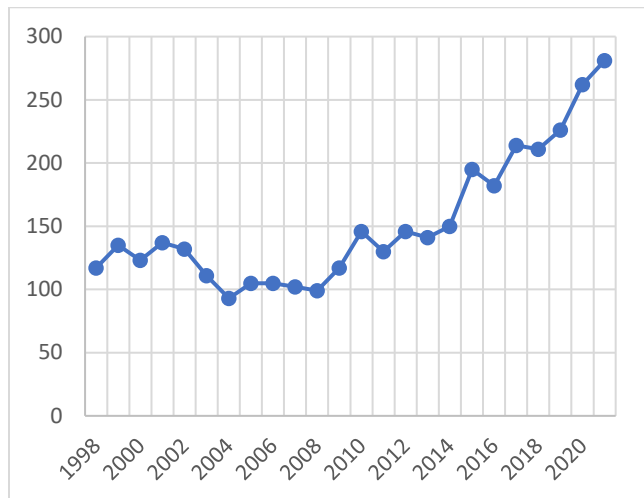


### Port of Hueneme Gate Counts

The Port of Hueneme provided 24-hour gate counts for the week of January 2, 2020 to January 8, 2020 and on January 25, 2021 for its main gate on Port Hueneme Road. Counts included both trucks and other vehicles (autos) which represents a typical day of operation at the Port. The data did not include directionality—whether a vehicle was entering or exiting the gate. The patterns for truck gate counts are similar to the 24-hour truck patterns along state highways in the County that indicates truck volumes throughout the County peak during typical work hours of 8am to 4pm(**Table 28**).

The Port of Hueneme provided monthly main gate counts from 1998 to 2021 shown in **Figure 31**, had an average of 100-150 daily trucks trip until 2014, when the daily truck trip total steadily increased to an average of 290 per day in 2021.

**Figure 31: Average Daily Port of Hueneme Main Gate Truck Volume**



**Table 28: Port of Hueneme Gate Counts – Daily by Hour**

Hour	Avg. Jan. 2-8, 2020		Jan. 26, 2021	
	Truck	Vehicle	Truck	Vehicle
0	4	1	16	6
1	5	1	18	4
2	3	5	2	3
3	1	3	3	2
4	2	8	2	2
5	3	19	3	25
6	8	101	3	90
7	16	108	19	142
8	33	29	34	37
9	28	20	31	68
10	25	23	34	34
11	22	22	30	43
12	24	69	36	95
13	28	23	32	59
14	19	21	31	28
15	16	17	34	18
16	14	53	13	26
17	6	39	4	16
18	8	9	1	11
19	12	2	3	4
20	14	2	0	0
21	11	4	0	1
22	7	20	0	2
23	6	5	0	3

Source: Port of Hueneme

### Countywide Truck Vehicle Miles Traveled

Countywide vehicle miles traveled was collected from the Caltrans Performance Measurement System (PeMS) from July 2018 to July 2021.<sup>74</sup> PeMS collects real-time data from nearly 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California. Data from the detectors located in Ventura County collect estimated vehicle miles traveled data for trucks and all types of vehicles. The period of August 2018 to July 2021 for weekdays only was collected to show changes in total travel by trucks and all types of vehicles. The period of August 2019 to July 2021 and the percent ratio to the corresponding month in the Year 2018 is shown in **Table 29**.

As shown truck and overall VMT steadily rose until the COVID-19 pandemic starting in February/March 2020, with a significant decrease in travel in April and May 2020. Vehicle miles traveled increased after June 2020, decreasing again with the winter 2020/2021 recurrence of COVID-19, and then again increasing in the spring of 2021 to largely pre-pandemic levels.

**Table 29: Port of Hueneme Gate Counts – Daily by Hour**

Month	Total Monthly VMT in millions		Ratio to Month in 2018	
	Trucks	All Vehicles	Trucks	All Vehicles
<b>Aug-19</b>	6.43	149.46	108%	96%
<b>Sep-19</b>	5.94	133.13	109%	102%
<b>Oct-19</b>	6.35	137.83	101%	93%
<b>Nov-19</b>	5.20	117.58	92%	93%
<b>Dec-19</b>	5.61	138.19	102%	104%
<b>Jan-20</b>	5.86	136.69	105%	102%
<b>Feb-20</b>	5.34	125.83	104%	102%
<b>Mar-20</b>	5.39	115.51	94%	84%
<b>Apr-20</b>	4.77	86.73	71%	58%
<b>May-20</b>	4.93	92.68	75%	62%
<b>Jun-20</b>	5.20	116.67	92%	87%
<b>Jul-20</b>	5.39	127.19	88%	87%
<b>Aug-20</b>	5.00	118.75	84%	76%
<b>Sep-20</b>	5.02	117.92	92%	90%
<b>Oct-20</b>	5.03	120.25	80%	81%
<b>Nov-20</b>	4.29	100.63	76%	80%
<b>Dec-20</b>	4.84	114.63	88%	86%
<b>Jan-21</b>	4.40	96.19	79%	72%
<b>Feb-21</b>	4.32	103.96	84%	84%
<b>Mar-21</b>	5.55	131.90	97%	96%
<b>Apr-21</b>	5.45	131.08	81%	88%
<b>May-21</b>	5.26	121.67	80%	82%
<b>Jun-21</b>	5.69	136.03	101%	102%
<b>Jul-21</b>	5.50	136.58	90%	94%

Source: Port of Hueneme

<sup>74</sup> Caltrans PeMS [Monthly VMT July 2018 to July 2021](#)

COVID-19 Period Conditions

Since the traffic counts conducted for the Freight Corridors Study occurred in the midst of the COVID-19 Pandemic, regional traffic levels were compared to pre-COVID-19 conditions to indicate the potential for an adjustment to be applied to the traffic counts to indicate traffic volumes under more standard conditions.

PeMS average daily traffic data for February 2021 at the Stations located at Rice and Pleasant Valley were compared to February 2019 volumes to develop a COVID-19 adjustment factor.<sup>75</sup> As shown in **Table 30**, February 2021 volumes were eight percent lower than February 2019 volumes.

Given the closeness in overall levels of traffic and the presumption that truck traffic is less affected by pandemic conditions, the counts

were considered a reasonable accounting of overall and truck patterns and were not factored for this study.

**Table 30: COVID-19 Period Traffic Comparison**

Location	February 2019	February 2021
Mainline VDS 775302 – Rice Avenue	55,206	52,368
Mainline VDS 775314 – Rice Avenue	57,062	54,116
Mainline VDS 764932 – Pleasant Valley	56,201	49,769
Mainline VDS 764937 – Pleasant Valley	55,289	49,177
Total	223,758	205,430
Difference	(18,328)	-8%

Source: Caltrans PeMS

\*VDS: Vehicle Detection Station

<sup>75</sup> Caltrans [PeMS Mainline VDS 775302 – Rice Avenue 2019-2021](#)



### State Highway Truck Volumes

The following tables list the two-way daily truck volumes and their percentage of total average daily traffic (ADT) volume for each state highway in Ventura County. Daily truck volumes are bolded in the tables.

#### State Route 1

The only portion of State Route 1 with a large number of trucks is the Rice Avenue section between Hueneme Road and US 101—a contrast to the Pacific Coast Highway portions of State Route 1 in Ventura County. This is the primary truck corridor as defined by the Port of Hueneme and is used by the majority of Port customers. The corridor also provides access to the industrial land uses in northeast Oxnard and provides access to Naval Base Ventura County-Point Mugu. The daily volume of trucks counted in January 2021 was similar to the level of daily truck volume reported in the 2008 Cities of Port Hueneme/Oxnard Truck Traffic Study, however approximately 10,000 more light-duty vehicles were counted in 2021.

**Table 31: Daily Truck Volume on State Route 1**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Unincorporated</b>	S/O Las Cruces, US 101; Mobil Oil Pier	28.48	<b>43</b>	610	7.0%	Caltrans	2013
<b>Ventura</b>	N/O Seacliff Colony, US 101	27.675	<b>27</b>	610	4.4%	Caltrans	2007
<b>Oxnard</b>	North of 5th St	-	<b>2,164</b>	38,790	5.6%	FCS	2021
<b>Oxnard</b>	Rice Ave N/O SR 34, Fifth Rd	-	<b>2,187</b>	28,610	7.6%	Port Hueneme/Oxnard Study	2008
<b>Unincorporated</b>	Between Hueneme Rd and 5th St	-	<b>1,930</b>	29,190	6.6%	Port Hueneme/Oxnard Study	2008
<b>Unincorporated</b>	At Calleguas Creek	9.866	<b>239</b>	9,600	2.5%	Caltrans	2005

### State Route 23

The character of State Route 23 changes as it passes through rural, mountainous, urban, and freeway portions. State Route 23 provides access from agricultural land south of Fillmore before proceeding as Grimes Canyon Road to access gravel and sand pits north of Moorpark. Entering Moorpark as Walnut Canyon Road, it turns east to share Los Angeles Avenue with State Route 118. At the Los Angeles Avenue State Route 118 interchange, State Route 23 proceeds southbound. State Route 23's character varies to such a degree that it does not operate as an end-to-end highway, but rather a route that serves local access to State Route 126, State Route 118 and US 101. Daily truck trips demonstrate the segmentation of the roadway with approximately 900 truck trips per day south of Fillmore providing access to and from State Route 126 from agricultural and gravel operations, approximately 1,300 truck trips per day on Moorpark Avenue, over 3,000 trucks per day on Los Angeles Avenue where it shares designation with State Route 118, approximately 1,000 truck trips per day in its freeway section between State Route 118 and US 101 and approximately 250 truck trips per day south of US 101.

**Table 32: Daily Truck Volume on State Route 23**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Fillmore</b>	S/O SR 126	24.165	<b>903</b>	9,100	9.9%	Caltrans	2006
<b>Unincorporated</b>	S/O Broadway Road	16.8	<b>982</b>	6,300	15.6%	Caltrans	2006
<b>Unincorporated</b>	N/O Walnut Canyon Road	14.607	<b>409</b>	10,300	4.0%	Caltrans	2009
<b>Unincorporated</b>	S/O Spring Road	14.607	<b>336</b>	4,000	8.4%	Caltrans	2009
<b>Moorpark</b>	Moorpark Avenue N/O Los Angeles Avenue	12.9	<b>1,339</b>	11,300	11.8%	Caltrans	2006
<b>Moorpark</b>	Los Angeles Avenue (SR 118) W/O interchange	12.26	<b>3,223</b>	30,500	10.6%	Caltrans	2006
<b>Moorpark</b>	at Los Angeles Avenue interchange	11.432	<b>770</b>	66,000	1.2%	Caltrans	2012
<b>Thousand Oaks</b>	At Avenida de las Flores	R5.613	<b>1,047</b>	94,340	1.1%	FCS Count	2021
<b>Thousand Oaks</b>	S/O US 101	3.32	<b>260</b>	36,000	0.7%	Caltrans	2006
<b>Thousand Oaks</b>	N/O Triunfo Canyon Rd	2.258	<b>204</b>	23,100	0.9%	Caltrans	2006
<b>Thousand Oaks</b>	S/O Triunfo Canyon Rd	2.258	<b>141</b>	14,700	1.0%	Caltrans	2006

### State Route 33

The southern section of State Route 33 serves industrial and truck-generating land uses near the Stanley Avenue and Shell Road interchanges in Ventura north of US 101 and has truck trips that travel throughout the County. The Ojai sections of State Route 33 are generally limited to trucks making local deliveries rather than through trips due to mountainous terrain on State Route 150 to the west and State Route 33 to the north. State Route 33 continues 45 miles north of Ojai to connect to State Route 166 which continues to Interstate 5, however due to the mountainous nature of the roadway few trucks utilize State Route 33 north of Ojai.

**Table 33: Daily Truck Volume on State Route 33**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Unincorporated</b>	at Ventura/Santa Barbara County Line	57.508	<b>19</b>	340	5.6%	Caltrans	2013
<b>Unincorporated</b>	at Los Padres National Forest Boundary	13.35	<b>49</b>	1,500	3.3%	Caltrans	2012
<b>Unincorporated</b>	at El Roblar Drive	11.961	<b>64</b>	3,700	1.7%	Caltrans	2012
<b>Ojai</b>	N/O SR 150 Baldwin Rd	11.21	<b>158</b>	11,000	1.4%	Caltrans	2012
<b>Ojai</b>	S/O SR 150 Baldwin Rd	11.2	<b>490</b>	20,800	2.4%	Caltrans	2012
<b>Ventura</b>	at Ventura Ave	R4.046	<b>210</b>	27,000	0.8%	Caltrans	2014
<b>Ventura</b>	N/O US 101	0	<b>211</b>	41,000	0.5%	Caltrans	2012

### State Route 34

State Route 34 carries a high percentage of trucks between US 101 and State Route 118 as the roadway serves truck-generating land uses in Camarillo and the agricultural area around Somis as well as interregional truck trips traveling between US 101 and State Route 118. The highest concentration of truck travel on State Route 34 is between US 101 and State Route 118 and serves the industrial areas of Camarillo.

**Table 34: Daily Truck Volume on State Route 34**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Oxnard</b>	W/O Oxnard Blvd	4.295	<b>287</b>	14,800	1.9%	Caltrans	2006
<b>Oxnard</b>	E/O Rice Ave	6.27	<b>498</b>	11,700	4.3%	Caltrans	2006
<b>Camarillo</b>	S/O US 101	13.603	<b>2,773</b>	18,200	15.2%	Caltrans	2006
<b>Camarillo</b>	N/O US 101	13.603	<b>2,223</b>	18,200	12.2%	Caltrans	2006
<b>Unincorporated</b>	S/O SR 118 in Somis	17.663	<b>1,133</b>	15,285	7.4%	FCS Count	2021
<b>Unincorporated</b>	S/O SR 118 in Somis	17.663	<b>1,268</b>	13,600	9.3%	Caltrans	2006

**US 101**

The truck travel volumes along US 101 are generally consistent throughout the County with about 3,000 to 4,000 trucks per day accounting for two to three percent of total volume on nearly all sections of the freeway. However, there is a high degree of local truck access from US 101 within the County at major interchanges such as State Routes 1, 23, 34, 232 and 126 in Camarillo, Oxnard and Ventura. Approximately 4,000 trucks per day pass between Ventura and Los Angeles Counties and 3,000 trucks per day pass between Ventura and Santa Barbara Counties.

**Table 35: Daily Truck Volume on US 101**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
Thousand Oaks	S/O Westlake Boulevard	0.701	<b>4,124</b>	170,000	2.4%	Caltrans	2012
Thousand Oaks	N/O Westlake Blvd	0.701	<b>4,038</b>	171,000	2.4%	Caltrans	2012
Thousand Oaks	S/O SR 23	3.107	<b>3,939</b>	183,000	2.2%	Caltrans	2012
Thousand Oaks	N/O SR 23	3.107	<b>3,510</b>	169,000	2.1%	Caltrans	2012
Thousand Oaks	S/O Wendy Drive	7.885	<b>3,713</b>	118,000	3.1%	Caltrans	2014
Thousand Oaks	N/O Wendy Drive	7.885	<b>3,504</b>	123,000	2.8%	Caltrans	2012
Camarillo	S/O Pleasant Valley	12.298	<b>3,333</b>	123,000	2.7%	Caltrans	2014
Camarillo	S/O SR 34, Lewis Rd	13.848	<b>3,646</b>	128,000	2.8%	Caltrans	2012
Camarillo	N/O SR 34, Lewis Rd	13.848	<b>3,810</b>	138,000	2.8%	Caltrans	2012
Camarillo	N/O SR 34, Lewis Rd	13.848	<b>4,400</b>	137,100	3.2%	FCS Count	2021
Camarillo	at SR 34, Lewis Rd interchange	13.848	<b>3,006</b>	125,000	2.4%	Caltrans	2014
Oxnard	S/O SR 232, Vineyard Ave	22.006	<b>3,420</b>	132,000	2.6%	Caltrans	2012
Oxnard	S/O Oxnard Boulevard	22.729	<b>3,146</b>	143,000	2.2%	Caltrans	2012
Ventura	S/O Victoria Ave	R24.645	<b>2,445</b>	117,000	2.1%	Caltrans	2014
Ventura	S/O SR 126	26.39	<b>2,757</b>	88,000	3.1%	Caltrans	2012
Ventura	N/O SR 126	26.39	<b>3,872</b>	117,000	3.3%	Caltrans	2012
Ventura	S/O SR 33	30.906	<b>3,330</b>	66,000	5.0%	Caltrans	2012
Ventura	N/O SR 33	30.906	<b>3,620</b>	91,000	4.0%	Caltrans	2012
Unincorporated	Ventura/Santa Barbara County Line	R43.622	<b>2,685</b>	65,000	4.1%	Caltrans	2014

### State Route 118

State Route 118 is a hybrid freeway and arterial route that drastically changes character from freeway in Simi Valley to local arterial in Moorpark to rural highway through Somis and Saticoy. However, the volume of trucks is consistent within the County. State Route 118 carries a large number of interregional trucks comparable to State Route 126 and US 101 through the County. The two-lane arterial sections of State Route 118 west of Moorpark carry as much truck traffic as the six-lane freeway sections in Simi Valley.

**Table 36: Daily Truck Volume on State Route 118**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Ventura</b>	S/O SR 126	0.516	<b>2,420</b>	36,000	6.7%	Caltrans	2007
<b>Unincorporated</b>	W/O SR 232, Vineyard Ave	2.2	<b>2,821</b>	35,500	7.9%	Caltrans	2007
<b>Unincorporated</b>	E/O SR 232, Vineyard Ave	2.2	<b>1,998</b>	24,700	8.1%	Caltrans	2007
<b>Unincorporated</b>	W/O Santa Clara Avenue	4,164	<b>1,189</b>	13,756	8.6%	FCS Count	2021
<b>Unincorporated</b>	E/O Santa Clara Avenue	4,164	<b>1,578</b>	12,196	12.9%	FCS Count	2021
<b>Unincorporated</b>	W/O SR 34, Somis Road	10.92	<b>1,465</b>	11,975	12.2%	FCS Count	2021
<b>Unincorporated</b>	W/O SR 34, Somis Road	10.92	<b>1,682</b>	18,600	9.0%	Caltrans	2008
<b>Unincorporated</b>	E/O SR 34, Somis Road	10.92	<b>2,381</b>	19,192	12.4%	FCS Count	2021
<b>Unincorporated</b>	E/O SR 34, Somis Road	10.92	<b>2,275</b>	11,900	19.1%	Caltrans	2008
<b>Unincorporated</b>	Between Somis Rd and Balcom Canyon Rd	12	<b>2,218</b>	23,662	9.4%	SCAG Counts	2016
<b>Unincorporated</b>	W/O Grimes Canyon Rd	14.686	<b>1,826</b>	20,200	9.0%	Caltrans	2008
<b>Moorpark</b>	E/O Montair Dr	15	<b>2,068</b>	22,963	9.0%	NDS Historic	2017
<b>Moorpark</b>	W/O Moorpark Ave	17.494	<b>2,458</b>	25,265	9.7%	FCS Count	2021
<b>Moorpark</b>	W/O Moorpark Ave	17.494	<b>2,575</b>	29,000	8.9%	Caltrans	2007
<b>Moorpark</b>	E/O Moorpark Ave	17.494	<b>3,137</b>	29,195	10.7%	FCS Count	2021
<b>Moorpark</b>	at Spring Street	R17.905	<b>3,107</b>	35,000	8.9%	Caltrans	2012
<b>Moorpark</b>	W/O Spring Rd	17.9	<b>3,090</b>	36,497	8.5%	Caltrans	2017
<b>Moorpark</b>	W/O 23 SB Ramps	18.1	<b>3,276</b>	44,256	7.4%	Caltrans	2017
<b>Moorpark</b>	at SR 23 interchange	T18.21	<b>2,178</b>	77,000	2.8%	Caltrans	2012
<b>Simi Valley</b>	at Tapo Road	R27.811	<b>2,835</b>	134,000	2.1%	Caltrans	2012

### State Route 126

Like State Route 118, State Route 126 has rural highway and freeway sections that show consistent truck volume along its length. However, those sections are reversed within the geography of the county with the freeway sections on the western end and rural highway sections on the eastern end. It is the primary regional connection through the communities of Piru, Fillmore, Santa Paula, and Saticoy.

**Table 37: Daily Truck Volume on State Route 126**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
Ventura	EB On-Ramp from Main Street/US 101	0	<b>1,917</b>	47,000	4.1%	Caltrans	2012
Ventura	At Victoria Avenue	1.851	<b>1,738</b>	32,079	5.4%	FCS Count	2021
Ventura	W/O SR 118	5.031	<b>1,965</b>	37,000	5.3%	Caltrans	2012
Ventura	W/O SR 118	R5.031	<b>1,967</b>	50,000	3.9%	Caltrans	2012
Santa Paula	E/O Peck Road	R10.629	<b>1,979</b>	40,000	4.9%	Caltrans	2017
Santa Paula	W/O SR 150	R12.042	<b>1,987</b>	36,500	5.4%	Caltrans	2012
Santa Paula	E/O SR 150	R12.042	<b>1,885</b>	29,500	6.4%	Caltrans	2012
Unincorporated	Between Orcutt Rd and Sycamore Rd	15.08	<b>2,178</b>	32,176	6.8%	SCAG NDS	2014
Fillmore	W/O SR 23	21.137	<b>2,309</b>	25,036	9.2%	FCS Count	2021
Fillmore	W/O SR 23	21.137	<b>1,733</b>	26,500	6.5%	Caltrans	2012
Fillmore	E/O SR 23	21.137	<b>2,224</b>	25,104	8.9%	FCS Count	2021
Fillmore	E/O SR 23	21.137	<b>1,841</b>	28,000	6.6%	Caltrans	2002
Piru	at Piru	R30.8	<b>1,938</b>	22,000	8.8%	Caltrans	2002
Unincorporated	Ventura/Los Angeles County Line	R0	<b>1,708</b>	22,600	7.6%	Caltrans	2002

### State Route 150

State Route 150 is primarily a rural roadway connecting Ojai to State Route 126 and provides primarily local delivery truck trips. It does connect to State Route 1 past the Santa Barbara County border, but due to the mountainous nature of the roadway, few trucks travel on the western portion of the roadway.

**Table 38: Daily Truck Volume on State Route 150**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Unincorporated</b>	at Santa Barbara/Ventura County Line	0	<b>24</b>	2,750	0.9%	Caltrans	2002
<b>Unincorporated</b>	at Santa Barbara/Ventura County Line	2.197	<b>24</b>	2,750	0.9%	Caltrans	2003
<b>Unincorporated</b>	W/O Ventura Ave (SR 33)	R14.406	<b>224</b>	19,400	1.2%	Caltrans	2003
<b>Unincorporated</b>	E/O Ventura Ave (SR 33)	R14.406	<b>95</b>	10,200	0.9%	Caltrans	2003
<b>Ojai</b>	W/O Maricopa Hwy (SR 33)	16.577	<b>384</b>	22,500	1.7%	Caltrans	2003
<b>Ojai</b>	E/O Maricopa Hwy (SR 33)	16.577	<b>254</b>	18,800	1.4%	Caltrans	2003
<b>Ojai</b>	Ojai East City Limits	18.86	<b>45</b>	6,500	0.7%	Caltrans	2003
<b>Santa Paula</b>	Santa Paula North City Limits	31.95	<b>86</b>	3,650	2.4%	Caltrans	2003
<b>Santa Paula</b>	N/O SR 126	34.398	<b>263</b>	15,300	1.7%	Caltrans	2003

### State Route 232

State Route 232 connects US 101 and State Route 118 as Vineyard Avenue and provides local access to industrial and agricultural land north of Oxnard. As the State Route 126/US 101 interchange does not include a direct connector for westbound traffic on State Route 126 to directly access southbound US 101, State Route 232 also provides an alternative route for westbound State Route 126 to southbound US 101 trips.

**Table 39: Daily Truck Volume on State Route 232**

City	Location	Post Mile	Daily Trucks	Total ADT	% of Volume	Source	Date
<b>Oxnard</b>	at Oxnard Blvd	0	<b>637</b>	37,500	1.7%	Caltrans	2007
<b>Oxnard</b>	S/O US 101	0.441	<b>1,137</b>	22,700	5.0%	Caltrans	2007
<b>Unincorporated</b>	S/O SR 118	R4.11	<b>1,069</b>	15,100	7.1%	Caltrans	2007

## 1.6 Freight Facility Relationship to Disadvantaged Communities

The primary negative externalities of freight movement are air pollution emissions, traffic and safety issues, noise pollution and aesthetic impacts. Few areas within southern Ventura County are not located adjacent to an agricultural area, industrial area or major freight-carrying transportation facility. Thus, all communities in the county are impacted by freight transportation to some degree. However, the nationwide common siting of multi-family housing adjacent to industrial and transportation facilities and the associated and lower cost of the housing leads to disproportionate burdens of the freight system being placed on disadvantaged residents.

**Table 40: Residential Population Near Truck Routes**

Residents within:		500 feet	1,000 feet
500 Daily Trucks	In SFUs	38,200	85,800
	In MFUs	42,000	86,600
	Total	80,300	172,400
1,000 Daily Trucks	In SFUs	23,500	66,000
	In MFUs	25,300	67,700
	Total	48,800	133,700

Based on land use data from the Southern California Association of Governments, approximately 16 percent of the County's population—nearly 135,000 people—live within

1,000 feet of a roadway that carries more than 1,000 3+ axle trucks per day. Despite 40 percent of the County's residents living in multi-family residences, 50 percent 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 residences.

Continuous exposure to other jobsite pollution such as pesticides which compound to long term exposure effects and chronic health conditions.

### 1.6.1 Traffic and Safety Impacts

The freight transportation network is a shared system with other users. Truck travel on local streets to access ports, warehouses and railyards affects pedestrians and bicyclists that share these same roads. There is a general correlation between the truck traffic volume and frequency of truck-involved incidents due to the greater number of opportunities for conflict. Truck-involved incidents tend to have more severe outcomes to people, vehicles, and infrastructure than incidents between passenger modes due to the heavier weight of trucks.

### 1.6.2 Noise Impacts

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, and libraries are most sensitive to noise intrusion and therefore have more stringent noise exposure targets than manufacturing or agricultural uses that are not subject to impacts such as sleep disturbance.



Noise coming from on-road trucks, trains, and parking, loading and unloading of vehicles, construction sites, and industrial uses can impact local residents. Even when industrial land uses, including rail yards and ports, are located as far as possible from neighbors, often their connections to the regional transportation system require passing adjacent to residential neighborhoods. While municipal noise ordinances generally prohibit loud noise from property during sleeping hours, they generally do not regulate noise generated by traffic.

Under the federal Train Horn Rule (49 CFR Part 222), locomotive engineers must begin to sound train horns at least 15 seconds, and no more than 20 seconds, in advance of all public grade crossings. The maximum volume level for the train horn is 110 decibels, the minimum sound level is 96 decibels. Localities can mitigate the effects of train horn noise by establishing “quiet zones.” In a quiet zone, railroads are directed to cease the routine sounding their horns when approaching public highway-rail grade crossings. Train horns may still be used in emergency situations.

#### 1.6.3 Aesthetic Impacts

Freight facilities can have aesthetic impacts on communities, either through use of large, opaque structures or through poor maintenance overall as compared to other types of land uses, as they are generally built and maintained to be economically efficient, not aesthetically appealing to neighbors. Landscaping and architectural upgrades are typically prescribed through local zoning or preferences of owners. As residential development continues in the county, pressure from residential neighbors of industrial land uses

and facilities may lead to improved building aesthetics or landscape buffers.

#### 1.6.4 Disadvantaged Communities

In June 2021, the Office of Environmental Health Hazard Assessment (OEHHA), on behalf of the California Environmental Protection Agency (CalEPA), released draft Version 4.0 of the California Communities Environmental Health Screening Tool (CalEnviroScreen). CalEnviroScreen identifies California communities by Census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. Exposure to tailpipe emissions leads to increased risk of premature death, lung cancer, heart and lung diseases and asthma. This public health issue is particularly acute for disadvantaged communities located adjacent to highway and rail corridors.

The CalEnviroScreen data set helps to define SB 535 Disadvantaged Communities (as those in the 75<sup>th</sup> or higher percentile of Census tracts in their CalEnviroScreen score), which are specifically targeted for investment of proceeds from the State’s cap-and-trade program.

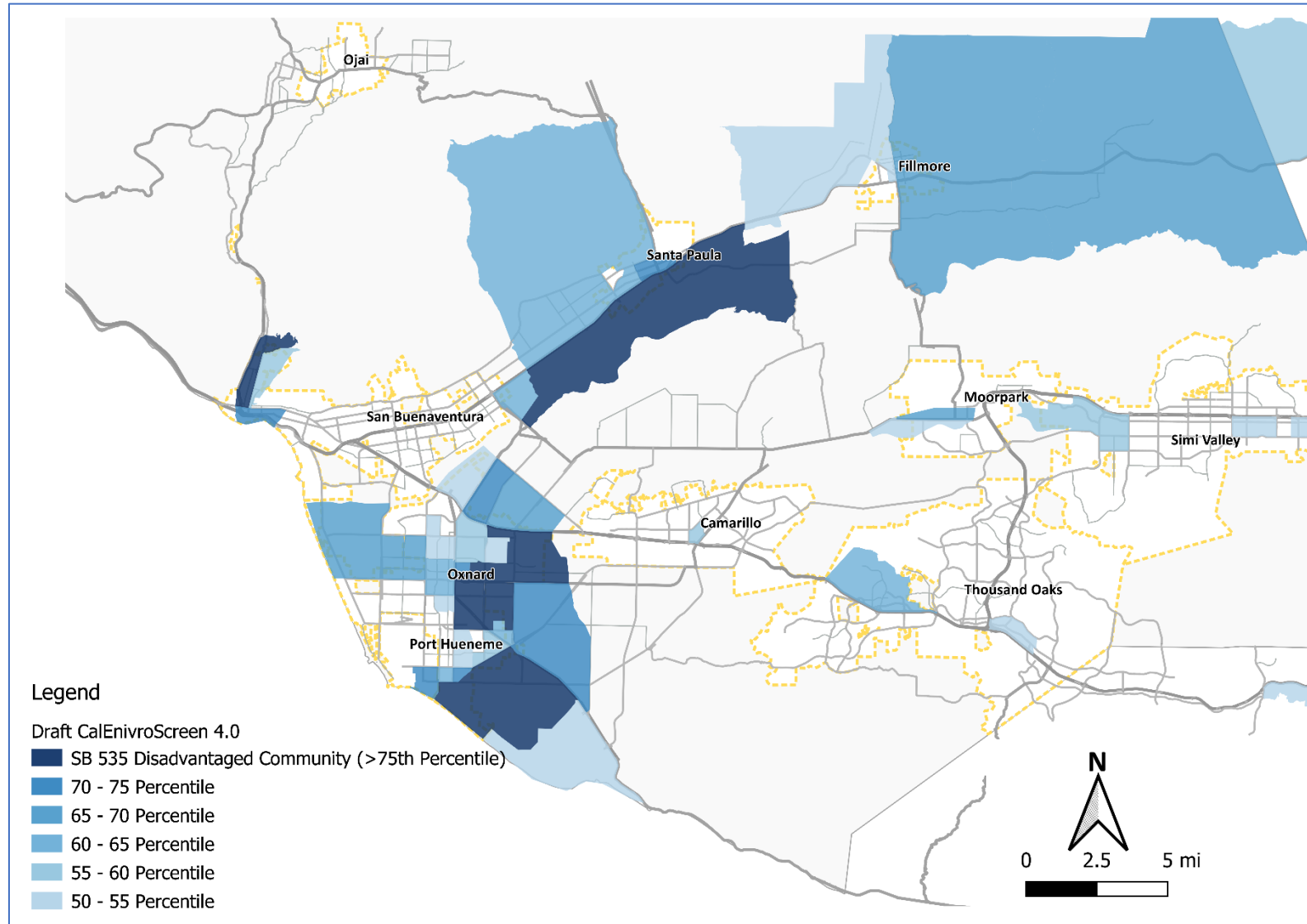
Seven SB 535 disadvantaged community Census tracts in the draft CalEnviroScreen 4.0 are located in Ventura County, as shown in **Figure 28**. The following is a description of each with their primary environmental indicators:

- The area with the highest percentile score are the 22,200 residents that share four Census tracts with the industrial areas of eastern Oxnard. High levels of diesel particulate matter, pesticide, traffic, hazardous waste, and solid waste burdens result in above average

asthma and cardiovascular disease rates, as well as concentrations of poverty, lack of educational attainment, and linguistic isolation.

- The Census tract in Somis from Ventura to Santa Paula south of State Route 126 contains 1,650 residents, who have exposure to poor drinking water, high levels of pesticide pollution, and hazardous waste.
- The Census tract in northwest Ventura along State Route 33 has 7,000 residents who experience high levels of pesticide pollution, hazardous waste clean-up sites, and groundwater threats as well as concentrations of poverty, lack of educational attainment, and linguistic isolation.
- The Census tract south of Pleasant Valley Road and Pacific Coast Highway containing the 5,000 residents of the Tierra Vista neighborhood has high levels of pesticides, ground water threats, and solid waste pollution. It also has relatively limited educational attainment, linguistic isolation and poverty.

Figure 32: SB535 Disadvantaged Communities



Source: Draft CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment

While the disadvantaged communities designation provides a guide to overall burdened disadvantaged communities, for the purposes of how freight movement activity and investment effects communities, this study looked specifically at the pollution burden of diesel particulate matter, the health outcomes of asthma, and the socioeconomic concentrations of poverty, linguistic isolation, and lack of educational attainment. This analysis identified additional communities where careful consideration of infrastructure and investment should account for improving health and social outcomes in vulnerable populations.

*Pollution Burden: Diesel Particulate Matter and Asthma*

The Pollution Burden tracked by CalEnviroScreen most directly related to freight movement is diesel particulate matter (diesel PM). Exhaust from trucks, buses, trains, ships and other equipment with diesel engines contains a mixture of gases and solid particles. Diesel PM contains hundreds of different chemicals and any of these are harmful to health. The highest levels of diesel PM are typically found near ports, rail yards and freeways.

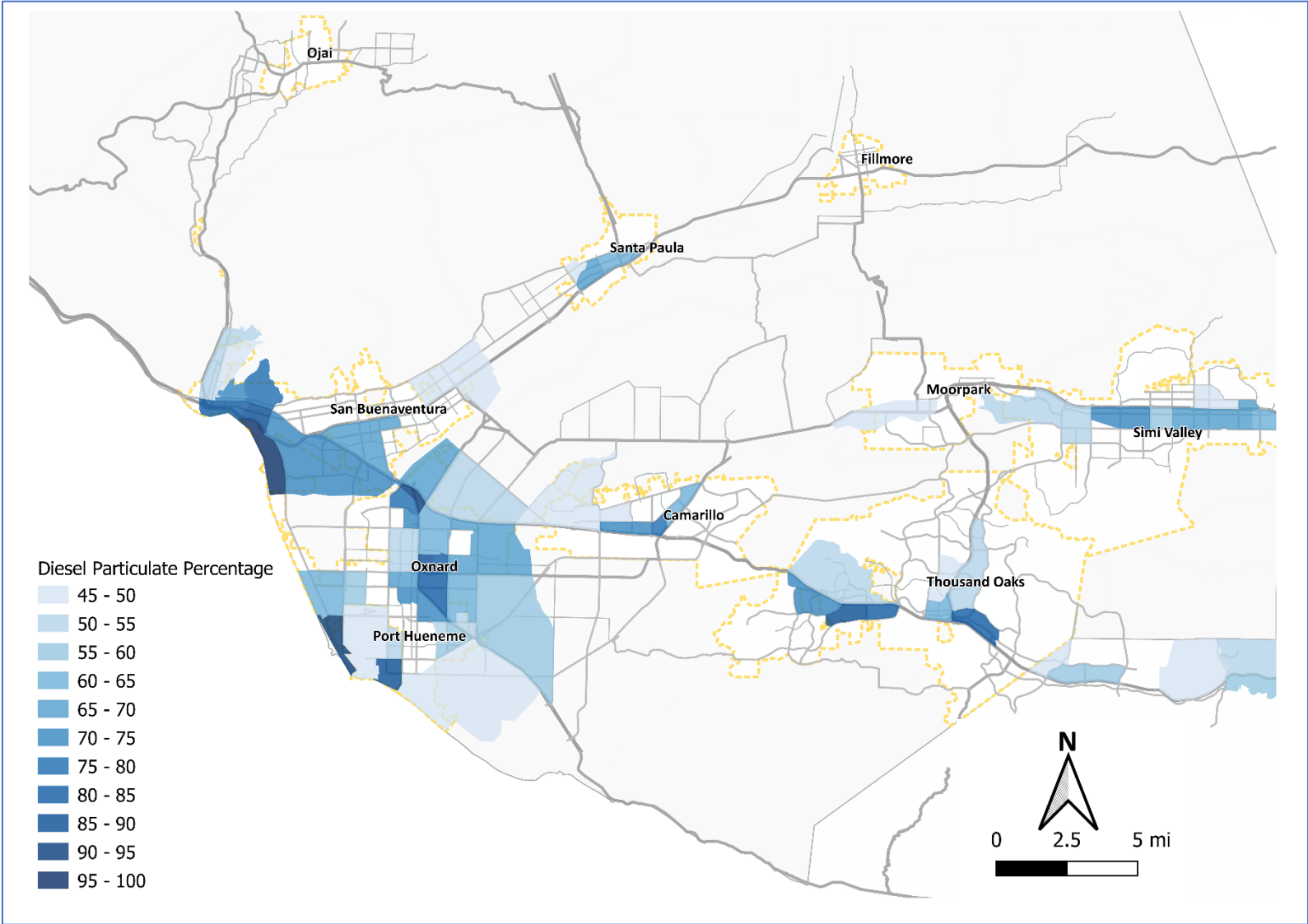
The particles in diesel PM can reach deep into the lung, where they can contribute to health problems including eye, throat, and nose irritation, heart and lung disease, and lung cancer. Children and the elderly are most sensitive to the effects of diesel PM.

The percentile rank (as compared to other California Census tracts) of exposure to diesel PM emission exposure from on-road and non-road sources (such as electrical generators) and

age-adjusted rate of emergency department visits for asthma over 45 percent are shown in **Figures 33** and **34** respectively.

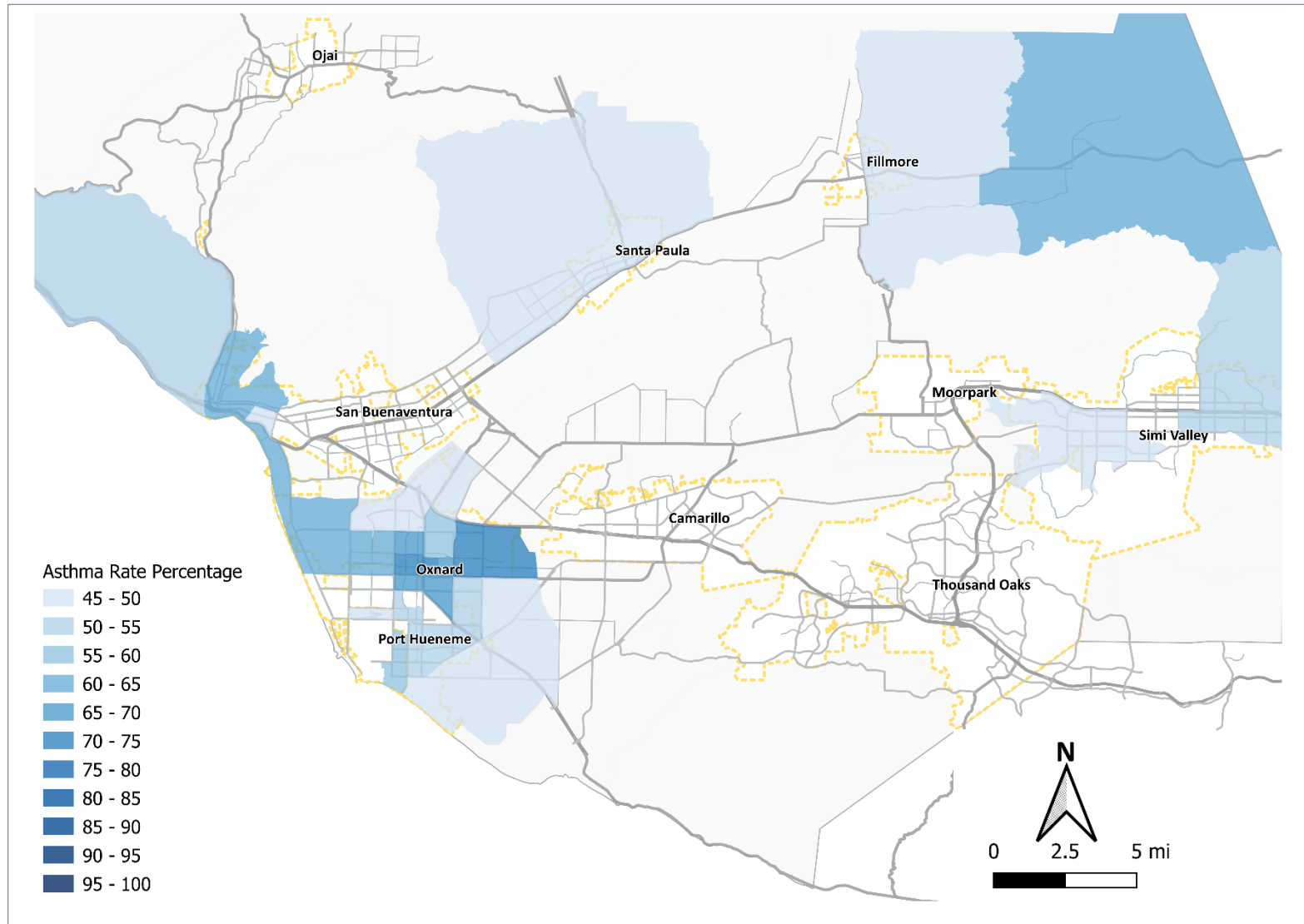
As shown, the highest areas of diesel PM exposure are along major highway facilities and in the southern part of Oxnard/eastern part of Port Hueneme and in Ventura west of Ventura Avenue. The eastern and western parts of the County have high rates of age-adjusted emergency department visits for asthma.

Figure 33: Diesel Particulate Matter Emission Exposure from On-Road and Non-Road Sources Percentile



Source: Draft CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment

**Figure 34: Age-Adjusted Rate of Emergency Department Visits for Asthma**



Source: Draft CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment

*Socioeconomic Characteristics: Concentrations of Poverty, Linguistic Isolation, and Educational Attainment*

Socioeconomic factor indicators are conditions that may increase people's stress or make healthy living difficult and may result in increased sensitivity to pollution's effects.

**Poverty** level is based on the income of households. If a person or family's total income before taxes is less than the poverty level, the person or family are considered in poverty. Members of lower-income communities are more likely to be exposed to pollution and suffer from health effects as a result of that exposure than residents of high-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. Poverty can cause stress that weakens the immune system and can increase the likelihood of illness from pollution.

As shown in **Figure 35**, areas with high rates of poverty in the County are located in eastern Oxnard, northern Ventura, Santa Paula and the unincorporated communities of El Rio, Del Norte, Saticoy, and Piru.

**Linguistic isolation** is a term used by the US Census Bureau for limited English-speaking households. More than 40 percent of Californians speak a language other than English at home. About half of those do not have English language proficiency. Adults who do not have English proficiency often have trouble talking to the people who provide social services and medical care. As a result, they might not get the health care and information they need. Linguistically isolated households

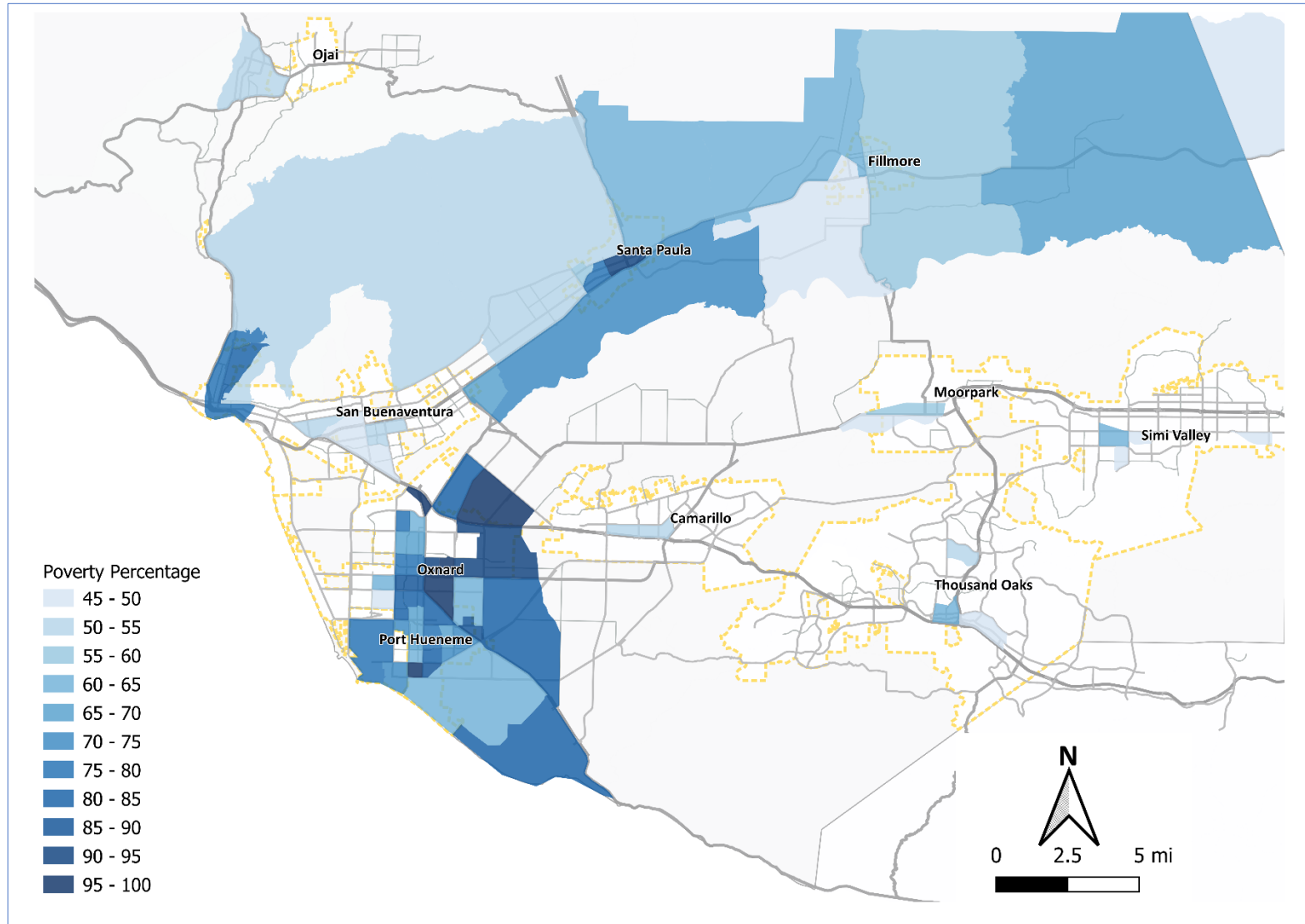
may not hear or understand important information when there is an emergency like an accidental chemical release or spill. Linguistic isolation limits the ability of individuals to express their needs and desires in community planning processes, further exacerbating the burdens of societal externalities in linguistically isolated communities.

As shown in **Figure 36**, areas of linguistic isolation in the County are located in eastern Oxnard, northern Ventura, Santa Paula, in the industrial areas of western Thousand Oaks, western Moorpark and the unincorporated communities of El Rio and Del Norte, Piru, neighborhoods east of Oxnard.

**Educational attainment** is the highest level of education a person has completed. People with more education usually earn more than people with less education. In California, 19 percent of adults over 25 do not have a high school degree, compared to 14 percent for the United States. People with more education are more likely to have better health and live longer. Studies have found that communities of more educated people are less polluted. Adults with less education have more pollution-related health problems and may be more likely to die from the effects of air pollution.

As shown in **Figure 37**, the percent of the population over 25 with less than a high school education in the County are concentrated in central Oxnard, western Moorpark, Santa Paula, Fillmore and the unincorporated areas east and north of Oxnard and Piru.

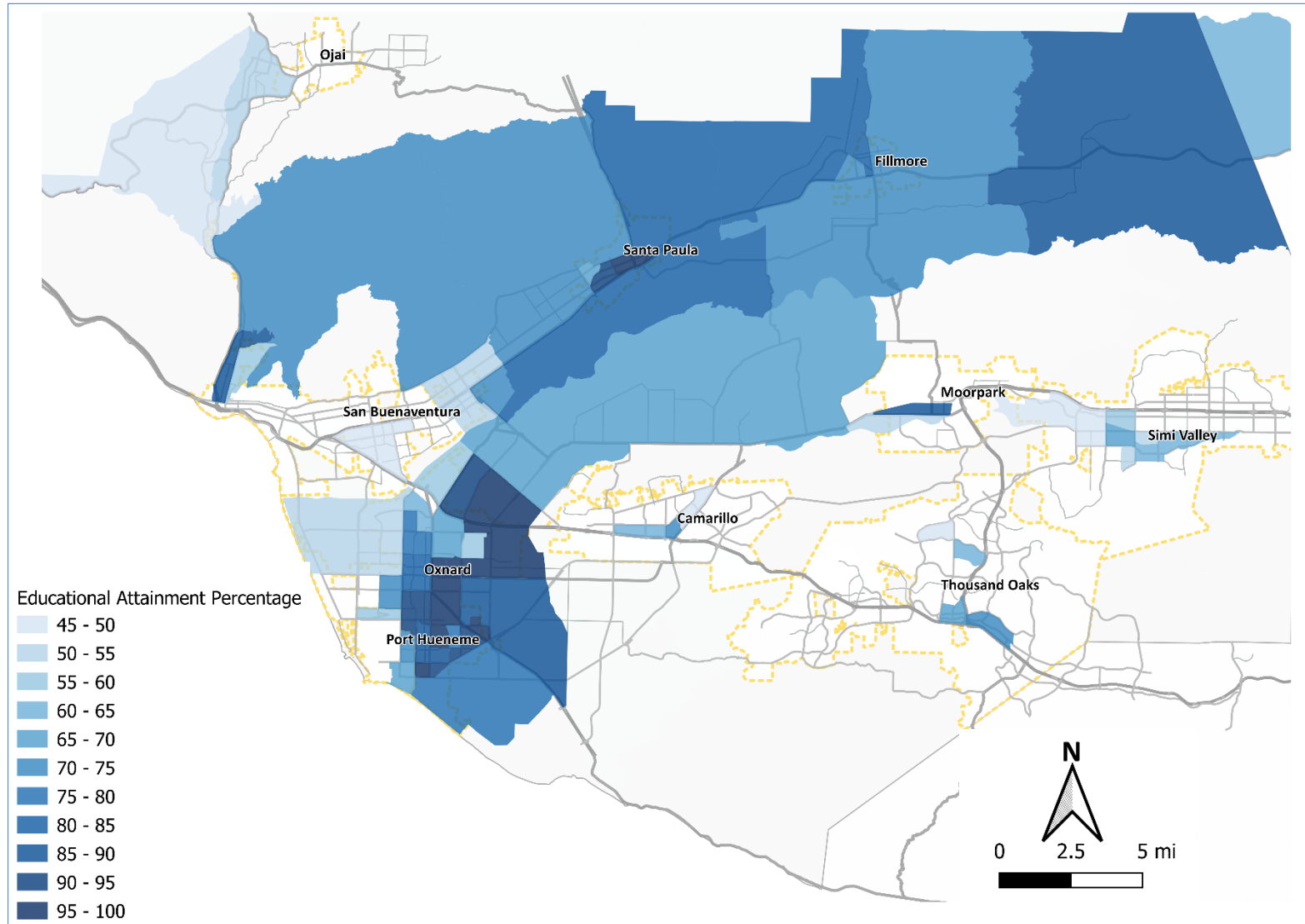
**Figure 35: Percent of Population Living Below Two Times the Federal Poverty Level Percentile**



Source: CalEnviroScreen 3.0, California Office of Environmental Health Hazard Assessment

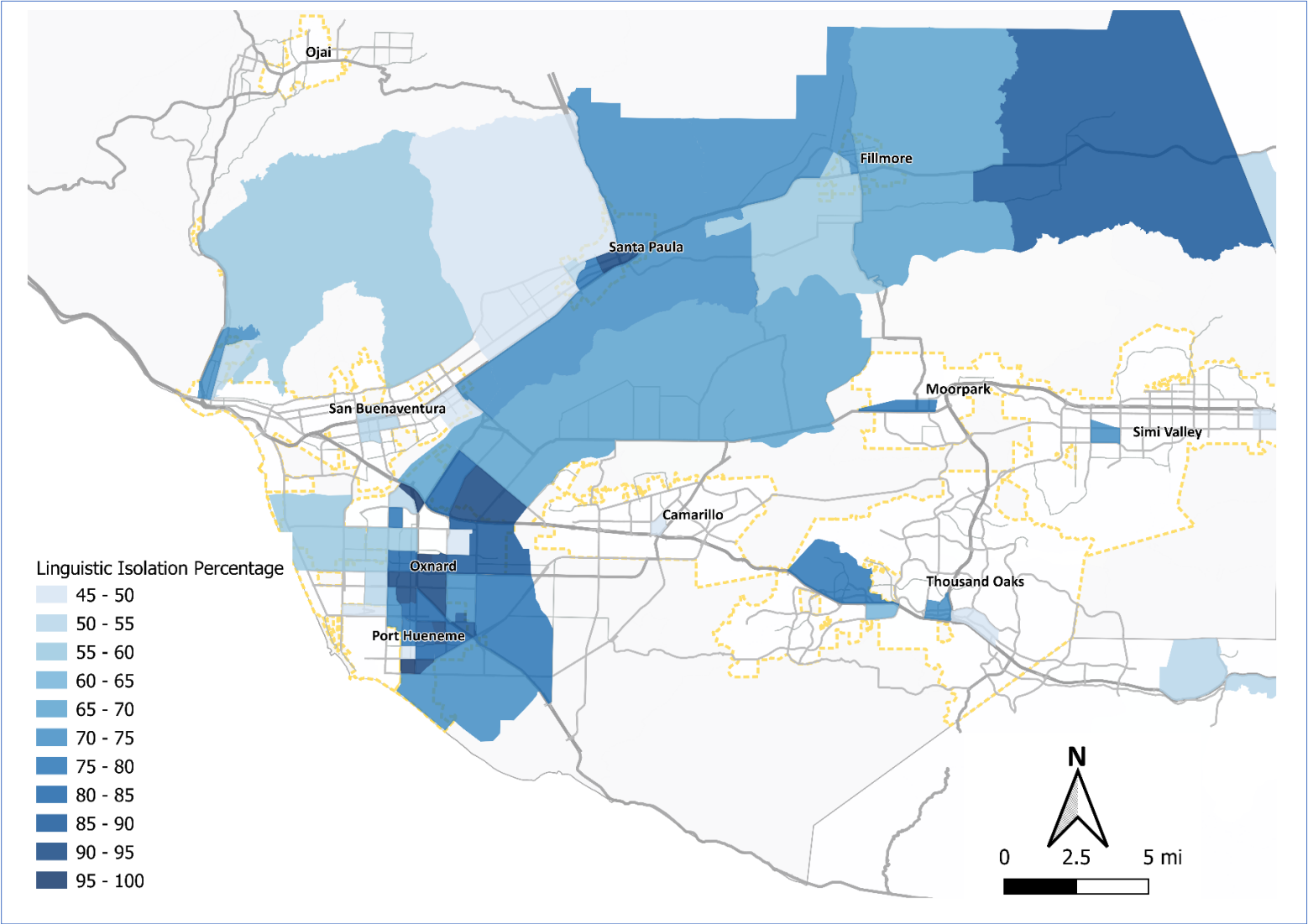


**Figure 36: Percent of Population Over 25 with Less Than a High School Education Percentile**



Source: CalEnviroScreen 3.0, California Office of Environmental Health Hazard Assessment

Figure 37: Limited English-Speaking Households Percentile



Source: CalEnviroScreen 3.0, California Office of Environmental Health Hazard Assessment

## 1.7 Sensitive Land Uses

### 1.7.1 Schools

Vehicle pollutant concentrations are higher closer to roadways, with the highest levels generally within the first 500 feet of a roadway and reaching background levels within approximately 2,000 feet of a roadway, depending on the pollutant, time of day, and surrounding terrain. Many studies have found people who live, work, or attend school near major roads are more at risk for a variety of short- and long-term health effects, including asthma, reduced lung function, impaired lung development in children, and cardiovascular effects in adults.<sup>76</sup>

Applying 500 and 2,000 feet distances of Kindergarten to 12<sup>th</sup> Grade schools in the County from defined truck routes and any roadway carrying more than 1,000 average daily truck traffic (ADTT) as a representative cut-off for high levels of truck traffic on roadways, the following data regarding the 2019-2020 school population were derived.

- 119 of the 209 (57%) schools in Ventura County are within 2,000 feet of a defined truck route
- 23 of the 209 (11%) schools are within 500 feet of a roadway that carries 1,000 or more trucks per day.

- 78 of the 209 (37%) schools are within 2,000 feet of a roadway that carries 1,000 or more trucks per day.
- 29 of the 209 (13%) of the schools are within 2,000 feet of a freeway
- 75,500 of the 134,900 (56%) students went to school within 2,000 feet of a defined truck route
- 11,550 of the 134,900 (9%) students went to school within 500 feet of a roadway that carries 1,000 or more trucks per day.
- 33,700 of the 134,900 (25%) students went to school within 2,000 feet of a roadway that carries 1,000 or more trucks per day.
- 17,000 of the 134,900 (13%) students went to school within 2,000 feet of a freeway.

The amount of schools located near roadways with 1,000 or more trucks per day varied greatly throughout the County due to differences in topography, street layout and city layout. Cities and areas with the highest proportion of students near a roadway with 1,000 or more trucks per day are Somis, Camarillo, Oxnard, Santa Paula, and Ventura. These are shown in **Table 41** and **Figure 34**.

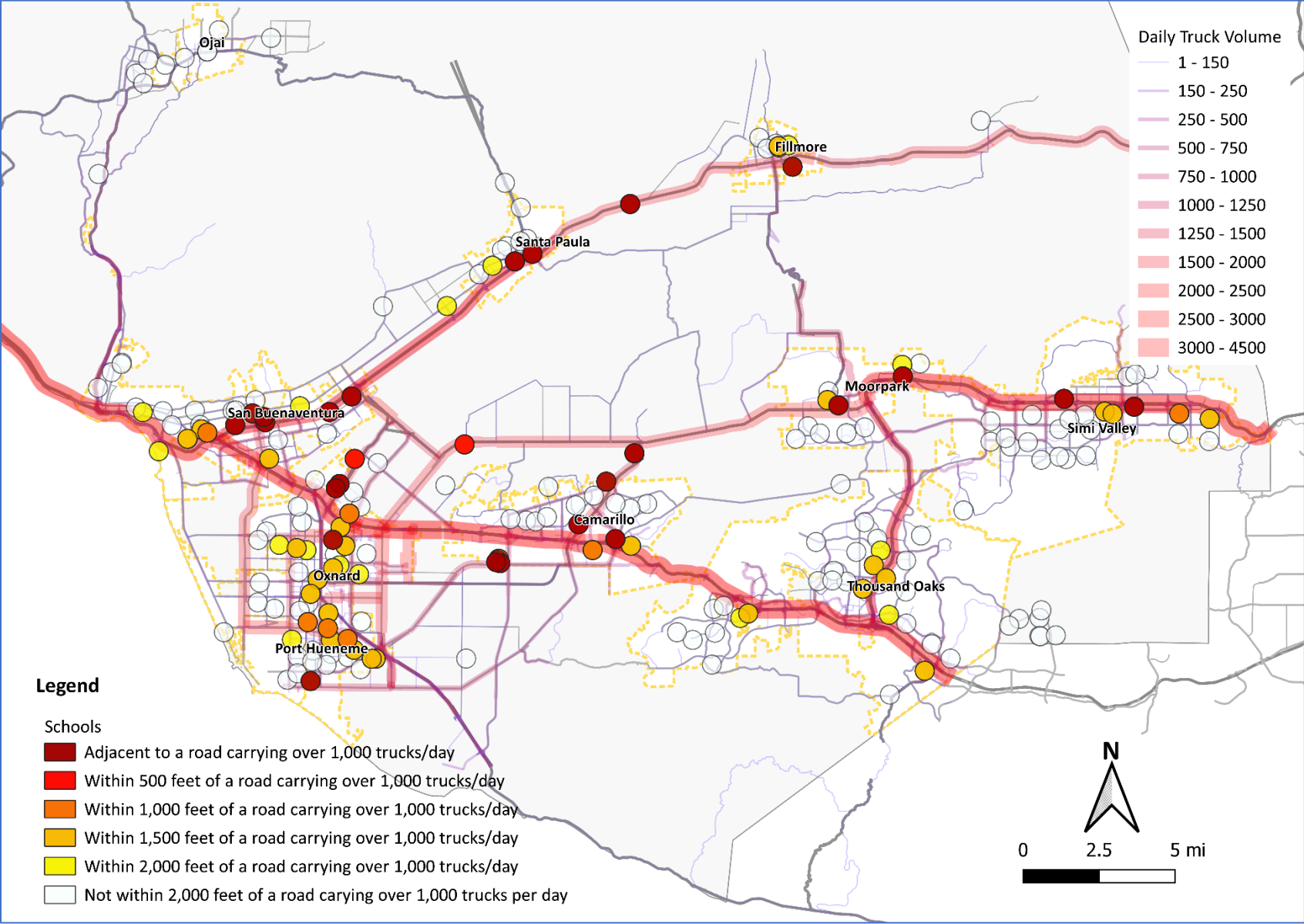
<sup>76</sup> “Best Practices for Reducing Near-Road Pollution Exposure at Schools”, US Environmental Protection Agency, November 2015, <https://www.epa.gov/schools/best-practices-reducing-near-road-pollution-exposure-schools>

**Table 41: Schools within 2,000 feet of a Truck Route or Roadway with 1,000 or More Trucks Per Day (ADTT)**

Location	Schools			Students		
	Total	Near Truck Route	Within 2k ft 1K+ ADTT	Total	Near Truck Route	Within 2k ft 1K+ ADTT
<b>Camarillo</b>	22	19	10	11,697	10,673	5,270
<b>Fillmore</b>	7	1	4	3,447	472	2,008
<b>Moorpark</b>	11	4	4	6,184	1,586	1,770
<b>Newbury Park</b>	8	1	2	6,414	542	1,498
<b>Oak Park</b>	7	0	0	4,526	0	0
<b>Oak View</b>	1	1	0	341	341	0
<b>Ojai</b>	9	5	0	2,429	1,688	0
<b>Oxnard</b>	49	32	24	44,273	29,748	21,096
<b>Piru</b>	1	0	0	287	0	0
<b>Port Hueneme</b>	4	4	1	2,187	2,187	573
<b>Santa Paula</b>	13	7	5	5,888	2,759	2,477
<b>Simi Valley</b>	26	14	6	16,506	7,885	4,762
<b>Somis</b>	2	2	2	878	878	878
<b>Thousand Oaks</b>	17	2	5	9,259	386	1,911
<b>Ventura</b>	28	26	14	16,809	16,003	7,941
<b>Westlake Village</b>	4	1	1	3,749	305	305
<b>Total</b>	209	119	78	134,874	75,453	50,489
<b>Percent</b>	100%	57%	37%	100%	56%	37%

Source: California Department of Education Public Schools

Figure 38: School Located Near Truck Routes



The California Department of Education Public Schools data does not include information about socioeconomic status, however it does include the racial and ethnic makeup of the students attending schools. Of the 96,300 (71% of total) of non-white (including Hispanic) students were enrolled in schools in the County, 55,550 (58%) were at schools within 2,000 feet of a truck route, and 26,500 (28%) were at schools within 2,000 feet of a roadway with 1,000 or more trucks per day. These ratios are slightly higher than those of the total student body. On a City level, the disparity was slightly higher in the Cities of Moorpark and Thousand Oaks.

Twenty-four of the schools in the County are located with one of its frontages directly on a truck route. Three schools are located

adjacent to a freeway facility with no significant barrier (masonry wall, vegetation or earthen) all in the City of Ventura: Sheridan Way School along State Route 33, Citrus Glen Elementary School along State Route 126, and Douglas Penfield School along State Route 126.

#### 1.7.2 Parks

Routes to access to parks from residential areas cross or are located along several truck routes in the County. Ensuring safe and deliberate support of walking and biking access to parks from adjacent residential areas across routes supporting large amounts of truck traffic is an important strategy to balance community interest with freight movement.

# Appendix 2: Study Goals and Performance Measure Development

## 2.1 Goals and Performance Measures

The goals of the Freight Corridors Study follow the structure from the California Freight Mobility Plan 2020:

- Goal 1 - Multimodal Mobility
- Goal 2 - Economic Prosperity
- Goal 3 - Environmental Stewardship
- Goal 4 - Healthy Communities
- Goal 5 - Safety and Resiliency
- Goal 6 - Asset Management
- Goal 7 - Connectivity and Accessibility

These goals were clarified into specific objectives to account for Ventura County-specific conditions. Performance measures under each goal were developed using those included in the California Freight Mobility Plan 2020 as well as Freight Corridors Study scope of work, and stakeholder outreach. The project goals and performance measures are used to identify needs and guide the development of solutions and prioritize investment.

**Table 42** shows the goals, objectives and performance measures of the Freight Corridors Study.



Table 42: Freight Corridors Study Goals and Performance Measures

Goals		Objectives		Performance Measures	Source
Goal 1 - Multimodal Mobility	1.1	Bottlenecks	Identify causes and solutions to freight bottlenecks (highway and rail)	Addresses freight bottleneck	California Freight Mobility Plan Objective MM-1 /MM-4
	1.2	Optimizes Performance	Invest strategically to optimize system performance to improve system reliability and velocity of freight movements to enhance regional competitiveness	Improves system operation and reliability	California Freight Mobility Plan Objective MM-2 and TCEP Metrics
	1.3	Integrated System	Develop, manage, and operate an efficient integrated freight system	Improves freight efficiency	California Freight Mobility Plan Objective MM-3
	1.4	Intermodal Options	Identify freight rail network operational improvements and mode shift options	Improves freight rail operations	California Freight Mobility Plan Objective MM-5
	1.5	Intermodal and Mobilization Corridors	Improve the Port of Hueneme Intermodal Corridor and NBVC mobilization corridors	Improve port corridors	Stakeholder Outreach
	1.6	Coordination	Coordinate mobility improvements among responsible parties to improve corridor efficiency	Interagency coordination	Stakeholder Outreach
	1.7	Site Access	Improve access to industrial, manufacturing and agricultural truck generators as well as last-mile delivery accommodation	Improve last-mile connectivity	Stakeholder Outreach
Goal 2 - Economic Prosperity	2.1	Invest in Infrastructure	Promote economic development by investing in freight infrastructure projects and operational improvements	Invests in freight-related infrastructure	California Freight Mobility Plan Objective EP-1
	2.2	Economic Activity	Promote freight projects that enhance economic activity, freight mobility, unique capabilities, reliability, system resiliency, and global competitiveness	Enhances economic activity	California Freight Mobility Plan Objective EP-2
	2.3	Workforce Opportunity	Increase workforce availability and training	Related to workforce training	California Freight Mobility Plan Objective EP-3
	2.4	Competitive Logistics Advantages	Promote the State and County's competitive logistics advantages	Enhances competitive advantage	California Freight Mobility Plan Objective EP-4
	2.5	Efficiency	Improve freight efficiency and increase the competitiveness of the freight system by aligning with the California Sustainable Freight Action Plan, County, and Local Plans	Improve Freight Efficiency	VC FCS Scope
	2.6	Industry and Agriculture	Promote Ventura County's existing industries, including the strong agricultural economy, as well as the State's economic growth	Improves existing industries and agriculture	VC FCS Scope

Goals		Objectives		Performance Measures	Source
Goal 3 - Environmental Stewardship	3.1	Health Outcomes	Continue to integrate environmental health considerations into freight planning, development, implementation, and operations of projects as feasible	Improves health outcomes	California Freight Mobility Plan Objective ES-1
	3.2	Air Emissions	Minimize, and where possible, eliminate toxic air contaminants, criteria pollutants and GHGs emitted from freight vehicles, equipment, and operations.	Minimizes or eliminate emissions	California Freight Mobility Plan Objective ES-2
	3.3	GHG emissions	Identify opportunities to reduce GHG emissions and improve air quality in Ventura County and the South Central Coast Air Basin;	Reduces GHG emissions	California Freight Mobility Plan Objective ES-2 / VC FCS Scope
	3.4	Air Quality Goals	Assist the Port of Hueneme and the Ventura County region to move towards achieving the State and regional emission goals	Assists Port of Hueneme and Ventura County	VC FCS Scope
	3.5	Sustainable Land Use	Promote land use planning practices that prioritize mitigation of negative freight project impacts upon the environment.	Supports sustainable land use	California Freight Mobility Plan Objective ES-3
Goal 4 - Healthy Communities	4.1	Clean Freight Movement	Identify opportunities to support cleaner freight and goods movement	Promotes cleaner freight	VC FCS Scope
	4.2	Mitigates Impacts	Prioritize social equity for freight-related projects that avoid or mitigate impacts on or near existing communities adjacent to high-volume freight routes and facilities	Mitigates negative impacts on communities	California Freight Mobility Plan Objective HC-1
	4.3	Disproportionate Burdens	Conduct meaningful outreach and coordination efforts focused on environmental justice communities disproportionately burdened by the freight transportation system by identifying and documenting their needs	Coordination to reduce burdens	California Freight Mobility Plan Objective HC-2
	4.4	Noise and Other Pollution	Promote abatement strategies associated with the movement of goods alongside residential areas and sensitive habitat near freight corridors	Includes abatement strategies	California Freight Mobility Plan Objective HC-3
	4.5	Social Equity	Increase social equity by planning for a transportation system that is dispersed and not disproportionately centralized around disadvantaged communities	Increases social equity	VC FCS Scope
	4.6	Access Schools and Open Space	Reduce conflicts in accessing schools and open space by providing safe crossings and intersections for active transportation	Enhances access to schools and parks	Stakeholder Outreach
Goal 5 - Safety and Resiliency	5.1	Incidents and Collisions	Reduce rates of incidents, collisions, fatalities, and serious injuries associated with freight movements	Addresses safety issue	California Freight Mobility Plan Objective SR-1 / VC FCS Scope
	5.2	Security	Utilize technology to provide for the resilience and security of the freight transportation system	Improves security	California Freight Mobility Plan Objective SR-2
	5.3	Resilience	Develop freight resiliency strategic plan	Increases freight resilience	California Freight Mobility Plan Objective SR-3

Goals		Objectives		Performance Measures	Source
Goal 6 - Asset Management	6.1	Preventative Maintenance	Apply preventive maintenance and rehabilitation strategies using sustainable best practices	Applies preventative maintenance	California Freight Mobility Plan Objective AM-1
	6.2	Preservation of the Transportation System	Encourage preservation of the existing roadway network with innovative solutions while focusing on roadway investments that will yield the greatest benefit to the County's economic competitiveness and growth as well as human/environmental health;	Efficient use of resources	VC FCS Scope
	6.3	Truck Parking	Improve truck parking conditions by providing more designated parking areas for large vehicles and limiting truck parking in residential or undesignated areas	Improves Truck Parking	Stakeholder Outreach
	6.4	Establish Understanding	Establish a more thorough understanding of the highway freight corridors in Ventura County and use the knowledge to inform future highway planning and investment decisions	Inform future highway planning and investment	VC FCS Scope
	6.5	Develop Technologies	Support research, demonstration, development, and deployment of innovative technologies	Support Innovative Technology	California Freight Mobility Plan Objective CA-1
	6.6	Innovative Technologies	Promote innovative technologies and practices utilizing real-time information to move freight on all modes more efficiently	Applies innovative technology	California Freight Mobility Plan Objective CA-2
Goal 7 – Connectivity and Accessibility	7.1	Coordinate Partners	Coordinate with local and regional partners on freight facilities, siting, design, and operations	Coordinate partners	California Freight Mobility Plan Objective CA-3
	7.2	Logistics Strategies	Utilize inland port facility, short-haul rail shuttle, and inland seaports to lessen impacts on nearby communities	Supports new logistics strategies	California Freight Mobility Plan Objective CA-4
	7.3	Trip Planning	Improve truck trip planning, coordination, operational, and management by understanding and optimizing routes	Improves truck trip planning	California Freight Mobility Plan Objective CA-5 / VC FCS Scope
	7.4	Freight Connections Beyond US 101	Identify the primary freight connections beyond US 101 and between the regional highways (e.g. SRs 118 and 126), including primary and arterial roadways as well as, connections outside the County;	Identify freight connections	VC FCS Scope
	7.5	Port Access	Continue the work outlined in the 2000 Port Access Study that is already in progress, including building upon the Hueneme Road widening, the conversion of Rice Avenue to SR 1, and the grade separation so that freight is not stopped once it arrives at US 101.	Improve Port Access	VC FCS Scope

## 2.2 Study Goal Development

Following the analysis of existing conditions and stakeholder input, vision, goals, and strategies were developed to address the freight movements in the County and to examine how freight can be most efficiently and safely integrated into the multi-modal transportation system.

The vision for the Freight Corridor Mobility Plan is aligned with VCTC's Comprehensive Transportation Plan (CTP) goals and objectives as well as the State Sustainable Communities Strategy (SCS) initiative to maximize mobility, increase safety, and minimize congestion. In addition, the Port of Hueneme's 2020 Strategic Plan, which was developed through a comprehensive public outreach which included port customers, local and regional agencies, businesses, and community stakeholders informs the development of this study's goals and objectives.

The following plans and programs were consulted as shown in **Table 43**:

- **Solutions for Congested Corridors Program (SCCP)** – a major SB 1 funding program as addressed by the current US 101 Communities Connected project
- **California Freight Mobility Plan (CFMP)** – The statewide freight mobility plan recently updated in 2020
- **Ventura County Comprehensive Transportation Plan** – the CTP is the flagship transportation plan for Ventura County
- **Ventura County General Plan** – The General Plan is the County's vision for future development and investment

- **National Freight Strategic Plan (NFSP)** – the national strategic freight plan from the U.S. DOT
- **Connect SoCal** – The SCAG 2020 RTP/SCS
- **Port of Hueneme 2020 Strategic Plan** – adopted October 12, 2015 by the Board of Harbor Commissioners
- **2020 Trade Corridor Enhancement Program (TCEP) Guidelines (Cycle 2)** – the SB1 funding program for freight-related projects

The goals included in each of those plans and programs were synthesized into **Table 44** into the 13 common goal categories.

- Economy
- Mobility
- Efficiency
- Asset Management
- Innovation
- Safety
- Health
- Environment
- Emissions
- Equity
- Accessibility
- Land Use
- Other

These 13 goal categories were compared to the scoped Freight Corridors Study scope of work objectives in **Table 45**.

Table 43: Goal Summary

Plan/Program	Goal Category												
	Economy	Mobility	Efficiency	Asset Management	Innovation	Safety	Environment	Emissions	Health	Equity	Land Use	Accessibility	Other
<b>Solutions for Congested Corridors Program</b>	Economic development, job creation and retention	Congestion	-	Level of matching funds, ability to complete	-	Safety	-	Air pollution and greenhouse gas emission reductions;	-	-	Efficient land use	Accessibility	-
<b>California Freight Mobility Plan</b>	Economic Prosperity	Multimodal Mobility		Asset Management		Safety and Resiliency	Environmental Stewardship		Healthy Communities			Connectivity and Accessibility	-
<b>Ventura County Comprehensive Transportation Plan</b>	-	Connected and Integrated Transportation System		-	-	Safe	Built from a Sustainable Plan	-	Preserving Quality of Life	Inclusive of All Community Members and Needs	-	Convenient and Accessible Options	Balances All Interests
<b>Ventura County General Plan</b>	Economic Vitality	Circulation, Transportation, and Mobility		Public Facilities, Services, and Infrastructure	-	Hazards and Safety	Climate Change and Resilience	-	Healthy Communities	Environmental Justice	Land Use and Community Character	-	Agriculture, Conservation of Open Space, Water Resources
<b>National Freight Strategic Plan</b>	Infrastructure to Grow the Economy	-	-	-	Innovation	Safety	-	-	-	-	-	-	-
<b>Connect SoCal (RTP/SCS)</b>	Economic Opportunity	Mobility and Accessibility		Investment Effectiveness, transportation system sustainability	-	Safety and Public Health	Environmental Quality	-	-	Environmental Justice	Location Efficiency	-	-
<b>Port of Hueneme 2020 Strategic Plan</b>	Economic Vitality—Business Retention and Growth	-	-	-	Innovation and Technology	-	Environment	-	-	-	-	-	Marketing, Strategic Partnerships
<b>Trade Corridor Enhancement Program (TCEP)</b>	Economic/Jobs Growth	Throughput, Velocity, Reliability,	Congestion Reduction, Bottleneck Relief, Multimodal Strategy	-	Advanced Technology	Safety	-	Air Quality Impact	-	Community Impact Mitigation	-	-	Interregional Benefits

Table 44: Comparing Goals to Freight Corridors Study Objectives

Freight Corridors Study Objectives	Goal Category												
	Econom	Mobility	Efficienc	Asset	Innovati	Safety	Environ	Emissio	Health	Equity	Land	Accessib	Other
Identify the primary freight connections beyond US 101 and between the regional highways (e.g. SRs 118 and 126), including primary and arterial roadways as well as, connections outside the County													
Identify opportunities to support cleaner freight and goods movement, while continuing to promote Ventura County's existing industries, including the strong agricultural economy, as well as the State's economic growth	X							X					X
Improve freight efficiency and increase the competitiveness of California's freight system by aligning with the California Sustainable Freight Action Plan	X		X	X		X	X		X			X	
Identify opportunities to reduce GHG emissions and improve air quality in Ventura County and the South Central Coast Air Basin								X					
Establish a more thorough understanding of the highway freight corridors in Ventura County and use the knowledge to inform future highway planning and investment decisions													
Improve the safety and efficiency of freight movement throughout Ventura County and the region for transporters, the community, and the environment		X				X	X			X			
Assist the Port of Hueneme and the Ventura County region to move towards achieving the State and regional emission goals								X					
Promote sustainable movement of goods through Ventura County and the region by understanding and optimizing routes			X	X									
Increase social equity by planning for a transportation system that is dispersed and not disproportionately centralized around disadvantaged communities										X			
Encourage preservation of the existing roadway network with innovative solutions while focusing on roadway investments that will yield the greatest benefit to the County's economic competitiveness and growth as well as human/environmental health	X						X						
Continue the work outlined in the 2000 Port Access Study that is already in progress, including building upon the Hueneme Road widening, the conversion of Rice Avenue to SR 1, and the grade separation so that freight is not stopped once it arrives at US 101													X
Number in FCS Scope Objectives	3	1	2	2	0	2	3	3	1	2	0	1	2

Table 45: Potential Solution Assessment

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
1	SR-126 - Piru	Main Street	Left-turn lane shall be provided to facilitate truck access to packing house	Piru Area Plan 2011	-	-	1.9
2	SR-126 - Fillmore	SR-126 in Fillmore	SR-126 Improvements in Fillmore - options for improving operations and community conditions: buffering, bypass, elevated structure	FCS Opportunities and Vulnerabilities	Priority	Feasibility Study	4.6
3	SR-126 - Fillmore	SR-126 at A Street (SR-23) intersection improvements	Improvements to intersection operations	FCS Opportunities and Vulnerabilities	-	-	1.1
4	SR-126 - Ventura	SR-126 WB to US 101 SB	Add WB SR-126 to SB US 101 Connector	Congestion Management Program, 2009, US 101 Communities Connected	-	Feasibility Study	2.5
5	SR-33 - Ventura	SR-33 Stanley Road Acceleration/Deceleration Lane Improvements	Provide longer acceleration and deceleration lanes	FCS Opportunities and Vulnerabilities	-	Feasibility Study	1.8
6	SR-33 - Ventura	SR-33 at Shell Road	Mainline and interchange improvements	FCS Opportunities and Vulnerabilities	-	Feasibility Study	1.8
7	SR-33 - Ventura	SR-33 S/O Stanley Avenue	Lengthen on-ramp and off-ramp merge lanes	FCS Opportunities and Vulnerabilities	-	Feasibility Study	1.8
8	SR-33 - Ventura	SR-33 at Stanley Avenue	New Two-Lane Freeway Bridge For Sb Traffic	RTP	-	Feasibility Study	1.6
9	SR-33 - Casitas Springs	SR-33 - Casitas Springs bypass from Foster Park to Creek Road	Construct four lane roadway	Traffic Mitigation Fee Program Final Report 2001	-	-	1.3
10	SR-33 - Ojai	SR-33 at Cuyama Rd	Roundabout	RTP	-	-	1.3
11	SR-33	SR-33 and SR-150	Various Minor Spot Improvements	RTP	-	-	1.7
12	SR-33 - Ojai	SR-33 at Sr 150 At "Y"	Roundabout	RTP	-	-	1.3
13	SR-118 - Simi Valley	SR-118 at Collins Drive	Interchange And Signal Improvement. Widen W/B Off-Ramp To Add A Free Right- Turn Lane And Signal Modification.	RTP	-	-	1.7
14	SR-118 - Simi Valley	SR-118 (Los Angeles Ave) at UPRR tracks	Grade-Separate (Mp 437.0) In Simi Valley. Realign 0.30-Mile-Long Curve South Of Los Angeles Avenue, Construct Los Angeles Avenue Overpass, Construct 0.48 Mile Of New Track To Fra Class 5 Standards.	RTP	-	-	1.6
15	SR-118 - Simi Valley	SR-118 - Route 23	Add One Lane In Each Direction (New La Ave) To 0.4 Mi W Of Tapo Canyon Rd, Collins To Madera , and on Route 23 From 0.8 Miles North Of Tierra Rejada To La Avenue.	FTIP	-	-	1.3
16	SR 118 - Moorpark	SR-118 Safety (not capacity) improvements in Moorpark area	Turning lane and spot improvements to remove turning vehicles from travel lane	FCS Opportunities and Vulnerabilities	Priority	-	3.1
17	SR-118 - Moorpark	Los Angeles Avenue (SR 118) - Route 23 (Moorpark Ave) To E/O Spring (0.6 Mi)	Reconstruct Sidewalks, Realign Roadway And Widen From 4 To 6 Lanes	FTIP	-	-	2.7
18	SR-118 - Moorpark	North Hills Parkway - W/B Sr-118 Off-Ramp At Princeton	Construct 4-Lane Freeway (Total Of Both Directions) Connection On New Alignment	RTP	-	-	1.9
19	SR-118 - Moorpark	SR-118 Offramp At Princeton Ave to Spring Road	Widen, Realign And Reconstruct From 2 Lanes To 2 Lanes Plus Center Turn Lane And Bike Lanes	RTP	-	-	1.7

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
20	SR-118 - Moorpark	Los Angeles Avenue (SR 118) - Montair Drive to Spring Road	Rehabilitate pavement, upgrade guardrail, upgrade Transportation Management System (TMS) elements, and upgrade facilities to Americans with Disabilities Act (ADA) standards.	SHOPP	-	-	1.6
21	SR-118 - Moorpark	SR-118 (Los Angeles Ave) - Route 232 to Santa Clara Avenue	Widen From 2 Lanes To 4 Lanes	RTP	-	-	1.6
22	SR-118 - Moorpark	High Street	Extending High Street to Gabbert	City of Moorpark	-	-	1.3
23	SR-118 - Somis	SR-118 - SR 34 to SR 23	Construct New Weigh Station	RTP	Priority	-	4.5
24	SR-118 - Somis	SR-118 - Commercial Vehicle Enforcement Facilities	Construct new modular office facility and install overhead truck scale on/off message signs.	SHOPP	Priority	-	4.5
25	SR-118 - Somis	SR-118 Safety (not capacity) improvements in Somis area	Turning lanes, lighting and spot improvements to remove turning vehicles from travel lane	FCS Opportunities and Vulnerabilities	-	-	2.9
26	SR-118 - Somis	SR-118 at UPRR tracks	Grade Separation	ConnectSoCal Goods Movement Technical Report	-	-	1.9
27	SR-118 - Somis	Grimes Canyon Road at SR 118	Realign Hitch Blvd With Grimes Canyon Rd And Intersection Improvements	RTP	-	-	1.9
28	SR-118 - Somis	SR-118 at SR-34 (Somis Rd/Donlon Dr) Intersection Improvements	Widen Intersection, Add Turn Lanes, Realign Donlon Road (County Portion Only) (Realignment Portion Complete In 2013). Adding Eb Right/Left Turn Lanes, Nb Left/Right Turn Lanes, Wb Increasing From 1 To 2 Left Turn Lanes.	RTP	-	-	1.7
29	SR-118 - Saticoy	SR-118 Safety (not capacity) improvements in Saticoy area	Turning lane and spot improvements to remove turning vehicles from travel lane	FCS Opportunities and Vulnerabilities	Priority	-	3.1
30	SR-118 - Saticoy	SR-118 (Los Angeles Ave) at Santa Paula Subdivision	Grade Separation	ConnectSoCal Goods Movement Technical Report and LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.7
31	SR-118 - Saticoy	SR-118 at Rose Avenue Intersection	Safety Improvements at Intersection	FCS Opportunities and Vulnerabilities	-	-	2.1
32	SR-118 - Saticoy	Wells Rd (SR-118)	Widen Wells Rd (SR-118) at all study intersections and on segments between, to three NB and three SB thru lanes; widen and restripe EB approach to include exclusive EBL and EBTR at Darling Rd	Mobility Technical Report for the Saticoy Area Plan	-	-	1.9
33	SR-118 - Saticoy	Wells Rd and Violeta St	Signalize Wells Rd (SR-118) and Violeta St, widen to 3 NB and 3 SB thru lanes.	Mobility Technical Report for the Saticoy Area Plan	-	-	1.6
34	SR-34 - Lewis Road	Upland Road crossing of rail	Improve crossing safety	FCS Opportunities and Vulnerabilities	-	-	2.3
35	SR-34 - Lewis Road	Lewis Road - Ventura Blvd To City Limits (North)	Widen from 2 To 4 Lanes, 13,000 Ft Length	FTIP	-	-	1.6
36	SR-34 - 5th Street	Las Posas at East Fifth Street Intersection Improvements	Intersection Improvements, bike lanes, right turn lane, drainage improvements, railroad crossing improvements and signal modifications.	Ventura County Planned Capital Projects FY 2022-2025	-	-	1.8
37	SR-34 - 5th Street	SR-34 - 5th Street	Widen 5th from two to four lanes between Oxnard Blvd and Rice Ave, creating additional connectivity and capacity along industrial corridor; Rice Avenue Overcrossing and grade separation from UPRR tracks	Oxnard Corridor Community Transportation Improvement Plan (OCCTIP)	-	-	1.5
38	US 101	US 101 - Commercial Vehicle Enforcement Facilities	Capital maintenance: replace concrete slabs and repair and replace asphalt concrete.	SHOPP	Priority	-	4.0



#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
39	US 101 at Del Norte Boulevard	Del Norte / US 101 Interchange	Reconstruct Del Norte Interchange	City of Oxnard	-	Feasibility Study	2.5
40	US 101	US 101 - Santa Rosa Rd To Central Avenue	Add 7 Miles Of Auxiliary Lanes Between Interchanges And Ramp Metering	FTIP	-	-	1.8
41	US 101	US-101 N/B California St Off ramp	Reconfigure Ramp To Terminate At Oaks St Instead Of The Current California St Location	FTIP	-	-	1.7
42	US 101	US 101 - N/O Johnson Drive to Flynn Off Ramp	Add Auxiliary Lanes	RTP	-	-	1.7
43	US 101	US 101 Widening	Study Widening Alternatives Such As One Or Two HOT Or HOV Lanes Or Operational Improvements.	FTIP	-	-	1.6
44	US 101	US 101 Thousand Oaks Improvements	Conv Aux Lanes To Mf Lanes, Add 1 Lane Each Direction By Shifting Cl Northwards & Widening On Nb Side, Realign & Widen Ramps, Constr Soundwalls (Ea 195211, 19522), Widen 3 Bridges On Northside (Hampshire Uc, Conejo School Uc, & Moorpark Uc); Improve 101/23 Connectors.	FTIP	-	-	1.6
45	US 101	US 101 - SR-33 to Los Angeles/ Ventura County Line	Add One Hov Lane In Each Direction.	RTP	-	-	1.6
46	US-101	US-101 Freeway Cap in Downtown Ventura	Beach+Town - Cap Over Us-101 Three Blocks Where Us-101 Cuts Off Downtown Ventura From The Nearby Beach And Pier.	RTP-Strategic	-	-	1.4
47	Adolfo Road	Adolfo Road Extension - Conejo Creek To Camarillo Springs Rd/US 101	Extend Two-Lane Undivided Road	RTP	-	-	1.2
48	SR-23 - Moorpark	Moorpark Ave at Rail Track	Safety Improvements at Intersection	FCS Opportunities and Vulnerabilities	-	-	2.8
49	SR-23 - Moorpark	Moorpark Ave - Third St To Casey Rd	Widen From 1 Lane In Each Direction To 1 Lane Nb And 2 Lanes Sb. Realign First St/Poindexter Intersection And Upgrade Rail Crossing.	FTIP	-	-	1.6
50	Santa Clara Avenue	Santa Clara Avenue - N/O Oxnard City Limits to SR-118	Widen From Two To Four Lanes (From 1 To 2 Lanes Each Direction)	RTP	-	Ventura County PW Feasibility Study	1.1
51	Rose Avenue	Simon Way to Central Avenue	Bike Lanes	Oxnard	-	-	2.7
52	Rose Avenue	Rose Avenue at Gonzales Rd	Construct 4 Lane Flyover With Left Turn Pockets	RTP	-	-	2.1
53	Rose Avenue	Rose Avenue at SR-34 (E. Fifth St)	Construct 4 Lane Grade Separation With Left Turn Pockets	RTP	-	-	2.0
54	Rice Avenue	Rice Avenue - At Channel Islands Blvd	Add 3rd Northbound Through Lane And 3rd Southbound Through Lane And Southbound Right-Turn Lane	RTP	-	-	2.2
55	Rice Avenue	Rice Ave. Railroad Grade Separation	Grade Separation and widening of Rice From Sturgis Road To 1350' South Of Fifth Street	FTIP	Priority	-	3.3
56	Rice Avenue	Rice Avenue in the City of Oxnard	Port Intermodal Corridor (PIC) projects - Rice Avenue reconstruction (allowing for State Route designation)	Port of Hueneme 2020 Strategic Plan	Priority	-	3.2
57	Hueneme Road	Oxnard - Ormond Beach Access	Resurfacing with bicycle and pedestrian facilities	Ormond Beach Bond	Priority	-	3.1
58	Hueneme Road	Coastal Trail	Incorporate the Coastal Trail into transportation plans and projects	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	-	3.0

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
59	Hueneme Road	Hueneme Road - Rice Avenue To Las Posas Road	Widen 3.66 Road Miles To Four Lanes	FTIP	-	-	2.1
60	Hueneme Road	Hueneme Road at Wood Road and Las Posas Road	Installation of new traffic signals at the intersection of Hueneme Rd. & Wood Rd. & updating existing traffic signals to implement a protective left turn approach at the intersections of Hueneme Rd. & Los Posas Rd. with a traffic signal connection.	HSIP Cycle 9	-	-	2.1
61	Hueneme Road	Hueneme Road - From Oxnard City Limits To Rice Rd	Widen From 2 To 4 Lanes (Phase I)	FTIP	-	Ventura County PW Feasibility Study	2.0
62	Hueneme Road	Oxnard	Resurfacing	HERO Bond	-	-	1.5
63	Pleasant Valley Road	Pleasant Valley At SR-34 Fifth St	Signalization Of Intersection And Construct Second Northbound And Second Southbound Through Lanes On Pleasant Valley Rd.	FTIP	-	-	1.3
64	Pleasant Valley Road	US 101 at Pleasant Valley Road	NB Pleasant Valley Road On-Ramp To Southbound 101 Freeway	FTIP	-	-	1.3
65	Pleasant Valley Road	US 101 at Pleasant Valley Road	Widen the SB 101 Off Ramp To Pleasant Valley Road	FTIP	-	-	1.3
66	Pleasant Valley Road	US 101 at Pleasant Valley Road	Improve Intersection with Southbound Ramps	FTIP	-	-	1.3
67	Pleasant Valley Road	Pleasant Valley Road - Dodge Rd to Las Posas Road	Widen From Two To Four Lanes (Total Of Both Directions) / construction of a two-way left-turn lane	RTP	-	Ventura County PW Feasibility Study	0.8
68	Oxnard Boulevard	Five Points Grade Separation	Grade separate the VCRR across Oxnard Boulevard	FCS Opportunities and Vulnerabilities	Priority	Feasibility Study	3.3
69	Oxnard Boulevard	Oxnard Boulevard	Restrict heavy duty truck thru-trips from Oxnard Boulevard and identify alternative corridors (Rice Ave, Rose Ave)	Oxnard Corridor Community Transportation Improvement Plan (OCCTIP)	-	-	2.2
70	Oxnard Boulevard	Commercial Avenue	Safety improvements at rail crossing	FCS Opportunities and Vulnerabilities	-	-	2.2
71	Oxnard Boulevard	Mercantile Street	Safety improvements at rail crossing	FCS Opportunities and Vulnerabilities	-	-	2.2
72	Las Posas Road	Las Posas Rd and Pleasant Valley Rd	Widen Las Posas Rd From 4 To 6 Lanes And Pleasant Valley From 2 To 4 Lanes.	FTIP	-	-	1.8
73	Las Posas Road	Las Posas Road from Hueneme Road to 5th Street	Widen to four lanes	Ventura County Transportation CIP (2020)	-	Ventura County PW Feasibility Study	1.6
74	Las Posas Road	Las Posas Road - Ventura Blvd To Pleasant Valley Road	Widen From 2 To 6 Lanes	FTIP	-	-	1.3
75	Las Posas Road	Las Posas Road at Daily Drive	Widen Northbound Las Posas Road To Westbound Daily Drive To Provide Dual Left Turn Lanes.	FTIP	-	-	1.1
76	Central Avenue	Central Avenue - US-101 To City Limits	Widen From 2 To Four Lanes And Add Bike Lane	FTIP	-	-	1.6
77	Central Avenue	US 101/Central Avenue	Improve Interchange (Includes Central Ave Bridge Widening From 1 To 2 Lanes Each Direction)	FTIP	-	-	1.2

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
78	Central Avenue	Central Avenue - Santa Clara Avenue to Camarillo City Limits	Widen From 2 Lanes To 4 Lanes	RTP	-	-	0.8
79	Rail - Coastal Corridor	Camarillo Station Pedestrian Crossing	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.6
80	Rail - Coastal Corridor	Coastal Corridor	Dedicated passenger rail tracks that separate and provide redundancy to permit more frequent and reliably passenger service and more efficient goods movement	Metrolink's Economic Potential - Southern California Optimized Rail Expansion (SCORE)	-	-	2.3
81	Rail - Coastal Corridor	CP West Camarillo Curve Realignment	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
82	Rail - Coastal Corridor	Montalvo Curve Realignment	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
83	Rail - Coastal Corridor	North Camarillo Crossover	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
84	Rail - Coastal Corridor	Rincon Siding	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
85	Rail - Coastal Corridor	Santa Clara River Curve Realignment	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
86	Rail - Coastal Corridor	Seacliff Curves Realignment	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
87	Rail - Coastal Corridor	Strathearn Siding Curve Realignment	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.3
88	Rail - Coastal Corridor	Signal Respacing: Colonia to Burbank	-	Metrolink SCORE, ConnectSoCal	-	-	2.3
89	Rail - Coastal Corridor	Montalvo Wye Second Track	-	LOSSAN Corridorwide STRATEGIC IMPLEMENTATION PLAN (2012)	-	-	2.1
90	Rail - Coastal Corridor	CP Davis to Simi Valley Station Second Main Track	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
91	Rail - Coastal Corridor	CP Las Posas to MP 423 Second Main Track	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
92	Rail - Coastal Corridor	Leesdale Siding Extension	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
93	Rail - Coastal Corridor	Oxnard-Camarillo Second Main Track	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
94	Rail - Coastal Corridor	Seacliff Siding North	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
95	Rail - Coastal Corridor	Simi Valley to CP Strathearn Second Main Track	-	LOSSAN NORTH STRATEGIC PLAN (2007)	-	-	2.1
96	Rail - Coastal Corridor	Moorpark to Simi Valley Double Track, and replace Arroyo Simi Bridges	-	Metrolink SCORE, ConnectSoCal	-	-	2.1

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
97	Rail - Coastal Corridor	Simi Valley Double Track and Platform Expansion	-	Metrolink SCORE, ConnectSoCal	-	-	2.1
98	Rail - Coastal Corridor	South terminal rail spur extension	-	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	-	2.1
99	Rail - Coastal Corridor	UPRR/VCTC Fencing - wildlife corridor / access v. safety	-	FCS Opportunities and Vulnerabilities	-	-	2.0
100	Rail - Coastal Corridor	Moorpark Operations Yard Upgrade	Reconstruct the aging and deficient Moorpark Operations Yard facilities to meet current safety requirements.	Ventura County Transportation CIP (2020)	-	-	1.8
101	Program	VCRR - low or zero emissions locomotives	Use of hybrid electric, electric or other non-diesel locomotives	FCS Opportunities and Vulnerabilities	Priority	-	3.1
102	Program	Public Truck Parking	Invest / encourage the provision of public truck parking with the provision of zero emissions EV charging or hydrogen fueling	FCS Opportunities and Vulnerabilities	Priority	-	4.3
103	Port Project - Off-Site	Port Corridor Optimization & Efficiency Project	Reconfiguration of Terminal Traffic Circulation, Intelligent Transportation Systems (ITS), Electrical System Upgrades For Reefers, And A Solar Power Component To Progress Zero Emission Initiatives.	RTP	Priority	-	3.9
104	Port Project - On-Site	LEAP: Leading Electric Advancements For Ports Project	Solar Panel Installation, Clean Energy Storage, 3 Utrs, And The Infrastructure For New Clean Energy Charging Stations For Port ZEVs.	RTP	Priority	-	3.5
105	Port Project - On-Site	Port Of Hueneme Intermodal Infrastructure Project	Dredging Of The Harbor Channel, Modernization Of Cargo Facilities And On-Dock Rail Spur Updating.	RTP	-	-	2.8
106	Port Program	Port Intermodal Corridor	Continued support for Port Intermodal Corridor (PIC) projects - uncongested strategic access route that connects Port's main entrance with US-101, I-5, and beyond	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	-	2.7
107	Port Project - On-Site	Port Of Hueneme Intermodal Improvement Project	Modernize The Port's Wharf And Pier And Cargo Facilities Including Deepening The Water Depth From The Channel To Vessel Berths And Extending Rail For On-Terminal Access.	FTIP	-	-	2.7
108	Port Project - Off-Site	Hueneme Road Corridor	3 Story Tall Parking Like Structure For A Last/First Point Of Rest For Automobile Exports/ Imports.	RTP	-	-	2.4
109	Program	Port Intermodal Corridor	Coordinate truck access and egress routes with Cities of Port Hueneme and Oxnard and NBVC	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	Priority	-	3.2
110	Program	Port Intermodal Corridor	Maintain and update needed Overweight Vehicle Corridors as STAA terminal access routes to connect to national network	Ventura County General Plan Update	-	-	2.6
111	Program	Countywide	Pavement upgrades to support heavy cargo and equipment	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	-	1.0
112	Program	Geofencing/wayfinding/signage of truck routes	Provide unified truck route signage, wayfinding and geofencing within the County	FCS Opportunities and Vulnerabilities	Priority	-	3.1
113	Program	Countywide	Reevaluate truck routes	FCS Opportunities and Vulnerabilities t	-	-	2.8
114	Program	Truck Routes	Improve signs and wayfinding along freight corridors	Camarillo Circulation Element, Port Of Hueneme 2020	-	-	2.6

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
				Strategic Plan - Oxnard Harbor District			
115	SR-232 - Vineyard Avenue	Pedestrian Bridge - TBD	Pedestrian Bridge to connect Rio Vista Middle School and Rio Del Mar School to the El Rio community	FCS Opportunities and Vulnerabilities t	-	Feasibility Study	2.7
116	SR-232 - Vineyard Avenue	Vineyard Avenue at Esplanade Drive	Safety Improvements at Intersection	FCS Opportunities and Vulnerabilities	-	-	2.0
117	SR-232 - Vineyard Avenue	Vineyard Avenue - Oxnard Blvd to Saint Mary's Drive	Construct 6 Lane Total Of Both Directions) Grade Separation Over UPRR Tracks	RTP	-	-	1.5
118	Program	Port of Hueneme	Implement Port Environmental Framework and Board-adopted environmental policy	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	Priority	-	3.0
119	Program	Regionwide	ITS Goods Movement Strategy	RTP	-	-	2.6
120	Program	Countywide	Work with freight partners to implement innovative technologies in logistics and supply management	District 7 System Management Plan 2017	-	-	2.4
121	Program	Countywide	Improve traffic modeling and data collection to better understand system and accurately predict trends	District 7 System Management Plan 2017	-	-	2.3
122	Program	Countywide	Support strategies that facilitate technology transfer and R&D partnerships with local industry and NBVC, Port of Hueneme	Ventura County Comprehensive Economic Development Strategy	-	-	2.0
123	Program	State Highway Intersections	Caltrans / adjacent local intersection signal coordination	FCS Opportunities and Vulnerabilities	-	-	1.3
124	Program	Ventura County	Commission a comprehensive E-Truck electrical load study to determine electrical infrastructure requirements to support comprehensive goods movement electrification (in partnership with SCE).	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.7
125	Program	Ventura County	Partner with local utilities to explore development of innovative utility-linked financing strategies for commercial EV batteries, utilizing the PAYS tariff model.	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.7
126	Program	Ventura County	Develop VGI Pilot Projects with leading fleets and industry partners	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.7
127	Program	Ventura County	Link EVSE incentives to networked electric vehicle charging infrastructure	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.7
128	Program	Ventura County	Develop EV charging station projects that are paired with freight destinations	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.7
129	Program	Ventura County	Facilitate access and applications to SCE's utility incentive programs for electric vehicle infrastructure development that will advance fleet electrification	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.6
130	Program	Ventura County	Develop electric fleet transition plans with leading trucking companies	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.6
131	Program	Ventura County	Support fleet transition planning for the region's public agencies - including school districts and the Port of Hueneme	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.6
132	Program	Ventura County	Establish fleet electrification pilot projects for at least three freight companies contracting with the Port by 2020.	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.6

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
133	Program	Ventura County	Collaborate with key regional transportation electrification stakeholders on regionwide goods movement electrification planning.	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.6
134	Program	Partnerships for Zero Emissions Funding	Partner with leading local fleets to win public funding for new electric vehicle charging infrastructure and E-Truck procurement.	Ventura County Electric Vehicle Ready Blueprint	Priority	-	3.4
135	Program	Regionwide	Near-Term Zero-Emission Truck Technology Demonstration And Initial Deployment. Demonstration By 2013; Initial Deployment By 2015.	RTP	-	-	3.0
136	Program	Air quality impacts from freight movement	General programs to reduce air quality impacts	FCS Opportunities and Vulnerabilities	-	-	2.8
137	Program	Regionwide	Zero-Emission Goods Movement	RTP	-	-	2.6
138	Program	Goods Movement Emission Reduction Strategies	Long-Term Goods Movement Emission Reduction Strategies For Rail And Trucks; Demonstration Projects And Implementation Strategy	RTP-Strategic	-	-	2.3
139	Program	Safe Routes To School Program	Grouped Projects For Safety Improvements - Safe Routes To School Program (Srts) Projects Consistent With 40 Cfr Part 93.126 Exempt Tables 2 And Table 3 Categories - Railroad/Hwy Crossing, Safer Non-Federal-Aid System Rds, Shoulder Imp, Traffic Control Devices , Intersection Signalization & Individual Intersections, Pavement Marking Demo.	FTIP	-	-	2.8
140	Program	Pedestrian Crossing Upgrades	Upgrading Countdown heads and crossing upgrades at various locations within the County	FCS Opportunities and Vulnerabilities t	-	-	2.6
141	Program	Noise Impacts from freight movement	Support policies and programs to reduce noise impacts of freight (i.e. soundwalls)	FCS Opportunities and Vulnerabilities	-	-	2.6
142	Program	Community Traffic Calming Program	Public/Private partnership safety campaign for drivers to follow designated truck routes and reduce speeds in sensitive areas	FCS Opportunities and Vulnerabilities nt	-	Feasibility Study	2.6
143	Program	Safe Route to School bike and pedestrian improvements	Safe Route to School bike and pedestrian improvements	Local Lead Agencies	-	-	2.4
144	Program	Nonmotorized Transportation Program	Various locations - pedestrian and bicycle improvements.	Ventura County Planned Capital Projects FY 2022-2025	-	-	1.7
145	Program	Safety Improvements	Grouped Shoulder Improvements, Pavement Resurfacing And/Or Rehab-Minor Program.	FTIP	-	-	1.7
146	Program	SHOPP Collision Reduction	Grouped Safety Projects	FTIP	-	-	1.6
147	Program	Safety Improvements - SHOPP Mandates Program		FTIP	-	-	1.6
148	Program	Regionwide	Safety Initiatives	RTP	-	-	0.8
149	Harbor Boulevard	Harbor Boulevard/Front Street/Garden Street Rail Crossing	Improve safety at rail crossing	FCS Opportunities and Vulnerabilities	-	-	2.1
150	Victoria Avenue	Victoria Avenue - Gonzales Road to Oxnard City Limits	Widen From Four Lanes To Six Lanes (Total Of Both Directions)	RTP	-		2.1
151	Gonzales Road	Gonzales Road at UPRR tracks (e/o Oxnard Blvd)	Grade Separation	ConnectSoCal Goods Movement Technical Report	-	-	1.9
152	Victoria Avenue	US 101 at Victoria Avenue	Improve Interchange	US101 Communities Connected	-	Feasibility Study	1.8
153	Victoria Avenue	Victoria Avenue at Gonzales Road	Construct 4 Lane Flyover With Left Turn Pockets	RTP	-	-	1.6

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
154	Victoria Avenue	Victoria Avenue - Gonzales Road to Ventura City Limits	Widen From Four Lanes To Six Lanes (Total Of Both Directions -Including Bridge)	RTP	-	Ventura County PW Feasibility Study	1.6
155	Gonzales Road	Gonzales Road from Oxnard Blvd to UPRR Tracks	Construct 6 Lane In Both Directions Grade Separation At Sr-1 (Oxnard Blvd) And UPRR Tracks With Left Turn Pockets	RTP	-	-	1.2
156	Tapo Canyon Road	Tapo Canyon Road	Road Realignment at MP 1.04 due to slope failure.	Ventura County Transportation CIP (2020)	-	-	1.0
157	Los Angeles Ave - Simi Valley	Los Angeles Ave - E/O Sycamore Drive	Widen Tapo Channel Bridge At Los Angeles Avenue (15' On The North Side & 20' On The South Side). This Includes Addition Of One Lane In Each Direction (From 4 To 6 Lanes Both Directions), Relocation Of The Existing Utilities & Modifications To Upstream & Downstream Of The Channel.	RTP	-	-	1.0
158	Los Angeles Ave - Simi Valley	Los Angeles Ave - Orchid Avenue to Sycamore Drive, Sequoia Avenue to Darrah Avenue	Widen South Side Of Los Angeles Avenue By Adding A Lane (From 4 To 5 Lanes Both Directions)	RTP	-	-	1.0
159	Harbor Boulevard	Harbor Boulevard at Gonzales Road	Add 2nd Southbound Through Lane and 2nd Northbound Through Lane.	FTIP	-	-	1.0
160	Olivas Park Drive	Olivas Park Drive - Perkin Ave to Auto Center Drive	Construct 4-Lane (Total Of Both Directions) Extension	RTP	-	-	0.8
161	Olivas Park Drive	Olivas Park Drive - Telephone Road to Victoria Avenue	Widen From 2 To 4 Lanes	RTP	-	Ventura County PW Feasibility Study	0.8
162	Gonzales Road	Gonzales Road to Ventura Boulevard	Extension to Camarillo City Limits or Ventura Boulevard	City of Oxnard	-	-	0.8
163	Tapo Canyon Road	Tapo Canyon Road - Walnut Street at Lost Canyon Rd.	Widen to add an Additional Lane In Each Direction (From 2 To 4 Lanes) And A Divided Center Median.	RTP	-	-	0.7
164	Channel Islands Boulevard	Channel Islands Boulevard - Rice Avenue to Oxnard City Limit	Widen From 2 To 4 Lanes	RTP	-	Ventura County PW Feasibility Study	0.5
165	Harbor Boulevard	Harbor Boulevard - Oxnard CI To Ventura CI including Santa Clara River Bridge	Widen Approximately 1.99 Miles Of Roadway From Two To Four Lanes	FTIP	-	Ventura County PW Feasibility Study	0.3
166	Program	Regionwide	Freight Arterial O&M; Last Mile	RTP	-	-	2.5
167	Program	Regionwide	Goods Movement - Bottleneck Relief Strategy	RTP	-	-	2.2
168	Program	HSIP Program Projects	Grouped Projects For Safety Improvements - Hsip Program Projects Consistent With 40 Cfr Part 93.126.Tables 2 & 3 Categories - Railroad/Highway Crossing, Safer Non-Federal-Aid System Roads, Shoulder Improvements, Traffic Control Devices & Operating Assistance Other Than Signalization Projects, Intersection Signalization Projects At Individual Intersections, Pavement Marking Demo. Using Toll Credit	FTIP	-	-	1.7
169	Program	Grade Separation Program	Grade Separation Improvements	RTP	-	-	1.7
170	Program	Arterial Improvements	Arterial Improvements Lump Sum	RTP	-	-	1.5
171	Program	SHOPP Mobility Prog	Grouped Safety SHOPP Mobility	FTIP	-	-	1.3

#	Corridor	Location	Project	Source	FCS Priority	FCS Addl. Study	FCS Performance Assessment
172	Program	Regionwide	State Highway Preservation/Maintenance And Operations Projects (Includes Shopp, Highway Bridge Program, Emergency Relief, Public Land Highways, Hazard Elimination And Safety, Safe Routes To Schools, High Risk Rural Roads, And Section 130 Stp Railroad Prog	RTP	-	-	1.3
173	Program	Grouped Safety SHOPP Mandates	Grouped Shopp Mandates Projects - Shoulder Impr, Traffic Control Devices & Oper Assistance Oth Than Signalization Proj, Intersection Signalization Proj At Individ Intersections, Pavement Marking Demo, Truck Climbing Lanes Outside Urbanized Area, Lighting	RTP	-	-	1.3
174	Program	Bridge Rehabilitation And Reconstruction	Grouped Bridge Projects	FTIP	-	-	1.2
175	Program	Misc. Arterial Improvements (Non-Capacity)	Misc. Arterial Improvements (Non-Capacity)	RTP	-	-	1.2
176	Program	Pavement Resurfacing And/Or Rehab On The State Highway System	Grouped Pavement Resurfacing And/Or Rehab On The State Highway System	FTIP	-	-	1.0
177	Program	Pavement Resurfacing And/Or Rehabilitation	Grouped Projects On The State Highway System	FTIP	-	-	1.0
178	Program	Countywide	Emergency Repair - SHOPP Emergency Response Program	FTIP	-	-	1.0
179	Program	Countywide	Incorporate deferred maintenance into an overall capital budget and investment plan	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	-	1.0
180	Program	Grouped Projects For Bridge Rehabilitation And Reconstruction	HBP Program Scope: Widening Narrow Pavements Or Reconstructing Bridges (No Additional Travel Lanes)	RTP	-	-	1.0
181	Program	Grouped Projects For Pavement Resurfacing And/Or Rehabilitation	Local Streets & Roads Scope: Projects - Pavement Resurfacing And/Or Rehabilitation, Emergency Relief (23 U.S.C. 125), Widening Narrow Pavements Or Reconstructing Bridges (No Add Travel Lanes) Toll Credits Will Be Used For Stpl.	RTP	-	-	1.0
182	Rail - Santa Paula Line	Santa Paula Line Corridor	Restore Santa Paula Line service	City of Fillmore	-	-	1.8



## Appendix 3: Opportunities and Vulnerabilities Summaries



Stakeholder input and the literature review was summarized into opportunities and vulnerabilities under topic categories. The stakeholder statement sources are indicated by a number in parentheses at the end of the statement. The numbers identify the stakeholders in the below key.

#### Stakeholder Key

One-on-One Interviews	
1	Port Tenant
2	Port Tenant
3	Port Tenant
4	City of Oxnard
5	Port Tenant
6	Port Tenant
7	Port Tenant
8	Port Tenant
9	Trucking company
10	Agriculture Company
11	Port Tenant
12	City of Camarillo
13	Industrial Operator
14	Ventura County Public Works
15	City of Ventura
16	City of Ojai
17	Manufacturer
18	Community Group
19	City of Moorpark
20	City of Oxnard
21	Community Group
22	Naval Base Ventura County
23	City of Fillmore
24	City of Simi Valley

25	Community Group
26	Community Group
27	Agriculture Company
Web Response Input	
WR1	Community Group
WR2	Community Group
WR3	Community Group
WR4	Community Group
WR5	Conejo Recreation & Park District
WR6	Community Group
WR7	Santa Barbara County Assoc. of Governments
WR8	Citizen
WR9	Citizen
WR10	Citizen
WR11	Community Group
WR12	Citizen
WR13	Citizen
WR14	Community Group
WR15	Citizen
WR16	Elected Official - Moorpark
Draft Report Input	
D1	Citizen
D2	City of Camarillo
D3	VCTC Commission
D4	Gold Coast Transit
D5	Somis MAC

Table 46: Stakeholder Input – Opportunities and Vulnerabilities Summary

#	Topic	Opportunities	Vulnerabilities
1	Port Area Truck Patterns	<ul style="list-style-type: none"> <li>• Most use Hueneme Road to Rice, quite a few (Santa Maria ones) come down Seward, harbor, Channel Islands to Hueneme (8)</li> <li>• Opportunity review routes with carriers and have revised them when they are not using truck routes. (2) Geofencing to inform long haul trucking not into certain areas, add to GIS routing, See federal grants for freight that you may not think that involve technology (20)</li> <li>• Consider creating a business loop from US 101 that reeds the port area a lot of cities and county road involved in that (9)</li> <li>• Some operators try to go Rice to Santa Clara to 118 and 126 (1)</li> <li>• For routing, it depends if going to Ventura, then go on Rice Avenue, if going to Los Angeles, take Hueneme Road all the way to US 101, sometimes can go down SR-1 to Malibu (rarely) (11)</li> <li>• Use SR 126 and I-5 to access the San Fernando Valley or US 101 to SR 23 to freeway section of SR 118 in Simi Valley (13)</li> </ul>	<ul style="list-style-type: none"> <li>• Most trucking operations are contracted services - limiting shipper control over routing (1)</li> <li>• There is no good signage to the Port. out of state trucking that get lost, can use GPS but if from out of state, will call when they get lost. (3)</li> <li>• Transportation wise it is a nightmare to deal with permitting oversized roads in and out of Cities (9)</li> <li>• Main problem is no straight way into the port, all use surface streets. Containers coming to the Port are generally brought to 3rd Street or Commercial Street in Oxnard. (5)</li> <li>• Formerly the main connection into the Port was Victoria to Channel Islands, now that is generally not cargo but auto and car carriers from the Naval base (1)</li> </ul>
1	Port Area Routing (cont.)	<ul style="list-style-type: none"> <li>• The Port of Hueneme's Heavy Weight Corridor: The incentive to be on the heavy weight corridor: In container industry, standard high, 8.6 feet new industry standard is high cube 9.6, higher container allows them to load one extra tier of bananas, efficiency, reduces moves by 12 percent of truckloads, 1080 boxes instead of 960 boxes (2)</li> <li>• Conversations with the Port to add Rose and 3rd to the heavy truck corridor (2)</li> <li>• The City is communicating with the Port regarding the Heavy Container Corridor, and potentially adding 3rd Street as a City truck route so it can be included in that corridor, may be politically sensitive due to recent incident (4)</li> </ul>	<p>There is a situation (especially with 53 foot containers) that the vehicle gets weighted out before running out of space and cannot utilize the available capacity. (2)</p> <ul style="list-style-type: none"> <li>• Harbor is a big truck generator and divorced from highway system</li> <li>• Roads going north/south are totally inadequate (25)</li> <li>• Balance economic needs and Harbor but need to balance with the community</li> <li>• (26) Containers are loaded and unload in the Port of Hueneme and drayed by vehicles about 6 miles to the facility on 3rd Street (2)</li> </ul> <p>Drayage is from Rose Avenue to 3rd Street (2)</p>

#	Topic	Opportunities	Vulnerabilities
2	Port Access	<ul style="list-style-type: none"> <li>• Predominant route are Rose and Rice, but the Port's position far from a freeway has always been a problem. In the 1990s there were plans to come down Victoria and cut through the Navy Base, other plan was Rice Improvement (5)</li> <li>• The Navy route is better, as they bring military cargo down Victoria and straight into the facility—the back gate (32nd Ave) and then unload on the dock on berth 4, 5 or 6 (5)</li> <li>• Trucking down Victoria rather than Ventura and Rice - where are the facilities built (18)</li> <li>• Port of Hueneme gets a lot of oversized/overweight roll on roll of stock (9)</li> </ul>	<ul style="list-style-type: none"> <li>• Once trucks come off US 101 or SR 126 they need to take a lot of surface streets to the Port,</li> <li>• Many two-lane roads into the port, and it is one of the biggest small ports in CA (5)</li> <li>• f and was not blocked off as the base until WWII (5)</li> </ul>
2	Port Access (cont.)	<ul style="list-style-type: none"> <li>• The Port is multiuse with no dedicated terminals—all clients use them. (5)</li> <li>• Hueneme Road is in good shape (11)</li> <li>• One of the better facilities they operate out of due to the good people they work with—terminal operators and stevedoring operators (11)</li> <li>• Potential to exporting paper rolls as the US is a major supplier of paper to Latin America, there are opportunities captured if have the ability to produce intermodal connection, transshipped into containers into the vessel (2)</li> <li>• When come across Hueneme road, county, city, county, city again (9)</li> </ul>	<ul style="list-style-type: none"> <li>• TWIC card can be an issue for an out of state, drayage sticker to come in, escort rules changed where could escort up to five people, now only one and need visual contact at all times (3)</li> <li>• Do wish there was more space for storage at the Port – need to constantly pull vehicles from port area (11)</li> <li>• Some congestion issues when multiple car importers unloading or pulling from the Port at the same time (11)</li> <li>• Can be an issue to discharge vehicles on the Navy site, extra gate guard needed for the Navy side, there are two entrance/exits they use, Hueneme Road and the Navy Gate (11)</li> </ul>
3	Port Access - Hueneme Road	<ul style="list-style-type: none"> <li>• A route to the port is straight out Hueneme Road and up Lewis Road to US 101 which is a very direct route, it is four lanes north of Camarillo Street (CSU Channel Islands) (5)</li> <li>• Hueneme Road – Feasibility study of all of Hueneme, from County line to Rice, Signal at Wood/Hueneme (14)</li> <li>• HSIP grant for Hueneme/Wood Signal – in design – protect left turn at Hueneme and Los Posas – completion in 2 years (14)</li> <li>• There is a new use on the former Dole property off of Hueneme Road which is zoned agricultural land, but is used to store chassis and containers (5)</li> </ul>	<ul style="list-style-type: none"> <li>• Hueneme Road is a main access point. About 15 years ago the City allowed for condominiums to be built along Hueneme road creating residential neighbors to the Port (5)</li> <li>• Overlap with EJ Community access (18)</li> <li>• It is a better route than Rice due to stoplights—trucks do not like stop and go. There is a stop sign on Hueneme Road at Wood (5)</li> <li>• I believe the Port of Hueneme is quite limited in its capacity to handle freight and can service ships of only limited numbers and only of a certain size, so I would just like to submit that I do believe the freight capacity limitations of the Port itself should also be a major consideration to be well thought through before too much more port-justified highway infrastructure is introduced into Ventura County. (WR13)</li> <li>• Issues with homeowners along Hueneme Road, more trucks means more complaints, when they tried to open auto spot on Hueneme</li> </ul>

#	Topic	Opportunities	Vulnerabilities
			road, currently a vacant lot and there was opposition from the community (5)
4	NBVC Access	<ul style="list-style-type: none"> <li>• Outside the fence line – wayfinding or geofencing is a potential solution</li> <li>• Channel Island Harbor Department is conducting a Victoria Avenue Curb Appeal Project related to fisherman’s wharf project</li> <li>• A lot of back and forth between both bases (NBVC and Mugu), connections for logistics and freight movement (22)</li> <li>• The trucks are contracted and generally access the freeways via Victoria and Hueneme Road, but not Ventura Road or Oxnard Boulevard (6)</li> <li>• Main access for commuters to base is Las Posas and Mugu Road gate for Point Mugu</li> </ul>	<ul style="list-style-type: none"> <li>• Takes a while to get cleared by the Navy to get on the Base, but generally getting in and out is not a problem except out in the evening (5pm) when the base will start to close gates (6)</li> <li>• Victoria gate, trucks missing the entrance and end up in Silver Strand</li> <li>• Truck Parking, waiting to come in the base will park along west fence line in the dirt lot (22)</li> <li>• Down to one gate in the morning, on Las Posas, that backs up on the overpass of SR-1</li> <li>• Long-Term leases with auto importers, for rail and gates, certain ways that they are limited to using for roll on and roll off, through Victoria gate or Pleasant Valley gate</li> <li>• Pleasant Valley automated vehicle improvement, unusual compared to the other gates (22)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
5	Rice Avenue	<ul style="list-style-type: none"> <li>• Rice Avenue interchange has been welcomed, but the condition of Rice Avenue itself is in poor shape, perhaps maintenance disputes (10)</li> <li>• Sakioka farms doing some repaving in section of Rice Avenue (20)</li> <li>• Reductions in truck delays, improved</li> <li>• In the middle of project development of grade separation of 5th Street, 65% design 14 months out to bid</li> <li>• Fully funded project 2022 goes out for bid, 20 acres of ROW purchases, two ends of Rice solidified with the grade separation (14)</li> <li>• Timing to drive through Rice Ave (7)</li> </ul>	<ul style="list-style-type: none"> <li>• Bring overweight product along Rice, also use Del Norte into Rice, also use Rice between US 101 and Port Hueneme (10)</li> <li>• Caltrans has yet to accept Rice as SR-1 over lack of maintenance agreement with City of Oxnard, draft agreement back to 1990 (14)</li> <li>• 7 or 8 years ago there were issues over control signal system</li> <li>• 5/6 years ago study and deflection testing, 12-15 million of work on the city stretch north of 5th street, the southern part is in good shape. Caltrans had not entertained overtures to accept it. No reconstruction plans on the books.. (14)</li> <li>• Rice Avenue (Oxnard) is in poor repair from south of the 101 to 5th Street. Oxnard has not repaired this road in years or even patched it. Also, as a truck corridor road, street traffic lights should be synchronized like Ventura's Victoria Road. With Amazon and other buildings going in next to Rice Ave, truck and auto traffic will increase dramatically. (7)</li> </ul>
6	State Route 1 Transition to Rice Avenue	<ul style="list-style-type: none"> <li>• No state designation, but identified as SR-1 to US 101 connection (20)</li> <li>• The Rice Avenue grade separation is not expected to impact routing to their facility but the alternative would be down Del Norte or Pleasant Valley or Rose but that is already a congested road (1)</li> </ul>	MOU for relinquishment and trade for Oxnard and Rice, City about 10 years ago got active in SR-1 relinquished, gave up state of good repair before, took over with nominal payment: \$1 million, no timeframe to take over Rice for SR-1, disconnect, to bring that up to state highway specs County and City looking at substantial funds, Oxnard's obligation about \$10 million for pavement upgrades, for PCI index, but no funding source. (20)
7	Truck Stop/ Parking	<p>Services truckers are looking for are 1) wash out 2) scale out (Mac Valley Oil) off Del Norte, 3) place to lay over. Along Rose and Wooley there is 60 feet curb to curb and low volume so could add on-street truck parking</p> <ul style="list-style-type: none"> <li>• (20) There is no place for servicing truckers in the County, no amenities for drivers. No truck stop, and truckers are always asking where they can park and that puts them on surface streets to sleep (5)</li> <li>• Leads to other issues of trucks, the campers start parking along and overnighing (happens on Arcturas and on 5th Street between Rose and Downtown on north side of the street) (20)</li> </ul>	<ul style="list-style-type: none"> <li>• The closest truck stop is in Castaic (1), Out of state trucks need overnight parking once they leave the port – a truck stop or secure parking lot. Once they leave they need overnight parking, that is an issue, nice if they had a designated area to pull over and rest (3) If they time out of DOT work hour requirements, they have about 30 minutes to find parking, some companies' vehicles will prevent the vehicles from driving faster than 10 MPH (5)</li> <li>• One other things is truck stops, go to scale at Mac Valley Oil, no amenities catering to truck drivers no truck stop (10)</li> <li>• A lot of trucks on the side of the road, a lot of agriculture moved (10)</li> <li>• A lot of complains about overnight truck parking in Oxnard's residential areas • Down by the Port a lot of overnighing by Port customers(20)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
7	Truck Parking	<ul style="list-style-type: none"> <li>• There is a hotel on Central which allows trucks to park (Del Norte Road in Camarillo), also trucks by the Harley location, which allows truck parking (5)</li> </ul>	<ul style="list-style-type: none"> <li>• Trucks used to be allowed to stay overnight at the Port but now Customs and Border Patrol would kick them out. (5)</li> <li>• Do not want trucks parked around residential neighborhoods and have had issues with truck parking (12)</li> <li>• Businesses in Agriculturally zoned area needs to maintain agricultural use for parking or onsite activity which pushes vehicles to park along Pleasant Valley (17)</li> </ul>
8	Weight of Vehicles	<ul style="list-style-type: none"> <li>• Weight issue also has to do with the seasonal moving of melons which can come in with 52 tons of gross weight (2)</li> <li>• They have an onsite scale but it is out of order, they go over to McNally Oil Scale at Del Norte (2)</li> </ul>	<ul style="list-style-type: none"> <li>• Issues when there is a 53ft container going to customer, picked up by customer drivers and it may be overweight and they return and need to remove some boxes—generally from being weighed at the Conejo scales (2)</li> </ul>
8	Oversized Permits	<ul style="list-style-type: none"> <li>• At least 15 companies that would buy permits 200 annuals right of way, that is how much they are missing out on a regular basis most of the port people would pay for annual permits (9)</li> <li>• Ventura just started Faxes to get permits (9)</li> <li>• Oxnard has some work to clean up permitting process, conflicts between what is being issued and what is on the code, and need better coordination with the County (20)</li> <li>• The most common are things from I-5 down SR-126, have to get off freeway at Santa Paula since they cannot get under the overpass, have a lot on Telephone from Hallock Drive where it starts to 118 and 101, can give us information about the routes* (14)</li> </ul>	<ul style="list-style-type: none"> <li>• City will not issue annual transportation permits – should issue along same guidelines as state but don't do it. Oxnard misses revenue when they could get annual permits, most truckers operate with no permits due to the difficulty (9)</li> <li>• Have to pay fees before permit request – see cashier, go to another counter to drop them off with clerk, then walk back to traffic engineer to review and then get it back(9)</li> <li>• Most cities can send in request, don't need an in person, cost \$16 fee but \$150 in payroll time to get it</li> <li>• City of Ventura, they get 45 annuals a year, county as well. (9)</li> <li>• Part of the issues, they do not have an annual permit that tells you the routings (9)</li> <li>• Three other issues – 1) Issue about 1,000 overweight and oversized vehicle permits per year, for loads of weight tor size to traverse county roads (14)</li> </ul>
9	Grade crossing safety and mobility	<ul style="list-style-type: none"> <li>• Oxnard working with UPRR, timing sequences and coordination along arterials, pedestrian crossings (20)</li> <li>• Traffic Signal Timing in Tapo and improvements to timing recommended to improve the grade crossing due to history of three collisions (24)</li> </ul>	<ul style="list-style-type: none"> <li>• The rail crossing north of 5th and Rose, has back up for all traffic when a long train goes through it can cause delays up to 15 minutes, but that happens about twice a week. (2)</li> <li>• The Oxnard Boulevard and 5th Street intersection has tight turns that are difficult for trucks, if there is a train passing across 5th it causes backups on Oxnard Boulevard (southbound left turns are blocked) (4)</li> </ul>



#	Topic	Opportunities	Vulnerabilities
9	Grade Crossings (cont.)	<ul style="list-style-type: none"> <li>Las Posas / 5th At-Grade Crossing – 3 signal projects, Pleasant Valley/5th, Las Posas, at 5th and Rice at 5th – supposed to get rail funding for Las Posas at 5th, could not provide but on hold</li> <li>New right-turn lane southbound on Las Posas turning west onto 5th Street</li> <li>Raised median improvements on either side with gates, when gates go down, they cannot go around the gates, (14)</li> </ul>	<ul style="list-style-type: none"> <li>5th Street and Rice project will have detours around Rose and Del Norte, can see future impacts (20)</li> <li>UPRR has limited at grade crossing in Ventura, movement of freight on the line is limiting crossings and access for East Ventura and Downtown (21)</li> <li>Pleasant Valley/5th – nothing for immediate future, traffic volumes not warrant expenditure, and Las Posas/5th they are working with CTC which will fully fund improvements to that crossing with UPRR and working with Caltrans as share the intersection with Caltrans, 5th street 100 ft from the tracks, the intersection improvements and crossing are all part of the same project (14)</li> </ul>
10	Land Use - Oxnard	<ul style="list-style-type: none"> <li>Land uses in downtown are changing and many of the agricultural and industrial land uses are moving out, there is a major lemon processing plant that is moving from downtown. The Five Points is another challenge as it is a transition area from residential to industrial. (4)</li> <li>There is 430 acres of new industrial space that will be developed between Rose and Del Norte south of US 101 (Sakioka Farms). It is planned for 8.5 million square feet of light industrial. (4)</li> </ul>	<ul style="list-style-type: none"> <li>The industrial areas in the east have fewer conflicts with City residents because they are isolated along Rose, Rice, and Del Norte, the clustering of the industrial areas helps minimize impacts on residents (4)</li> <li>Wooley, Saviers, Oxnard, 5th, Rose, surrounded by surface streets the grid, more development south of 34 between Wooley and 5th street more trucks are more issues (21)</li> </ul>
11	Traffic Operation - Oxnard	<p>Plan to extend Gonzales through the development to the Camarillo City limit, however Camarillo is lukewarm to continue Gonzales into Camarillo—could be an alternative to US 101 (4)</p> <ul style="list-style-type: none"> <li>Wide intersections along Oxnard Boulevard is difficult for pedestrians to cross (20)</li> <li>Additional traffic generated by Amazon facility, both trucks and employees (WR11)</li> <li>The City removed the truck route designation from Oxnard Boulevard when Caltrans relinquished it as SR 1 to the City (SR 1 moved to Rice Ave) (4)</li> </ul>	<ul style="list-style-type: none"> <li>Freight goes right through the center of town it is a challenge on Oxnard Boulevard, cuts off the Downtown. Train tracks also split the City. A lot of issues with Wooley, especially at the intersection with Oxnard Boulevard (4)</li> <li>In Oxnard, Rice need to apply for oversized permit, should have become highway 1 but only a portion is highway 1 and City and County still figuring that out (9)</li> <li>Railroad preemption at Oxnard/ Saviers split, the preemption sequence is flashing reds, just get through as fast as you can, can be 10 minute clearance (20)</li> <li>Need changes at the intersections of Rose/Eastman Ave: Victoria/101 exit: Johnson Road 101 off ramp (WR2)</li> </ul>
12	Del Norte Interchange	<ul style="list-style-type: none"> <li>The Del Norte interchange is under-designed and while the new development was part of a specific plan starting 10 years ago there is no current push to modernize the interchange. (4)</li> <li>Del Norte interchange needs some work - not used much, but older and needs some improvement, a lot of fuel trucks go through there. (10)</li> </ul>	<ul style="list-style-type: none"> <li>Look at discourage use of Del Norte and improve Central (14)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
13	Underserved Communities - Oxnard	<ul style="list-style-type: none"> <li>• Agricultural land north of Rose Park (across Camino Del Sol) to be developed with new high school and 500 units</li> <li>• (4) Rose Park and East Village – adjacent to industrial uses but populated generally by lower income farm workers that don't tend to complain as much, Citywide the Hispanic community does not complain or raise issues (4)</li> </ul>	<ul style="list-style-type: none"> <li>• Areas Downtown, with complaints with truck travel that has probably been there for a long time (20)</li> <li>• Freight corridors have long overburdened Black, Indigenous and people of color. Neighborhoods along the trucking and rail routes from the port are some of Ventura County's most densely populated and lowest income neighborhoods of primarily immigrant families. (WR14)</li> </ul>
14	County Truck Patterns	<ul style="list-style-type: none"> <li>• The route up to SR-126 with the fewest stop lights is up Rice Avenue, continue on Santa Clara to SR-118 in Saticoy and meet SR-126 there. (5)</li> <li>• Alternatively get on the US 101 at Rice to Ventura to SR-126 – more miles but easier for trucks.</li> <li>• From the north, they take Victoria southbound, no other way other to get off on Main Street and take the ramp around to the US-101 South ramp (5)</li> <li>• Cheaper to permit up Ventura road to Vineyard when you have rural Hueneme road to highway 1 or Rice which is commercial/industrial/farmland</li> <li>• (9) Safe travel of freight on roads that are designed for the level of traffic anticipated (WR10)</li> </ul>	<ul style="list-style-type: none"> <li>• Rice Avenue – map is highway 1 – gap in Highway 1, losing portion in City of Oxnard, make state highway business loops (9)</li> <li>• Improvements made for reasons of “safety” need not, and should not, also become capacity-increasing (i.e. highway widening) projects.</li> <li>• The auto processors in the south by the Port generally do not enter the City, and they generally use individual drivers not auto trucks. (4)</li> <li>• Some come down through 126 up through Grapevine, prefer I-5 to US 101, so 126 is very frequented, 118 is slower route, but a lot of resistance to make 118 a true highway, on Fridays and heavy traffic peaks is a bottleneck to Moorpark from Oxnard (10)</li> <li>• Wells road 126 entrance, exit, 118 leading into 126 through Saticoy gets pack but 20 years ago did expand it to 4 lanes (10)</li> </ul>
15	Truck Wayfinding	<ul style="list-style-type: none"> <li>• Trucks do not like stop and go or traffic lights as starting and stopping is hard on the driver and vehicle (5)</li> <li>• Need advanced notice of entering residential area, potentially through geofencing • Labor contract language means cannot do it on the terminal for a reduced rate so containers are trucked to nearby warehouses for transloading with cheaper labor rules (5)</li> </ul>	<p>The industry is changing, now there are a lot of intermodal containers, used to have truck drivers loading at warehouses on the docks of the port and then shipped out (5)</p> <ul style="list-style-type: none"> <li>• La Colonia and Cooper Drive crossings are challenging, trucks take them when lost (20)</li> <li>• Lost tourists come to Nyland Acres looking for the beach, a lot of people get lost from the 101, due to a lack of signage (26)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
16	SR-33 Stanley and Shell Interchanges	<ul style="list-style-type: none"> <li>• Extend runway ramp getting on southbound so when make the left, lengthen the merge lane, so bigger vehicles can get up to speed, same for off, if you come down 33, they drive fast southbound, even if 60, need to have longer acceleration (9)</li> <li>• Whole Westside intersection in SR 33 interchange • Preliminary look a few years ago what would work, including roundabout, loop ramps and grade separation</li> <li>• WB 126, short area of weave at the 126 interchange (15)</li> <li>• A lot of vehicles depart the facility between 6 and 7:30 usually on the job by peak traffic times, afternoons can be hectic</li> <li>• Stanley situation not good at all, if do anything do it there (9)</li> <li>• Exiting at Shell Road is not as bad, but the northbound on-ramp as the same issue as the southbound ramp, not as many trucks using the northbound on-ramp but still has same issues (13)</li> </ul>	<ul style="list-style-type: none"> <li>• Stanley interchange is very small, Shell road is even more dangerous even though it is an entrance on the right side, there is sight issues and a short merge.</li> <li>• Trucking companies use Stanley, number of incidents getting on Shell, get off at Shell but on at Stanley • All utilities that do Edison work use Stanley, if north use shell road</li> <li>• On-ramp issues, when everyone is back at work can take 20 minutes to get on the freeway at Stanley, backs up so far people take Shell (9)</li> <li>• Main concern is the Shell Road on-ramp south onto SR 33, there is no room to merge for cars let along large vehicles (13)</li> <li>• Stanley Road on-ramp also has a short on-ramp and it puts you directly in the fast lane</li> <li>• Transition from US-101 South from SR-33 north is very short, trucking companies has a lot of trucks coming south from Carpinteria and Santa Barbara and that is a bad transition (13)</li> </ul>
17	US 101 / SR-126	<ul style="list-style-type: none"> <li>• Need 126 West to US 101 South besides Victoria (9)</li> <li>• Issue of Victoria making that connection between 126 and 101 (WB to SB 101) tough without direct connection</li> <li>• (15) widen the 101 near the 126 interchange (WR12)</li> </ul>	<ul style="list-style-type: none"> <li>• Freeway to freeway connection is Victoria Avenue</li> <li>• 101/126 interchange, traffic does not justify, not an equal balance in interchange, not a lot of southbound connection and the design of lanes does not travel demand (25)</li> </ul>
18	Camarillo Circulation	<ul style="list-style-type: none"> <li>• Ventura Road terminates west of the City, would be good to have a frontage road along US 101 (12)</li> <li>• Springville Bike Path and Central Avenue Bike Path to run east-west along US 101 (D2)</li> </ul>	<ul style="list-style-type: none"> <li>• Lewis Road (SR-34) – issues there, it is a roundabout way from place to place</li> <li>• Flynn does not connect, so vehicles get off on Lewis, need to get through some narrow roads</li> <li>• Dawson and Flynn are two halves that do not cross (12)</li> </ul>
19	Central Avenue US 101 Interchange	Southbound on-ramp is non-standard (14)	<ul style="list-style-type: none"> <li>• Central Avenue interchange bridge is low/limited clearance space</li> <li>• City has short ramp interchanges with a lack of storage on ramps (12)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
20	Saticoy and Nyland Acres	<ul style="list-style-type: none"> <li>• County general plan to widen Santa Clara to four lanes, but the community does not want it</li> <li>• Have truck prohibition signed in neighborhood (26)</li> <li>• Officer has concentrated efforts on Ventura Blvd with dump trucks coming from the Amazon facility and using Ventura Blvd through Nyeland Acres</li> <li>• Trucks are pulled over for going 34 in a 25, enforcement actions are taken, no observations of spilled loads on Ventura Blvd. have occurred (ER2)</li> <li>• 126/118 at Saticoy, Rose, Vineyard, Santa Clara, Central down to US 101 south (14)</li> <li>• Oxnard PD put changeable message signs on Ventura Blvd and can do a strike force detail. Oxnard PD to reach out directly to Amazon to tell them to stop using Ventura Blvd as a shortcut (ER2)</li> </ul>	<ul style="list-style-type: none"> <li>• SR 118 from Saticoy is two lanes so trucks try to stay off it, if they are going to Moorpark, go US 101 to SR 23 and back onto SR 118 to access Moorpark (13)</li> <li>• Challenge it is all state highway, Vineyard has a High School, natural way is that route due to 118 to Santa Clara right on Central</li> <li>• Rice Avenue traffic coming up, Nyeland Acres complaints (14)</li> <li>• EJ in terms of water issues, and trucking, high levels of pesticides, Rio Mesa high school (18)</li> <li>• Santa Clara Ave.&amp; Auto Center Drive . / .Santa Clara Ave.&amp; Ventura Blvd./ Santa Clara Ave.&amp; SR 118 . SR118 through Saticoy to SR126 (WR11)</li> <li>• There are no regulatory signs to restrict commercial vehicles on Ventura Blvd and adding signs will make a difference, during construction will be one type of traffic but residents anticipate they will not use Rice Blvd to get to Santa Clara, they will take the shortcut. (ER3)</li> </ul>
21	Development near industrial areas	<ul style="list-style-type: none"> <li>• OST has an uncontrolled entrance, and a TWLTL median that is difficult to fit large vehicles (13)</li> <li>• Sakioka Farms development</li> </ul>	<ul style="list-style-type: none"> <li>• The townhouses being built in the vicinity of the industrial areas where many industrial operators are located are going to exacerbate issues. Traffic is already very bad on Ventura Avenue, new condo development adjacent to industrial operators is forecasted to generate 500 vehicle per day. (off of Seneca) (13)</li> <li>• Ventura is the same road, but keep adding more houses. (13)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
22	SR-118 Unincorporated Section	<ul style="list-style-type: none"> <li>• Realignment of SR-118, Grimes Canyon, county's water works district plan and Hitch Blvd, long-term project to reliable Hitch with Grimes Canyon</li> <li>• Center left turn lane doing design on SR-118 (14)</li> <li>• Slope stability project is planned for SR118 from Balcom Canyon to Sand Canyon (S1) Caltrans has no intention to widen SR 118, adding capacity to roadways is not a priority for Caltrans</li> <li>• T-intersections (on Somis Road??) need lights at intersections for safety purposes, intersection/streetlights would be helpful to prevent rear-ended collision (S4)</li> <li>• Donlon/Somis road intersection corridor routing—study should look at the bypass from the intersection of Somis road, Diversion would follow the railroad tracks, Considered 10-12 years ago, sand canyon to lumber suppliers, would alleviate intersection and save the town of Somis (S4)</li> <li>• Big rig traffic through LA Ave/118 overwhelm the area with noise, pollution and unsafe driving conditions. (D1)</li> <li>• The light at the intersection of Somis Rd and LA Ave has been the scene of several near misses. (D1)</li> <li>• Somis is a small and rural community, and proud of its long history in Ventura County, which is the home to three Historical Landmark sites immediately adjacent to Somis Road. (D5)</li> </ul>	<ul style="list-style-type: none"> <li>• Hard to turn at Rose at SR-118, k-rail make right turn at top end of SR-118 guard rail continually gets replaced (25)</li> <li>• 118 through Saticoy, it is a bottleneck and signals in the afternoon traffic is backed up (25)</li> <li>• I have a difficult time understanding how the creation of a third major east-west, truck and traffic-inducing corridor (in addition to the already existing east-west 101 and 126 corridors) does anything other than just induce more particulates and exhaust and dirty air into a whole new section of Ventura County that previously hadn't been suffering from that. (WR13)</li> <li>• Hagel Lumber has line of sight issues due to signs, signs will be moved to alleviate issues (S2)</li> <li>• There needs to be an installation of larger do not pass signs from Donlon Road to Mesa School, only a few lanes and trucks are trying to pass other trucks (S4) Six collisions in the general Somis area all related to speed</li> <li>• CHP would like to place electric speed sign in that area, the County of Ventura has an order of how they will place those signs and it's based on collision data (S1)</li> <li>• School relocation project has a \$25M deficit, looking instead to modernize the school, but the school is next to a high pressure gas line, there's a pipeline through the school yard</li> <li>• May be potential to relocated the gas line in coordination with the repaving project for the 118 (S3)</li> <li>• Any road widening of Somis Road (SR-34) would threaten the Fulkerson Hardware Store historical site. (D5)</li> </ul>
23	Truck Routing - Ventura	<ul style="list-style-type: none"> <li>• Complaints of general truck traffic</li> <li>• Handle with signage, find out who truckers and reach out to them (15)</li> <li>• Kimball Road extension in General plan down to US 101 – in General plan update</li> </ul>	<ul style="list-style-type: none"> <li>• With high loads get off there -- California overpass to Oak street to avoid low overpass (9)</li> <li>• Ventura Avenue, large trucks up and down as opposed to SR-33</li> <li>• Very busy for walking, biking and driving, trucks will use the center turning lane to load or unload, for example to drop off at 7-11 (21)</li> </ul>
24	Truck Routing - Ojai	<ul style="list-style-type: none"> <li>• Complete streets improvements for past 9 years, a major ATP grant</li> <li>• Looking at lane reduction on SR-33</li> <li>• Truck management plan, curb extensions at a lot of corners, approximately 3 trucks per day (16)</li> </ul>	<ul style="list-style-type: none"> <li>• Trucks – state highway through the town, Route 150, and Route 33 (16)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
25	Environmental Justice	<ul style="list-style-type: none"> <li>• A lot of long-term potential long term around zero emissions freight, here is the availability of technology</li> <li>• Communities along 101 have a little more of a wall to mitigate the roadway.</li> <li>• Electrified rail in VCRR, could do a lot in emissions reductions (18)</li> <li>• Community spaces are important to the community, have a lot of renters, apartments do not have their own green space, that is why community centers more important, most don't have a back yard</li> <li>• Look at bike lanes overlap with truck routes</li> <li>• Impacts of noise on sleep disruption and stress. (18)</li> </ul>	<ul style="list-style-type: none"> <li>• Freight and EJ, disadvantage communities—most impact on communities is from diesel exhaust near warehouses and distribution centers</li> <li>• Independent contractors, hard to get capital and buy new trucks, barriers to implementation of technology</li> <li>• Even if 100 % electric still issues of safety</li> <li>• Look at the community and the health impacts, and health impacts for vulnerable community such as children and access to healthcare • Areas where a lot of children, kids exposed to in schools as sensitive receptors</li> <li>• Lack of health insurance in many neighborhoods (18) • High levels of air pollution – community as a whole.</li> <li>• Concentrations of air emissions (17)</li> <li>• Adjacency issues, refrigeration trucks, waiting, refer on creating noise during the day now that children are home from school (20)</li> </ul>
26	Oxnard Neighborhoods	<ul style="list-style-type: none"> <li>• Other side of Hueneme Road, Ormond beach, and access to the asset, the amount of traffic</li> <li>• Green space, Ormond Beach – remove barriers to access and exposed to nature and greenspace</li> <li>• 1st draft nature conservancy down Perkins Road, downside of Arnold Road, that route is shared with many truck-generating uses</li> <li>• Oxnard could turn the parcel on Hueneme Road as an access parcel to Ormond Beach. Access across Hueneme Road is a major issue (18)</li> </ul>	<ul style="list-style-type: none"> <li>• La Colonia area, heavy industry also contributes health issues(18)</li> <li>• South Oxnard, Southwinds neighborhood #1 and #2 most densely populated in the County</li> <li>• Look at the community and the health impacts, and health impacts for vulnerable community such as children and access to healthcare (18)</li> </ul>
27	Moorpark Truck Patterns	<ul style="list-style-type: none"> <li>• The City has a study of intersections on Los Angeles Avenue, partnered with Caltrans all signal controller were upgraded, Moorpark added DPS clocks to keep those synchronized, optimize throughput, the after study showed congestion reduction.</li> <li>• City spent more than \$10 million in updating state highway, upgrading to three lanes in each direction, (19)</li> <li>• The City has engaged with Caltrans District 7 staff, private developers, and community stakeholders to make the necessary investments on State Route 118 to improve traffic flow, safety and mobility for its residents and community stakeholders (WR17)</li> <li>• Moorpark would like to see a truck origin/destination study including port trips. (note: the study does not have an independent O/D analysis of trucks, however we have some survey data and desire line maps that can indicate O/D,</li> </ul>	<ul style="list-style-type: none"> <li>• Issue with Sand and Gravel Pits north of Moorpark</li> <li>• Broad Beach lawsuit between County and City of Moorpark regarding sand trucks for the Broad Beach restoration project in Malibu. Moorpark made an agreement for sand trucks to not use Grimes Canyon in Moorpark and therefore would route the sand trucks via Fillmore. (19)</li> <li>• The City's Capital Improvement Program has identified several key projects that focus on the improved movement of goods and services within the eastern Ventura County area by creating a new truck bypass route and a new 118/23 freeway interchange, this long-term vision aims to fulfill the City's goals to create the "free-flow" movement of freight between the 23 and 118 Freeways, improve quality of life for Moorpark residents, and take a proactive approach to reduce greenhouse gases in and around the vulnerable populations that reside along the Los Angeles Avenue Corridor. (WR17)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
		furthermore truck counts could indicate port customers).(19)	<ul style="list-style-type: none"> <li>• Moorpark prevents trucks from using Collins Drive interchange so trucks use Madeira to access landfill (24)</li> </ul>
28	SR-118 Weigh Station	<ul style="list-style-type: none"> <li>• Improving this capacity is important for Moorpark, there are interim improvements, \$5 million lighting, restroom, trailer at EB and replacement at WB, and facilities need to be bulletproof due to CHP regulation.</li> <li>• The ultimate project, planning maybe done in 2021, CHP, Caltrans Dist 7 and HQ commercial vehicle enforcement, state highway and railroad track, racetrack facility at Conejo, need to find land along 118, informal estimate \$20-30 million in price, does CHP to staff those stations, ultimate project uncertain. Rep Irwin, Senator Sterns are in support.(19)</li> <li>• VCTC board allocates most of the STP local funds to US 101 project, last overlay project in Moorpark 2 years ago</li> <li>• There would -- and should -- be far fewer than 1,000 trucks per day even attempting to use SR-118 on any given day if only full-time weigh-stations ("scales") were in place on SR-118 to catch and deter those trucks trying to avoid the scales altogether. It also suggests that, without having full-time scales in place on the 118, the trucks being attracted to it are very likely to be among the more overloaded &amp;/or unsafe ones (WR15)</li> <li>• Temporary weigh station is operational, but there are staffing issues (S1)</li> </ul>	<ul style="list-style-type: none"> <li>• The commercial vehicle weight enforcement facilities on SR-118 west of the City can only process one truck at a time. The City suspects the truckers can use CBs to indicate occupancy and avoid/take route. (19)</li> <li>• There would -- and should -- be far fewer than 1,000 trucks per day even attempting to use SR-118 on any given day if only full-time weigh-stations ("scales") were in place on SR-118 to catch and deter those trucks trying to avoid the scales altogether. It also suggests that, without having full-time scales in place on the 118, the trucks being attracted to it are very likely to be among the more overloaded &amp;/or unsafe ones, which in itself contradicts yet another one of the purported objectives of the Study, which was stated to be that of Safety and "safer...freight connections." (WR13)</li> </ul>
29	Moorpark Network Connectivity	<ul style="list-style-type: none"> <li>• Extending High street to Gabbert, extension several years ago a move to have oil trains, from SLO, with 100s of oil cars m, potential for both crossings to be tied up, for access, long trains can block in event of major freight getting stuck need to have a way of crossing tracks</li> <li>• Developers upgrading Gabbert crossing</li> <li>• Widening between Tapo and Simi that is a couple 100 million and preliminary engineering on the widening of freeway portion of SR 118 (19)</li> </ul>	<ul style="list-style-type: none"> <li>• There is a challenge for building a northern loop roadway for SR-118 to avoid Los Angeles Avenue in Moorpark at Walnut Canyon, along walnut canyon along one of their older and naturally affordable neighborhoods, lower income families living there (19)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
30	Moorpark Rail Conditions	<ul style="list-style-type: none"> <li>• Accomplished work on the six at grade crossings, SR-23 Moorpark, Metrolink, sealed corridor 2016 project, does not meet quiet zone, in valley can hear trains, Spring Road, downstream cross arms, raised median</li> <li>• One citizen requested quiet zone, council filed, not an action item but received</li> <li>• Other crossings much less traffic, not a perceived issue</li> <li>• Metrolink adding some fencing, not gone further west, UP not a priority</li> <li>• Use “Israeli fence”, chicken wire with bend at top, cheaper than chain link fence</li> </ul>	<ul style="list-style-type: none"> <li>• Moorpark Avenue crossing, approach from east (Metrolink jurisdiction) could have installed advanced preemption, approach from west in UP jurisdiction, at time CT and UP could not agree on type of advanced preemption, could make Moorpark crossing better</li> <li>• Moorpark is bifurcated by a Union Pacific railway that is also used by Amtrak and Metrolink. There are several at-grade crossings that should be considered for improvements to increase efficiency and safety for all modes of transportation (WR17)</li> <li>• The City is not an advocate for walls along rail lines, get graffiti, railroads do not remove graffiti, county or city needs permit and insurance, and flagman to construct, not advocate of masonry wall, development proposal on high street, and VCTC original proposed a wall along ROW and it was declined and wanted a fence rather than a wall for visibility and maintenance, walls would require cutting trees, railroad insurance</li> </ul>
31	Rail tracks	<ul style="list-style-type: none"> <li>• Oxnard talked with UPRR about fencing did get some money at the railroad transportation center downtown, spent on parking lot or pedestrian or bicycle connection at north end (20)</li> <li>• Metrolink Score Project, part of doubletracking also upgrading crossings at Tapo, Los Angeles Avenue, Hidden Ranch road crossings</li> <li>• Traffic Signal Timing in Tapo and improvements to timing recommended to improve the grade crossing due to history of three collisions (24)</li> <li>• As much freight moved by train as possible to lessen impact on motorists and other road users. (WR6)</li> </ul>	<ul style="list-style-type: none"> <li>• Tracks so open, people cross the tracks all the time (20) When High School is in session near Gonzales along Oxnard, in morning and afternoon, students walk through, over and under fences to the High School (20)</li> <li>• Utilization of rail is limited by the agricultural community because rail companies do not provide the terminal operations necessary on both sides of the supply chain to deliver perishable goods from farm to market in adequate time. (27)</li> <li>• There is a lot of pedestrian activity at different points of Oxnard Blvd to get between the areas west and east of the Blvd with limited or no signals (D4)</li> </ul>
32	State Route 126	<ul style="list-style-type: none"> <li>• Santa Paula is located mostly on the north side of 126, not a lot of truck idling near residences</li> <li>• Fillmore development south of 126, so less effected (21)</li> </ul>	<ul style="list-style-type: none"> <li>• Northbound SR-23 to 126 a tough intersection, especially bicyclists</li> <li>• All along 126 dangerous for cyclists and it is the only choice between Santa Paula and Fillmore (21).</li> <li>• That highway has become increasingly busy over the last 8-10 years. It was the only freeway that was not included in the last ballot for improvements. It is a very narrow highway compared to the others and would really make it difficult for Santa Paula, Fillmore and Piru residents to get to and from work. It would also create other difficulties during periods of natural disasters. (WR1)</li> </ul>



#	Topic	Opportunities	Vulnerabilities
33	Bicycle Use	<ul style="list-style-type: none"> <li>• Caltrans plans to stripe a bike lane on 126 (21)</li> <li>• Protected lane through Fillmore on 126 (21)</li> <li>• SR-23 and Balcom canyon are popular routes but 23 has rock trucks, 23 was on Tour of California (21)</li> <li>• Good example, Ojai and Ventura path, former narrow gage rail trail, path between Saticoy and City of Ventura. Santa Paula don't need to use Foothill and 126 will need gap between Santa Paula and Fillmore</li> <li>• Use bike lane project to help mitigate impact of truck travel (D2)</li> </ul>	<ul style="list-style-type: none"> <li>• 40MPH plus roadways in Oxnard, can't put a 4-foot bike lane with AADT in the 10s of thousands and it would entice people to ride, no physical barrier (21)</li> <li>• Factors are speed limit, and once ADT over 10,000 and 30 mph need barriers for vulnerable users (21)</li> <li>• As Oxnard adopts a cycling route 1 is that trucks are 10 times as scary as a sedan, very intimidating to novice and bike tourists (21)</li> <li>• Bicyclists use many of the surface roads that transport freight to and from the Port of Hueneme and through Ventura County. Some freight trucks are too large for the roads they choose to use: Highway 23 between Moorpark and Fillmore, Hwy 150, Hwy 33 from Ojai to Ventucopa. I am scared, even as a car driver, of the size and weight of trucks on roadways. (WR 6)</li> </ul>
34	Santa Paula Line	<ul style="list-style-type: none"> <li>• Development of the Santa Paula Branch rail line as a rail trail or commuter rail (21)</li> <li>• Interested in opening the freight line to Santa Clarita with upgrades, bring product out to Santa Paula, Fillmore region (23)</li> </ul>	<ul style="list-style-type: none"> <li>• The tracks are not present east of Piru</li> </ul>
35	Fillmore Truck Patterns	<ul style="list-style-type: none"> <li>• Similar to Moorpark could synchronize SR 126 stoplights, would need to work with Caltrans and county to synchronize the signals</li> <li>• A Street (SR-23) and SR-126, how to get more traffic through there, operations in terms of processing vehicles</li> <li>• Mountain View and 126, worked with Caltrans to put in traffic signal</li> <li>• Discussions in the pass for a walkover bridge(23)</li> </ul>	<ul style="list-style-type: none"> <li>• Overall transportation issues, a lot of vehicles cutting through neighborhoods to bypass 126 traffic (23)</li> <li>• There are no bypass options other than Gaberson Road--a two lane country road (23)</li> <li>• When a lot of 126 construction, the lights were off-cycle and a lot of backup, on the connection of I-5 to 101 cut-through (23)</li> <li>• Density of heavy trucks and their speed on a nonfreeway through and beyond Fillmore, I risk my life every time I venture out on to 126 from my home. The trucks come off the hill at Pole Creek and think the speed limit is 70 plus mph. There is minimal law enforcement and many accidents have occurred at our entrance to 250 East Telegraph Rd. (WR3)</li> <li>• Heavy freight traffic on the 126 corridor - traffic at rush hour - road pitting - sand for millionaire beach ported through Fillmore (WR4)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
36	Simi Valley Truck Patterns	<ul style="list-style-type: none"> <li>• Conditional use permit in front of planning commission, last mile distribution center for Amazon, old countryside building, more frequent trucks, but proximity to freeway, enter and exit very well facilitated, not much spillover on city</li> <li>• Smaller distribution on Tapo Canyon and Los Angeles Avenue for Amazon</li> <li>• Tapo Canyon Quarry, west end west Los Angeles Avenue and Easy Street with industrial uses (24) Have grid system in case of any incidents on SR-118 (24)</li> </ul>	Landfill, truck traffic on Madeira • Frequent and regional landfill trucks (24)
37	Deliveries	-	<ul style="list-style-type: none"> <li>• In many shopping centers and malls . . . most delivery trucks just stop in the middle of the road along the front of the stores to deliver supplies. There should be loading docks, back alley areas, side street areas where drivers are REQUIRED to make deliveries instead of blocking the flow of traffic. This happens county-wide. (WR5)</li> </ul>
38	Santa Barbara County Connectivity	<ul style="list-style-type: none"> <li>• U.S. 101 between the City of Ventura and the City of Santa Barbara, which is designated as a Strategic Interregional Corridor, is the primary highway for interregional traffic throughout California's Central Coast region and is the only freeway facility aside from Interstate 5 (I-5) to connect Northern and Southern California. When I-5 is closed near Tejon Pass, traffic is rerouted to U.S. 101. This segment of U.S. 101 is the most congested corridor in the region and one of the most congested four-lane freeway segments in California. U.S. 101 in Santa Barbara was just listed as the 25th highest traffic hotspot in the U.S. in the 2019 INRIX Global Traffic Scorecard. U.S. 101 within the corridor varies between four and six lanes with auxiliary lanes in some areas. U.S. 101 has three lanes in each direction from SR 33 in Ventura County however this drops down to two lanes in Santa Barbara County. This lack of continuity as a uniform three-lane facility creates daily bottlenecks and contributes to deficient traffic conditions. (WR7)</li> </ul>	<ul style="list-style-type: none"> <li>• The most significant freight issue pertaining to the Santa Barbara - Ventura coastal mega-region is the current levels of congestion experienced on a daily basis along U.S. 101 from the City of Ventura to the City of Santa Barbara. The U.S.101, the primary goods movement route in the Central Coast region, and used daily by thousands of commuters who travel from Ventura County to Santa Barbara and Goleta, experiences up to four to five hours of delay and congestion per day. This congestion restricts mobility, slows goods movement, and hinders economic vitality. The corridor has been a concern for the state and the region for decades because of increasing congestion. (WR7)</li> <li>• SBCAG recommends VCTC reference the U.S. 101 Central Coast Freight Strategy (2016) within this freight study. The Central Coast Freight Strategy gives a larger holistic view of the various locations in the region that do not work well from a freight perspective. (WR7)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
39	Vineyard Avenue	<p>Balanced metric of throughput and impacts on core community area. Encouraging throughput while minimizing use/mileage on local serving or sensitive locations. (WR8)</p> <ul style="list-style-type: none"> <li>• Vineyard Avenue is supposed to be state highway, but does not align with the Harbor and industrial areas and it operates at capacity (25)</li> <li>• Pedestrian bridge over Vineyard needed (26)</li> <li>• Vineyard Ave (El Rio area), Vineyard Ave (downtown to Hwy 101), Victoria Ave (Silver Strand area to Hwy 101/City of Ventura) (WR8)</li> </ul>	<p>Displacement of active transportation options in the north Oxnard area connections between downtown and Hwy 101 (Victoria and Vineyard Ave corridors). Lack of local serving compatibility along Vineyard Ave in the El Rio area. (WR8)</p> <ul style="list-style-type: none"> <li>• These tractor-trailers need to drive onto Vineyard Avenue that is four-lane State road and not a County road. They speed and honk at drivers going the speed limit. (WR9)</li> <li>• New schools on west side of Vineyard and residential areas where kids going home to are on the east side, needs to be a pedestrian bridge – a neighbors concern (25)</li> </ul>
40	Santa Clara Avenue	<p>Having freight driven on adequate roads meant for that type of traffic and not on a two-lane road. (26)</p> <ul style="list-style-type: none"> <li>• Truckers see 118 in their driving atlas, along with Rice/Santa Clara, but it bottlenecks down to two lanes, with residential driveways, when Santa Clara was widened, the driveways fronting it are perched above the roadway and residents have difficulty getting in and out of their driveways. (25)</li> <li>• Speed hits, Santa Clara has an issue, at Ventura boulevard and also at auto center drive, both signaled intersections, the timing is off, 200 yards between the two, two or three trucks are staked, and gets gridlocked then trucks stops (25)</li> <li>• 1980s study, when this gets widened, leave existing roadway as a 25 MPH local access street and add new 4 lane arterial (25)</li> <li>• Lots of horse owners in community, riding up and down Santa Clara (26) There are two major gas lines going down Santa Clara, at one time going to put in guard rails, 8 inch medium pressure and 30 inch line to Ormond beach, Rice and Santa Clara had to put in a bypass, (25)</li> <li>• Equestrian trail on Santa Clara Avenue (26)</li> <li>• Nyeland Acres is patrolled by the VC Sheriff. Oxnard has put changeable message signs on Santa Clara Avenue (ER1)</li> <li>• Santa Clara Avenue went before the Board of Supervisors 30 years ago and agreed there would be no widening of Santa Clara past the 101. They proposed a bypass to go on the left hand side of the power poles and Santa Clara would remain as a local road to access Nyeland Acres. (ER5)</li> </ul>	<ul style="list-style-type: none"> <li>• Too much tractor trailer traffic traveling at high rates of speed on County two-lane road called Santa Clara Avenue. (WR9)</li> <li>• From Rice Ave/101 interchange to Los Angeles Ave. There is already significant risk to the local community, with special consideration for the Boy and Girls Club at the bottom of the hill, just north of Ventura Blvd. Truck traffic speeds, with that downhill roadway already increases the speeds of vehicles traveling north. Southbound traffic seems to be mesmerized by the green light at Auto Center Drive when approaching the red light at Ventura Blvd. Having such increased truck traffic on Santa Clara Ave, with the adjacent high-density neighborhood seems counter-intuitive to using SR232/Vineyard Ave as the corridor. SR232 has significant better infrastructure and design to handle these levels of vehicle traffic. (WR10)</li> <li>• Issues with trucks in Nyeland Acres, 18-wheeler ended up in boys and girls club, took out some k-rail, wanted to get out but had difficulty. (25)</li> <li>• Truck traffic comes over the overpass and hits residential area, if lights are green, no break lights and they accelerate (25)</li> <li>• Traffic that comes out of Auto Center Drive onto Rice avenue is failing to yield at the traffic signal (ER1)</li> <li>• Right now trucks/cars come over the bridge on the freeway and its two lanes going down to one where they are going 50/55 mph directly in front of the boys and girls club. (ER5)</li> <li>• Trucks regularly go through the guard rail and it's not safe. 55 mph on Santa Clara along with a parking lane, then 8/10' sidewalk for kids to get to school. Semi trucks are going 55 mph less than 15' away from these kids and the only thing there is a concrete curb, on trash pick up days it makes it even more dangerous (ER5)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
41	US 101 NB Bottleneck at Santa Clara Bridge	<ul style="list-style-type: none"> <li>• Widen the 101. (WR12)</li> <li>• Johnson Drive on-ramp has tight curves and is difficult for trucks and causes unsafe conditions (D3)</li> </ul>	<ul style="list-style-type: none"> <li>• 101 N at Santa Clara River bridge – first two lanes are Johnson off ramp, then third lane with no signage that tells you the lane is going to end, and it is a nightmare for big trucks to use outside lanes (25)</li> </ul>
42	US 101 Victoria Interchange	-	<ul style="list-style-type: none"> <li>• Victoria off ramp traffic backup to 101 (25)</li> </ul>
43	Five Points Rail	<ul style="list-style-type: none"> <li>• 5 Points in Oxnard could use refining with lights and the train. (WR12)</li> </ul>	<ul style="list-style-type: none"> <li>• That train along Wooley I'll n Oxnard needs to stop blocking 5 Points for 15-20 minutes. (WR12)</li> </ul>
44	Agricultural areas	<ul style="list-style-type: none"> <li>• The Las Posas Valley is one of the very, VERY few remaining, and still relatively intact, agricultural areas in all of Ventura County. I submit the Las Posas Valley should be viewed as the Poster Child for the very survival and future of Agriculture itself in Ventura County, and if not treated and protected as such, the consequences will likely be dire for the agricultural industry. If one of the foremost objectives for this study is to “promote Ventura County’s...agricultural economy”, then I submit the best way to do that is to NOT introduce any oversized, growth-inducing, and capacity-increasing transportation infrastructure into it. (WR13)</li> </ul>	<ul style="list-style-type: none"> <li>• The Las Posas Valley is one of the very, VERY few remaining, and still relatively intact, agricultural areas in all of Ventura County. I submit the Las Posas Valley should be viewed as the Poster Child for the very survival and future of Agriculture itself in Ventura County, and if not treated and protected as such, the consequences will likely be dire for the agricultural industry. (WR15)</li> </ul>
45	Active Transportation Access	<ul style="list-style-type: none"> <li>• Walnut and Balboa has a new crosswalk with flashing signs (Caltrans ATP/Safe Routes to Schools Grant Work occurring) (ER3)</li> <li>• The rail corridor along Oxnard Blvd between Cooper Rd and Gonzales Rd adjacent to La Colonia neighborhood lends itself to a lot pedestrian activity for those walking in and out of the neighborhood with no ped infrastructure along Oxnard Blvd. (D4)</li> <li>• There are significant safety concerns on Somis Road with Somis School a short distance away on North Street. Many students use the crosswalk at North Street and Somis Road, which does not have a traffic light to ensure cars and trucks will stop for pedestrians.(D5)</li> </ul>	<ul style="list-style-type: none"> <li>• In the City of Oxnard-- Ventura Blvd from Vineyard- to Rose (El Rio) there is no sidewalk at all, it's a very narrow road and a lot of people use it walk to the Collection.</li> <li>• From Vineyard to Rose, there's no sidewalk, lots of people walk there and there are spots where the concrete isn't there and you can fall into a ravine, there are tons of Vallarta trucks delivering in that area and it isn't safe. (ER4)</li> <li>• Ventura Blvd from Del Norte, in front of the mobile home park. There is no space there for transportation and pedestrians there. (ER3)</li> <li>• South Oxnard residents live near the coast but feel cut off from the beach by a wall of industry and trucking route (WR14)</li> </ul>

#	Topic	Opportunities	Vulnerabilities
46	Diesel Emissions	-	<ul style="list-style-type: none"> <li>• Heavy-duty trucks emit nearly 40% of the states diesel exhaust (particulate matter)</li> <li>• Living within just one third of a mile of a highway or close to a port, warehouse, distribution center or other freight corridors is devastating for lung health and can lead to early death for people with underlying health conditions</li> <li>• Physicians have labeled neighborhoods near ports, warehouses and busy roads “diesel death zones” because asthma rates and cancer risk are drastically elevated due to high volumes of diesel pollution</li> <li>• Neighborhoods in South Oxnard near the port already have higher levels of diesel emissions than 87% of other areas in California (WR14)</li> </ul>
47	Freight Labor	<ul style="list-style-type: none"> <li>• How can we ensure truck drivers are not misclassified as independent contractors so the burden of meeting zero emission climate goals does not fully fall on them? • How are you going to encourage companies to invest in clean energy technology?</li> <li>• How will you encourage companies to switch over to clean truck technology sooner rather than later? • How will the county support investment in infrastructure for electric truck fleets? (WR14)</li> </ul>	<ul style="list-style-type: none"> <li>• Trucking companies, brokers, and other contractors often willfully and illegally misclassify drivers as independent contractors (when they are, by law, employees) to avoid paying wages, benefits, the costs of equipment, taxes, and regulatory compliance costs. Misclassified contract drivers operate 70%-90% of drayage trucks in California, making misclassification the dominant business model within the freight industry. •Misclassified drivers earn very low wages and are forced to finance high cost trucks to comply with state mandates and requirements, placing the burden on poverty stricken workers rather than big industry (WR14)</li> </ul>
48	COVID-19	<ul style="list-style-type: none"> <li>• What is the county doing to reduce diesel pollution in disadvantaged communities?</li> <li>• What are plans to address rising diesel emissions in disadvantaged communities/communities near trucking routes, warehouses, distribution centers, the port?</li> <li>• How can high pollution companies be held accountable to cleaning up our air? (WR14)</li> </ul>	<ul style="list-style-type: none"> <li>• There has been an influx of cargo imports during the pandemic, leading to more truck trips to carry containers, exposing neighboring communities to increased levels of diesel pollution. This pollution is directly related to preterm birth and impaired immune system development, leading to higher rates of childhood asthma and chronic heart disease in adults.</li> <li>• Now more than ever, action is needed to address this public health crisis. This increase in diesel pollution is occurring in the context of a global pandemic, with studies showing that exposure to air pollution corresponds with increased COVID-19 complications. (WR14)</li> </ul>

**Table 47: Literature Review Summary**

Note: Not all documents refer to specific locations or opportunities, vulnerabilities or solutions. In those cases a dash (-) was used to denote a lack of topics contained within those categories in a reviewed item.

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	From Connect SoCal Technical Report: Passenger Rail	-	U.S 101 is California's major north-south coastal route between Los Angeles and San Francisco, and is a vital asset to the nation, state and local economies. Its close proximity to two of the nation's largest cities make it an essential route for national and international goods movement, commerce, trade, tourism, and other important industrial activities. In addition, U.S-101 is a strategic corridor for Vandenberg Air Force Bases military transport, spaceport and national defense operations.	Rail Capacity Constraints. Seventy percent of the track ROW that Metrolink operates on is one-track operation. This limits the volume of trainsets that may be placed into service, and also makes certain train trip schedules longer when a train moving in one direction has to pull off onto a siding to allow another train to pass. Several of Metrolink's lines are owned by the freight companies, BNSF and UP. The Ventura County Line is owned by UP west of Moorpark	-
1	Caltrans District 7 US 101 Transportation Concept Report July 2013	US 101	The Port of Hueneme is in Ventura County in the City of Port Hueneme. It is the only deep-water harbor between Los Angeles and San Francisco and plays a significant role in the local economy. The Port serves as the western U.S. distribution point for many imported vehicles.	Truck traffic on many key corridors is anticipated to grow substantially. Total % of trucks is 4.7 to 8.9% of vehicles, total trucks 5,700 to 7,300 and heavy duty trucks 1,600 to 3,200 per day	-
11	Corridor System Management Plan - Santa Barbara/Ventura US-101 Corridor Phase 1 Final Preliminary Performance Assessment Report February 2009	US-101	Detailed information on freeway travel patterns, freeway volumes, mobility, reliability, safety, bottlenecks, and supporting arterial congestion.	Congestion; primary connection point between Santa Barbara, Ventura, and Los Angeles; commute patterns and holiday/weekend travel often lead to LOS F conditions; congestion exacerbated when inclement weather closes I-5 or other mountainous roadways; bottlenecks listed Page 42	Approximately 6.7% of the traffic along this corridor is attributable to trucks.

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
12	Corridor System Management Plan - U.S. 101 - Santa Barbara/Ventura Corridor November 2010	US-101	-	-	Truck traffic on all state highways is monitored by Caltrans, which classifies truck traffic by number of axles (from 2 to 5 or more). Near the Ventura-Santa Barbara County line there are approximately 6,300 commercial truck trips per day, which represents about 9.5 percent of the total traffic volume. Approximately 44 percent of the commercial trucks on this segment contain 5 or more axles
14	Ventura County Comprehensive Transportation Plan August 2013	-	Efficient freight movement is critical to the health of the Port of Hueneme/Oxnard Harbor District, local manufacturing, the logistics industries and Ventura County agribusiness but the roadway capacity is limited and must accommodate all users.	To move goods in and out of the Port of Hueneme there is currently a \$60 million shortfall for facility improvements to complete Intermodal Port Corridor from the Port of Hueneme along Hueneme Road and Rice Avenue.	A \$.10 per gallon gas tax for Ventura County; tolling/express lanes with revenues restricted to freeway from which collected (only US-101); vehicle registration fees - approximately \$7.5 million in annual revenue; countywide sales tax measure to add one half cent to sales tax with revenues dedicated to Ventura County transportation
15a	California Transportation Plan 2040 June 2016	-	-	-	-
15b	California Transportation Plan 2050 February 2021	-	-	-	-
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	Poor operating conditions at the intersections of Ventura Road and Channel Islands Boulevard, and at Victoria Avenue and Channel Islands Boulevard	Rice Avenue improvements from early 2000s greatly improved connection between regional roadway network and eastern side of Port, reducing some truck concerns.
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	High volume of trucks on Ventura Road between Hueneme Road and Channel Islands Boulevard (primarily residential street)	Rice Avenue improvements from early 2000s greatly improved connection between regional roadway network and eastern side of Port, reducing some truck concerns.
16	Port of Hueneme Access Study - Draft Final Report	-	-	High volume of trucks on Oxnard Boulevard and East Fifth Street (SR-34) through downtown Oxnard	-

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	October 2020				
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	High traffic volumes on Victoria Avenue between US-101 and SR-126	Cities of Port Hueneme and Oxnard should re-evaluate truck route systems to determine if truck restrictions on local streets could be instituted to remove non-local Port truck traffic from residential streets.
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	-	Study of potential "Cross-Port Roadway" should be undertaken to determine traffic impacts/benefits associated with such a roadway
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	Bottleneck of one lane in each direction between Saviers Road and Arcturas Avenue	Upgrade Saviers Road and Arcturas Avenue and widen Hueneme Road to two lanes in each direction between these streets
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	Without planned improvements along Santa Clara Avenue, the intersection of Santa Clara/Central Avenue and Santa Clara/Highway 118 would operate at LOS F conditions by 2020.	-
16	Port of Hueneme Access Study - Draft Final Report October 2020	SR-118	Average percentage of trucks on SR-118 was between 11 and 21 percent, with average of 16% for 12-hour period between 6:00 AM and 6:00 PM; 30% of truck trips on SR-118 were through trips, 70% local trips; 10.5% of truck-trips destined to or from Port, 2% of total traffic in Downtown Moorpark, both figures expected to increase.	LOS will be unacceptable on SR-118 in Downtown Moorpark by 2020 if widening of facilities is not undertaken due to increase in forecasted truck traffic.	City of Moorpark is studying feasibility of bypass route for Highway 118 to be constructed north of Downtown Moorpark - study will determine if bypass would lessen effects due to increase in general truck traffic
16	Port of Hueneme Access Study - Draft Final Report October 2020	-	-	-	VCRR and connecting carrier, UP, might be encouraged to aggressively pursue business at Port of Hueneme and to jointly market this service regionally to rest of country; increasing amount of cargo handled by rail would reduce need for travel by trucks on the area roadways.



No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
17	Cities of Port Hueneme/Oxnard Truck Traffic Study June 2008	Rice Avenue; Rose Avenue; Victoria Avenue	Rice Avenue serves the highest number of trucks among the four interchanges profiled in this report. Trucks also comprise the highest percentage of the total volume of vehicles entering and exiting the US-101 freeway at the interchange. The data supports the observation that Rice Avenue is a major truck route in the study area. However, the truck volumes obtained for other interchanges at Vineyard Avenue and Rose Avenue show that these streets also play an important role in providing access for trucks to and from the US-101 freeway.	Unacceptable LOS at Victoria Avenue & Channel Islands Blvd; Oxnard Blvd/Saviers Rd & Wooley Rd; Rose Ave & Gonzales Rd; Rice Ave & Gonzales Rd; Rice Ave & US-101 SB Ramps	Intersection and Roadway improvements - widening NB approach at Victoria Ave/Channel Islands Blvd; implement directional signage to discourage trucks from traveling through Oxnard Blvd/Saviers Rd & Wooley Rd; future study of Rose Ave & Gonzales Rd after Rice Ave interchange improvements; install overlap signal phasing for SBR at Rice Ave & Gonzales Rd; Rice Ave/US-101 SB Ramps interchange project (all have since been completed)
17	Cities of Port Hueneme/Oxnard Truck Traffic Study June 2008	-	-	New residential developments along identified major truck routes, such as Hueneme Road and Victoria Avenue, and other formerly agricultural areas expose more people to existing traffic on truck routes and increase magnitude of impacts created from incompatible land use combinations	Technological and design practices to reduce impacts of truck traffic through residential areas - permanent window seals, window mountings made of rubber/cork/felt, reduced window sizes, increased window glass thickness, double-paned windows, window coatings, central air conditioning systems, sound-dampening insulation.
17	Cities of Port Hueneme/Oxnard Truck Traffic Study June 2008	-	-	New residential developments along identified major truck routes, such as Hueneme Road and Victoria Avenue, and other formerly agricultural areas expose more people to existing traffic on truck routes and increase magnitude of impacts created from incompatible land use combinations	Encourage trucks traveling to and from generators to utilize established preferred truck routes on Hueneme Road/Rice Ave and Victoria Ave as much as possible to limit high truck volumes (directional signage, truck restrictions, capacity/traffic signal improvements); consider truck volumes on adjacent arterials when designing residential neighborhoods (larger setbacks, sound walls, etc).
17	Cities of Port Hueneme/Oxnard Truck Traffic Study June 2008	-	Analysis provides snapshot of existing traffic conditions and truck volumes in study area and specific recommendations to address existing traffic impacts. Study should be seen as first step in coordinated plan of action for addressing potential future increases in truck and automobile traffic in study area.	Increased freight demand and thereby growth in truck traffic in Port Hueneme and Oxnard in the future.	Explore feasibility of ITS improvement installations to track and direct truck trips between major traffic generators and US-101 Freeway. Funding sources could include sources tied to goods movement-related improvements (Proposition 1B Trade Corridor Improvement Fund), funding

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
					tied to Homeland Security improvements for Port of Hueneme or NBVC, or local and regional sources.
18	District 7 System Management Plan February 2018	-	Infrastructure Limitation outside the ports handicaps goods movement; expansion and modernization of seaport facilities is only beneficial if highway and rail facilities can handle the additional freight and still addresses air quality and public health concerns	District 7 has five of the 10 worst truck bottlenecks in the US (four in Ventura County on US-101); Truck VMT expected to double by 2040, AADT for trucks exceeds 10,000 on I-5, I-10, SR-60, I-210, and I-710 (SCAG Region Truck Freight Bottleneck Congestion Area Map (page 6))	Goal: System Performance; Strategy 11.C - invest in freight technology to reduce bottlenecks and optimize goods movement. Caltrans D7 should work with freight partners to implement innovative technologies in logistics and supply management. An example of this technology is software that enables efficient coordination of freight to maximize productivity and reduce truck travel times, bobtail (empty trips), terminal wait times, freight involved incidents, and fuel consumption/emissions
18	District 7 System Management Plan February 2018	-	Improve Integration of the Transportation System	-	Goal: System Performance; strategies 12.A-12.C - improve traffic modeling and data collection to better understand system and accurately predict trends; improve management system through ICM; expand use of common input assumptions between State, MPO, and local forecasting efforts, including goods movement/trucking.
19	Simi Valley Circulation Element June 2012	-	Utilize arterials as designated truck routes to restrict heavyweight vehicles from residential neighborhoods	Growth will undoubtedly continue to mount pressure on existing street system and its finite capacity. Growing job base in Simi Valley and less congested SR-118 route to Los Angeles County facilitate increased truck traffic through city.	E/W truck routes - Los Angeles Ave from west city limits to Stearns Street; SR-118.  N/S truck routes - Madera Road (south city limit to SR-118); First Street (Los Angeles Ave to SR-118); Tapo Canyon Road (Los Angeles Ave to Presidio Drive); Stearns Street (Los Angeles Ave to SR-118)
20	Effects of SR-23 Widening Project and Accompanying Mitigation Measures on	-	Cleared underpass culverts from sediment to encourage their use as animal crossings; exclusion fencing installed with one-way gates along roadside to deter above-ground animal crossings	Increased demand on SR-23 (57,000 ADT in 2007) led to increased animal mortality; additional lanes lead to more conflict points with animal life.	Wildlife exclusion fence requires regular inspection and repair; one-way gate design improvements to improve efficacy; monitored and maintained culverts to preserve use as wildlife passage and

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	Culvert Use and Road Mortality of Wildlife Final Report May 2012				drainage system; add continuous cover to culverts to facilitate use by small mammals
21	Truck Networks on California State Highways - District 7 June 2018	-	-	-	Map of designated STAA National, STAA Terminal networks, 65' California Legal Routes, 65' California Legal Routes with KPRA Advisories, and special restrictions for truck routes in Ventura County
23	Ventura County General Plan Update - Circulation, Transportation, and Mobility Element September 2020	-	CTM-1.11 Safe and Efficient Goods Movement - ensure truck routes appropriately designed and designated	Pavement Management System - The County shall continue to maintain its Pavement Management System (PMS) to identify Pavement Condition Index (PCI) and ensure that the County road network is kept in a state of good repair with an emphasis and priority on goods movement corridors	Map of designated goods movement corridors with additional information beyond D7 map - overweight corridors, Interstate STRAHNET, Non-Interstate STRAHNET, STRAHNET connectors, primary port access, city of Oxnard commercial vehicle route, and City of Port Hueneme commercial vehicle route
23	Ventura County General Plan Update - Circulation, Transportation, and Mobility Element September 2020	-	CTM-1.12 Surface Transportation Assistance Act Planning - improve and enhance STAA routes and network connectivity between goods movement modes and facilities	-	Overweight Vehicle Corridors - maintain and update needed Overweight Vehicle Corridors as STAA terminal access routes to connect to national network  Grade Separations - worth with NBVC to determine grade separations for segments of the mobilization corridors to ease mobility
23	Ventura County General Plan Update - Circulation, Transportation, and Mobility Element September 2020	-	CTM-2.21 Pedestrian/Bicycle Conflicts along Overweight Vehicle Corridor and STAA Truck Routes - Within Existing Communities, the County shall provide/retrofit separated or buffered pedestrian and bicycle paths from the outside travel lane along County Road Network roads that are designated Overweight Vehicle Corridors and STAA designated Terminal Access Routes. Where the application or retrofitting of separated or buffered facilities is not feasible, the County shall prioritize alternative pedestrian and bicycle connections that	-	Complete Streets Guidelines - prepare and adopt Complete Streets Design Guidelines and Standards  Vision Zero - strategy of reducing all traffic fatalities and severe injuries  Master Bicycle Network Plan - develop master bicycle network plan that includes recommendations from Bicycle Wayfinding study and prioritized list of bike lanes

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
			encourage and attract pedestrian and bicycle traffic off designated Overweight Vehicle Corridors or STAA designated truck routes. (MPSP)		
23	Ventura County General Plan Update - Circulation, Transportation, and Mobility Element September 2020	-	CTM-5.4 Air Freight Service - The County shall encourage industrial and commercial activities that involve goods movement by air to locate near airports with air freight service to reduce greenhouse gas emissions from transportation.	-	None Listed in Plan
34	Naval Base Ventura County Joint Land Use Study September 2015	Hueneme Road	-	Traffic flow on Hueneme Road where it necks down to two lanes;	-
34	Naval Base Ventura County Joint Land Use Study September 2015	Victoria Avenue	-	Growth may cause freight access issues from Victoria Gate to the US 101	-
34	Naval Base Ventura County Joint Land Use Study September 2015	Rice Avenue	-	Traffic flow issues on Rice Avenue due to railroad crossings	-
34	Naval Base Ventura County Joint Land Use Study September 2015	Rose Avenue	-	Traffic flow issues on Rose Avenue	-
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Partner with leading local fleets to win public funding for new electric vehicle charging infrastructure and E-Truck procurement.

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
			and brand enhancement, increased driver satisfaction		
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Facilitate access and applications to SCE's utility incentive programs for electric vehicle infrastructure development that will advance fleet electrification
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Develop electric fleet transition plans with leading trucking companies
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Support fleet transition planning for the region's public agencies - including school districts and the Port of Hueneme
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Establish fleet electrification pilot projects for at least three freight companies contracting with the Port by 2020.

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Commission a comprehensive E-Truck electrical load study to determine electrical infrastructure requirements to support comprehensive goods movement electrification (in partnership with SCE).
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	E-Truck adoption benefits for fleet managers - reduced fueling costs, operational and maintenance savings, access to public funding for electric vehicle and EVSE procurement, aging asset replacement and modernization, emission reductions, positive public attention and brand enhancement, increased driver satisfaction	As of 2016, 24% of all CA transportation GHG emissions are associated with heavy-duty vehicles (buses and trucks).	Partner with local utilities to explore development of innovative utility-linked financing strategies for commercial EV batteries, utilizing the PAYS tariff model.
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	If managed appropriately, charging equipment and vehicle batteries can become grid resources that offer frequency regulation, voltage control, and demand response value for local utilities and grid managers. Further opportunities become viable when charging is integrated with onsite renewable energy generation and storage, enabling fleet managers to prevent nearly all demand charges and unlock potential new revenue streams from demand response programs or energy dispatch to the grid.	Unmanaged increase in load from E-truck charging in Ventura County can be damaging to electrical grid. Peak charging needs can far surpass existing grid conditions.	Collaborate with key regional transportation electrification stakeholders on regionwide goods movement electrification planning.
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	If managed appropriately, charging equipment and vehicle batteries can become grid resources that offer frequency regulation, voltage control, and demand response value for local utilities and grid managers. Further opportunities become viable when charging is integrated with onsite renewable energy generation and storage, enabling fleet managers to prevent nearly all demand charges and unlock potential new revenue streams from demand response programs or energy dispatch to the grid.	Unmanaged increase in load from E-truck charging in Ventura County can be damaging to electrical grid. Peak charging needs can far surpass existing grid conditions.	Develop VGI Pilot Projects with leading fleets and industry partners

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	If managed appropriately, charging equipment and vehicle batteries can become grid resources that offer frequency regulation, voltage control, and demand response value for local utilities and grid managers. Further opportunities become viable when charging is integrated with onsite renewable energy generation and storage, enabling fleet managers to prevent nearly all demand charges and unlock potential new revenue streams from demand response programs or energy dispatch to the grid.	Unmanaged increase in load from E-truck charging in Ventura County can be damaging to electrical grid. Peak charging needs can far surpass existing grid conditions.	Link EVSE incentives to networked electric vehicle charging infrastructure
35	Ventura County Electric Vehicle Ready Blueprint July 2019	-	If managed appropriately, charging equipment and vehicle batteries can become grid resources that offer frequency regulation, voltage control, and demand response value for local utilities and grid managers. Further opportunities become viable when charging is integrated with onsite renewable energy generation and storage, enabling fleet managers to prevent nearly all demand charges and unlock potential new revenue streams from demand response programs or energy dispatch to the grid.	Unmanaged increase in load from E-truck charging in Ventura County can be damaging to electrical grid. Peak charging needs can far surpass existing grid conditions.	Develop EV charging station projects that are paired with freight destinations
36	Connect SoCal Technical Report - Goods Movement Section September 2020	-	-	-	Lists regional priority issue and projects
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Business Retention and Growth	-	Proactively advocate for and enhance customer and supply chain partner service quality
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Business Retention and Growth	-	Become West Coast Port Hub for Ro/Ro services, a fundamental component of the Port's niche market focus
37	Port Of Hueneme 2020 Strategic Plan	-	Business Retention and Growth	-	Expand flexibility of Joint Use Area and Navy Outlease Program terms, reducing

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	- Oxnard Harbor District October 2015				commercial and operational risk to NBVC and Port customers
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Further develop "California Fresh Port" concept to retain and attract fresh fruit and produce business
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Increase local agricultural product exports
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Pursue off-port opportunities that elevate on-port terminal efficiency and capacity
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Expand, as needed, and promote Foreign Trade Zone #205 access and capabilities, benefiting Port operations and attracting new business.
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Seek Maritime Administration (MARAD) Project Designation to support grant pursuits.
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Pursue Strategic Commercial Port designation with the Department of Defense (DOD) and Maritime Administration (MARAD)
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	New Business Opportunities	-	Promote the advantages and efficiencies of Americas Marine Highway Program and Short Sea Shipping



No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Waterside Investments	-	Support the USACE harbor deepening effort.
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Waterside Investments	-	Implement the Port's berth deepening program.
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Seek opportunities to create efficient, safe, and highly utilized terminal operations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Relocate non-water dependent users off terminal
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Implement recommendations from the Port's Traffic Management study - reconfiguring internal terminal circulation
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Accommodate the market-based transition from bulk and palletized cargo to containerized operations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Increase on- and off-dock Port capacity to service its customers' organic growth and meet demand for new business opportunities
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	Terminal Efficiency	-	Coordinate operations and nurture business development opportunities with the Genesee & Wyoming Railroad and UPRR

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	October 2015				
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Building demolition to increase on-dock staging capacity
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Shoreside Power and other air quality improvement measures
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Modernized cold storage and cargo treatment facilities
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Reefer Rack systems for stacked refrigerated containers
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Pavement upgrades to support heavy cargo and equipment
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	South terminal rail spur extension
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Terminal Efficiency	-	Continued support for Port Intermodal Corridor (PIC) projects - uncongested strategic access route that connects Port's main entrance with US-101, I-5, and beyond

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Agency Coordination	-	Integrate Port's strategic plan with Transportation Plans of - VCTC, SCAG, Caltrans
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Agency Coordination	-	Coordinate truck access and egress routes with Cities of Port Hueneme and Oxnard and NBVC
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Land Use and Logistical Efficiency	-	Increase rail utilization by collaborating with tenants and railroad partners
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Land Use and Logistical Efficiency	-	Assess land availability for strategic acquisitions or public/private development opportunities supporting the Port's growth
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Land Use and Logistical Efficiency	-	Align Port plan with the Joint Land Use Study, support implementation consistent with Port's objectives
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Land Use and Logistical Efficiency	-	Support development of third party logistics provider capacity in Ventura County
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Land Use and Logistical Efficiency	-	Optimize truck turn-around times and truck staging logistics
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor	-	Land Use and Logistical Efficiency	-	Improve signs and wayfinding along freight corridors

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	District October 2015				
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Port Safety and Resiliency	-	Enhance Port security, disaster preparedness, and situational awareness
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Port Safety and Resiliency	-	Incorporate deferred maintenance into an overall capital budget and investment plan
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	The Port aims to maintain its reputation as being one of the best ports on the U.S. west coast, including California, Oregon and Washington, through multi-level marketing, customer coordination and communication.	-	Business marketing initiatives in niche business sectors; target audiences; media/press strategy; trade shows and conferences; trade missions and delegations to emerging markets; customer leases and operational agreements that sustain operational flexibility and customer collaboration; interagency communications plan; pursue grant funding for capital projects; encourage proactive collaboration with stakeholders; transparency
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Implement Port Environmental Framework and Board-adopted environmental policy
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Fully implement Shore Power program
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Implement Port's Stormwater Improvement Plan

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Incorporate the Coastal Trail into transportation plans and projects
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Develop long-range policy to incorporate climate change, sea level rise adaptation, and resiliency with infrastructure investments
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Build in marine terminal and infrastructure resiliency to ensure long-term logistical continuity within changing climate
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Promote cleaner burning fuels usage for terminal, off-terminal and vessel operations. Replace conventional diesel with propane-fueled trucks and electrify cargo handling equipment to reduce on-dock emissions
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	To minimize or avoid negative environmental impacts within the working waterfront while growing business within the Port's environmental framework.	-	Relationships and Outreach - partnerships with energy and environmental stakeholders to advance green initiatives; public policy legislation participation as partners to governing agencies; pursue grants and PPPs; inform public policy and legislation; integrate economic development into surrounding region's unique landscape
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Further develop MAST program (Maritime Advanced Systems & Technology Laboratory)
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District	-	Programs and Initiatives	-	Facilitate on-terminal investments and operations that increase capacity, safety, efficiency

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
	October 2015				
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Support revetment wall investments and beach nourishment program
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Utility and renewable energy pilot programs to enhance energy efficiency and adopt new technologies
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Endeavor to implement state of the industry best practices for lighting, warehouse cooling, fumigation, and shore power systems
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Logistical resiliency and disaster preparedness in long-range planning endeavors
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Improve vessel traffic management systems
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Programs and Initiatives	-	Expand GIS capabilities
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Relationships and Outreach	-	Build partnerships with innovative companies/agencies; apply for grants; facilitate innovative alternative energy sources and support research efforts; explore alternative means for connecting marine terminal to near-dock processors and customers

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
37	Port Of Hueneme 2020 Strategic Plan - Oxnard Harbor District October 2015	-	Plan and Policy Coordination - The Port strives to maintain and grow its external relationships, proactively addressing challenges and advocating for innovative, effective solutions with an eye towards long-range sustainability and strengthening local, regional and global ties.	-	Work with Caltrans, SCAG, Ventura County, partner agencies involved in port; support development of comprehensive commercial truck transportation plan; develop truck routes and traffic mitigation plans in conjunction with Oxnard, Port Hueneme, and NBVC
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	Agriculture and food systems economy continue to thrive	Threatened by urban encroachment; constraints on land and water	Support retention and diversification of the Agriculture Industry and Food Systems economy; promote economic vitality of rural corridors in Ventura County
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	Large, diversified manufacturing sector	Acute lack of industrial land supply and available building space to accommodate business and job growth; urban/rural interface fraught with potential for continuing conflict on land use and regulation; automation harming jobs	-
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	Regional economy connected to and driven by global trade, anchored by Port of Hueneme	-	Advance Opportunities to expand global trade in partnership with Port of Hueneme
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	Highly concentrated, high quality assets in technology innovation, R&D supported by NBVC and its laboratories, driving emergent culture of entrepreneurship	-	Support strategies that facilitate technology transfer and R&D partnerships with local industry and NBVC, Port of Hueneme
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	Expand commercial service at Camarillo Airport	No commercial service airport	Preliminary Design & Environmental review for Future Runway & Taxiway Reconstruction Project at Camarillo Airport - CIP FY23-24
38	Ventura County Comprehensive Economic Development Strategy, 2019	-	-	Increasing congestion on major roadways	Increase local investments and leveraging of state, federal, and private funds for improved roadway and multi-modal connectivity throughout the county

No.	Source Name	Roadway/ Location	Opportunities	Vulnerabilities/Issues	Solutions/Plans/Recommendations
24	U.S. 101 Central Coast California Freight Strategy Final Report April 2016	US-101	-	-	Report covers US-101 from Santa Barbara County northward, not analyzed at this time.
25	Camarillo Circulation Element March 2011	-	Promote the safe and efficient movement of goods via truck and rail with minimum disruptions to residential areas	Noise impacts and traffic congestion of truck traffic are undesirable and inconvenient for other forms of travel, necessitating that trucking and goods movement be organized.	Identify truck routes that sustain an effective transport of commodities while minimizing the negative impacts on local circulation and noise-sensitive land uses - large truck should remain on arterials and industrial collectors  Clear signage shall be provided from freeways to truck routes into the city. Rail lines and spurs shall be considered in support of commercial, industrial, and freight business needs
26	Fillmore Circulation Element May 2003	-	Pursue regional truck routes that provide alternate access around Fillmore	Safety and noise impacts to area residents when trucks travel through incompatible land uses	Sets truck routes as SR-126, SR-23, A Street (between SR-126 and Old Telegraph Rd), Old Telegraph Rd, and Goodenough Rd (between Old Telegraph Rd and A Street)
41	A Guidebook for Sustainability Performance Measurement for Transportation Agencies 2011	-	-	-	-
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Reduce crash risk on two-lane rural highways	Goal 1: Safety - provide a safe transportation system for users and the general public	Measure change in number and severity of truck crashes in a corridor/segment due to operational improvements
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Ensure that competitive options for freight movements exist for all communities using program development, project development, and operational improvements	Goal 3: Equity/equal mobility - provide options that allow affordable and equitable transportation opportunities for all sections of society	Measure relative change in freight investment servicing disadvantaged populations; Measure change in ratio of transportation disadvantaged to non-disadvantaged population benefitting from freight program; measure relative change in



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					operational investment by freight mode servicing disadvantaged communities
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Ensure that transportation system is functional for all users through program development, project development, and during construction and maintenance activities; operational improvements	Goal 4: System efficiency - ensure that the transportation system's functionality and efficiency are maintained and enhanced	Measure change in LOS on key freight routes or change in truck volume-to-capacity (v/c) ratio; due to programming; project; construction activities; maintenance activities; due to operational improvements
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Ensure that reliable transportation options are maintained for all users through program development, project development, and during construction and maintenance activities; operational improvements	Goal 4: System efficiency - ensure that the transportation system's functionality and efficiency are maintained and enhanced	Measure relative change in hours of nonrecurring delay on key freight corridors and approach networks; due to programming project development; construction activities; maintenance activities; due to operational improvements
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Prevent incidents within a transportation agency's control and responsibility through programs, project development,	Goal 5: Security - ensure that the transportation system is secure from, ready for, and resilient to threats from all hazards	Measure change in level of redundancy for critical passenger and freight infrastructure; change in annual number of incidents
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Enhance the security of freight transportation assets (e.g. ports) through programs, project development, operational improvements	Goal 5: Security - ensure that the transportation system is secure from, ready for, and resilient to threats from all hazards	Change in capacity of parallel/redundant routes along major freight corridors; measure relative change in funding allocated to disaster/incident response and management; change in number/value of projects as part of program designed to enhance security of freight transportation assets; relative change in operational funding allocate to disaster/incident response and management
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Support growth in jobs and income by improving travel efficiency/reducing congestion through programming, project development, and operational improvements	Goal 6: Prosperity - ensure that the transportation system's development and operation support economic development and prosperity	Measure - change in average truck speed on major freight corridors; change in travel delay at major freight bottlenecks by mode; change in cost of goods movement in key national modal corridors; net change in jobs/income

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41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Support growth in jobs and income by improving access to markets and factors of production (labor and raw materials) through programming, project development, and operational improvements	Goal 6: Prosperity - ensure that the transportation system's development and operation support economic development and prosperity	Measure - change in population within user-defined distance of facilities that improve access to markets and factors of production (highways, air cargo, bus, rail, etc.); change in access to jobs and labor; change in regional and shortline trackage within 286,000 pound rating
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Support growth in jobs and income by programming, project development, and operational improvements that reduce freight transportation costs	Goal 6: Prosperity - ensure that the transportation system's development and operation support economic development and prosperity	Measure net change in jobs/income associated with transportation plan implementation; change in cost of shipment per ton/mile, by mod; existence of process for considering freight-specific benefits and costs in programming phase
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Ensure that the expected value of social and economic benefits created by proposed transportation projects exceeds their costs, through programs, project development, construction, maintenance, and system operations	Goal 7: Economic viability - ensure the economic feasibility of transportation investments over time	Project-level cost/benefit ratio for proposed alternatives/policies, including freight
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	-	Goal 8: Ecosystems - protect and enhance environmental and ecological systems while developing and operating transportation systems	-
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	-	Goal 9: waste generation - reduce waste generated by transportation-related activities	-
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Maintain a sustainable fleet	Goal 10: Resource Consumption - Reduce the use of nonrenewable resources and promote the use of renewable replacements	Measure change in percentage of zero/low emissions vehicles in the DOT fleet; change in percentage of total diesel fuel substituted with alternative fuels, ultralow sulfur diesel (ULSD), electric motors

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41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Reduce energy usage	Goal 10: Resource Consumption - Reduce the use of nonrenewable resources and promote the use of renewable replacements	Measure change in total energy consumed by DOT facilities; change in number of investment in operational technologies to reduce fuel consumption (IdleAire, aux power units supported by DOT); percentage of trucks with Smartway-type technologies
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Provide EV infrastructure	Goal 10: Resource Consumption - Reduce the use of nonrenewable resources and promote the use of renewable replacements	Measure change in number of plug-in stations and amount of energy distributed from those stations; change in percentage of truck stops with electrification (IdleAire, etc)
41A	Sustainable Freight Performance Measures Appendix B - Performance Measures Compendium 2011	-	Reduce activity that generates pollutant emissions (travel, trip length, mode split, emissions) and polluting exhaust emissions (criteria pollutants and GHGs) through programs, project development, construction, maintenance, and operational improvements	Goal 11: Emissions and Air Quality - Reduce Transportation-related Emissions of Air Pollutants and Greenhouse Gases	Change in percentage of commercial vehicles by EPA tier compliance; change in emissions by criteria pollutant, total, and by mode/ton mile; lane miles of new access improvements to intermodal and port facilities; number of new separated rail crossings replacing grade crossings
44	U.S. Route 101 California Street Off-Ramp Relocation Project October 2014	US-101; California Street	-	-	Relocation of California Street US-101 offramp to Oak Street/Thompson Boulevard
45	Oversized Vehicle Parking Restrictions in Residential and Commercial Areas – Camarillo July 2008	-	-	-	Map of oversized vehicle restrictions in Camarillo - includes majority of city north of US-101 and portions south of US-101 in closest proximity to it.
46	CAUSE 2018 Annual Report	Port of Hueneme	How to conduct Port expansion plans without negative environmental impacts on low-income populations in Oxnard and Port Hueneme?	Port of Hueneme expansion plans may dramatically increase volume of cargo shipped into city, driven out using polluting diesel trucks, expanding wall of heavy industry	Newsletter posits as fighting against port expansion plans; solution would need to address fears of pollution and legitimate concerns regarding environmental justice, while still allowing the port to expand.

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47	CAUSE Port Expansion Fact Sheet 2019	Port of Hueneme	How to conduct Port expansion plans without negative environmental impacts on low-income populations in Oxnard and Port Hueneme?	Propose imported car storage facility would have 5,000 vehicle capacity, while also increasing truck traffic in South Oxnard, an area already exposed to greater diesel emissions than other areas of California and 3 times greater than other neighborhoods in Oxnard; more burdened by pollution than 98% of other census tracts in the state	.
48	Central Coast Origin-Destination Survey Final Report, July 2016	-	-	-	-
49	Central Coast Origin-Destination Survey July 2016	-	-	-	-
50	Chapter 2: CMP Network July 2009	-	-	-	-
51	Mobility Technical Report for the Saticoy Area Plan February 2015	-	-	-	-
52	Saticoy Area Plan Update Appendix D3 Noise and Vibration Data March 2015	-	-	-	-
53	Connect SoCal Economic and Job Creation Analysis 2020	-	-	-	-
54	California Freight Mobility Plan 2020 - Appendix E CUFC and CRFC Designation Process 2020	-	-	-	-

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55	Best Practices for Reducing Near-Road Pollution Exposure at Schools 2015	-	-	-	-
56	California Freight Mobility Plan 2020 March 2020	-	-	-	-
57	FAST Act Fact Sheets - Freight Planning and Policy Provisions May 2020	-	-	-	-
58	Metrolink's Economic Potential: Southern California Optimized Rail Expansion (SCORE) 2020	-	-	-	-
59	Metrolink Short Range Transit Plan 2015-2020 2015	-	-	-	-
59A	Metrolink 10-Year Strategic Plan 2015-2025 2015	-	-	-	-
60	Metrolink 10-Year Strategic Plan 2015-2025 Technical Appendix 2015	-	-	-	-
61	North Ventura Avenue Area Plan December 1990	-	-	-	-
62	Oak Park Area Plan November 2005	-	-	-	-
63	Oxnard Corridor Community Transportation Improvement Plan February 2016	-	-	-	-

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64	Oxnard Harbor District Comprehensive Economic Development Strategy 2020	-	-	-	-
65	Ojai vs Big Trucks - Rocky Roads July 2007	-	-	-	-
66	Oversized Vehicle Permit Form - Ventura (accessed 2020)	-	-	-	-
67	Oxnard Spanish Chapter Newsletter Spring 2019 Spring 2019	-	-	-	-
68	County of Ventura Parcel Report (accessed 2020)	-	-	-	-
69	Piru Area Plan June 2011	-	-	-	-
70	Oxnard Harbor District 2020 Strategic Plan October 2015	-	-	-	-
71	Project Study Report (Project Development Support) - California Ramp January 2001	-	-	-	-
72	LOSSAN Corridorwide Strategic Implementation Plan April 2012	-	-	-	-
73	Ventura Santa Barbara Rail Study	-	-	-	-

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	Final Report March 2008				
74	US-101 Corridor Mobility Master Plan December 2014	-	-	-	-
75	Ventura County Five-Year Capital Improvement Program 2021-2025 2020	-	-	-	-
76	Ventura County Five-Year Capital Improvement Program 2019-2023 2018	-	-	-	-
77	Port Hueneme Truck Route Map 2014	-	-	-	-
78	Truck Safety Considerations for Geometric Design and Traffic Operations 2001	-	-	-	-
79	VCTC HOT Lanes Financial Feasibility Study Summary Report September 2014	-	-	-	-
80	US-101 Communities Connected Draft Study Report August 2020	-	-	-	-
81	Where is Electrification Warranted? February 2017	-	-	-	-