

## 14<sup>th</sup> Street Safety Project

### Attachment B - Safety Analysis

Among other uses, the High Injury Network is a tool for OakDOT to use when targeting investment in roadway safety measures. The 2017 High Injury Network analysis showed that 14<sup>th</sup> Street was a Multimodal, Pedestrian, and Bicycle High Injury Street, meaning that 14<sup>th</sup> is disproportionately responsible for a high number of collisions when compared to other streets in the City. As part of the continuing design and outreach process in 2021, OakDOT staff conducted a refreshed analysis of traffic collisions on 14<sup>th</sup> Street between Brush Street and Oak Street (the previous High Injury Network Study relied on collisions from 2012-2016). In the 5 years since OakDOT applied for and won the ATP grant in 2016, there were 146 vehicle collisions on 14<sup>th</sup> Street, accounting for 191 total injuries. Drivers injured 37 pedestrians in this time and killed 2 pedestrians – both Asian American seniors walking in marked crosswalks. Drivers also injured 12 people biking. Overall, in the last 5 years someone was injured by traffic violence every 9.5 days on 14<sup>th</sup> Street<sup>1</sup>. It is also important to remember that these numbers reflect only collisions that are reported to the Oakland Police Department, meaning that actual numbers could be even higher.

Citywide, there were 22,981 reported traffic collisions in the 5 years from 2016 to 2020. The top three Citywide causes of collisions are Unsafe Speed, Improper Turning, and Traffic Signals and Signs, representing 24%, 16%, and 15% of all collisions respectively. On 14<sup>th</sup> Street, there are far more Traffic Signals and Signs violations than the Citywide percentage – mostly red-light running. The top 3 causes of collisions on 14<sup>th</sup> Street are Traffic Signals and Signs, Improper Turning, and Pedestrian Right of Way, representing 45%, 12%, and 12% of all collisions. In reviewing this data, and in speaking to merchants, residents, and visitors to 14<sup>th</sup> Street, it is clear that 14<sup>th</sup> Street as it is designed today encourages unsafe driving maneuvers that lead to pedestrian, driver, and bicyclist injuries and deaths. 14<sup>th</sup> Street is overbuilt for the traffic that it carries which means that at most times of day the 4 lanes of 14<sup>th</sup> Street are wide open. This enables bad actors or scofflaw drivers to speed, cross the double yellow centerline, make unsafe passing maneuvers or quick turns, and speed through red lights. The 4-lane configuration on 14<sup>th</sup> Street also invites consequence-free double parking in commercial districts which can block the path of travel for people biking and cause dangerous stopping/weaving movements on the part of drivers. A 4 lane to 2 lane road diet for vehicles on 14<sup>th</sup> Street will maintain enough capacity for vehicles to travel smoothly, while removing the excess space on the roadway that is inviting unsafe behavior and inciting crashes.

To address persistent collision patterns on 14<sup>th</sup> Street, this project will install the following safety features design specifically to reduce the incidence and severity of collisions, particularly vehicle/pedestrian and vehicle/bicycle collisions which lead to more severe injuries and fatalities amongst the City's at-risk populations:

- 4-lane to 2-lane road diet to calm traffic on 14<sup>th</sup> Street while providing enough capacity for traffic to flow smoothly
- Protected bike lane physically separated from vehicles by 6-inch-high concrete islands
- Concrete islands at intersections to reduced pedestrian exposure to vehicle traffic while crossing 14<sup>th</sup> Street (reduces crossing distance from 55 to 25 feet in most cases)

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<sup>1</sup> Transportation Injury Mapping System, UC Berkeley/SafeTREC: <https://tims.berkeley.edu/>. Access October 2021

- Concrete islands within intersections to provide protection/visual separation for bike lanes and to slow the speed of right-turning vehicles
- Upgraded roadway and sidewalk (pedestrian) lighting
- Advanced Stop Bars to keep stopped vehicles back from crosswalks
- Intersection daylighting to promote visibility of pedestrians waiting to cross the street