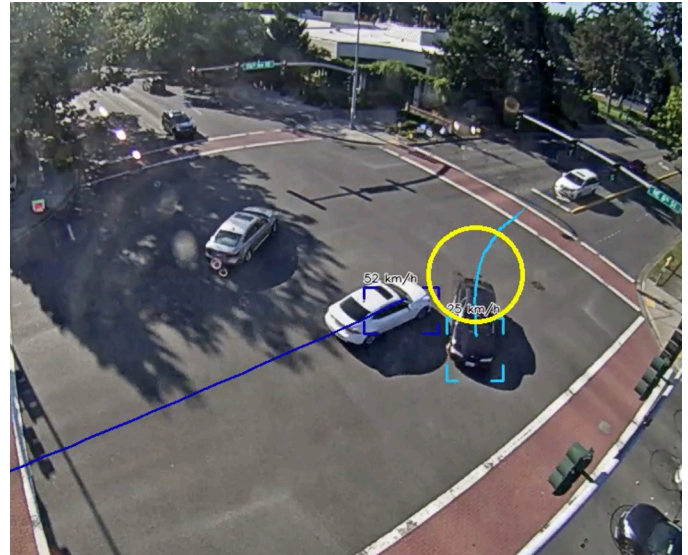# How We Can Help With Your SS4A Grant Projects

Why the Need for Action: SS4A Grant Program

In 2021 alone, there were over 42,900 traffic fatalities in the U.S., according to the National Highway Traffic Safety Administration (NHTSA), a marked increase of 10.5 percent from 2020. The Association for Safe International Road Travel (ASIRT) also reports that road traffic injuries are the leading cause of death among people aged five to 29 with more than half of all road traffic deaths occurring among vulnerable road users, such as pedestrians, cyclists and motorcyclists. Even these grim figures do not account for the untold traumatic and life changing injuries and considerable economic loss suffered by survivors.

Because of this alarming rate of traffic fatalities trending upwards each year since 2015, the **Safe Streets and Roads for All** (SS4A) grant program was established. With a budget of $5 billion over 5 years, the SS4A funds the initiatives of counties, cities, towns, Tribal governments, and transit agencies to counter the climbing roadway death and injuries and towards turning the ideal of Vision Zero into a reality. Eligible activities for the SS4A grant program may include planning and design of safer roadways and intersections, installation of vulnerable road user safety improvements, and implementation of data-driven programs, among others. By supporting projects that promote safe transportation, the program plays a crucial role in improving the overall safety of communities and reducing the burden of crashes and injuries on the health care system.

Our Proactive Approach to Traffic Safety

At Transoft Solutions, we provide innovative solutions to support decision-makers in the planning, designing, building, and management of our transportation systems. Our approach to traffic safety is **proactive**, allowing decision-makers to identify and **mitigate safety risks before collisions occur**. This is done through the provision of video-based road safety analytics, which leverages advanced video analytics algorithms and artificial intelligence to assist in monitoring, analyzing, and managing road safety performance. This system provides a novel and valuable tool for improving road safety for all road users by offering the following:
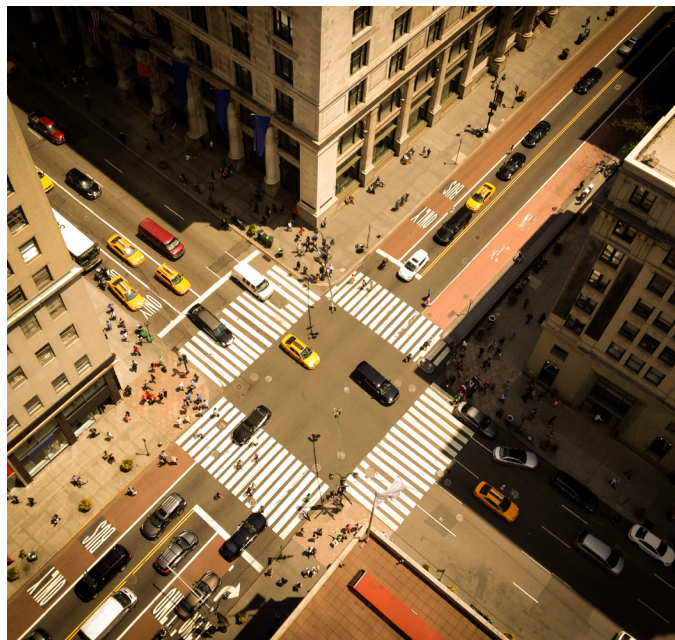
- **Data-driven Insights:** Objectively identify areas to implement targeted safety measures.

- **Automated Detection:** Automatically detect and classify all road users and their interactions, including vehicles, bicycles, and pedestrians.

- **Comprehensive Traffic Flow and Road Safety Information:** Gain more insights into overall traffic flow and road safety performance to make more comprehensive decisions about mitigation strategies.

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Leverage the Advantages of Trafxsafe

TrafxSAFE is our video-based road safety analytics suite that combines cutting-edge technology with expert analysis, to provide a comprehensive solution to enhance road safety. The information gathered through our data-driven approach can be used to inform decisions on road design, engineering, and infrastructure improvements to make roads safer for all users. Examples of how TrafxSAFE can assist include:

- **Localized Safety Analysis:** Evaluate a single intersection or localized site to determine what safety risks exist, evaluate may be causing crashes, and identify potential countermeasures.
- **Safety Planning:** Develop more advanced road safety plans and strategies focused on mitigating not only crashes, but safety risks.
- **Investment Prioritization:** Use the outputs of TrafxSAFE to quantitatively identify the highest risk areas or locations for safety improvements.
- **Countermeasure Validation:** Gather data before countermeasures are implemented and compare to data gathered after countermeasures are in place to both validate the effectiveness of the countermeasures and fine-tune improvements.
- **Continuous Systemwide Monitoring:** Incorporate TrafxSAFE into your central system to collect data, monitor road safety, and identify changes requiring further safety evaluation. This continuous feedback loop helps to ensure that road safety continues to improve over time.

What Makes TrafxSAFE the Premier Choice for Safety Monitoring

We have pioneered the use of video analytics in transforming traffic movement data into traffic safety knowledge and providing automated video-based road safety solutions which assist practitioners design and evaluate road structures. Our patented technology detects dangerous interactions between all road user types, helps predict, diagnose, and address today's road safety challenges without waiting years for crash data.

- **Proven Technology:** TrafxSAFE has been deployed at hundreds of locations in over 100 cities worldwide providing users expedited feedback and the ability to apply unique techniques in the early detection of potential road safety issues.
- **Targeted Analysis:** TrafxSAFE can be applied on a site or project-basis, allowing for the flexibility to focus efforts on specific locations or incorporate specific analysis into broader projects.
- **Systemwide Monitoring:** On-going monitoring of the system provides a more comprehensive and historical analysis of trends and patterns to better inform decisions about road safety policies and programs.
- **Data Source Versatility:** Our system takes in video from virtually any camera or video source (including drones), resulting in an easier and more flexible deployment.
- **Comprehensive:** TrafxSAFE can detect and classify all road users across 18 unique classifications, including motorized vehicles, cyclists, pedestrians, and scooterists, with the list expanding as necessary.

Why Partner with Transoft Solutions

Since 1991, Transoft Solutions has been developing software for aviation, civil infrastructure, and transportation professionals, now in use in over 150 countries serving more than 50,000 customers.

Transoft Solutions has had the honor of working with some of the world's largest proponents in traffic safety. We work with municipalities (e.g., Toronto, Ontario; Bellevue, Washington; and Miami, Florida) and Departments of Transportation (e.g., Pennsylvania, Utah and Florida DOTs). We also work with transportation consulting firms (e.g., GHD, AECOM and Stantec) in helping them to gain deeper safety metrics for their road safety studies, as well as NGOs (e.g., World Bank and Inter-American Development Bank) and university researchers in expanding their road safety research.

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