



AGENDA REPORT

CITY OF SAN CLEMENTE

CITY COUNCIL MEETING

910 Calle Negocio
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San Clemente, California
www.san-clemente.org

Meeting Date: March 19, 2024

Agenda Item: 8A

Department: Public Works

Prepared By Zak Ponsen, Assistant City Engineer
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Subject:

TRAFFIC ANALYSIS FOR AVENIDA PALIZADA CORRIDOR AT AVENIDA DE LA ESTRELLA

Fiscal Impact:

None for the purpose of obtaining direction from the City Council.

Summary:

On several occasions, the City Council has asked staff to explore strategies to improve the traffic flow in the Palazada/Estrella/El Camino Real/Interstate 5 area. Following a meeting with property owners, Caltrans, a member of the City Council and staff, it was determined that alternative striping, together with signal synchronization, could improve vehicular movement. Additionally, if Caltrans is able to modify the on and off ramps, more traffic concerns could be alleviated.

Background:

The subject roadway segment is located along the Avenida Palizada corridor between Avenida Caballeros and El Camino Real and includes four intersections within the 800-foot segment. Avenida Caballeros and the I-5 Northbound on-ramp intersection are stop-controlled, while the I-5 Southbound off-ramp, Avenida De La Estrella, and El Camino Real are signalized. The distances between two adjoining intersections are 290 feet or shorter, which is a very short segment between intersections.

On November 15, 2022, and again on October 15, 2023, this item was considered at a regular meeting by the City Council. Specifically at the meetings, there was a request to explore a roundabout as an option to address the traffic concerns. Upon further consideration, it is recommended that other alternatives would be more effective in this specific situation. After review of several options, it was determined that the best current alternative would be modifications to the striping, synchronizing of traffic signals with El Camino Real, and getting Caltrans to increase the capacity of the southbound offramp by a widening project are the best options. If Caltrans is able to widen the offramp, more vehicles can queue closer to the intersection and a greater volume of vehicles can get through the Palizada corridor more efficiently. A third lane would also allow for 2 dedicated right hand turns lanes off the freeway in the dominant direction of travel.

Attachments 1 and 2 indicate a conceptual design for revised striping layouts that could help increase traffic flow through the corridor. In general, the design increases the capacity for both west and east bound traffic within the same street footprint. Modifying the striping would require traffic signal upgrades at both Avenida De La Estrella and El Camino Real. The synchronization

and striping modifications will require Caltrans approval and encroachment permits. It may require several months to obtain the necessary permits and it is also possible that Caltrans may require additional studies that will need to be conducted and funded by the City.

Staff has had conversations with Caltrans regarding the potential to widen their offramp to increase capacity. The initial responses received from Caltrans indicate the existing data does not show a need for off-ramp modifications and a new traffic study that includes both the Palizada corridor and the freeway traffic may be required. Staff is recommending the City formally request an expedited Caltrans traffic study and project for widening the offramp and synchronization of the traffic signal with the City's traffic signals at Avenida De La Estrella and El Camino Real.

Although full implementation of the best practices would involve Caltrans widening of the offramp, the City could choose to initiate work on its portion of the project first. Results may not be as effective, but any improvement would be advantageous. Detailed studies would be required prior to any restriping improvements being completed and staff is proposing to include a CIP design project for this in the upcoming budget cycle.

Modification to striping in this corridor would require upgrades to at least three traffic signal poles, detection systems, and other improvements. The City has been approved by OCTA for their Countywide Synchronization Project, but per OCTA's current schedule, actual implementation at the intersections is anticipated in two to three 2-3 years. The City will request an advanced payment or the ability to seek reimbursement once the OCTA project is commenced.

In staff's review of the Palizada corridor, it was found that there is occasional congestion west of El Camino Real at the entrance to the Old Town Plaza located at 111 West Avenida Palizada. Staff is recommending adding a "KEEP CLEAR" striping zone at this drive approach (Attachment 3). Currently, the eastbound vehicles queueing for the El Camino Real traffic signal (typical during morning traffic) can backup to this area and block westbound vehicles from entering the plaza. This can cause a backup of westbound vehicles into the El Camino Real intersection. Staff is proposing to include the "KEEP CLEAR" striping as part of the next asphalt paving project that includes thermoplastic painting, which should be during the Summer of 2024.

Other potential modifications were considered during this re-evaluation of the Palizada corridor and included in the October 15, 2023 agenda report: diverging diamonds, creating a cul-de-sac on Avenida De La Estrella, striping modifications, Caltrans modifications, and traffic signal synchronization. It was determined that the best approach would be synchronization of the corridor, modifying the striping, and working with Caltrans to widen the offramp to add an additional lane.

As a note on the synchronization project, at the December 5, 2023 City Council meeting, the City Council approved submission of an OCTA Project P grant proposal for funding to assist in synchronization of this corridor with traffic signals on El Camino Real. OCTA staff has reviewed that grant application and informed City staff that the grant application included project improvements that overlap too much with a Countywide Synchronization Project that the City had previously agreed to during the September 14, 2023 City Council meeting. Since the Countywide agreement was approved by the OCTA Board, OCTA will be working towards updating the

synchronization system in San Clemente. The OCTA schedule for this synchronization project is approximately within the next two to three years.

Council Options:

- Direct staff to continue the processing of synchronization of the Palizada corridor with the potential striping modifications.
- Authorize the City Manager to send a letter to Caltrans requesting an expedited Caltrans project to widen the offramp and coordinate a synchronized traffic signal project with the City's signal system.
- Provide other/further directions.

Environmental Review/Analysis:

The item is considered "Not a Project" pursuant to California Environmental Quality Act (CEQA) Guidelines section 15378. (14 CCR § 15378). There is no potential for action resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment. In the event future modifications are included within the City, staff will reevaluate the CEQA determination at that time when a project is identified.

Recommended Actions:

Staff recommends that the City Council:

1. Direct staff to continue the processing of synchronization of the Palizada corridor with the potential for striping modifications; and
2. Authorize the City Manager to prepare and submit a letter to Caltrans asking for an expedited Caltrans project to widen the southbound I-5 offramp at Palizada, and to expedite processing of City permitting for striping and signal synchronization modifications along Avenida Palizada.

Attachment:

1. Existing and Proposed Striping Palizada Corridor- East of Ave De La Estrella
2. Existing and Proposed Striping Palizada Corridor- West of Ave De la Estrella
3. Palizada Keep Clear Improvements

Notification:

None.



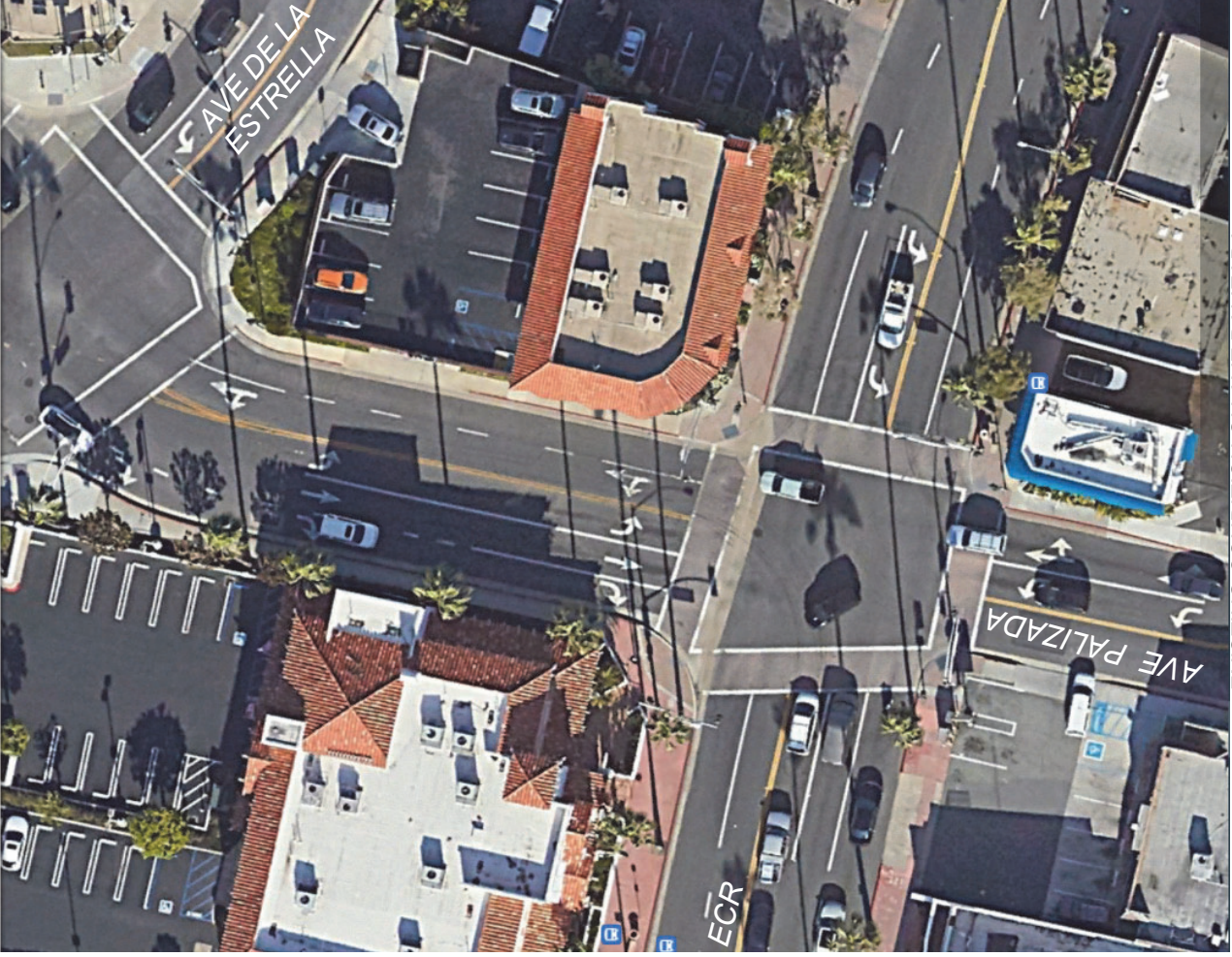
EXISTING CONDITION ON AVE PALIZADA
BETWEEN I-5 NB ON-RAMP AND SB OFF-RAMP



POTENTIAL STRIPING ON AVE PALIZADA
BETWEEN I-5 NB ON-RAMP AND SB OFF-RAMP
WITH ADDITIONAL SB OFF-RAMP LANE

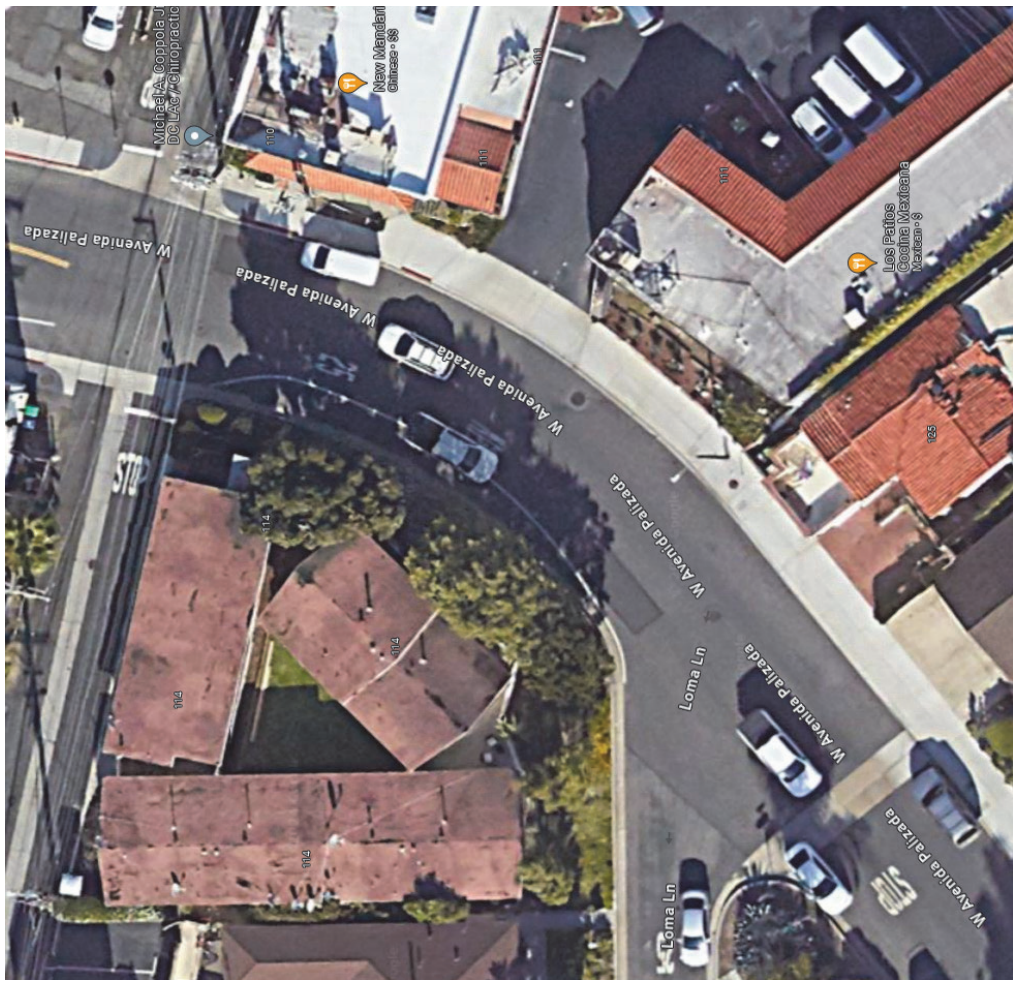


POTENTIAL STRIPING ON AVE PALIZADA BETWEEN AVE DE LA ESTRELLA AND ECR



EXISTING CONDITION ON AVE PALIZADA BETWEEN AVE DE LA ESTRELLA AND ECR

Attachment 3



EXISTING CONDITION



PROPOSED "KEEP CLEAR" MARKINGS