



Kate Harrison  
Vice Mayor, District 4

CONSENT CALENDAR  
October 11, 2022

To: Honorable Mayor and Members of the City Council

From: Vice Mayor Harrison

Subject: Referral to the Transportation and Infrastructure Commission and City Manager to Consider and Make Recommendations Regarding the Policy of Deploying Rectangular Rapid Flashing Beacons and Other Treatments at Dangerous or High-Collision Pedestrian and Bicycle Intersections

RECOMMENDATION

Referral to the Transportation and Infrastructure Commission and City Manager to consider and make recommendations regarding the policy of deploying Rectangular Rapid Flashing Beacon (RRFB) and other treatments at dangerous or high-collision pedestrian and bicycle intersections.

CURRENT SITUATION, EFFECTS, AND RATIONALE FOR RECOMMENDATION

The City of Berkeley is committed to an equity-focused, data-driven effort to eliminate traffic deaths and severe injury collisions by 2028<sup>1</sup> and has described how it is going to achieve this in the 2017 Bicycle, 2019 Vision Zero Action, and 2020 Pedestrian Plans. Despite these documents and recent efforts to enhance pedestrian and bike infrastructure in the City, traffic violence remains a serious issue. According to the Berkeley Police Department, 2021 was deadliest year for road users in Berkeley since at least 1984. In 2021 alone, 433 collisions resulted in injuries—a 37% increase from 2020.<sup>2</sup>

As part of bike and pedestrian implementation plans, staff have begun installing RRFB at various dangerous intersections, likely resulting in relative safety improvements. Such intersections connect various neighborhoods, and are corridors for seniors, students, shoppers, those accessing government services, and inhabitants of existing and new housing. However, recent tragic incidents, the advent of the City's vision zero plan, and ongoing efforts to revise the Bike Plan should prompt the City to consider whether more passive treatments are appropriate for the most dangerous intersections.

<sup>1</sup> Berkeley Vision Zero Plan, <https://berkeleyca.gov/your-government/our-work/adopted-plans/vision-zero-action-plan>.

<sup>2</sup> Emilie Raguso, "8 people died in Berkeley crashes in 2021, overall collisions were up 34%," *Berkeleyside*, February 25, 2022, <https://www.berkeleyside.org/2022/02/25/berkeley-traffic-collisions-fatalities-up-2021-police-data>.

This referral asks the newly established Transportation and Infrastructure Commission and the City Manager to consider and make recommendations regarding RRFB and other traffic safety treatments impacting pedestrians and bicyclists at high-collision intersections.

## BACKGROUND

The United States, including Berkeley, has relied almost exclusively on driver “education” for decades to make streets safer, while peer countries in Europe and Asia have invested in physical infrastructure to boost safety. Traffic fatalities in the United States rose to just under 43,000 in 2021,<sup>3</sup> while fatalities in Europe have dramatically decreased.<sup>4</sup> Likewise, deaths on Berkeley’s roads are at a 37 year high.<sup>5</sup> Americans are not more prone to making mistakes than their counterparts. The City of Berkeley understands this well and has been undertaking serious efforts to improve the safety of roadways through infrastructure improvements.

According to the 2017 Bicycle Plan, a four beacon RRFB, like the one installed at MLK and Addison, can raise vehicle yielding compliance to 88%.<sup>6</sup> Yet, this raises the question about the remaining times when there is not yielding compliance, and the fact that RRFB requires pedestrians and cyclists to always remember to hit the button. Is 88% compliance acceptable in a Vision Zero City? We were reminded from the horrible collision on July 9, 2022, that the median and flashing beacons can be insufficient at protecting vulnerable road users from bodily harm.

There are many additional intersection treatments detailed in the 2017 Bicycle Plan that can improve safety for all road users. For instance, to ensure RRFB activation, the city could install pedestrian and cyclist detection systems, the latter of which is commonly used throughout the city already. A speed table or raised crosswalks could also further slow cars—these have been shown to reduce vehicle/pedestrian crashes by 45%.<sup>7</sup> In addition, the RRFB could be converted into a pedestrian hybrid beacon requiring motorists to make a complete stop.

This referral does not favor any treatment. Rather it asks its newly established Transportation and Infrastructure Commission and City staff to as appropriate consider and make recommendations about the appropriateness of various options in light of recent trends and best practices. This is particularly important as the City is updating its

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<sup>3</sup> National Highway Traffic Safety Administration, “Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021,” <https://www.nhtsa.gov/press-releases/early-estimate-2021-traffic-fatalities>.

<sup>4</sup> Frank Jacobs, “U.S. road deaths far outnumber those in Europe. Why?,” Big Think, June 1, 2022, <https://bigthink.com/strange-maps/road-deaths-us-eu/>.

<sup>5</sup> Emilie Raguso, February 25, 2022.

<sup>6</sup> Berkeley Bicycle Facility Design Toolbox, [https://berkeleyca.gov/sites/default/files/2022-01/Berkeley-Bicycle-Plan-2017\\_AppendixF\\_Facility%20Design%20Toolbox.pdf](https://berkeleyca.gov/sites/default/files/2022-01/Berkeley-Bicycle-Plan-2017_AppendixF_Facility%20Design%20Toolbox.pdf).

<sup>7</sup> Ibid.

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now five-year-old Bike Plan and has a numerous dangerous bike boulevard and pedestrian intersections similar to MLK and Addison. At the same time, pedestrian and bicycle traffic has increased and is expected to increase in coming years and the Council placed a significant bond on the ballot to fund affordable housing and infrastructure, including various bicycle and pedestrian upgrades. It is vital and in the public interest that the City finds the right policy solutions so future tragic collisions can be avoided.

FISCAL IMPACTS OF RECOMMENDATION

Staff time will be needed to develop recommendations to improve traffic safety policy at the high-collision intersections.

ENVIRONMENTAL SUSTAINABILITY

Transportation accounts for a significant portion of Berkeley's total emissions. The City is committed to increasing the modal share of walking and biking to reduce vehicle miles traveled.

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