



Improvements at Intersection of Magnolia Ave. & El Sobrante Rd

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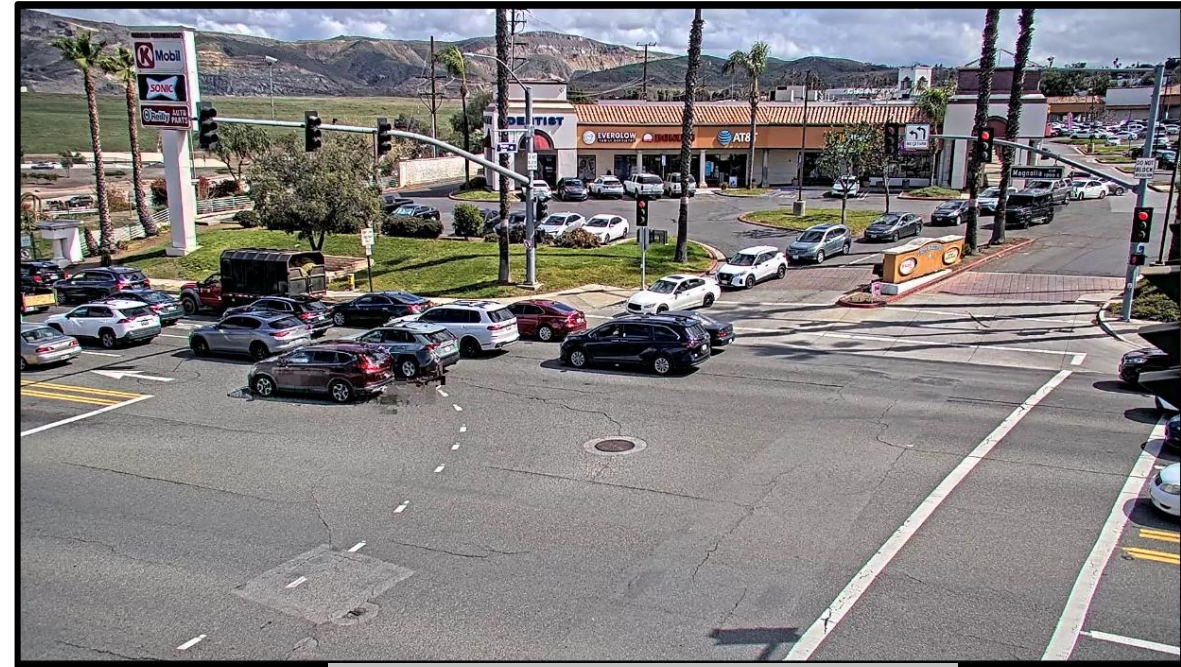
The Ask:

El Sobrante Improvements

That the City Council provide direction to implement and investigate treatments that can improve the traffic operations along Magnolia Avenue at El Sobrante Road.

What's the Problem?

- **Multiple Agencies** – Caltrans operates the ramp signals while City of Corona operates the adjacent intersections
- **Competing Objectives** – Caltrans prioritizes freeway flow, while the City wants to keep Magnolia moving
- **Geometry** – Proximity of El Sobrante to the I-15 SB Ramp is ~75 feet
- **Control** – City has no visibility into how the Caltrans ramp signals are operating. Caltrans has proprietary software that does not interface with our Advanced Traffic Management System. We rely on their clocks being synchronized to GPS time
- **Volumes** – 2nd busiest corridor in the City along with the heavy demand of I-15 freeway traffic



Typical Weekday PM Conditions



El Sobrante Rd at Magnolia Ave

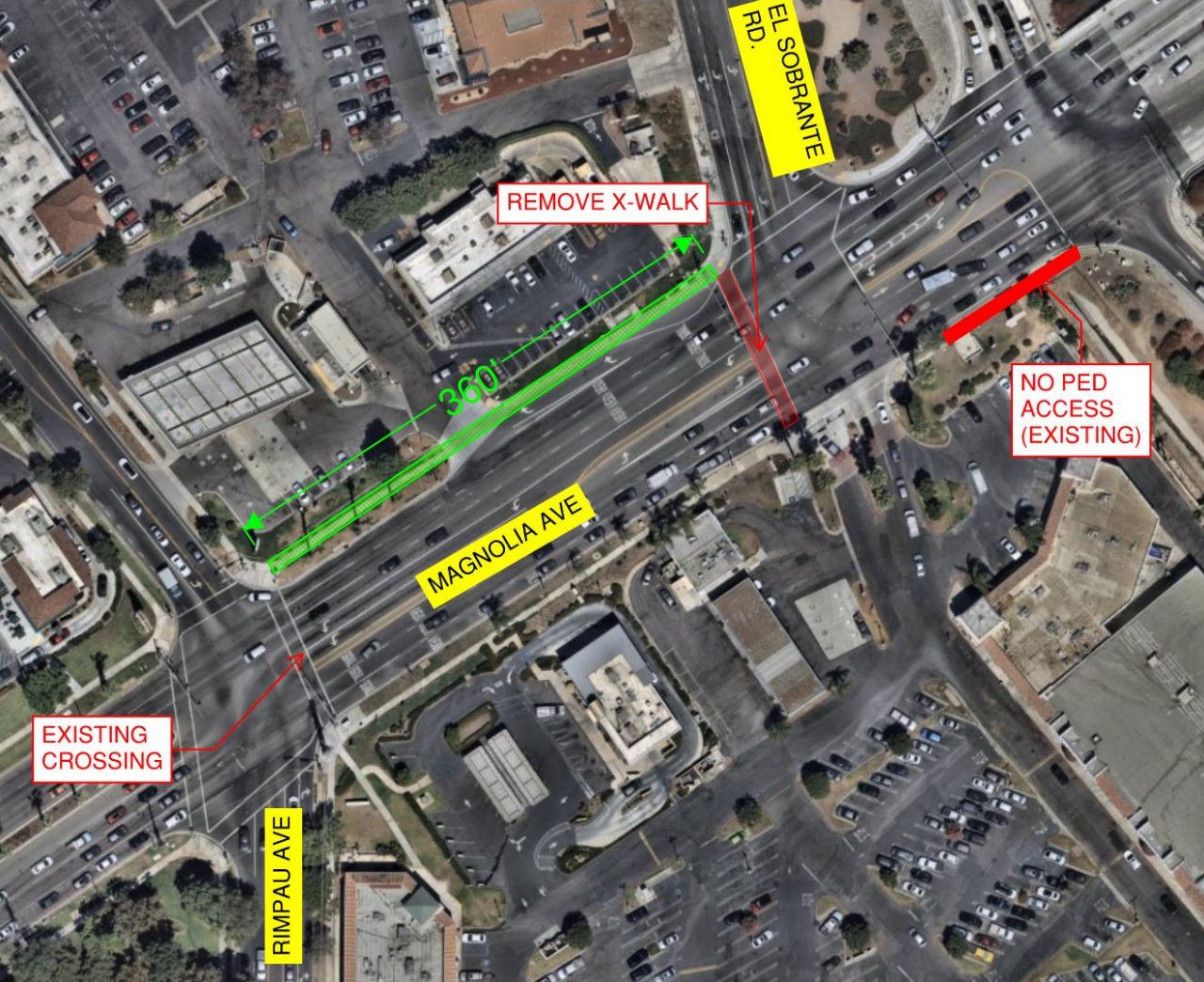
Potential Treatments

- 01** **Short Term – Full Access at El Sobrante, Removal of North/South Crosswalk**

This option maintains full access to and from El Sobrante Avenue, while removing the westerly Magnolia Ave crosswalk. Removal of this crosswalk facilitates better signal timing coordination for the Magnolia Corridor.
- 02** **Long Term: Option A – Limited Access on El Sobrante Rd (*Right In / Right Out*)**

This option would remove the signalized intersection at El Sobrante Rd and Magnolia Ave. and would allow right turn movements in/out of the shopping center as well as El Sobrante Rd. By eliminating the left turns and through movements at this location, additional vehicle storage and more efficient signal timing could be realized.
- 03** **Long Term: Option B – Full Closure of El Sobrante Rd at Magnolia Ave**

This option would completely close the El Sobrante Road before intersecting Magnolia Avenue, convert the shopping center to limited access. This option would eliminate the signal at El Sobrante leading to additional vehicle storage, more efficient signal timing, and less conflicting movements.



9 Pedestrians vs 3600 Vehicles
during highest Peak Hour at the
El Sobrante / Magnolia Intersection

Short Term

Crosswalk Removal

This option is a near term improvement that would result in operational improvements for the Magnolia Corridor.



Improvements

- Delay Improvements - Vehicle timing substantially shorter than the pedestrian crosswalk timing required
- Each pedestrian actuation delays up to 30 seconds, and can put the intersection in transition for up to 6 minutes



Negative Impacts

- Pedestrian delay to use Rimpau Ave crosswalk



This option would remove the signalized intersection at El Sobrante Rd and Magnolia Ave and restrict left turn movements in and out of the shopping center as well as El Sobrante Rd.

Long Term – Option A

Full Access Restriction



Improvements

- Signal Coordination improvements with signal at El Sobrante removed
- Additional vehicle storage for more efficient movements
- Less delays, more corridor throughput



Negative Impacts

- Reduced Access to El Sobrante and shopping center
- Detoured Traffic – Route traffic to Rimpau or El Camino



This option would remove the signalized intersection at El Sobrante Rd and Magnolia Ave and allow right turn movements in and out of the shopping center with access to El Sobrante Rd closed off.

Long Term – Option B

El Sobrante Access Closed



Improvements

- Signal coordination improved with signal removed
- Less conflict points (Safer)
- Additional vehicle queuing storage for more efficient movements
- Even less delays, more corridor throughput
- Opportunity to beautify "dead space"



Negative Impacts

- Reduced access to El Sobrante and Shopping Centers
- Detoured Traffic – Use Rimpau or El Camino
- Introduce cut-through route through business
- Emergency access concerns

Summary of Potential Treatments

01

Short Term
Option

Concurrence on removal of westerly crosswalk at El Sobrante and Magnolia to improve signal coordination for the Magnolia Avenue Corridor

02

Long Term
Option A

Direction to study the conversion of El Sobrante and Shopping Center entrances to a limited access configuration including the removal of the traffic signal at El Sobrante at Magnolia

03

Long Term
Option B

Direction to study the conversion of Shopping Center entrance to a limited access configuration, removal of the traffic signal at El Sobrante at Magnolia and removal of access to El Sobrante Road from Magnolia Avenue



The Ask:

El Sobrante Improvements

That the City Council provide direction to implement and investigate treatments that can improve the traffic operations along Magnolia Avenue at El Sobrante Road.

Questions?

