



Memorandum Engineering Division

August 19, 2020

To: Planning Commission
From: Nestor Mangohig, Senior Civil Engineer - Traffic
Subject: **El Camino Real/Esplanade Intersection Safety Improvement**
Copies: Tom Bonigut, Public Works Director/City Engineer
 Ziad Mazboudi, Deputy Public Works Director
 Paul Ketcham, Orange County Sherriff's Department, Administrative Sergeant

ISSUE:

Should the Planning Commission forward a recommendation to the City Council to modify the intersection of El Camino Real/Esplanade?

BACKGROUND:

City staff is exploring a modification at the El Camino Real/Esplanade intersection (see Attachment 1) based on recorded collision history at the location. The type of accidents recorded at this location in combination with vehicle turning activity associated with adjacent uses, suggest that the existing lack of a dedicated left turn area on El Camino Real can cause drivers to accept shorter gaps in opposing/conflicting traffic while performing left turns into and out of Esplanade and the commercial driveway opposite Esplanade.

Two cost-effective modifications are described below:

Alternative 1: Addition of left turn pockets on El Camino Real at Esplanade

The street width on El Camino Real can accommodate a left turn pocket in both the northbound and southbound directions at Esplanade. The vehicle cross section would be similar to El Camino Real at Avenida Barcelona, just north of the subject intersection. This concept is shown on Attachment 2.

Advantages:

- A dedicated left turn area would reduce rear-end and broadside-type conflicts by allowing vehicles wishing to make a left turn from El Camino Real to wait for a sufficient gap in oncoming traffic without concern of a car behind them rear ending them. Currently, it appears that some left turn drivers attempt to perform the left turn with less than ideal conflicting gaps.
- All left turn movements into and out of Esplanade and the commercial driveway opposite Esplanade would be maintained.

- Traffic would not be shifted to adjacent streets.
- The existing OCTA bus stop at the northwest corner of El Camino Real/Avenida Santiago serving southbound El Camino Real could remain in place with the addition of left turn pockets.
- Improved sight distance for vehicles entering El Camino Real from Esplanade and Avenida Santiago.
- Alternative 1 allows for additional phased modification if restrictions are found to be necessary beyond left turn pockets. If collision statistics do not demonstrate an improvement, raised delineators can be added on El Camino Real while maintaining the turn pockets. This would remove left turns out of Esplanade and the commercial center onto El Camino Real, but would continue to allow left-in, right-in, and right-out access. If further modification were found to be necessary, Alternative 2 would be proposed.

Disadvantages:

- Parking cannot be accommodated on the west side of El Camino Real between Esplanade and Avenida Santiago with the addition of left turn pockets at Esplanade. Parking is already prohibited on the west side of El Camino Real from Avenida Barcelona and Esplanade and on the east side of El Camino Real from Avenida Barcelona to Avenida Santiago. The recently constructed mixed-use development on the northwest corner of El Camino Real/Avenida Santiago filled in the site's previous driveway curb cuts on El Camino Real since the project parking supply is accessed from Avenida Santiago and at the rear of the site via the alley. It should be noted that the development satisfied all of its code-required parking on-site.

Alternative 2: Addition of delineators along El Camino Real centerline at Esplanade

As an alternative to providing left turn pockets on El Camino Real, vertical delineators can be placed along the El Camino Real centerline in the Esplanade intersection to restrict all left turns at the location. Right-in, right-out access would continue to be maintained at Esplanade and the commercial driveway. This concept is shown on Attachment 3.

Advantages:

- Conflicting left turn movements would be eliminated from the intersection, removing the potential for rear-end, broadside, and head-on accidents related to left turns.
- Parking could continue to be accommodated on the west side of El Camino Real between Esplanade and Avenida Santiago.

Disadvantages:

- Inbound/outbound left turn access for Esplanade and the commercial driveway would be eliminated.
- Left turn commercial vehicle access would increase at the Avenida Barcelona traffic signal. Periodic disruption of through traffic on El Camino Real may increase due to left turn queues into the commercial development.
- Traffic would be expected to shift from Esplanade to Avenida Barcelona, Avenida Santiago and/or other east/west streets.

- Restrictive delineation may need to extend further to the south beyond Esplanade for approximately 50 feet to prevent the conflict area from simply moving to the next driveway that provides access to the commercial center.

A public input survey describing the two alternatives above was mailed to the site addresses on El Camino Real from Avenida Cadiz to south of Avenida Santiago as well as the residents of the 100 blocks of Avenida Barcelona, Esplanade, and Avenida Santiago. Attachment 4 shows the survey area and the response locations. A total of 168 surveys were mailed and 52 were returned, and results are summarized as follows:

- Alternative 1 – 36 in favor (69%)
- Alternative 2 – 12 in favor (23%)
- Leave as-is – 4 in favor (8%)

The majority of the residential respondents indicated a preference for Alternative 1, which maintains left turn access at Esplanade. This includes nine of nine (100%) of respondents from Avenida Barcelona, twelve of twelve respondents from Avenida Santiago (100%), and five of eight (62.5%) respondents from Esplanade. Residents on Avenida Barcelona and Avenida Santiago generally shared a common concern of increased traffic volumes on their residential street that could occur with Alternative 2. Several residents on Esplanade indicated that they did not want to lose direct access to their street from El Camino Real.

The majority of the respondents fronting El Camino Real indicated a preference for Alternative 2, which removes left turn access at Esplanade and the commercial driveway opposite Esplanade, while maintaining on-street parking on the west side of El Camino Real between Avenida Barcelona and Esplanade. Eight of ten (80%) of the El Camino Real respondents indicated a preference for Alternative 2.

Staff continues to coordinate with the Orange County Transportation Authority (OCTA) regarding placement of an existing southbound OCTA bus stop at the northwest corner of El Camino Real/Avenida Santiago should Alternative 2 ultimately be selected by City Council. Options being explored include remaining at its current location, moving the stop to the southwest corner of El Camino Real/Avenida Santiago, or moving closer to Avenida Barcelona.

Given the advantages and disadvantages of each alternative, with consideration given to the survey responses, staff recommends Alternative 1. The recommendation attempts to balance safety without burdening the adjacent residential neighborhoods. Although the map shows a 'no new parking' area related to Alternative 1, it is important to note that much of the block was recently a no parking area prior to redevelopment. Alternative 1 is viewed as the less restrictive alternative that still provides options up to, and including, implementation of Alternative 2, should it be found that additional modifications are necessary beyond Alternative 1.

Notices were mailed to addresses within 300 feet of the subject intersection to inform that the item would be considered at this meeting, and tentatively at the City Council meeting on September 15, 2020.

RECOMMENDATION:

STAFF RECOMMENDS THAT Planning Commission forward to the City Council a recommendation to implement Alternative 1, addition of left turn pockets on El Camino Real at Esplanade.

- Attachments:
1. Location Map
 2. Alternative 1 – Left Turn Pockets on El Camino Real at Esplanade
 3. Alternative 2 – Centerline Delineators on El Camino Real at Esplanade
 4. Public Input Results

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- EXISTING NO PARKING
- NEW NO PARKING



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ALTERNATIVE 1

**PROPOSED
 LEFT TURN POCKETS
 EL CAMINO REAL AT ESPLANADE**

8.12.2020

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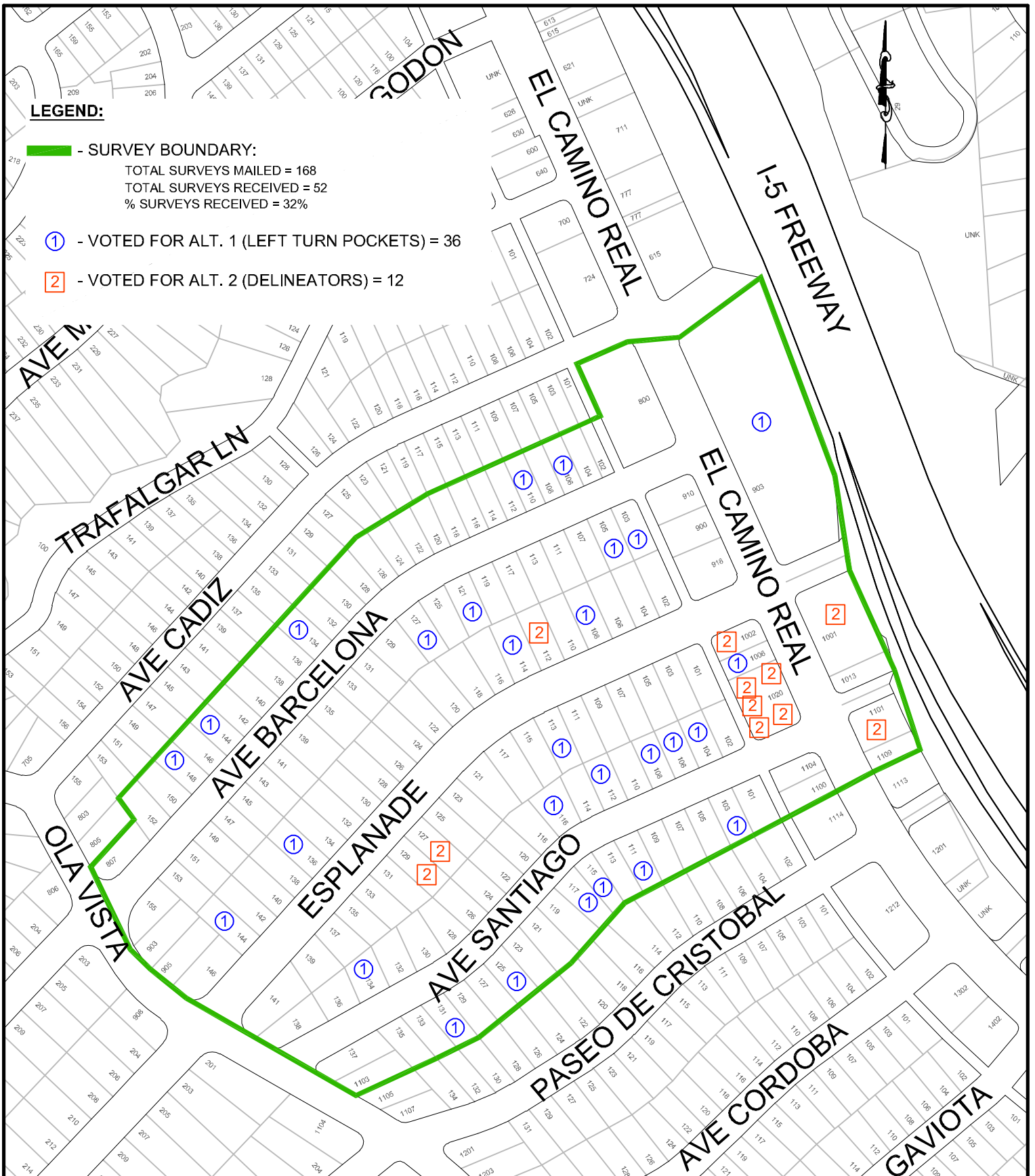


-  - VERTICAL DELINEATORS
-  - EXISTING NO PARKING



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ALTERNATIVE 2
PROPOSED
CENTERLINE DELINEATORS
EL CAMINO REAL AT ESPLANADE



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PUBLIC INPUT RESULT
 EL CAMINO REAL/ESPLANADE
 INTERSECTION SAFETY IMPROVEMENT