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SOUTH COUNTY TRAFFIC RELIEF EFFORT

South County Traffic Relief Effort

Preliminary Scoping Report

ORANGE COUNTY AND SAN DIEGO COUNTY, CALIFORNIA

Caltrans

Transportation Corridor Agencies™

November 2019

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TABLE OF CONTENTS

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LIST OF FIGURES

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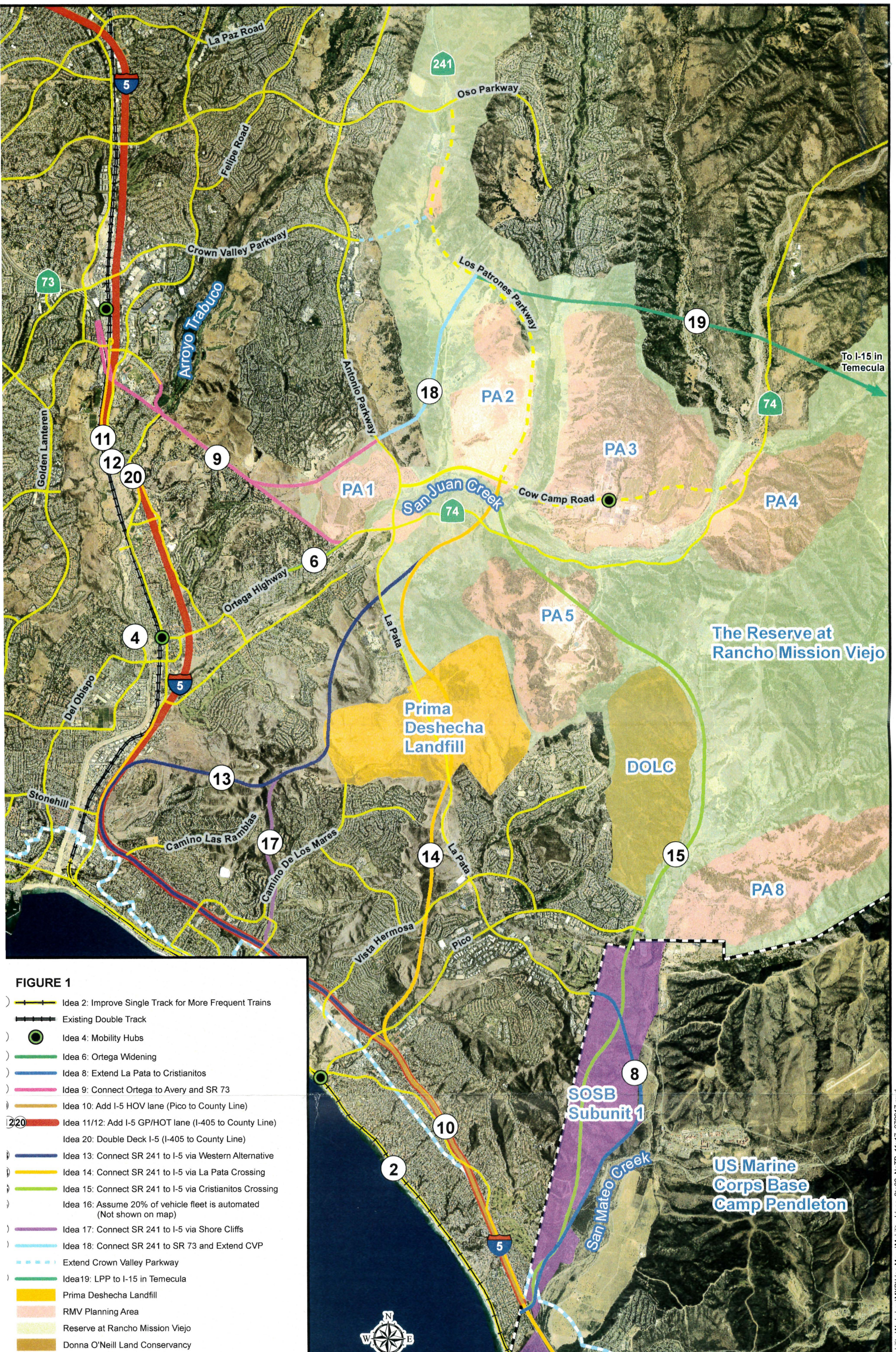

FIGURE 1

- Idea 2: Improve Single Track for More Frequent Trains
- Existing Double Track
- Idea 4: Mobility Hubs
- Idea 6: Ortega Widening
- Idea 8: Extend La Pata to Cristianitos
- Idea 9: Connect Ortega to Avery and SR 73
- Idea 10: Add I-5 HOV lane (Pico to County Line)
- 220 Idea 11/12: Add I-5 GP/HOT lane (I-405 to County Line)
- Idea 20: Double Deck I-5 (I-405 to County Line)
- Idea 13: Connect SR 241 to I-5 via Western Alternative
- Idea 14: Connect SR 241 to I-5 via La Pata Crossing
- Idea 15: Connect SR 241 to I-5 via Cristianitos Crossing
- Idea 16: Assume 20% of vehicle fleet is automated (Not shown on map)
- Idea 17: Connect SR 241 to I-5 via Shore Cliffs
- Idea 18: Connect SR 241 to SR 73 and Extend CVP
- Extend Crown Valley Parkway
- Idea19: LPP to I-15 in Temecula
- Prima Deshecha Landfill
- RMV Planning Area
- Reserve at Rancho Mission Viejo
- Donna O'Neill Land Conservancy
- San Onofre State Beach Leasehold
- Camp Pendleton Boundary
- Coastal Zone Boundary
- South County Major Arterials

Chapter 1 Introduction

This Preliminary Scoping Report was prepared to document the future screening of alternatives for the South County Traffic Relief Effort in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), as well as the overall scoping process.

This report describes the development of alternatives included in the Project Study Report/Project Development Support (PSR/PDS) prepared during the Project Initiation Document (PID) phase of the Project, as well as those identified during or since the PID phase. The early identification of ideas for mobility improvement has been an open process accessible to potential stakeholders and elected officials in the Study Area, including members of the general public. As a result, agencies and public participants suggested several system or modal ideas.

A detailed history of alternatives development is contained within Section 1.1, Background.

Section 2.2 describes in more detail the overall scoping process required by CEQA and NEPA, as well as the anticipated schedule and process moving forward into preparation of detailed technical studies and the development of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS).

1.1 Background

Since 1981, State Route 241 (SR 241), connecting State Route 91 to Interstate 5 (I-5), has been included with portions of the alignment designated conceptual on Orange County's Master Plan of Arterial Highways. It has been in the Southern California Association of Governments' (SCAG) Regional Transportation Plan (RTP) since 1991, and in the San Diego Association of Governments' (SANDAG) RTP since 1994. The final segment of SR-241 (between Oso Parkway and I-5) is included in SCAG's 2016 RTP/Sustainable Communities Plan (RTP/SCS) (2016a), the Federal Transportation Improvement Program (FTIP) (SCAG 2016b), the Orange County Transportation Authority's (OCTA) 2014 Long Range Transportation Plan (LRTP) (2018b), and SANDAG's RTP (2011). OCTA's 2018 LRTP, completed in November 2018, includes the project on the "Conceptual Project List," which is unconstrained by funding limitations; however, the Foothill/Eastern Transportation Corridor Agency (F/ETCA) has committed funding sources to complete the Project Approval/Environmental Documentation (PA/ED) phase.

In 2006, F/ETCA certified a Final Subsequent Environmental Impact Report (2006 SEIR) for the SR 241 Foothill South Extension and approved an alignment (known as the "Green Alignment") in the Draft EIS/SEIR for the South Orange County Transportation Infrastructure Improvement Project. In 2008, the California Coastal Commission rejected F/ETCA's Coastal Consistency determination for the Green Alignment.

In 2013, F/ETCA approved an Addendum to the 2006 SEIR (2013 Addendum) and approved an extension of SR 241 to Cow Camp Road (2013 Approvals), also known as the Tesoro Extension.

The 2006 SEIR and 2006 Approvals and the 2013 Approvals and 2013 Addendum were challenged under CEQA by several environmental groups (collectively known as the Save San Onofre Coalition), the People of the State of California, and the California State Park and Recreation Commission. The Native American Heritage Commission also filed a lawsuit seeking to enjoin construction, development, and permitting of the Green Alignment.

In 2016, F/ETCA and the plaintiffs signed an agreement to end the numerous legal actions concerning and arising from the 2006 SEIR, the 2006 Approvals, the Oso Parkway Bridge Project, and the Tesoro Extension (Settlement Agreement) (2016b). The Settlement Agreement resolved the pending lawsuits and potential lawsuits, will avoid certain future claims, and established a framework by which an alignment for the SR 241 Extension Project can be identified, evaluated, and potentially advanced in a manner that is consistent with applicable laws and meets the transportation needs of the region.

In January 2016, F/ETCA approved and circulated the *South Orange County – Community Ascertainment Study Regarding Regional Mobility* (January 2016a). The Ascertainment Study was intended to serve as a first step in determining if and how the community wants to work together to identify its regional mobility needs.

The Ascertainment Study was conducted between May and November 2015 and consisted of 45 in-person, confidential interviews with residents and active community-based leaders from the Orange County cities and unincorporated areas of San Clemente, San Juan Capistrano, Dana Point, Mission Viejo, Ladera Ranch, Coto de Caza and Rancho Santa Margarita.

The Ascertainment Study made the following recommendations:

- Establish an inclusive process for elected officials composed of officials representing the cities affected by the I-5 congestion problem and whose interests are impacted by the problem.
- Develop and implement a public information and communications plan to inform the community about the elected officials' process.
- Develop and implement a comprehensive community involvement plan that facilitates informing the public about congestion relief solutions under consideration and any potential alignments under consideration for the extension of the SR 241 toll road.
- Reach out to and re-engage with those individuals who actively participated in the 2008 public involvement process related to extending the SR 241.

F/ETCA began implementing the recommendations from the Ascertainment Study in January 2016. This involved:

- Establishment of and collaboration with the South Orange County Mobility Working Group (SOCMWG) composed of elected officials from Orange County and the cities of San Clemente, Mission Viejo, San Juan Capistrano, Dana Point, and Santa Margarita. Other agencies that participated in this group included the Transportation Corridor Agencies, OCTA, and the California Department of Transportation (Caltrans);
- Collaboration with environmental stakeholders; and
- Implementation of a comprehensive community involvement plan.

The SOCMWG met seven times between January 2016 and October 2016 for the purpose of collaborating on ideas to address south Orange County's north-south traffic problem and to provide policy direction and oversight for public forum planning and execution.

Two public forums were held on June 16, 2016, and October 5, 2016, to present data regarding transportation issues and to solicit input from the public for transportation solutions. These two public forums resulted in 16 ideas brought forward for a more detailed evaluation. The 16 ideas were grouped into six packages: Alternative Modes and Operations (Ideas 1-5), Arterial Widening (Ideas 1-7), Substantial Roadway Projects (Ideas 1-9), I-5 Options (Ideas 1-7 and 10-12), SR 241/I-5 Options (Ideas 1-7 and 13-15), and Technology (efficiency enhancement; Idea 16). A preliminary traffic evaluation (including daily congested vehicle miles traveled and daily vehicle hours of delay) was presented to the public by traffic engineering consultants Fehr & Peers regarding the performance of the six packages.

In May 2016, F/ETCA established the website "Get Moving Orange County" (http://getmovingoc.com/) to provide the public with information regarding upcoming public forums on South Orange County Mobility Improvement, as well as videos of previous public forums, and to provide a method to provide feedback to F/ETCA regarding the public forums.

On November 16, 2016, F/ETCA submitted a transmittal letter and the 16 ideas with supporting documentation to OCTA and Caltrans District 12 for review and comment. The supporting documentation included figures with alignments of the 16 ideas, preliminary traffic data that evaluated the performance of the six packages, and fact sheets that ranked the packages and listed benefits, challenges, funding sources, and estimated costs. Both agencies provided response letters that provided input on the packages.

F/ETCA developed Idea 17 in January 2017 as an alternative connection for Idea 13 at I-5.

On April 4, 2017, the City of San Clemente submitted a letter to F/ETCA recommending evaluation of an additional idea (Idea 18).

A third public forum was held on June 5, 2017. This forum consisted of two discussion panels and responses to questions submitted by the attendees. The first panel discussed the Settlement Agreement and the second panel discussed the Project development process, the evaluation of ideas, and coordination with Caltrans District 12 and OCTA. More than 600 members of the community attended in person, and more than 3,000 people viewed a live stream of the event online. Attendees were provided presentations by transportation agencies (Caltrans, F/ETCA, and OCTA) outlining the Project development process. Written questions were answered and posted on the *Get Moving Orange County* website[1]. As a result of the June 2017 public forum and subsequent input, additional ideas were suggested, for a total of 20 ideas (Figure 1).

[1] As of September 2019, website is no longer active.

1.1.1 Initial Screening Phase

In December 2017, an initial screening of the 20 ideas was conducted (South County Traffic Relief Initial Screening [LSA, 2017]) based on their ability to provide substantial mobility improvement, while also documenting mobility improvements that could be initiated by, or are otherwise under the purview of, other agencies. During this screening, ideas were initially sorted into four categories: (1) ideas already being advanced or implemented by agencies other than F/ETCA, (2) ideas that are ineffective or are premature, (3) ideas that are not feasible due to regulatory or financial constraints, and (4) remaining ideas subjected to mobility analysis. Those 11 ideas falling into Category 4 (including three that were part of existing programs but that F/ETCA could assist in further advancing) advanced into a traffic evaluation analysis based on three mobility metrics, using the Orange County Transportation Analysis Model:

- Weekday vehicle hours of delay (VHD) on the I-5 corridor (between Oso Parkway and the Orange County/San Diego County line)
- Weekday VHD on various major east-west arterials that provide connections with I-5 in south Orange County
- Congested vehicle miles of travel on weekdays in south Orange County

Based on the results of the evaluation methodology, seven ideas within Category 4 provided substantial benefits in reducing delay on I-5 or the arterial highway system and were recommended to advance into the next phase of project development, the preparation of a PSR/PDS.

1.1.2 Project Initiation Document Phase

A PSR/PDS is one type of project initiation document[1], which is an engineering document or technical report that documents the scope, cost, and schedule of a Caltrans project. A detailed discussion of the PID phase is provided in Section 2.1 below.

The PSR/PDS for the Project, approved by Caltrans on May 7, 2019, includes the No Build Alternative and the seven ideas that were recommended from the initial screening described in Section 1.1.1 above, that took place in December 2017. In the PSR/PDS, these seven ideas are referred to as build alternatives, but the idea

[1] A PSR/PDS provides scope approval for projects funded by entities other than Caltrans and is one of Caltrans' two most common types of PID. The other is a Project Study Report. The type of PID document prepared primarily depends on the type of project/work to be done and the project's funding source.

numbers are retained for consistency. The PSR/PDS also includes the addition of another build alternative (Alternative 21). Alternative 21 (Idea 21) was introduced by the F/ETCA Board during its February 2018 meeting. The PSR/PDS presented sufficient detail to allow Caltrans to program support costs for the next phase of the Project (PA/ED). It did not include specific recommendations regarding alternatives and did not preclude the study of any project alternatives. Rather, the eight build alternatives presented in the PSR/PDS are included in this Scoping Report in order to obtain public input and determine the specific alternatives to be carried forward into the PA/ED phase. Refer to Chapter 2.0 for further details on the Project development process.

1.1.3 Study Area

The Study Area, i.e., south Orange County, covers approximately 236 square miles and is generally bounded by Interstate 405 (I-405) and Modjeska Canyon to the north, Marine Corps Base Camp Pendleton to the south, the Orange County line to the east, and Laguna Canyon Road to the west. Along I-5, the Study Area extends north to I-405. The Study Area includes all or parts of the cities of Irvine, Lake Forest, Laguna Hills, Laguna Beach, Aliso Viejo, Laguna Niguel, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, Dana Point, and San Clemente, and unincorporated areas in Orange and San Diego Counties. The Study Area is shown in Figure 2, Study Area.

1.1.4 Project Limits

The Project Limits include SR 241/Los Patrones Parkway from Oso Parkway to I-5 in Orange County and I-5 from the I-405 connection in Irvine to the Orange County/San Diego County line. Six of the Build Alternatives extend approximately one mile south of the county line, terminating at the Basilone Road/I-5 interchange in San Diego County. The Project Limits are defined by the specific alignments of the proposed alternatives, discussed in more detail in Section 4.1 below.

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Study Area

FIGURE 2

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SOURCE: Esri (2018)

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South County Traffic Relief Effort

Study Area

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Chapter 2 Project Development Process

Under CEQA, a Lead Agency must identify the purpose of a project and the objectives that the project is intended to meet. Under NEPA, a Lead Agency must identify the Purpose and Need for the action. There can be more than one purpose and the purposes are specific objectives of the proposed action. The need is the problem or deficiency that the Lead Agency wants to address. The Caltrans phases of project development for CEQA and NEPA compliance for a transportation project are described in the following sections.

2.1 Project Initiation Document Phase

The PID phase is intended to define the project's scope, cost, and schedule and obtain conceptual approval within Caltrans as owner-operator of the State Highway System. A PID is also used to scope a project to be used as a candidate for programming. In the PID phase, the first step is to identify a preliminary Purpose and Need for a proposed project. The Purpose and Need is developed by the Lead Agency (or lead agencies) in cooperation with other stakeholders. Once a preliminary Purpose and Need is developed, a range of alternatives for the transportation project are developed. Alternatives, developed as part of a feasibility study or an early scoping/public outreach process, are included in the list of alternatives to be evaluated against the preliminary Purpose and Need and other screening criteria. The completed PID includes:

- Preliminary Purpose and Need
- A description of alternatives
- A Traffic Engineering Performance Assessment
- A Preliminary Environmental Analysis Report
- Cost estimates
- Required permits
- Potential right-of-way acquisitions
- A discussion of stakeholder involvement
- Funding
- Schedule
- Risks

2.2 Project Approval/Environmental Document Phase

The PA/ED phase is intended to evaluate the viable alternatives, to complete the CEQA/NEPA processes, and to approve either a No Build Alternative or a project to

proceed to final design by way of approval of a Final Project Report. The main steps in the PA/ED phase are project scoping, preparation of a Draft Environmental Document (DED), public review of the DED, Responses to Comments on the DED, preparation of the Final Environmental Document (FED), and approval of FED and the Project Report.

Project scoping involves the following:

- Filing of the Notice of Preparation/publication of the Notice of Intent to start the scoping process for CEQA and NEPA, respectively
- Coordination with affected agencies
- Determination of the scope and the significant issues to be analyzed in depth in the environmental document (e.g., air quality, noise, Section 4(f) properties)
- Identification and elimination from detailed study the issues that are not significant or that have been covered by prior environmental review (e.g., wild and scenic rivers)
- Identification of other environmental documents that are related to, but are not part of the proposed project
- Identification of environmental review and consultation requirements that can be conducted concurrently with the environmental document (e.g., Section 4(f), Section 106, Air Quality Conformity)
- Public scoping meetings
- Review and comments on the Purpose and Need and alternatives, input on alternatives or addition of alternatives, refinements to the Purpose and Need, and review of public scoping comments

Alternatives may be removed from further consideration in this step based on public and agency input or inability to meet Purpose and Need.

The DED steps involve the following:

- Coordination with various agencies related to threatened and endangered species and Essential Fish Habitat, listed and potentially listed historic resources and Native American tribal resources, Section 4(f) properties, air quality determinations, waters of the United States, the California Coastal Zone, and others
- Incorporation of scoping comments into Purpose and Need and development of alternatives
- Preparation of traffic, engineering, and environmental technical studies
- Purpose and Need approval

- Preparation and approval of the DED for circulation
- Public review of the DED (minimum of 45 days), including a public hearing
- Public and agency input.

Alternatives may be removed from further consideration in this step, based on findings of the technical studies. Following circulation of the DED and the receipt of public and agency input, a Preferred Alternative is identified.

Finally, the FED steps include the following:

- Preparation of Responses to Comments on the DED
- Identification of the preferred alternative
- Revisions to the DED/preparation of the FED
- Agency coordination and approvals related to the Least Environmentally Damaging Practicable Alternative, the Findings of Effect, air quality conformity determinations, and Section 4(f) consultation
- FED and project approval (the Final EIS may include a combined Record of Decision)

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Chapter 3 Purpose and Need

The preliminary Purpose and Need was developed by F/ETCA and Caltrans in consultation with OCTA, SOCMWG and other stakeholders, as well as the Project Development Team (PDT).

3.1 Purpose

The purpose and fundamental objectives of the Project are to materially improve north-south regional mobility in South Orange County and accommodate regional travel demand in a manner that promotes the supporting objectives related to mobility in South Orange County:

- Improve regional mobility by reducing congestion on I-5 during peak commuting hours and weekends
- Provide additional north-south capacity in case of traffic incidents on I-5
- Enhance bike and pedestrian opportunities

The project would also provide additional north-south capacity that would benefit potential evacuations in case of emergencies.

3.2 Need

Transportation infrastructure improvements are necessary to address the existing and future deficiencies for north-south regional mobility in south Orange County. Roadway deficiencies and mobility limitations in south Orange County are described below:

- Demand approaches or exceeds capacity on I-5 during peak commuting hours and weekends
- The lack of redundant north-south capacity increases congestion during traffic incidents on I-5
- Additional bike and pedestrian facilities are needed to connect highways with local sidewalks and bikeways, consistent with the Caltrans' *Sustainability Implementation Action Plan* (2016)

In addition, lack of sufficient north-south regional mobility impairs potential evacuations in case of emergencies such as wildfires, major storms, or other disasters.

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Chapter 4 Project Alternatives

The purpose of this Draft Scoping Report is to describe the process to identify a reasonable range of project alternatives to analyze in the PA/ED phase that meet the Project's preliminary Purpose and Need and fundamental objectives. This screening framework will be the first step in identifying a range of feasible alternatives that meet the Purpose and Need for the Project.

4.1 Current Range of Alternatives

This section discusses the current suite of alternatives under consideration. Figure 3, Project Alternatives, shows the preliminary alignments of the set of alternatives. Alternatives 22 and 23 were introduced following the development of the PSR/PDS and are considered conceptual at this time.

It should be noted that several of the Build Alternatives discussed in this report and in the PSR/PDS include the addition of High Occupancy Toll (HOT) facilities. As alternatives development continues and detailed technical work commences as part of the PA/ED process, the definition of these alternatives will be slightly broadened to simply refer to "managed lanes", consistent with Caltrans' Orange County Managed Lanes Network Study (September 2016). This shift will provide more flexibility in determining the proper solution to the transportation problem that has been identified. "Managed lanes" is a general term for freeway lanes that are actively managed to improve operations or utilization. "Priced managed lanes," which is generally synonymous with HOT lanes, is a subset of managed lanes, and carry a mix of tolled and high occupancy vehicle (HOV) traffic. For the purposes of the traffic modeling performed for the PSR/PDS that supports the data referenced in this document, an occupancy minimum of two passengers was assumed for HOV lanes, and all HOT lanes/toll facilities included a price per mile with an additional entry/exit price at some locations along SR 241.

4.1.1 Alternative 1: No Build Alternative

Alternative 1 does not include improvements to the existing lane configurations and route adoptions for SR 241 and I-5. Under Alternative 1, no extension of the tolled SR 241 lanes to I-5, new general-purpose lanes or HOT lanes on I-5, or new connections between Ortega Highway, Antonio Parkway, Avery Parkway, and State Route (SR 73) would occur. Alternative 1 does include other projects on the

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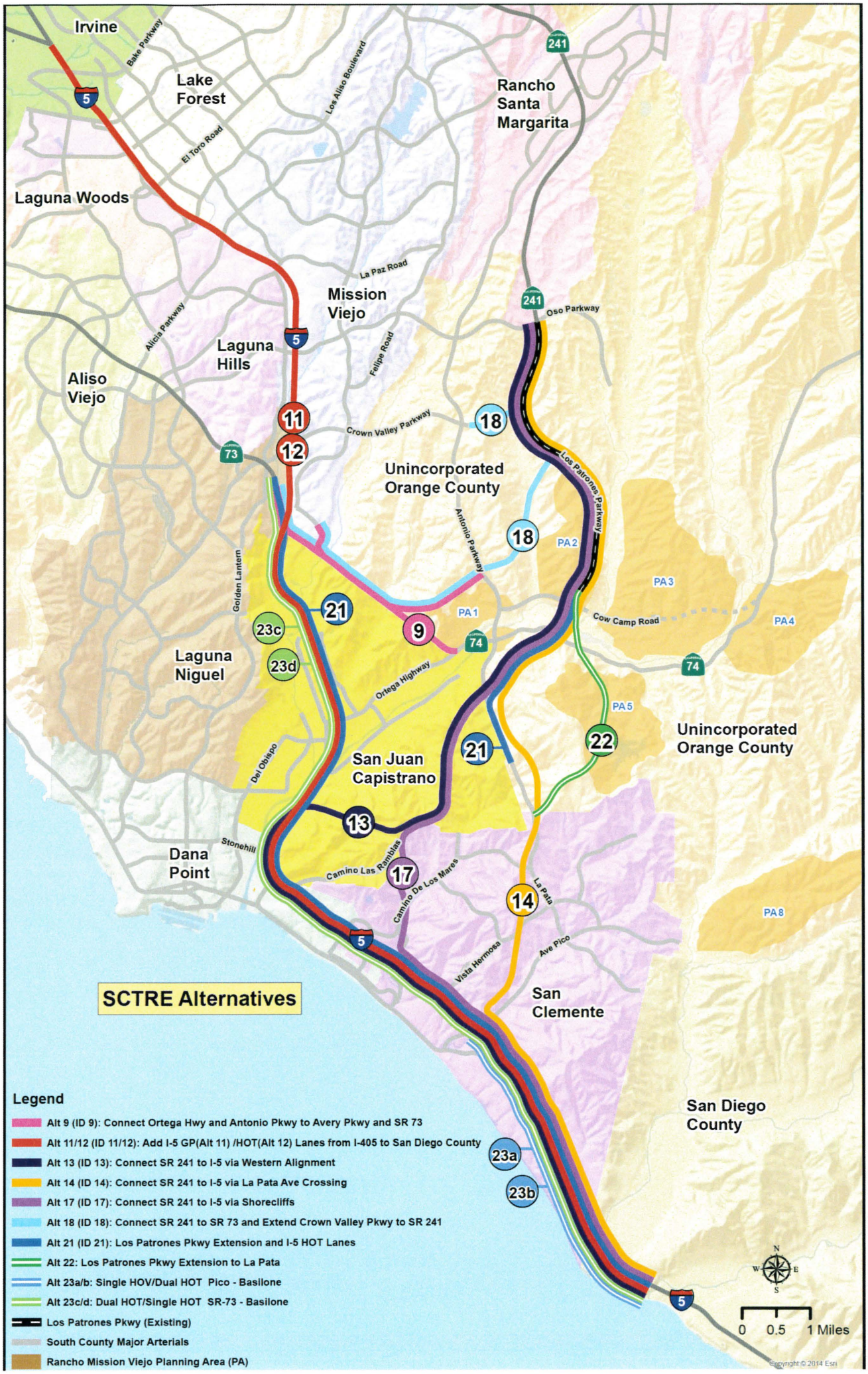
Irvine
Lake Forest
Rancho Santa Margarita
Laguna Woods
Mission Viejo
Laguna Hills
Aliso Viejo
Unincorporated Orange County
Laguna Niguel
San Juan Capistrano
Dana Point
San Clemente
Unincorporated Orange County
San Diego County
Bake Parkway
Los Alisos Boulevard
El Toro Road
La Paz Road
Alicia Parkway
Felipe Road
Crown Valley Parkway
Oso Parkway
Los Patrones Parkway
Antonio Parkway
Golden Lantern
Cow Camp Road
Ortega Highway
Del Obispo
Stonehill
Camino Las Ramblas
Camino De Los Mares
La Pata
Ave Pico
Vista Hermosa
PA1
PA2
PA3
PA4
PA5
PA8
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241
73
74
11
12
18
21
9
23c
23d
13
17
14
22
23a
23b
SCTRE Alternatives
Legend
Alt 9 (ID 9): Connect Ortega Hwy and Antonio Pkwy to Avery Pkwy and SR 73
Alt 11/12 (ID 11/12): Add I-5 GP(Alt 11) /HOT(Alt 12) Lanes from I-405 to San Diego County
Alt 13 (ID 13): Connect SR 241 to I-5 via Western Alignment
Alt 14 (ID 14): Connect SR 241 to I-5 via La Pata Ave Crossing
Alt 17 (ID 17): Connect SR 241 to I-5 via Shorecliffs
Alt 18 (ID 18): Connect SR 241 to SR 73 and Extend Crown Valley Pkwy to SR 241
Alt 21 (ID 21): Los Patrones Pkwy Extension and I-5 HOT Lanes
Alt 22: Los Patrones Pkwy Extension to La Pata
Alt 23a/b: Single HOV/Dual HOT Pico - Basilone
Alt 23c/d: Dual HOT/Single HOT SR-73 - Basilone
Los Patrones Pkwy (Existing)
South County Major Arterials
Rancho Mission Viejo Planning Area (PA)
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financially constrained[1] project list in the SCAG 2016 RTP/SCS and the Preferred Plan in the OCTA 2018 LRTP in the Project Limits on I-5. Additional land areas would not be impacted, and existing and projected traffic congestion would not be alleviated beyond that associated with other projects in approved plans.

4.1.2 Alternative 9: Connect Ortega Highway and Antonio Parkway to Avery Parkway and SR 73

Alternative 9 would construct four-lane (two lanes in each direction) arterial connections from SR 73 to Ortega Highway and Antonio Parkway, consistent with Highway Design Manual (HDM) standards for median widths for expressways under restrictive conditions. This arterial facility would include connector structures over I-5 where the arterial facility would exit SR 73 to a signalized intersection at Avery Parkway. The arterial connection would continue east from Avery Parkway and the northbound segment would terminate with a new signalized intersection at Antonio Parkway. The southbound segment would terminate with a new signalized intersection at Ortega Highway.

4.1.3 Alternative 11: Add I-5 General Purpose Lane (from I-405 to San Diego County)

Alternative 11 would widen I-5 with the addition of one General Purpose lane in each direction from the I-405/I-5 Junction to Basilone Road, just south of the Orange County/San Diego County line.

The existing I-5 HOV lanes north of Avenida Pico are intended to function as HOV lanes in the opening year (2025) but would be converted to HOT lanes by Caltrans as part of its regionwide regional express/HOT lane network by 2040, consistent with the financially-constrained Project list in the 2016 RTP/SCS (RTP ID No. 7120013).

4.1.4 Alternative 12: Add I-5 HOT Lane from I-405 to San Diego County

Alternative 12 would convert two existing HOV lanes to HOT lanes in each direction on I-5 from I-405 to Alicia Parkway. One existing HOV lane would be converted to a HOT lane and another HOT lane would be added in each direction from Alicia Parkway to Avenida Pico. Two HOT lanes would be added in each direction from Avenida Pico to Basilone Road, just south of the Orange County/San Diego County line.

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[1] The SCAG 2016 RTP/SCS contains a financially constrained RTP project list that incorporates an additional set of transportation projects beyond the scope of the FTIP.

4.1.5 Alternative 13: Connect SR 241 to I-5 via Western Alignment (Local Connection at La Novia Avenue)

Alternative 13 would widen Los Patrones Parkway and convert it to a tolled facility from Oso Parkway to north of Cow Camp Road, and extend SR 241 by adding a new four-lane tolled highway (two tolled lanes in each direction) from north of Cow Camp Road to I-5. Alternative 13 would cross Ortega Highway and La Pata Avenue in unincorporated Orange County, and would run adjacent to the western boundary of Prima Deshecha Landfill in the City of San Juan Capistrano. Alternative 13 would land within the I-5 footprint at La Novia Avenue in the City of San Juan Capistrano.

Where Alternative 13 lands within the I-5 footprint and subsequently runs parallel thereto, two lanes in each direction would be provided in the median (widening I-5 to the outside) south to the Orange County/San Diego County line. Alternative 13 would transition to the existing alignment of I-5 in San Diego County, connecting with the I-5 at Basilone Road.

Alternative 13 would convert one existing HOV lane to a HOT lane, and add another HOT lane in each direction on I-5 from La Novia Avenue to Avenida Pico. From Avenida Pico to the Orange County/San Diego County line, two HOT lanes would be added in each direction on I-5.

4.1.6 Alternative 14: Connect SR 241 to I-5 via La Pata Avenue Crossing (Local Connection at Avenida Pico)

Alternative 14 would widen Los Patrones Parkway and convert to a tolled facility from Oso Parkway to north of Cow Camp Road and extend SR 241 by adding a new four-lane tolled highway (two tolled lanes in each direction) from north of Cow Camp Road to I-5. Alternative 14 would cross Ortega Highway in unincorporated Orange County, and would run parallel to La Pata Avenue and cross Prima Deshecha Landfill in unincorporated Orange County and the City of San Clemente. Alternative 14 would land within the I-5 footprint at Avenida Pico in the City of San Clemente. Where Alternative 14 lands within the I-5 footprint and subsequently runs parallel thereto, two lanes in each direction would be provided in the median (widening I-5 to the outside) to the Orange County/San Diego County line. Alternative 14 would transition to the existing alignment of I-5 in San Diego County and would end and connect with I-5 at Basilone Road.

Alternative 14 would add two HOT lanes in each direction on I-5 from Avenida Pico to the Orange County/San Diego County line.

4.1.7 Alternative 17: Connect SR 241 to I-5 via Shore Cliffs (Local Connection at Avenida Vaquero)

Alternative 17 would widen Los Patrones Parkway and convert it to a tolled facility from Oso Parkway to north of Cow Camp Road and extend SR 241 by adding a new four-lane tolled highway (two tolled lanes in each direction) from north of Cow Camp Road to I-5. Alternative 17 would cross Ortega Highway and La Pata Avenue in unincorporated Orange County, and would run adjacent to the western boundary of Prima Deshecha Landfill in the City of San Juan Capistrano. Alternative 17 would cross through Shorecliff Golf Course and would land within the I-5 footprint at Avenida Vaquero in the City of San Clemente. Where Alternative 17 lands within the I-5 footprint and subsequently runs parallel thereto, two lanes in each direction would be provided in the median (widening I-5 to the outside) to the Orange County/San Diego County line. Alternative 17 would transition to the existing alignment of I-5 in San Diego County and would end and connect with I-5 at Basilone Road.

Alternative 17 would convert one existing HOV lane to a HOT lane, and add another HOT lane on I-5 from Avenida Vaquero to Avenida Pico. From Avenida Pico to the Orange County/San Diego County line, two HOT lanes would be added in each direction on I-5.

4.1.8 Alternative 18: Connect SR 241 to SR 73 and Extend Crown Valley Parkway to SR 241

Alternative 18 would construct a four-lane (two lanes in each direction) arterial connection from SR 73 to Antonio Parkway, consistent with HDM standards for median widths for expressways under restrictive conditions. This arterial facility would include connector structures over I-5 where the arterial would exit SR 73 to a signalized intersection at Avery Parkway. The arterial connection would continue northeast from Avery Parkway to a signalized intersection at Antonio Parkway and continue northeast to Los Patrones Parkway, ultimately providing access to SR 241 via Los Patrones Parkway. Crown Valley Parkway would also be extended to connect to Los Patrones Parkway, ultimately providing access to SR 241 via Los Patrones Parkway.

4.1.9 Alternative 21: Los Patrones Parkway Extension and I-5 HOT Lanes

Alternative 21 consists of two separate roadway segments. The first segment would extend Los Patrones Parkway with two lanes in each direction from Cow Camp Road to Avenida La Pata, north of Vista Montana. The determination for Los Patrones Parkway as tolled or untolled from Oso Parkway to Vista Montana will be further evaluated during the PA/ED phase. For this alternative, traffic forecasts are based

upon an untolled scenario for the existing four-mile segment of Los Patrones Parkway and the extension. The second segment would provide a median-to-median HOT lane connector from SR 73 to I-5. In addition, on I-5, one existing HOV lane would be converted to a HOT lane and another HOT lane would be added in each direction from SR 73 HOT lane connectors to Avenida Pico. Alternative 21 would provide two HOT lanes in each direction parallel to I-5 from Avenida Pico to Basilone Road, just south of the Orange County/San Diego County line. Depending on the results of detailed traffic modeling that will take place later in Project development, spot improvements to local intersections may be also included within the scope of Alternative 21.

4.1.10 Alternative 22: Extension of Los Patrones Parkway to Avenida La Pata

Alternative 22 proposes the extension of Los Patrones Parkway with two lanes in each direction from Cow Camp Road to Avenida La Pata. Truck climbing lanes would be included, as necessary. Los Patrones Parkway is a county secondary arterial that currently extends from Oso Parkway to Chiquita Canyon Drive and provides connectivity to SR 241. The proposed alignment would measure 4.1 miles and would begin north of Cow Camp Road and end at Avenida La Pata to the south, approximately 3,700 feet north of Camino del Rio. The proposed alignment would traverse southeast across San Juan Creek into Rancho Mission Viejo's future Planning Area 5. Near the southern end of the planning area, the alignment would turn west into Prima Deshecha landfill, where it would cross existing open space and run through an area proposed for future landfill use. The alignment would ultimately intersect with Avenida La Pata at its southern terminus, north of Camino Del Rio. The alignment may allow for consideration of ingress and egress at access points for future development along the conceptual alignment. The determination of Los Patrones Parkway as a managed lane facility (tolled or untolled) from Oso Parkway to Avenida La Pata will be further evaluated during the alternatives screening process following the formal scoping period. Depending on the results of detailed traffic modeling that will take place later in project development, spot improvements to local intersections may be also included within the scope of Alternative 22.

The concept for Alternative 22 was introduced by Orange County officials in 2019 as another potential alternative that may improve north-south mobility within south Orange County and therefore potentially address the South County Traffic Relief Effort's preliminary Purpose and Need statement. As the South County Traffic Relief Effort PSR/PDS was approved by Caltrans in May 2019, and Alternative 22 is still only at a conceptual level of design, the necessary data was not available with adequate time to complete the more detailed analysis necessary for the PSR/PDS.

4.1.11 Alternative 23: I-5 Managed Lanes from Avenida Pico to Basilone Road [High-Occupancy Vehicle (HOV) Lanes or High-Occupancy Toll (HOT) Lanes]

Alternative 23 proposes the extension of managed lanes on I-5 in each direction consisting of HOV or HOT lanes, depending on the option. The HOV/HOT lanes would begin at the southern end, in the vicinity of the Basilone Road interchange near the Orange County Line/San Diego County line, and terminate at the northern end either near the Avenida Pico interchange or at the terminus of SR 73.

The existing mainline would be widened to the outside to accommodate the managed lanes. Bridge widening and replacement would take place at several locations, new retaining walls would be constructed, and the I-5 centerline would shift to minimize right-of-way impacts.

Alternative 23 would consist of four standalone options.

- Option A (also referred to as Alternative 23A) would consist of the addition of a single HOV lane in each direction from Avenida Pico to Basilone Road.
- Option B (also referred to as Alternative 23B) would consist of the addition of two HOT lanes in each direction from Avenida Pico to Basilone Road.
- Option C (also referred to as Alternative 23C) would convert one existing HOV lane to a HOT lane, and add another HOT lane in each direction from the SR 73 HOT lane connectors to Avenida Pico. This option would then add two HOT lanes in each direction on I-5 from Avenida Pico to Basilone Road.
- Option D (Also referred to as Alternative 23D) would convert one existing HOV lane to an HOT lane in each direction from the SR 73 HOT lane connectors to Avenida Pico. This option would then add one HOT lane in each direction on I-5 from Avenida Pico to Basilone Road.

During development of the PSR/PDS, a variation of this alternative was under development by other entities. Following approval of the PSR/PDS, it became apparent that this alternative may address the preliminary Purpose and Need of the South County Traffic Relief Effort Project, and because it is not currently programmed or funded by other agencies, the South County Traffic Relief Effort Project will include Alternative 23 (and its options) as a potential for further consideration.

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Chapter 5 Screening Criteria and Methodology

For the purpose of this Draft Scoping Report, metrics related to the preliminary Purpose and Need have been established and will be used following the formal scoping process to determine the reasonable range of alternatives evaluated in the EIR/EIS. This screening process will include any additional alternatives introduced during the formal scoping process, and will be conducted following the completion of the formal scoping process, which includes opportunity for public input.

5.1 Criteria for Meeting Purpose and Need

The only adopted standard that Caltrans uses for measuring transportation performance over a broad area is level of service (LOS), which measures the performance of a specific location (such as a ramp, intersection, or freeway segment). Such a measure is useful, but only if aggregated over the Study Area. Therefore, this analysis will quantify the number of freeway locations that meet both conditions: (1) they are projected to operate at worse than the Caltrans standard (LOS D); and (2) they would realize at least one grade level improvement as a consequence of implementation of a build alternative. A minimum value of 10 percent of locations realizing an improvement will be designated to demonstrate if an alternative would satisfy the Project's purpose and fundamental objective.

VHD will also be used to measure how much delay drivers experience on a typical weekday. Although measured on a 24-hour basis, the vast majority of the delay would occur during peak commute hours. Two metrics will be used to determine if a project alternative would satisfy the purpose and fundamental objective: (1) a reduction of at least 1,500 VHD on I-5, and (2) a reduction of at least 2,000 VHD for all roadways in the Study Area, including I-5. It is important to note that in 2018, the CEQA Guidelines were updated to implement the provisions of Senate Bill 743. Under those provisions, automobile delay or level of service is no longer considered a significant impact under CEQA. Vehicle miles traveled has been identified by the Office of Planning and Research as the most appropriate metric with which to evaluate a project's transportation impacts. July 1, 2020 is the statewide implementation date. As of October 2019, Caltrans has not yet promulgated guidance on the evaluation of transportation impacts using vehicle miles traveled as a metric. When such guidance is promulgated, it will be taken into consideration within the context of this evaluation.

Other supporting objectives of the Project include (1) improve regional mobility by reducing congestion on I-5 during peak commuting hours and weekends; (2) provide additional north-south capacity in case of traffic incidents on I-5; and (3) enhance bicyclist and pedestrian opportunities. Providing additional north-south capacity includes additional lanes on I-5 or on north-south arterials within the Study Area. Traffic incidents include accidents, spills, or other incidents that would require a temporary lane closure. Additional north-south capacity would also benefit potential evacuations in case of emergencies. Emergencies include fire, flood, or other evacuations not related to an incident on I-5.

Finally, the traffic data for the Study Area shows that volumes are approximately 30 percent higher on spring and summer weekends than weekdays in the southernmost portion of the I-5 Study Area, from Avenida Vista Hermosa south, which includes two segments: (1) Avenida Califia to Cristianitos Road, and (2) Avenida Vista Hermosa to Avenida Pico. Moreover, the observed queues are significantly longer on weekends (southbound on Saturday and northbound on Sunday) than weekdays. The purpose and fundamental objective will be considered to be satisfied if both of these southerly segments will operate at LOS D or better under a given alternative.

5.2 Environmental Screening Criteria

In addition to the criteria used to establish whether an alternative meets the purpose and need of the project, the screening process will also determine if there are alternatives that avoid or have minimal impacts on the following environmental resources:

- Section 4(f) resources
- Historical resources
- Farmlands/timberlands
- Jurisdictional features/waters of the United States
- Environmental justice communities
- Residential and/or business displacements/relocations
- Threatened, endangered, and sensitive species and/or critical habitat
- Hazardous waste sites

Under Section 4(f) of the Department of Transportation Act of 1966, federal funds may not be used on projects that result in a "use" of Section 4(f) properties unless it can be demonstrated that no feasible or prudent avoidance alternatives exist and all possible planning to minimize harm to the property or properties has been conducted. Similarly, the United States Army Corps of Engineers, under Section

404(b), requires no practicable alternative to the proposed discharge that would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences. Executive Order 12898 also requires that federal agencies identify and avoid disproportionately high and adverse effects to low income or minority populations (environmental justice communities), to the greatest extent allowed by law, as a result of its programs, policies, and activities.

It is anticipated that all the build alternatives would have some impact on the environment in each of the categories described above. Therefore, no quantitative threshold for these environmental issues would be applied. The screening criteria for these resources is consistency with the project's goal to avoid and to minimize environmental impacts to the greatest extent feasible. To screen each alternative against this objective, a relative comparison will be conducted for the number of Section 4(f) properties, listed or eligible for listing historical resources, environmental justice communities, potential displacements and relocations, listed species, and hazardous waste sites as well as the acreages of farmland, potentially jurisdictional features, and critical habitat within the study area for each alternative.

5.3 Other Screening Criteria

Other screening criteria that will be used to determine what alternatives are evaluated in the EIR/EIS include capital costs, available funding, and technical feasibility. While construction and right-of-way costs cannot be quantified for each alternative before further refinement of the engineering design, cost ranges will be established for each alternative for comparison purposes. Funding sources will also be identified for all alternatives proposed for further study. Alternatives that are known to be technically feasible will also be distinguished from any alternatives that would require technological innovations.

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Chapter 6 Next Steps

The preliminary draft screening criteria presented herein are provided to allow for public comment and feedback during the formal scoping period for the South County Traffic Relief Effort Project. Following the 30-day review period, the PDT will recommend a reasonable range of alternatives to be analyzed in detail in the EIR/EIS. This recommendation will be based on the screening analysis using the criteria described in Chapter 5 of this report, as well as public and agency input received during the public scoping period. The level of detail used to analyze the alternatives in the environmental document will be greater than the information provided during the screening process once the number and range of alternatives has been narrowed and detailed technical studies have commenced. This screening process will ensure the detailed study efforts are devoted to the most feasible and practicable alternatives for the purpose of the Project.

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