City of Bellevue

MANAGEMENT BRIEF

DATE: October 11, 2021

TO: Mayor Robinson and City Councilmembers

FROM: Andrew Singelakis, Director, 452-6468
            Transportation Department

SUBJECT: 2021 National Roadway Safety Award

On October 6, the City of Bellevue received the 2021 National Roadway Safety Award – a biennial award sponsored by the Federal Highway Administration and the Roadway Safety Foundation to recognize roadway safety achievements that move the United States towards zero deaths and serious injuries on the nation's roadways.

The award recognizes Bellevue's Video Analytics Towards Vision Zero Program, in which the City has forged multiple technology development partnerships to convert raw video footage from existing traffic camera network into flow, speed, and conflict event data. Bellevue's Vision Zero effort aims to eliminate serious-injury and fatal traffic collisions on City streets by 2030.

Initially, the program launched as a partnership with Microsoft and the University of Washington (2016-2018). The lessons learned from this initial pilot led to subsequent video analytics partnerships with Transoft Solutions Inc. and the Together for Safer Roads coalition (2019-2020) and the current collaboration with Advanced Mobility Analytics Group, Jacobs Engineering and Microsoft beginning in 2020.

In addition to identifying conflict hot spots, often accomplished in one week of data collection versus many years of crash report documentation, video analytics offers rapid insight on whether a safety countermeasure achieves a favorable outcome. For example, Bellevue made traffic signal changes at 124th Avenue Northeast and Northeast 8th Street, compared before-after video analytics data, and confirmed there was a 60 percent reduction in near-miss collisions, a favorable return on investment for a $10,000 project.

Given the success of Bellevue's video analytics efforts, this year the City began applying these proactive safety techniques to its high-injury network corridors, integrating the tool into road safety assessments it conducts to identify and prioritize projects.

The National Roadway Safety Award is the fourth recognition in 2021 for Bellevue's Vision Zero work involving video analytics. Prior awards:

- Safety Council Organization Award, Institute of Transportation Engineers (July)
- Smart Cities North America Award finalist, International Data Corp (June)

- Transportation Systems Management and Operations Award runner up, National Operations Center of Excellence (February)

The success of Bellevue's Video Analytics Towards Vision Zero Program is attributable to the collective efforts of a cross-departmental team led by Franz Loewenherz that involved staff from three departments:

- Transportation: Paula Stevens, Chris Long, Darcy Akers, Daniel Lai, Justin Santos, Raid Tirhi, David Grant, Matt Diemer
- Information Technology: Chelo Picardal, Garrett Solberg, Joel Taylor
- City Attorney's Office: Monica Buck, Nicholas Melissinos