Preventing fatal bike collisions in Natomas

At about 8:30 PM on Aug. 17, 2017, 15-year-old Jamari Julian Moore was hit and killed by a hit-and-run driver on northbound El Centro Road north of Moscatel Ave. and the River View Park neighborhood just outside of Sacramento city limits within Sacramento County. As the California Highway Patrol investigation continues, this tragedy presents an opportunity to consider the causes of fatal bike collisions, the factors specific to El Centro Road, and some possible strategies for preventing future collisions.

What we know about fatal bike collisions

The California Vehicle Code authorizes people on bikes to use all the streets that drivers can use, except for selected state highway segments closed to bike traffic by the CHP in coordination with local jurisdictions.

Fatalities correlate strongly to vehicle speed. The rate of death for bicyclists climbs sharply in collisions where vehicle speeds exceed 30 MPH and reaches nearly 90% when the vehicle speed is 40 MPH. Bike helmets are designed mainly for falls and offer negligible protection in high-speed collisions. (Bike helmets are rated for head-on impacts up to 22 MPH and are not rated for side impacts.)

Arterial streets designed with wide traffic lanes, long distances between stop- or signal-controlled intersections, and/or few or no marked pedestrian crossings enable high vehicle speeds and encourage speeding. Higher vehicle speeds also mean shorter reaction times for drivers.

Infrastructure that creates a greater physical separation between bike and vehicle traffic, including buffered bike lanes, cycle tracks (i.e., protected bike lanes or separated bikeways) and off-street bike and pedestrian paths, correlates to fewer and less severe collisions as well as increased ridership. Such infrastructure helps make bicyclists more visible to drivers and can also help reduce traffic speeds.

Nineteen fatal bike collisions occurred in Sacramento County in 2015 and 2016 (12 in 2015, 7 in 2016), including five within Sacramento city limits. Sixteen of those collisions occurred on arterial streets with speed limits at or above 35 MPH, including Auburn Blvd., Dry Creek Rd., Edison St., El Camino Ave. (3 collisions), Elkhorn Blvd. (2 collisions), Fair Oaks Blvd., French Rd., Gerber Rd., Howe Ave., Marconi Ave., Northgate Blvd., Stockton Blvd. and 47th Ave. Many of those bicyclists were riding in conventional Class II bike lanes.

What we know about hazards for bicycling on El Centro Road

El Centro Road has specific characteristics that increase hazards for people traveling by bike:

- The posted speed limit is 50 MPH, a speed at which nearly 100% of collisions are fatal for bicyclists and pedestrians. This is also the speed limit through the River View Park neighborhood within Sacramento city limits.
• The Aug. 17 collision occurred on a 1.1-mile stretch of El Centro Road between stop-controlled intersections at San Juan Road and Arena Blvd., a distance that enables speeding.

• El Centro Road is the only continuous north-south route for bike and pedestrian traffic west of the West Drainage Canal between the West El Camino-I-80 interchange at the south end and I-5 at the north end, a distance of nearly 3.5 miles. The section of El Centro Road within Sacramento County boundaries where the collision occurred does not have bike lanes or sidewalks and does not have street lighting, which would help make bicyclists and pedestrians more visible to drivers.

• El Centro Road is one of just two routes for reaching the soccer field in River View Park from outside the neighborhood (the other route in San Juan Road). This soccer facility attracts young competitors from throughout Natomas and beyond, including, presumably, youth on bikes.

**Possible next steps for making bicycling safer along El Centro Road**

Organize a community or neighborhood forum to discuss conditions for biking and walking along El Centro Road.

Conduct a biking and walking audit of this stretch of El Centro Road led by SABA and WALKSacramento (improvements that protect pedestrians often also help safeguard people on bikes). An audit would evaluate current conditions to help identify potential infrastructure improvements, alternate routes, and supportive policies.

Evaluate potential short- and long-term infrastructure improvements on and near El Centro Road, including:

- **Reducing the speed limit on El Centro Road to at least 35 MPH** through the River View park neighborhood immediately north of San Juan Road, to help reduce vehicle speeds.

- A crosswalk at Moscatel Ave. to help reduce vehicle speeds on El Centro Road.

- A continuous off-street (Class I) bike path along El Centro Road to accommodate north-south bike and pedestrian traffic.

- At least one bike and pedestrian crossing over the West Drainage Canal north of San Juan Road into existing neighborhoods with quieter streets and safer infrastructure for biking and walking.

- **Street lighting** to help make bicyclists and pedestrians more visible to drivers at night.

This evaluation should be conducted in coordination with the City of Sacramento and the North Natomas Transportation Management Association, as the River View Park neighborhood north of San Juan Road is within the Sacramento city limits and the North Natomas TMA boundary and this part of Natomas continues to see suburban residential development in both the City and County.

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