



All-Way Stop at Jackson Avenue and Magellan Street Intersection

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October 1, 2024

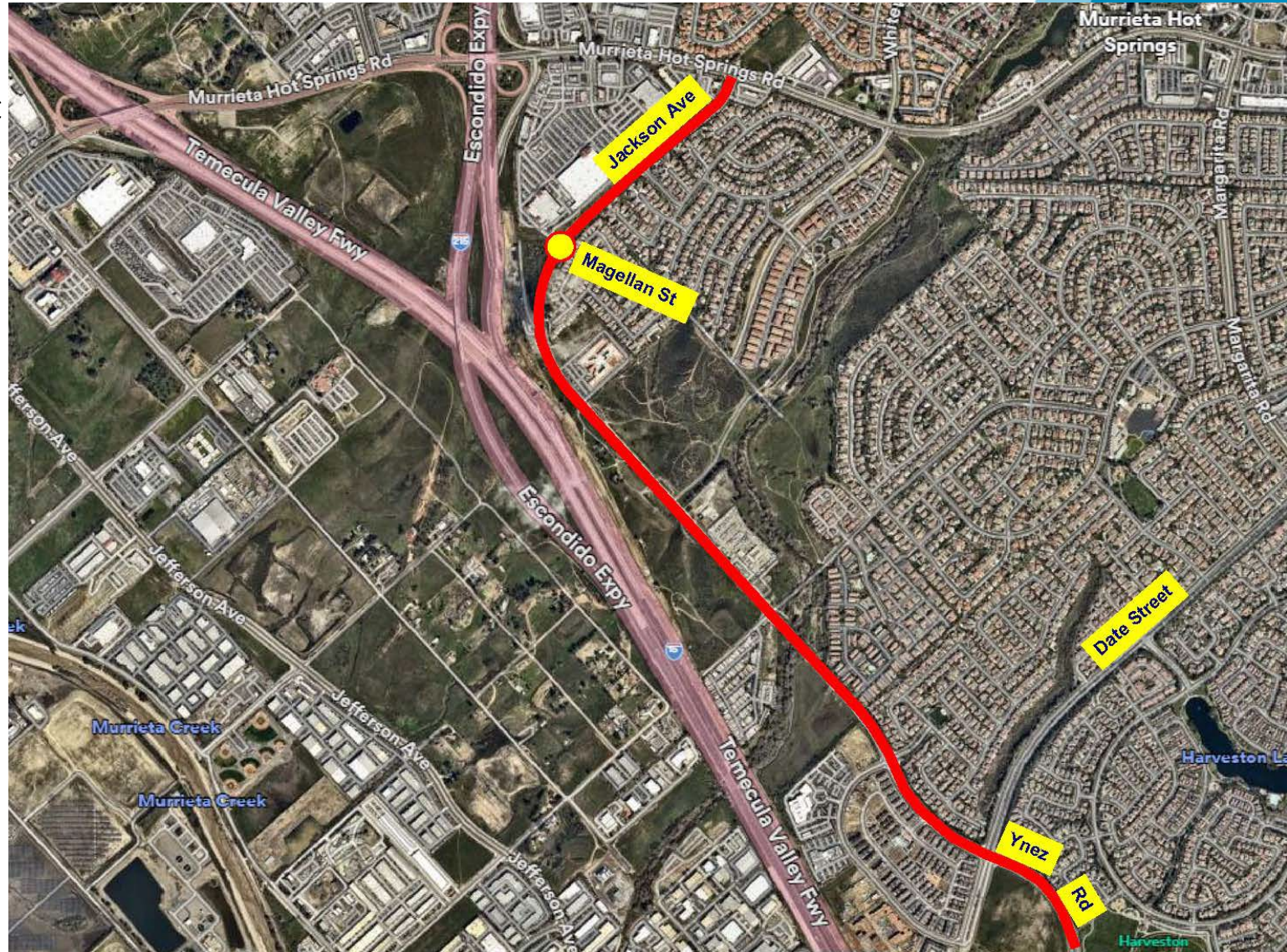
Jackson Avenue and Magellan Street

Residents Request:

- Install all-way stop signs or traffic signal at this intersection

Residents Concern:

- High speed on Jackson Avenue
- Increased traffic volumes on Jackson Avenue since the Ynez Road connection in 2014
- Limited sight distance
- Potential for accidents



Jackson Avenue and Magellan Street

Background Info:

- Jackson Avenue is classified as a four-lane Major roadway with bike lanes per the City's General Plan.
- Posted Speed limit 45 mph.
- Per resident requests, traffic signal and all-way stop warrants were studied in 2014, 2015, 2016 & 2018. Warrants for either control were not met. Sight distance was measured in the field and met the minimum City standards at the time.
- To increase visibility, Jackson Crossing HOA removed overgrown vegetation within the sight corridor per City's request in 2015/16.
- City installed "Intersection Ahead" signs in 2016 to warn drivers on Jackson Avenue of Magellan Street intersection ahead.



Jackson Avenue and Magellan Street

General Information:

To justify installing all-way stops or traffic signals:

- Warrants must be met based on national and state guidelines set forth in the California Manual on Uniform Traffic Control Devices (CA MUTCD).
- For all-way stops , the warrants include:
 - Meeting minimum volumes, where the volume of traffic on the intersecting roads are approximately equal.
 - Accident History/Crash Problem (5 or more in a 12- month period).
 - Sight Distance Constraints.
- Similarly, for traffic signals, some of these warrants include:
 - Meeting minimum vehicular volumes for 8-hours, 4-hours, and peak-hour on an average day.
 - Where there are heavy pedestrian volumes/crossing that encounter excessive delay.
 - Accident History (5 or more in a 12- month period).

Jackson Avenue and Magellan Street

2024 Analysis:

- Residents requested a re-evaluation for a traffic signal or all-way stops.
- New data collected showed:
 - 85th percentile speed of 46 mph NB and 54 mph SB.
 - 15,580 vehicles per day (ADT).
 - Overgrown vegetation and trees were observed within the sightline that have not been maintained and are now obstructing view.
 - Sight distance measured was 403', less than the minimum required 495'.
 - Traffic signal warrants were still not met.
 - Per MUTCD criteria, an all-way stop warrant is now met due to sight distance constraints.

Traffic Commission:

- On August 21, 2024, TC voted to recommend the installation of all-way stop control.

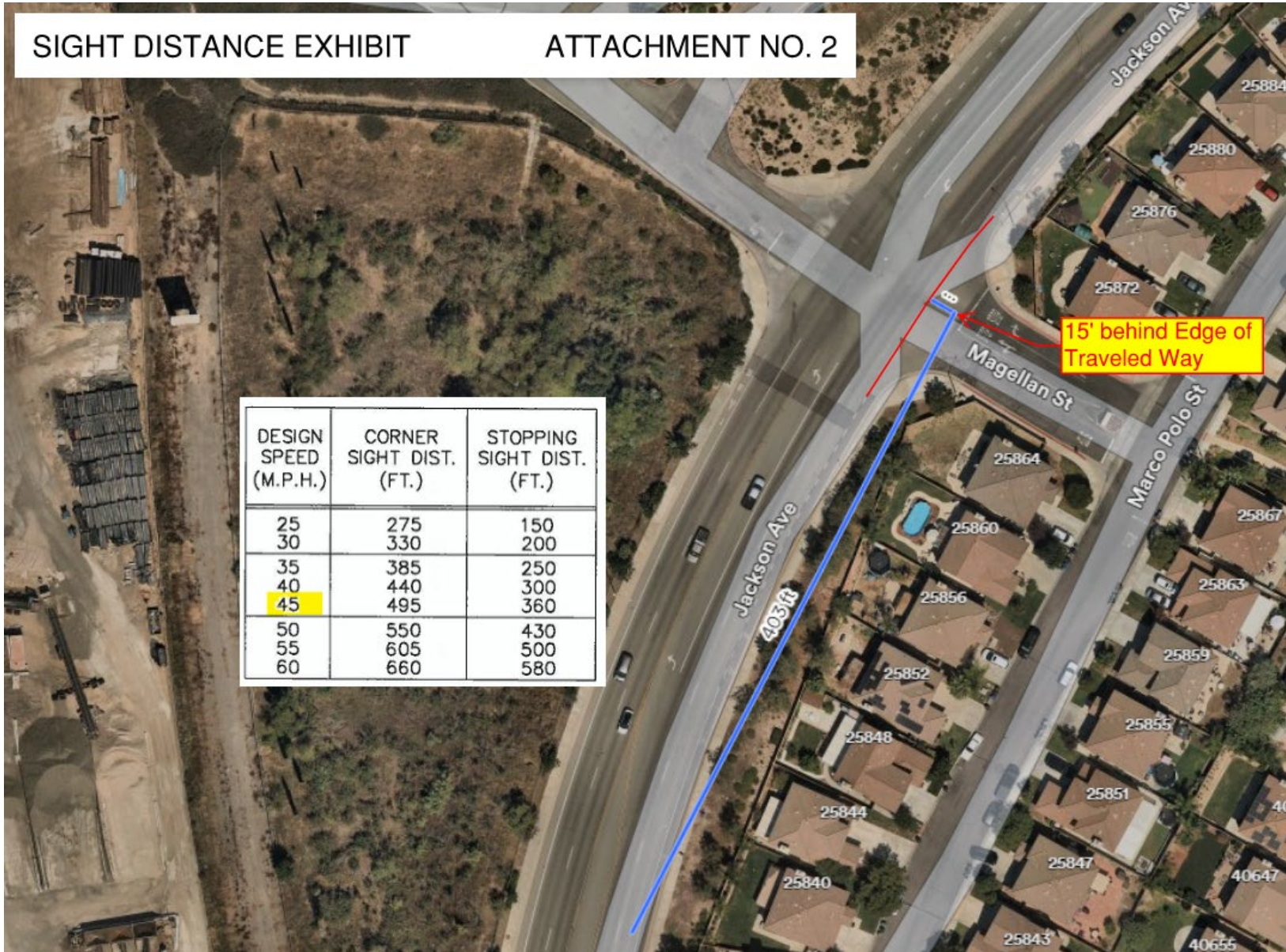


Jackson Avenue and Magellan Street

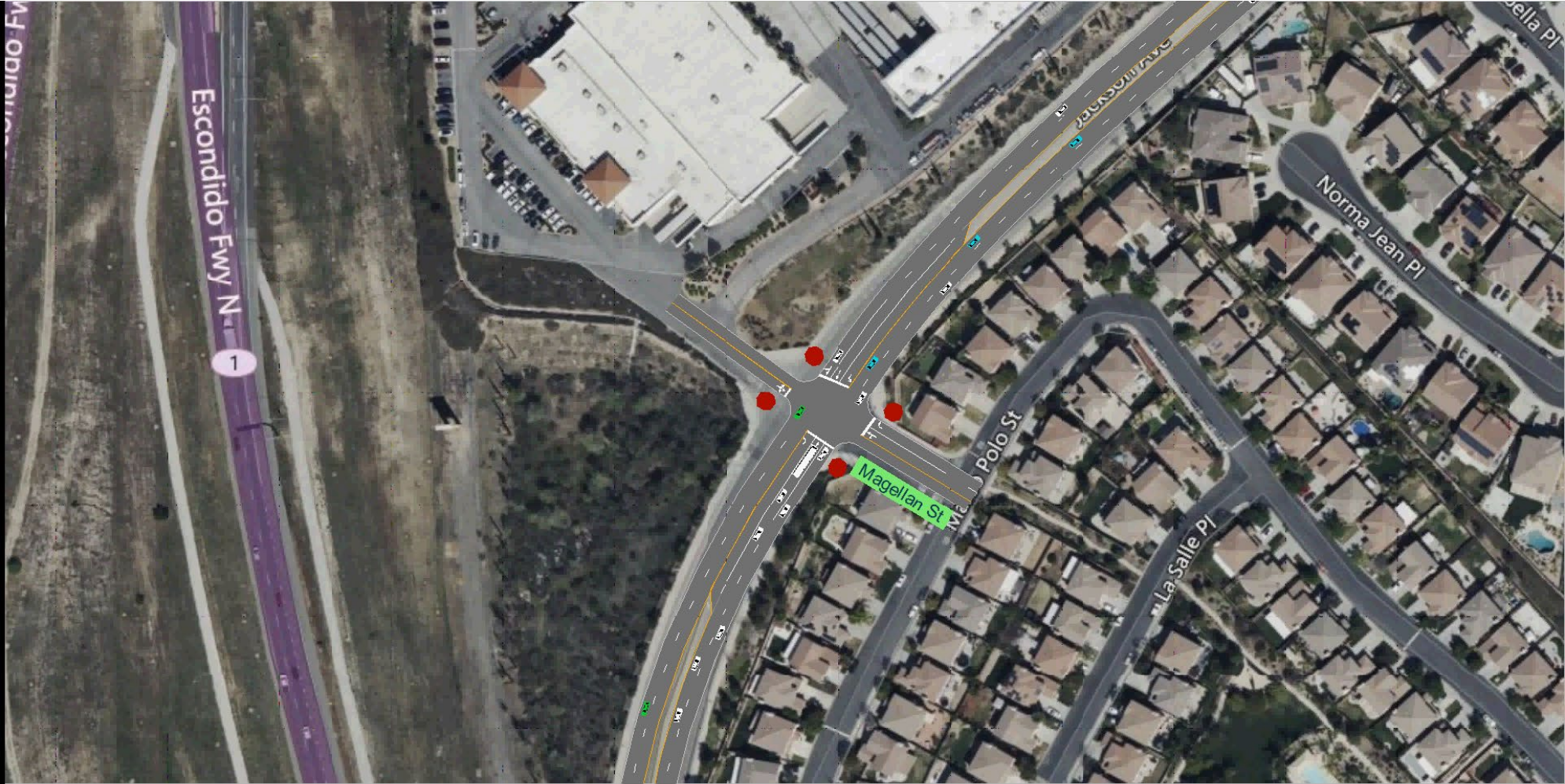
SIGHT DISTANCE EXHIBIT

ATTACHMENT NO. 2

| DESIGN SPEED (M.P.H.) | CORNER SIGHT DIST. (FT.) | STOPPING SIGHT DIST. (FT.) |
|-----------------------|--------------------------|----------------------------|
| 25 | 275 | 150 |
| 30 | 330 | 200 |
| 35 | 385 | 250 |
| 40 | 440 | 300 |
| 45 | 495 | 360 |
| 50 | 550 | 430 |
| 55 | 605 | 500 |
| 60 | 660 | 580 |



All-Way Stop Simulation



Traffic Signal Simulation



Jackson Avenue and Magellan Street

Options:

1. Install All-Way Stop Control
 - a. Will add congestion
 - b. Cost: \$10,000
2. Remove All Vegetation from Sight Distance Corridor
 - a. Property Ownership
 - b. Aesthetics
 - c. Cost
 - d. Future Maintenance
 - e. Other Community Concerns
3. Install Traffic Signal Control
 - a. Warrants
 - b. Cost
 - c. Congestion
4. Leave Existing Two-Way Stop Control As Is
 - a. Accident Risk

Staff Recommendation: Option 1



Questions

October 1, 2024

Jackson Avenue and Magellan Street

