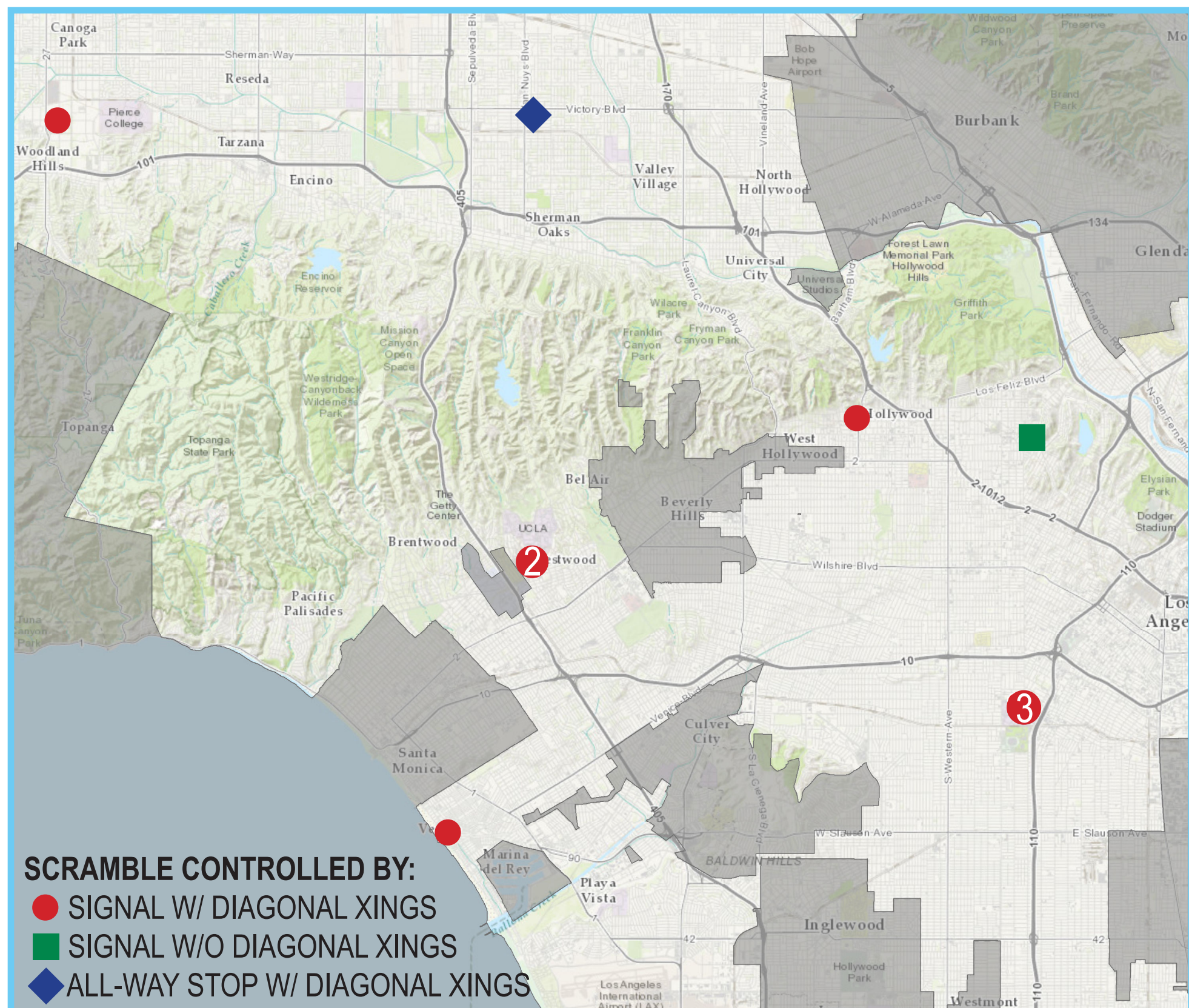


# MEET LOS ANGELES



## PEDESTRIAN SCRAMBLE

A person walking is 16 times more likely to die in a crash than someone in a car. Pedestrian deaths have been steadily on the rise since 2015. The City's Vision Zero initiative has aggressively begun installing safety devices, like pedestrian scramble operations, to better organize the street and eliminate conflict.

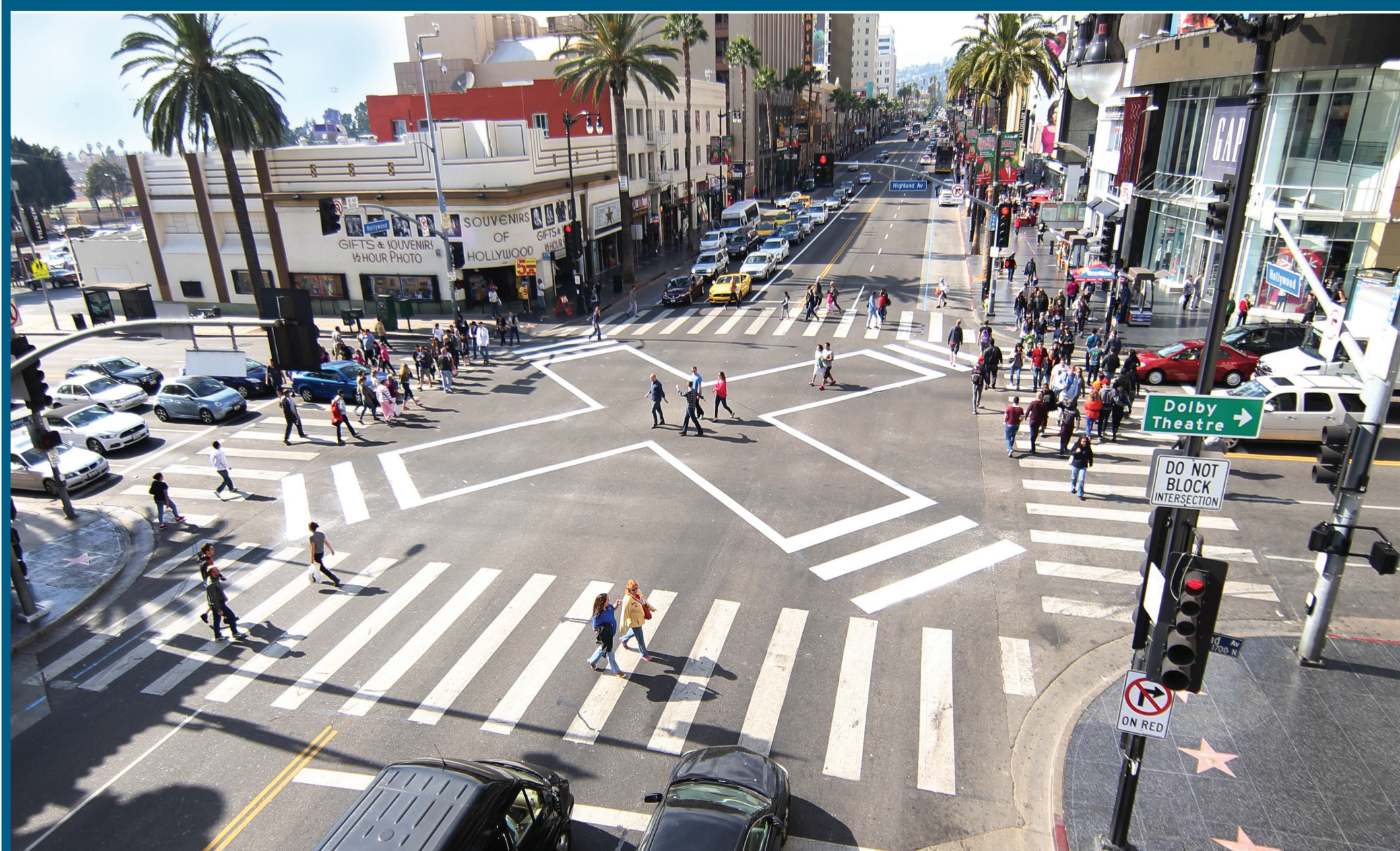
The pedestrian scramble allows pedestrians to cross in all directions at the same time. The scramble operation:

- **increases pedestrian visibility**
- **reduces conflicts between vehicles and pedestrians**
- **reduces pedestrian crossing time and exposure**
- **reduces the buffer zone between vehicles and pedestrians**

The City of Los Angeles first implemented the pedestrian scramble in 1956. After gridlock conditions arose due to long queues and delay, the operation was abandoned. The pedestrian scramble has returned to Los Angeles, bigger and better than before.

## THE ENHANCED PEDESTRIAN EXPERIENCE

### TRAFFIC SIGNAL CONTROL



PEDESTRIAN RELATED COLLISIONS WITHIN THE INTERSECTION OF **HOLLYWOOD BOULEVARD AND HIGHLAND AVENUE** DROPPED TO **ZERO**, AFTER THE PEDESTRIAN SCRAMBLE WAS IMPLEMENTED IN NOVEMBER 2015!

#### FAVORABLE WHEN:

- Pedestrian volume meets or exceeds 30% of vehicle volume during peak hour, **AND**
- Turning traffic through any crosswalk exceeds 200 VPH, **AND**
- History of collisions involving turning-vehicles and pedestrians exceeds City average



#### EVOLUTION

- Transverse line crosswalks is upgraded to continental crosswalks with "X" in the center of the intersection
- Next to schools, the center "X" is omitted and exclusive pedestrian phase operates only during school hours

- CAUTION:**
- Heavy pedestrian volume may require larger refuge space
  - If in close proximity to freeway ramps or at-grade rail crossings, consider other solutions

### ALL-WAY STOP CONTROL



Sylvan Street and Sylmar Avenue is the first all-way stop controlled intersection with diagonal crosswalks in the City, which is being monitored to identify future ideal locations.



#### FAVORABLE WHEN:

- There are high right-turning vehicle volumes and moderate number of pedestrians crossing two continuous crosswalks, **OR**
- There are low vehicle volumes and high number of pedestrians crossing two continuous crosswalks

**CAUTION:**

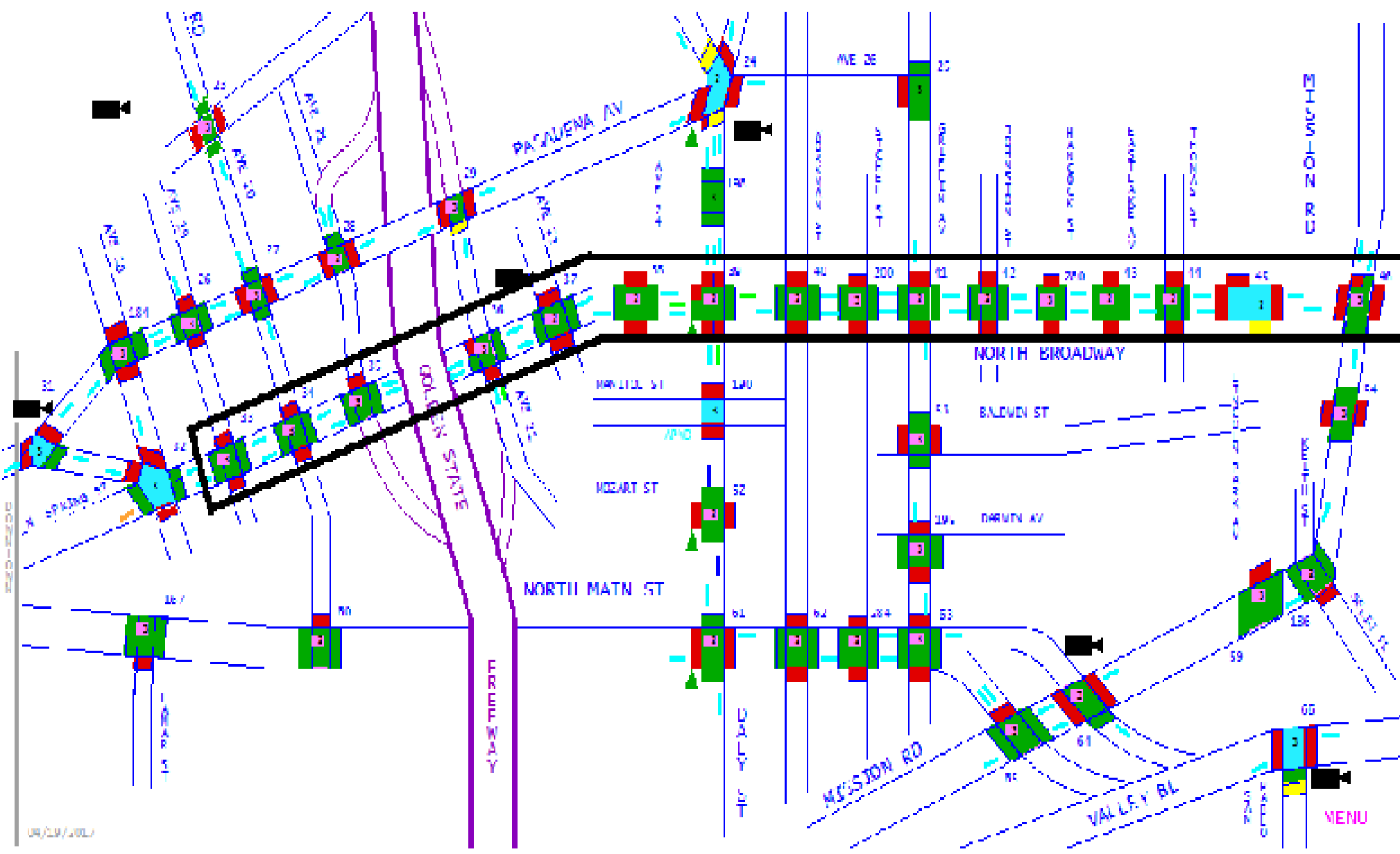
- Heavy thru and left-turn vehicle volumes may cause additional delay
- Queueing may block adjacent intersections
- Heavy pedestrian volume, vehicle volume, or delay may warrant a traffic signal



# MEET LOS ANGELES

## NIGHT-TIME FLASHING YELLOW SIGNAL OPERATIONS

NORTH BROADWAY BETWEEN AVENUE 18 AND MISSION ROAD, LOS ANGELES, CA



- FLASHING YELLOW = WARNING
- FLASHING YELLOW = CAUTION
- WARNING + CAUTION = BRAKE TAPPING
- BRAKE TAPPING = SPEED REDUCTION
- SPEED REDUCTION = SAVING LIVES

### Vision Zero Success Results

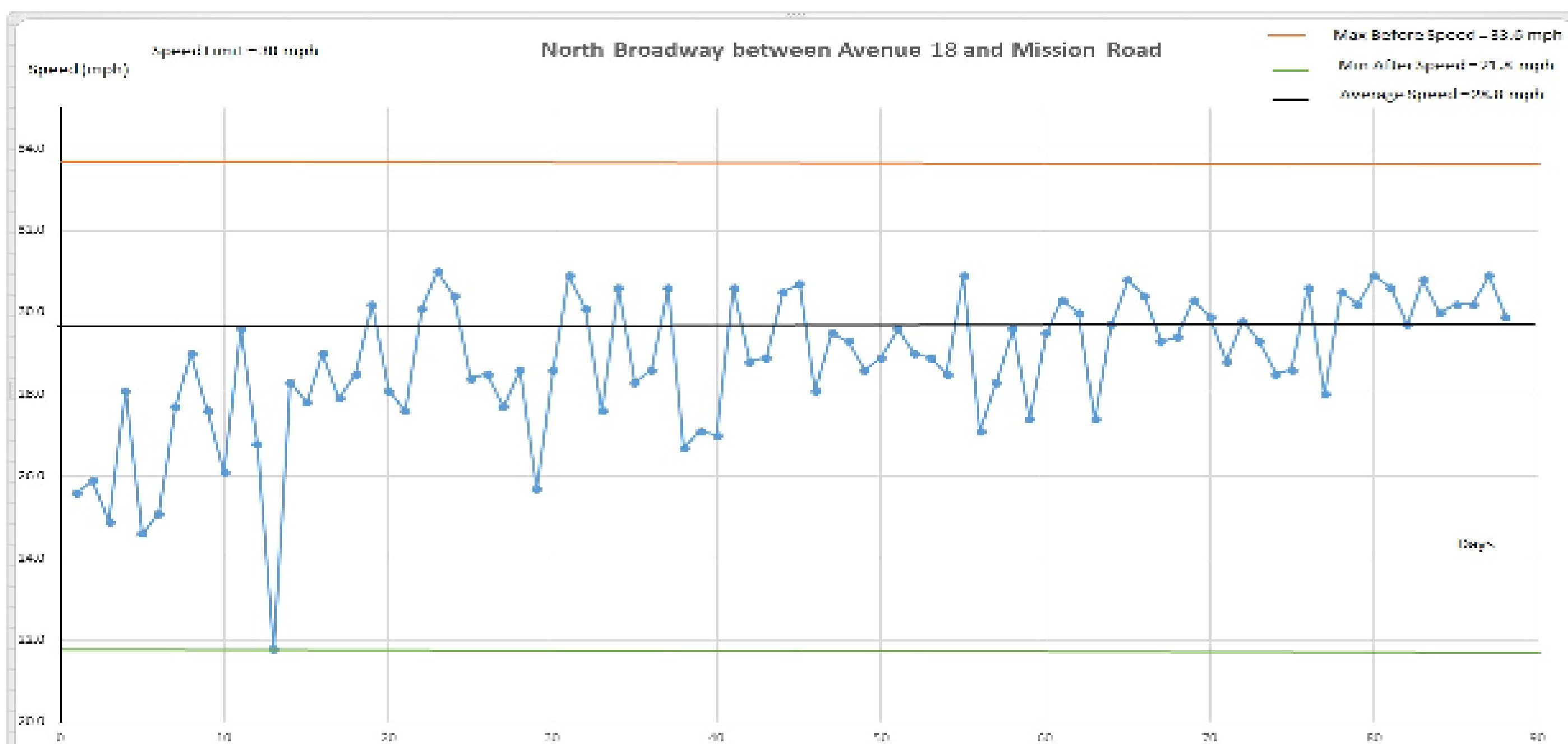
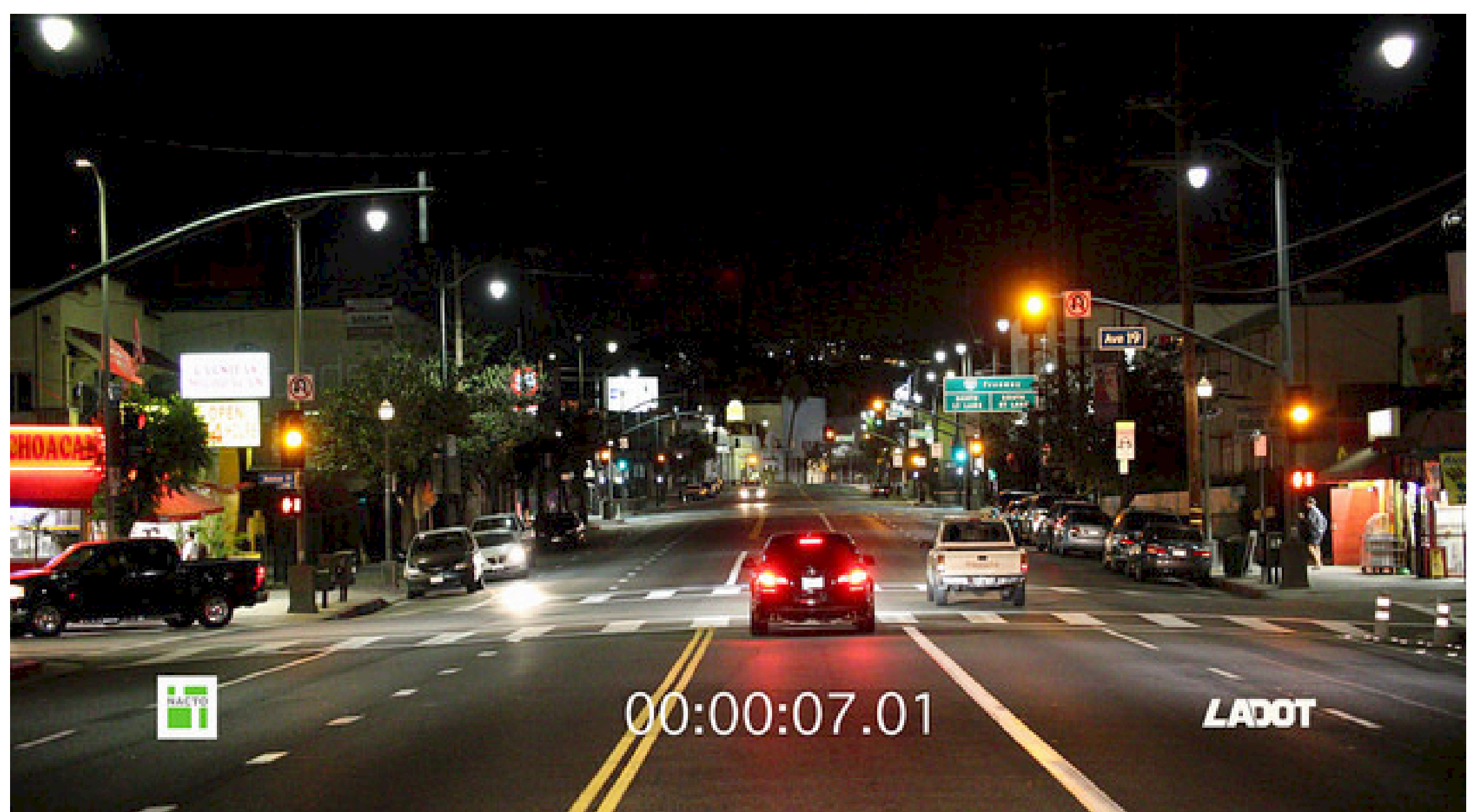
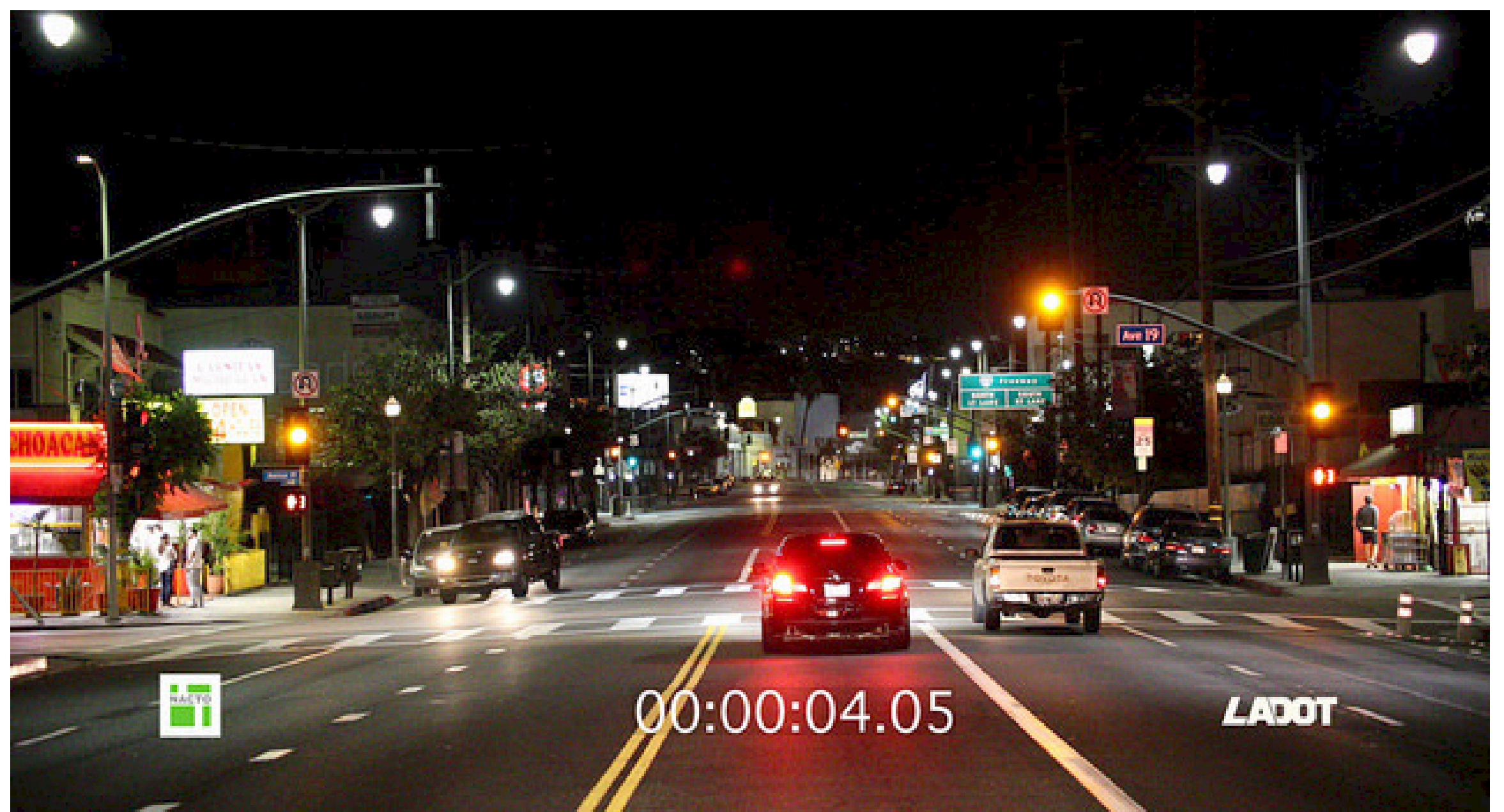
Demonstrated speed reductions immediately, and sustained over time

### Characteristics and Applications

- Nighttime flashing yellow on main street, regular operation on side street
- Reduces speeds as motorists approach with caution, tapping the brakes
- Used where signals rest in green to eliminate the giant green band at night

### Tools for Successes

- Traffic signal controller software's new feature
- Traffic signal controller cabinet's configurations



- BEFORE MAX SPEED = 33.6 MPH
- AFTER MIN SPEED = 21.8 MPH
- BEFORE/AFTER= 35% SPEED REDUCTION AT BEST, WITH 10% SPEED REDUCTION ON AVERAGE

Towards Vision Zero

Los Angeles Dept. of Transportation

