COUNTY of VENTURA

RESOURCE MANAGEMENT AGENCY
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TOPIC: Equivalency Use Determination for a Solar and Battery Renewable Energy Production and Storage Facility Principal Land Use with Accessory Medium- and Heavy-Duty Electric Vehicle Charging in the Non-Coastal Areas of Unincorporated Ventura County (Non-Coastal Zoning Ordinance)	ORIGINAL: December 20, 2024 REVISED: N/A	POLICIES AND INTERPRETATIONS POLICY NO. 2024-2 Dave Ward, AICP Planning Director

TO: Planning Division Staff

FROM: Dave Ward, AICP, Planning Director

The County received a request for a Planning Director Use Equivalency Determination regarding a *solar and battery renewable energy production and storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* (concept project). This request is based on a concept project for this use that would be sited on a former oil and gas production site in the unincorporated area of Ventura County to produce renewable energy that charges medium- and heavy-duty electric vehicles, particularly those serving goods movement from the Port of Hueneme.

Based on review of the determination request, which includes a concept project proposal, and given 2040 General Plan policies and programs supporting renewable energy, as well as State laws pertaining to renewable energy goals, and as demonstrated through recent Board of Supervisors actions that direct the Planning Division to implement General Plan renewable energy policies, this equivalency determination regarding a *solar and battery renewable energy production and storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* is warranted pursuant to Ventura County Non-Coastal Zoning Ordinance (NCZO) Section 8105-2.1 (Equivalent Uses Not Listed), which states:

> "Where a proposed land use is not identified in this Article, the Planning Director shall review the proposed use when requested to do so by letter and, based upon the characteristics of the use, determine which of the uses listed in this Article, if any, is equivalent to that proposed."

NCZO Section 8105-2.1 provides the following regarding a Planning Director Use Equivalency Determination:

> "Upon a written determination by the Planning Director that a proposed unlisted use is equivalent in its nature and intensity to a listed use, the proposed use shall be treated in the same manner as the listed use in determining where it is allowed, what permits are required and what standards affect its establishment."

As explained below, a *solar and battery renewable energy production and storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* is equivalent to the existing principal land uses of "energy production from renewable resources and energy storage" as set forth in the NCZO. Consequently, as detailed below, and pursuant to NCZO Section 8105-2 and Section 8101-4.10 (Interpretation) a *solar and battery energy storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* shall be considered for incorporation into the NCZO in a future ordinance amendment scheduled by the Planning Director in a manner that is consistent with this equivalency determination.

Background

This section describes State and local regulations that support renewable energy production.

State of California Regulations

The State of California has issued multiple mandates to increase renewable energy and reduce greenhouse gas emissions (GHG). This effort started in 2006 when the State passed AB 32, the California Global Warming Solutions Act, which set a GHG emission reduction goal back to 1990 levels by 2020 — a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. The State achieved this goal in 2016.

The goals for AB 32 were furthered with adoption of both SB 350 and SB 379 in 2015, which requires that A) 50% of electricity in California to come from renewable sources by 2030; B) widespread electrification of transportation in order to achieve State GHG reduction goals; and C) that all local agencies with the responsibility for the protection of public health and safety to address climate adaptation and resiliency strategies within the next revision or update of the local hazard plan or General Plan Safety Element.

In 2018, Governor Brown signed Executive Order B-55-18 and SB 100. The Executive Order established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045. This goal was in addition to other existing statewide targets of GHG reduction. SB 100 revised the statewide renewable energy portfolio goals meaning that 100% of retail electricity sold must be produced from renewable and zero-carbon resources by 2045.

In 2020, Governor Newsom signed Executive Order N-79-20 which directed the California Air Resources Board (CARB) to develop medium- and heavy-duty vehicle regulations requiring increasing volumes of new zero-emission trucks and buses sold and operated in the State towards the target of 100% of the fleet transitioning to zero-emission vehicles by 2045, and for all drayage trucks[1] to be zero-emission by 2035.

In 2021, CARB adopted the Advanced Clean Trucks regulations which requires the sales of medium- and heavy-duty zero-emissions vehicles (ZEVs) or near-zero-emissions vehicles (NZEVs) as an increasing percentage of truck fleets from 2024 to 2035.

[1] CARB defines *drayage trucks* as meaning "any in-use on-road vehicle with a gross vehicle weight rating greater than 26,000 pounds that is used for transporting cargo, such as containerized, bulk, or break-bulk goods that operates (A) on, or transgresses through, California seaport or intermodal railyard property to load, unload, or transport cargo, including empty containers and chassis, or (B) off seaport or intermodal railyard property to transport cargo or empty containers or chassis that originated from or is destined for a seaport or intermodal railyard property."

In 2023, CARB adopted Executive Order R-23-003 which established the Advanced Clean Fleets Regulations. These regulations apply to State and local jurisdictions governmental vehicles as well as heavy-duty drayage trucks. This CARB Executive Order requires that by 2035 all heavy-duty drayage trucks must be zero-emission vehicles.

In 2024, the State adopted SB 59 (2023-2024) which will require any weight class of battery electric vehicle to be bidirectional capable. In this law the legislature found the following:

- To achieve the policy of the State to use 100% clean electricity by 2045, the commission estimates the State will require an eightfold increase in energy storage;
- Electric vehicle batteries are an untapped and inexpensive source of energy storage that can provide flexible grid support;
- Integrating battery electric vehicles into the grid may provide benefits to ratepayers, including by increasing electrical grid asset utilization, avoiding otherwise necessary distribution infrastructure upgrades, promoting renewable energy resources, and reducing the cost of supplying electricity;
- Bidirectional-capable battery electric vehicles can provide individual or fleet owners with benefits, including backup energy during emergencies and relief from peak-use charges; and
- The Electric Power Research Institute has estimated that vehicle grid integration could save the State $1 billion annually.

Local Regulations and Context

On September 15, 2020, the Ventura County Board of Supervisors adopted the 2040 General Plan and certified the project's Environmental Impact Report. The General Plan contains Goals, Policies and Programs that support the development of renewable energy facilities and the electrification of the transportation network. Additionally, the General Plan also supports the Port of Hueneme and its goals toward increasing renewable energy generation and electrification in order to reduce greenhouse gas emissions (GHG's).

On November 29, 2023, the Planning Director issued a Use Equivalency Determination (Exhibit 1, PC-5) which, in finding energy storage to be equivalent to the renewable energy production land use, allowed battery energy storage facilities to be located in the Open Space ("OS"), Agricultural Exclusive ("AE"), and Rural Agriculture ("RA") zones with a Planning Commission-approved Conditional Use Permit (CUP) and in the Industrial Park ("M1"), Limited Industrial ("M2") General Industrial ("M3"), and Light Industrial ("IND") zones with a Planning Director-approved Planned Development Permit (PD).

On December 19, 2023, the Board of Supervisors heard a staff presentation on options for NCZO amendments to address General Plan policies and programs that apply to renewable energy production, battery energy storage land uses, and supporting the "green economy". The Board directed staff to proceed with amendments for a three-phase "Renewable Energy Program" to address the General Plan policies calling for renewable energy and energy storage.

On May 21, 2024, the Board adopted Resolution 4630, which completed Phase 1 of the Renewable Energy Program, consisting of amending NCZO Articles 2, 5, 7, and 19 which codified

the prior November 29, 2023, Planning Director Determination and modified the definition for "energy production from renewable sources" to include energy storage, created a new "energy storage" definition and use category under the amended "energy production from renewable resources and energy storage," and added a 100-acre limitation for "energy storage" facilities within the AE, OS, and RA zones.

The Ventura County 2040 General Plan is compliant with both SB 350 and SB 379 and includes an evaluation of the potential for the unincorporated county to meet area-wide State GHG emissions reduction and transportation electrification goals. The 2040 General Plan also includes the following policies (Attachment A) that support the reduction of greenhouse gasses:

- Policy COS-10.1: Greenhouse Gas Reduction Strategy,
- Policy CTM-6.4: Facilities for Emerging Technologies,
- Policy CTM-6.5: Electric Vehicle Charging Stations,
- Policy EV-1.2: County Investment Priorities,
- Policy EV-5.2: Energy Infrastructure,
- Policy EV-5.4: Port of Hueneme, and
- Policy HAZ-10.5: Air Pollution Impact Mitigation Measures for Discretionary Development.

Port of Hueneme

In 2024, the Port of Hueneme announced its intent to make their operations zero emissions by 2030. As part of this effort, the Port will partner closely with the goods trucking industry to facilitate its transition away from reliance on fossil fuels. The County supports this effort by the Port through General Plan Policy EV-5.4 (Attachment A) which calls for the County to support the Port and improvements to surface transportation connections. Additionally, Policy CTM-1.11 (Attachment A) calls for the County to ensure truck routes are appropriately designed for the safe and efficient movement of goods to the Port and the benefit of zero-emission vehicles that improve air quality particularly for routes that traverse our designated disadvantaged communities. Attachment B shows the key truck routes for the Port, such as Rice Avenue/Highway 1, East 5th Street/Highway 34, Hueneme Road, Victoria Avenue, and East Pleasant Valley Road. The concept project would be located off East 5th Street/Highway 34 near the intersection with Rice Avenue/Highway 1.

Analysis

California's complex energy and transportation system is transitioning to renewable energy to reduce GHG emissions. As the State seeks to grow its renewable energy portfolio, energy storage and electrification of transportation infrastructure is necessary. Technological advances driven by the rapidly growing renewable energy sector results in proposals for new land uses and facilities that present opportunities and challenges for those administering local zoning ordinances and reviewing development proposals. The NCZO and this determination identify a permit pathway for the concept project, and based on preliminary research by Planning staff the concept project would be unique as no comparable projects have been completed in other jurisdictions throughout the state. This determination does not authorize any development proposal, and any subsequent proposal would require a discretionary permit requiring consistency findings with the 2040 General Plan, NCZO, and other applicable State and County regulations, such as utilities, services, and fire safety.

Principal Uses

NZCO Sections 8105-4 and 8105-5 currently contain "energy production from renewable resources and energy storage," as an allowed use in the OS, AE, and RA zones with a Planning Commission-approved Conditional Use Permit (CUP) and in the M2 and M3 zones with a Planning Director-approved CUP. The term "energy production from renewable resources and energy storage" is defined in Article 2 of the NCZO as "any facility, structure, or installation as a principal use that produces energy from naturally replenished sources such as, but not limited to, wind, water, sunlight, geothermal heat, or biomass, and/or facilities that store energy primarily for off-site uses." This definition and use category were originally added to the NCZO in 1985 and then amended in 2024 to address the evolving renewable energy and green infrastructure development.

Since 1995, Article 2 of the NCZO has defined a principal use to be "the primary or main use on a lot to which other uses and structures are accessory. More than one principal use may legally exist on a lot (e.g., agriculture, oil production and a residence)". This definition is applicable to this determination for a project to be classified under the "energy production from renewable sources and energy storage" use category when more than 50% of the facility's energy is produced from onsite renewable energy uses such as solar and energy storage systems, and when over 50% of the site's structures are comprised of those that produce and store energy.

The concept project may be allowed as principal use if it produces and stores for use more than 50% of renewable energy on-site and transfers that energy to off-site uses, in this case the off-site use are the medium- and heavy-duty electric vehicles to serve the transportation grid. The land uses on the site of the permit area must also serve primarily renewable energy production, which in this case includes solar panels that produce energy during the day, battery storage which provides energy at night, and "bidirectional charging" - if this concept project can be sufficiently demonstrated to produce renewable energy in a discretionary permit application for review and decision.

Accessory Uses

Renewable energy production and energy storage is a dynamic and diversifying sector of the economy, with new technology stemming from State policies to promote innovation and reduce GHG emissions. Electric vehicle charging capabilities are a crucial component of reducing GHG emissions, as described in the above State regulations.

The growth of solar energy generation has affected the net energy supply and demand, creating a healthy supply of energy in the daylight hours and then limited energy in the evening hours. This pattern has created a substantial (and growing) demand for energy storage to balance power supply during peak and off-peak periods. While the peak energy demands are primarily being addressed with solar and battery energy storage facilities, the everchanging technological landscape also offers promise for bidirectional charging.[2]

The NCZO, Article 2, has defined an accessory use as "a use customarily incidental, appropriate and subordinate to the principal use of land or buildings located upon the same lot." The concept project offers potential for strategic bidirectional energy production as an accessory use where the medium- and heavy-duty electric vehicles may help store excess energy and release it into

[2] Bidirectional charging is defined in Section 44269 of the California Health and Safety Code as "a charging capability that enables a battery electric vehicle to be charged by either the electrical grid or an onsite clean energy resource, and to discharge stored energy capacity through electric vehicle service equipment to either serve load or export it to the electrical grid."

the grid in the evening when the vehicles are not in use. This bidirectional use may be another component of renewable energy production as the technology and infrastructure develop. The State has recognized this with the adoption of SB 59 (2023-2024), when the legislature found that integrating battery electric vehicles into the grid may provide multiple benefits as discussed under the *State of California Regulations* section above.

Additionally, the United States Department of Energy has recognized, as of December 2024, that electric vehicles with bidirectional charging capabilities can help provide clean backup power to the electrical grid and be deployed as mobile storage systems, particularly during emergency energy needs.

Nature and Intensity of Use

The NCZO describes in Section 8105-2.1 that an unlisted use may be determined to be equivalent in its nature and intensity to a listed use. Today, the NCZO's existing "energy production from renewable sources and energy storage" definition includes and allows facilities that have a similar, and perhaps a more intensive, use and development footprint than a *solar and battery energy storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities*. Currently allowed renewable energy production facilities in the NCZO include but are not limited to:

- Geothermal plants which typically require large cooling towers, wells, generators, and pipelines.
- Solar photovoltaic (PV) arrays which typically include large tracks of cleared land, flat PV panels, and typically with ancillary energy storage systems.
- Biomass energy facilities which typically include storage buildings, boilers, cooling towers, turbines, and burners.
- Battery energy storage facilities which typically include rows of battery modules, similar in shape and design to rows of cargo containers, located on flat cleared land.

In comparison to these expansive energy generation facilities, *a solar and battery energy storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* generally consists of solar PV panels with an energy storage system, electric vehicle charging ports, and electric vehicle staging areas[3] with minor appurtenant equipment and buildings. Below is a conceptual rendering from another jurisdiction illustrating what one of these facilities could look like, but the concept project for this determination would also include battery energy storage:

[3] For the purposes of this determination, staging area(s) is defined as areas for medium- and heavy-duty vehicle arrival/departures, queuing and site circulation for daily charging operations.

Compared to the renewable energy production and storage facilities identified in the list above and shown in the images below , a *solar and battery energy storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* typically has a lower aesthetic profile, requires fewer on-site employees, does not create substantially more vehicle or truck trips as the existing diesel trucks are converted to electric and/or zero emission vehicles, and generally has a smaller development footprint. To illustrate this point, the following photographs show examples of three renewable energy production facilities, and a battery energy storage facility.

A 40-60 MW Geothermal Power Complex

Ormat Geothermal Complex, Mammoth, CA

Approximately 57 acres

A 50 MW Solar Photovoltaic Array

Ocotillo Wells Solar, Borrego Springs, CA

Approximately 336 acres

A 50 MW Biomass Power Station

Covanta Delano Biomass Power Plant, Delano, CA

Approximately 116 Acres

A 30 MW Battery Energy Storage Facility

Top Gun-Miramar Energy Storage, San Diego, CA

Approximately 1.6 Acres

The solar and battery energy storage component allows energy generated and stored during the day and for the energy to be transferred to medium- to heavy-duty vehicles, or other institutional electric vehicles, for use off-site. This is also similar, but in reverse, to how a biomass facility works

because those require offsite vehicles to bring in the biomass (timber, agricultural by-products, urban green waste, etc.) to a central facility for processing and energy generation. Biomass facilities also typically have staging areas for medium- to heavy-duty vehicles as they wait to be unloaded of the biomass but do not provide parking or vehicle storage other than those needed for employees. To illustrate this point, the following photographs show Honey Lake Power, a biomass power production facility in Wendel, CA.

Planning Director Determination

Based on the analysis above, a *solar and battery renewable energy production and storage facility principal land use with accessory medium- and heavy-duty electric vehicle charging capabilities* is determined to be an equivalent principal use to the "energy production from renewable resources and energy storage" use category in NCZO sections 8105-4 and 8105-5 provided that it meets the following key components of a principal use:

- More than 50% of renewable energy produced is for use off-site, as measured in megawatts (MW), and
- More than 50% of a site's structural footprint is used to produce and store energy from wind, water, sunlight, geothermal heat, or biomass sources.

This determination does not apply to other principal uses listed in NCZO Sections 8105-4 and 8105-5 including, but not limited to, Automobile Service Stations, Car Washes, Parking Facilities,

Repair and Reconditioning Services, and Transportation Services, because these uses are beyond the principle NCZO definition for *"energy production from renewable sources and energy storage*" and are allowed by the NCZO in the commercial and/or industrial zones only.

Until an amendment to the NCZO can be prepared and presented for adoption to expressly add new standards, applications for a use consistent with this determination described in the bullets above shall be processed and authorized in the same manner as an "energy production from renewable energy and energy storage" project in the OS, AE, and RA zones in the NCZO Land Use Matrix with a Planning Commission-approved CUP, and in the M2 and M3 zones with a Planning Director-approved CUP.

Future Amendment Considerations

Based on preliminary research and review conducted for this determination, the County needs some appropriate amount, and in key geographical locations, of *solar and battery energy storage facility principal land uses with accessory medium- and heavy-duty electric vehicle charging capabilities* to reduce greenhouse gas emissions and to help increase the electrification of our local trucking and freight to meet State goals and implement the General Plan. They are generally needed near the port, highways, and goods distribution centers. Additionally, this determination should be incorporated into NCZO amendments for the Renewable Energy Program, and the larger Ventura County Renewable Energy Roadmap, during calendar year 2025.

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Attachment A – General Plan Policies Descriptions
Attachment B – General Plan Figure 4-5: Goods Movement Corridors

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Attachment A
Applicable General Plan Policies

The purpose of this Attachment is to provide a list with the full text of each policy identified in the *Local Regulations* section of this determination.

Policy COS-10.1 Greenhouse Gas Reduction Strategy

The County shall maintain and refer to the General Plan and its integrated greenhouse gas (GHG) Reduction Strategy as the County's comprehensive plan for reducing community-wide GHG emissions in the unincorporated County.

Policy CTM-6.4 Facilities for Emerging Technologies

The County shall support the development of alternative fueling stations (e.g., electric and hydrogen) and vehicle-to-infrastructure (V2I) technology for emerging technologies.

Policy CTM-1.11 Safe and Efficient Goods Movement

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.

Policy CTM-6.5 Electric Vehicle Charging Stations

The County shall support the installation of electric vehicle charging stations, where feasible, at County facilities, parking lots, park-and-ride lots, truck stops, and new development.

Policy EV-1.2 County Investment Priorities

The County shall prioritize investment in infrastructure, services, safety net programs and other assets that are critical to future economic vitality, including public safety, healthcare, library services, water supply and quality, transportation, energy, and environmental resources. This investment shall consider equity in investment opportunities to designated disadvantaged communities, including designated Opportunity Zones under the federal Tax Cuts and Jobs Act of 2017. The focus of these efforts shall be to improve social equity and opportunity for all.

Policy EV-5.2 Energy Infrastructure

The County shall work to improve energy infrastructure to increase availability, reliability, sustainability, and use of renewable energy sources, with a focus on Existing Communities and equity in service to disadvantaged communities

Policy EV-5.4 Port of Hueneme

The County shall support the creation and enhancement of shipping, warehousing facilities at the Port of Hueneme as well as improvements to surface transportation connections to the supportive industries and businesses that are located outside of the Port.

Policy HAZ-10.5 Air Pollution Impact Mitigation Measures for Discretionary Development

The County shall work with applicants for discretionary development projects to incorporate bike facilities, solar water heating, solar space heating, incorporation of electric appliances and equipment, and the use of zero and/or near zero emission vehicles and other measures to reduce air pollution impacts and reduce greenhouse gas (GHG) emissions.

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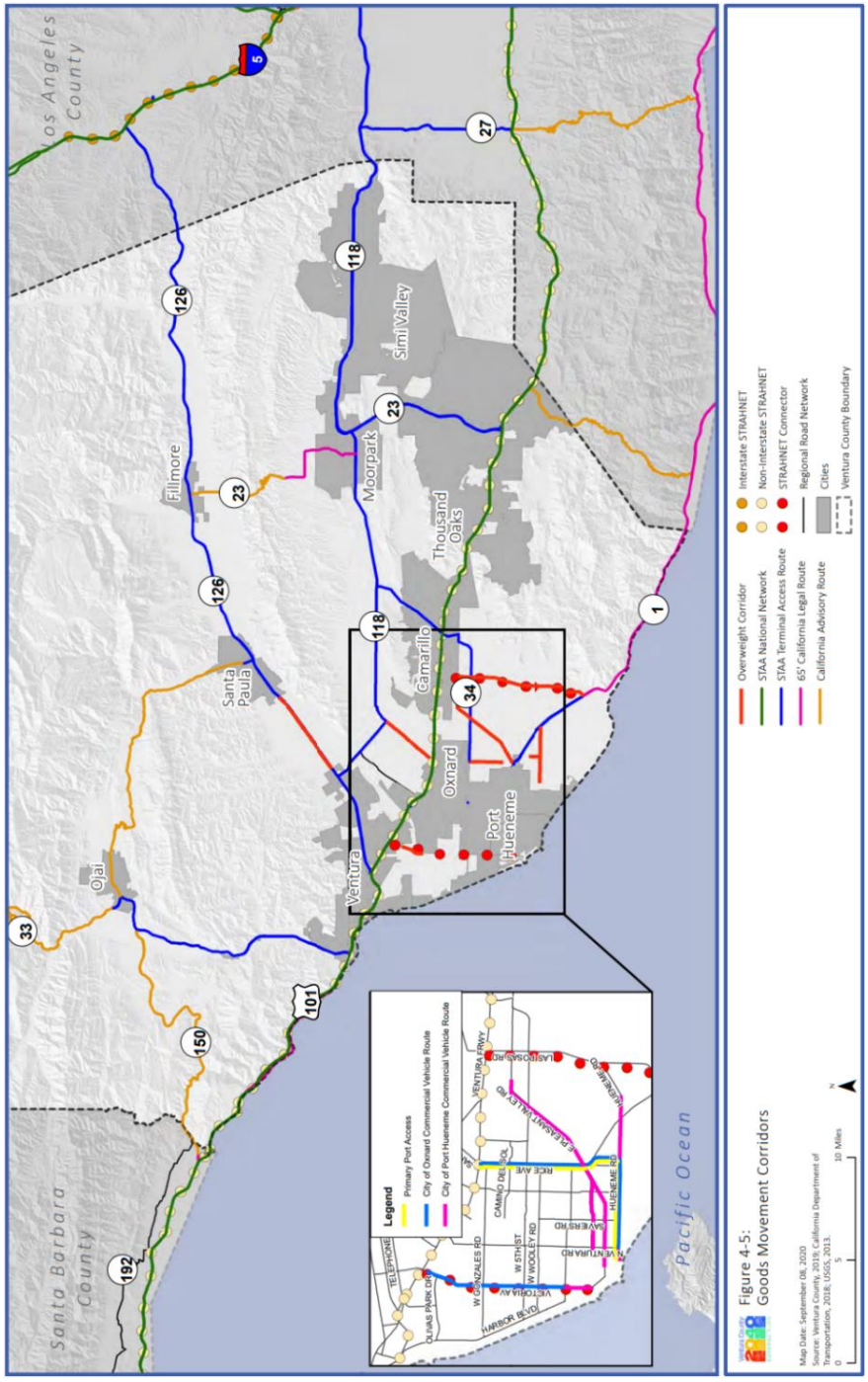
Attachment B
Goods Movement Corridors

This Attachment shows two maps illustrating the goods movement corridors that the concept project would utilize.

General Plan Figure 4-5: Goods Movement Corridors



Map Showing Goods Movement Corridors from the Port of Hueneme with approximate location of Concept Project site shown with a ★.