

The purpose of the following report (one of six) is to orient readers to the professional skills and potential contributions of Transportation Professionals for advancing Vision Zero. These reports were produced by the 2022 – 2023 NC Vision Zero Capstone team at UNC-Chapel Hill and are the result of a sector-specific landscape scan and interviews with experts in the field.

# The Diverse Roles of Roadway Transportation Professionals in Achieving Vision Zero

## Introduction

Vision Zero is a growing movement throughout the United States to eliminate all traffic-related deaths and serious injuries and to ensure the safe and equitable mobility for all road users, no matter how they get around. This approach to transportation safety requires collaboration among diverse groups of professionals, working in partnership with communities to ensure transportation decision-making is evidence-driven and equitable across diverse road users. The diverse groups and coalitions needed to support Vision Zero implementation include local traffic planners, engineers, policy makers, public health professionals, emergency responders, community members, and other key partners.

## The Roadway Transportation Sector

Roadway transportation is a diverse and wide-reaching sector, which engages directly with communities to create safe and efficient movement of people and products. Transportation professionals include individuals working at state and municipal departments of transportation and others with expertise in transportation planning, engineering, urban design, architecture, public administration, maintenance, and urban planning.

“That Vision Zero lens [is] where we’re trying to look at it as a holistic and systems approach to make sure that we are putting transit stops in the right places for people to access what they want, but also making sure that we’ve got the right facilities in place to link them there.\*

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– Transportation Professional

## Case Study #1

The intersection of Pearl Street, Prospect Street, and Colchester Avenue in Burlington, VT accommodates high volumes of vehicle, bus, bicycle, and pedestrian traffic, with conflicts between these diverse users producing 67 crashes between 2007 and 2011. The city conducted a scoping study to identify improvements that would enhance mobility and safety for all users through the intersection. This review led to the city working with diverse groups of partners to co-create a signal phasing plan and piloted short term improvements to quickly implement a lowcost solution to improve public safety.



## Case Study #2

In 2009, Alexandria, VA installed Rectangular Rapid-Flashing Beacons at four crosswalk locations where there was no existing traffic signal. At these important pedestrian crossings in areas of heavy transit activity and traffic, the flashing beacons are meant to improve safety for pedestrians. In one location, a developer contributed funds for their installation.



# How Roadway Transportation Professionals Can Support Vision Zero

## Leadership

- Serving as the lead agency for Vision Zero initiatives
- Hiring staff members to oversee and/or coordinate Vision Zero initiatives
- Working regularly with other sectors to identify synergies in achieving objectives
- Prioritizing Vision Zero through the promotion of Safe System principles in all approved projects

## Resources

- Creating inspiring safety goals
- Establishing design guidelines to support the safety of individuals walking, bicycling, and rolling
- Funding the development and installation of infrastructure projects that improve safety

## Skills and Knowledge

- Working with marginalized communities to cocreate change in policies and roadway conditions
- Interpreting and reporting crash and fatality data
- Collaborating with other sectors to incorporate more comprehensive data analysis when evaluating crash and traffic data

## Making Data Accessible

- Analyzing crash data to identify risks for all road users
- Improving internal data-collection efforts
- Collaborating with partners in data-sharing
- Engaging communities to identify local priorities that focus on improving equitable access and mobility
- Conducting systemic analyses to proactively identify risk

## Neighborhood Changes

- Creating slow zones and implementing traffic calming strategies
- Enhancing street lighting and utilizing “daylighting” strategies to increase visibility
- Installing accessible, multimodal infrastructure (e.g., bicycle paths, sidewalk connectivity)
- Expanding transit access and connectivity

## Project Prioritization

- Supporting Complete streets and protecting diverse users of roadways
- Managing vehicle speed and conflict points to protect road users
- Installing speed humps and other traffic-calming infrastructure
- Creating high-visibility crosswalks

## Case Study #3

In 2015, leaders at the Houston, TX Metro transit system decided to redesign the bus network to match the city’s population growth and increase the ability for transit users to travel across the region. The New Bus Network was developed through policy discussions, public forums and consultations, and a planning process that took a “blank sheet” look at the network. By extending weekend service, simplifying the network, improving reliability, and adding service to meet current and future travel needs, the city increased network ridership and created more efficient routes.



## Key Resources for Transportation Professionals Interested in Learning More About Vision Zero

- [Vision Zero Core Elements Summary](#)
- [Dangerous by Design](#)
- [Building a Better State DOT](#)
- [National Association of City Transportation Officials](#)



“Our role [in the transportation sector] is just that... how do we try to make sure that we are creating the structures, the facilities, the policies, and the regulation to help keep the community as safe as they possibly can be as they’re accessing and moving through the community?\*

– Transportation Professional

\* Quotes have been edited for clarity; full quotes are available upon request.



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This product was supported by the Collaborative Sciences Center for Road Safety, a U.S. Department of Transportation National University Transportation Center promoting safety.