



# CITY OF RANCHO SANTA MARGARITA: ANTONIO PARKWAY AT AVENIDA DE LAS FLORES

Proposed Improvements





# PROJECT BACKGROUND



- Resident concerns and reports of unsafe driver maneuvers including donuts.
- City Council approved 7-year CIP on June 11, 2025 which included Project Intersection Improvements.
- Staff performed research on latest design improvements in CA and US to deter and combat this behavior.



## Traffic Improvements Available

- Raised Medians
- Roundabouts
- License Plate Reader (LPR) device
- Botts Dots
- Chatter bars
- Speed Bumps
- Rumble Strips
- LED safety lighting
- Delineators/Flexible Posts
- **Striping**
- **Hardened Centerline**
- **Armadillos/Zebra Separator**
- **Raised Pavement Markers**



# Staff Research on Design Elements

## California Cities

- **City of Oakland** – pilot project with 22 locations using hardened centerline treatment extending into intersections and steel plates. Bott dots used in Phase 1, but proven ineffective over time and concerns with impacts to bicyclists and motorcycles.
- **City of San Jose** - paint, raised pavement markers, bott dots, delineators, chatter bars, and armadillos/zebra separators.
- **City of Los Angeles** – engineering design strategies including roundabouts, barriers, and protected bike lanes with armadillos/zebra separators.
- **City of Compton** – hardened centerlines, LPR devices and LED safety lighting.
- **City of San Juan Capistrano** – Bott dots
- **City of Costa Mesa** – raised pavement markers, delineators, rumble strips, thermo striping

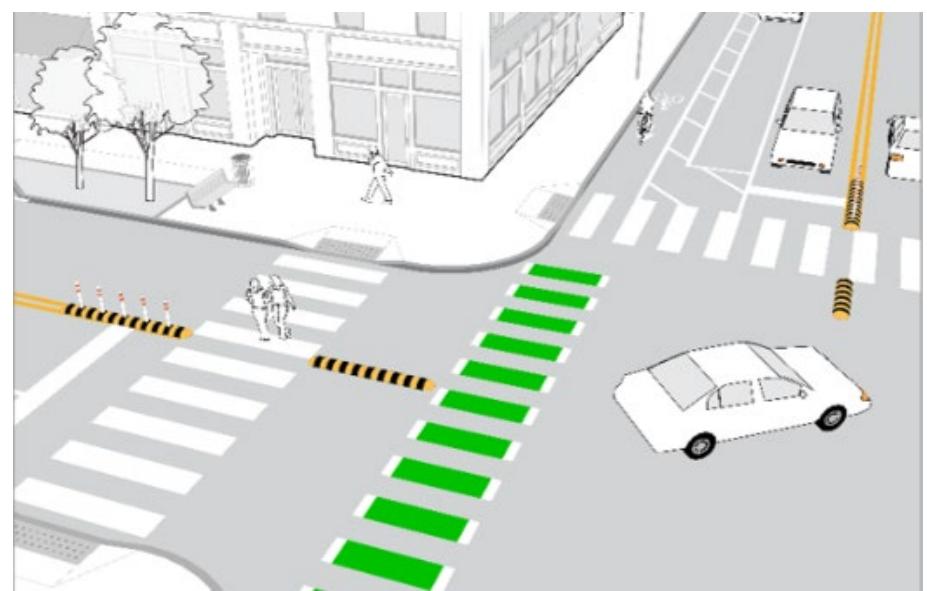




# RESEARCH, CONTINUED

## Other Cities in US

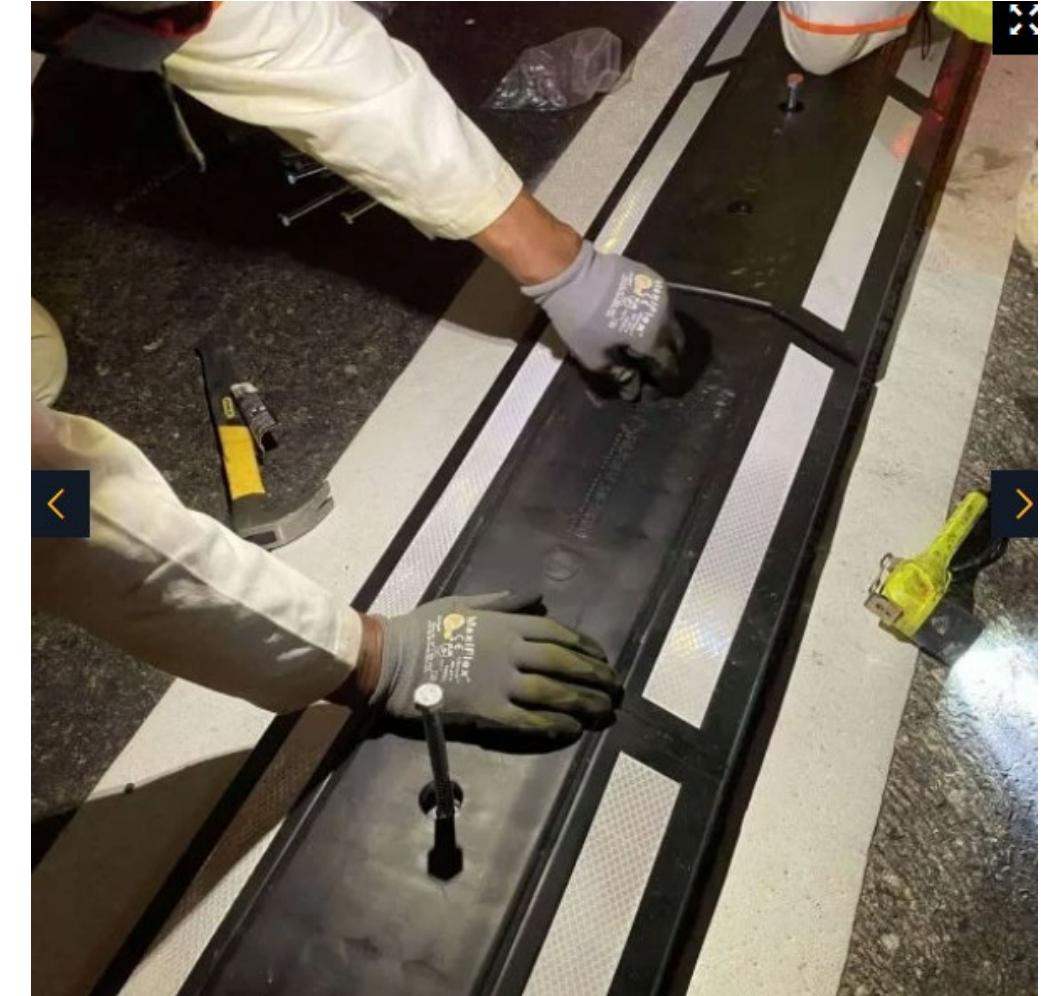
- **Fort Worth, TX** – success with raised pavement markers that can tear up tires and discourage donuts.
- **Arlington CO, VA** – hardened centerlines to slow left turning speeds and block diagonal paths.
- **City of Minneapolis, MN**– yellow, plastic delineators as medians and as a “hardened centerline.”
- **Clark CO, NV** – rumble strips to deter donuts.
- **Kansas City, MO** – rumble strips / grooves to deter donuts.





# HARDENED CENTERLINE

“STREET DEFENDER CURB”





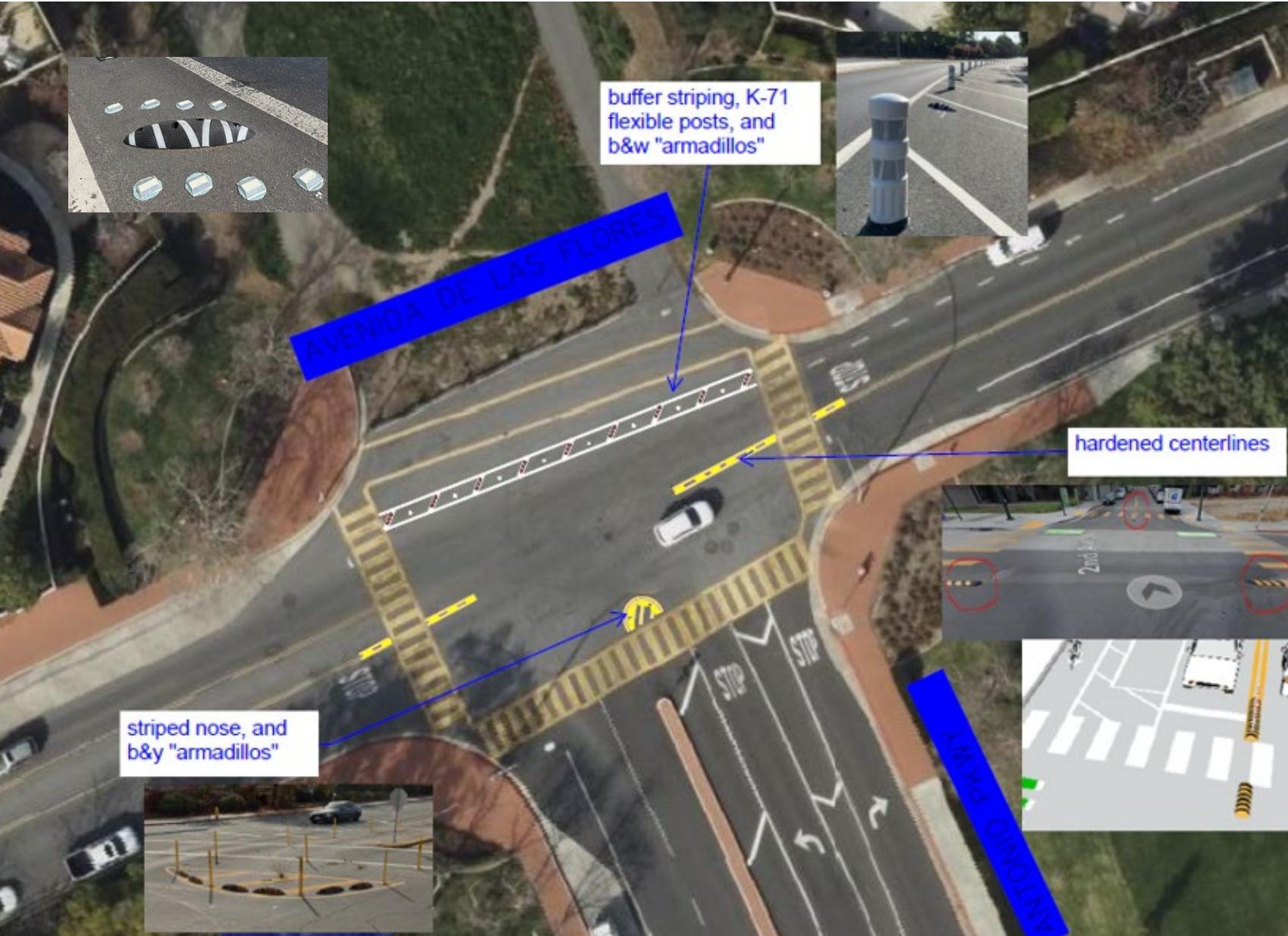
# ARMADILLOS / ZEBRA SEPARATOR

FOR MEDIAN NOSE – WITHOUT YELLOW DELINATORS



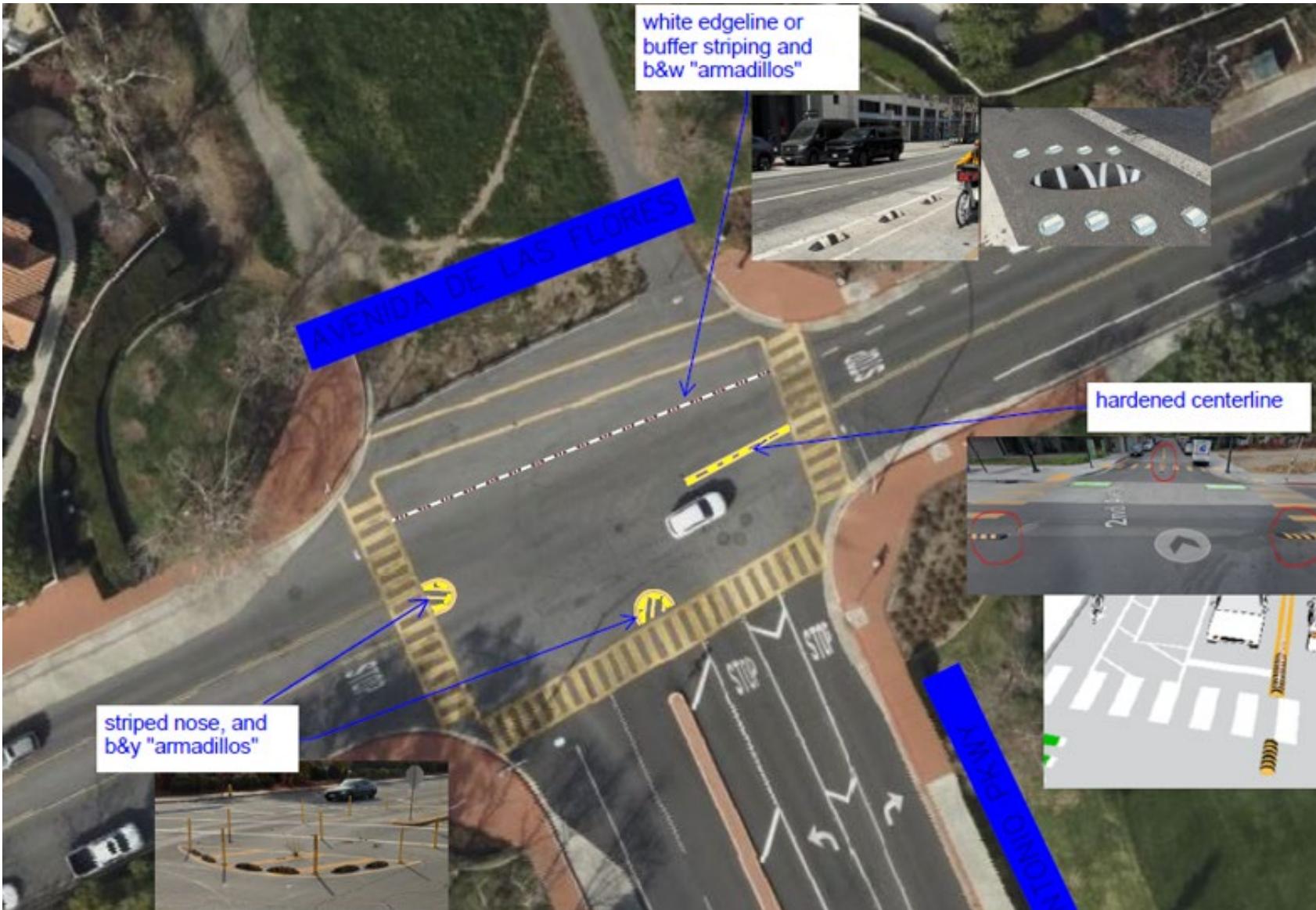


# DESIGN OPTIONS



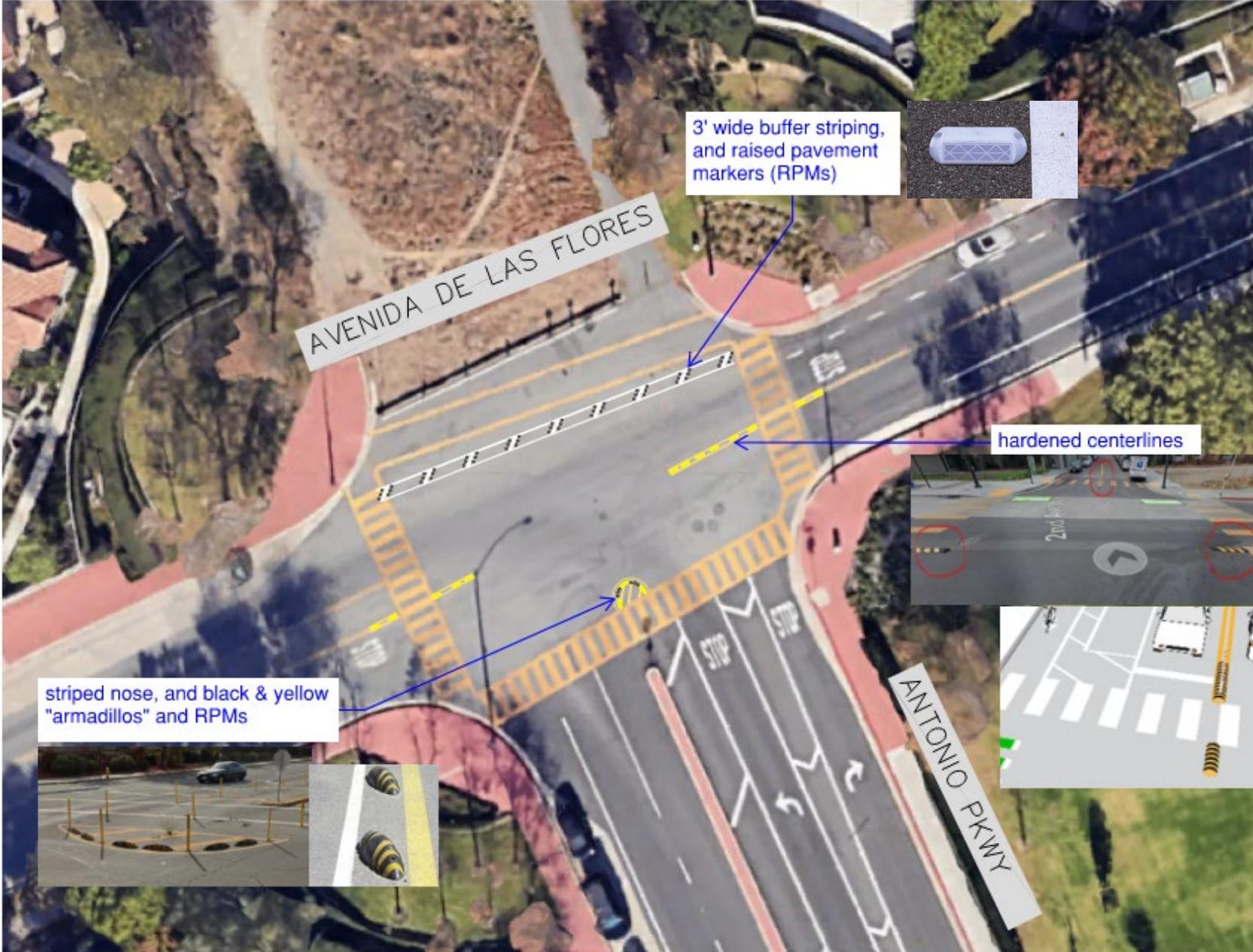


# DESIGN OPTIONS





# PROPOSED DESIGN





# TOTAL PROJECT COST ESTIMATE

**Table 1. Anticipated Construction Costs**

<b>Item</b>	<b>Anticipated Costs</b>	
Striping and RPM's	\$	1,000
Furnished Hardened Centerlines and Armadillos		4,000
Install Intersection Improvements		3,000
Traffic Control		1,000
	<b>Construction Costs</b>	<b>\$ 9,000</b>
Construction Contingency		500
	<b>Total Construction Cost</b>	<b><u>\$ 9,500</u></b>

**Table 2. Anticipated Construction Budget and Expenditures**

<b>Item</b>	<b>Budget</b>	<b>Anticipated Expenditures</b>
General Fund	\$ 50,000	\$ -
Construction	-	9,500
Design/Project Management	-	2,000
Construction Inspection/Coordination	-	2,000
<b>Total</b>	<b>\$ 50,000</b>	<b>\$ 13,500</b>



# PROJECT SCHEDULE

Activity	Date
<b>Final Design</b>	December 2025
<b>Procure Project Materials for Installation</b>	January/ February 2026
<b>PV Maintenance to Install Improvements</b>	March/April 2026

# QUESTIONS?

