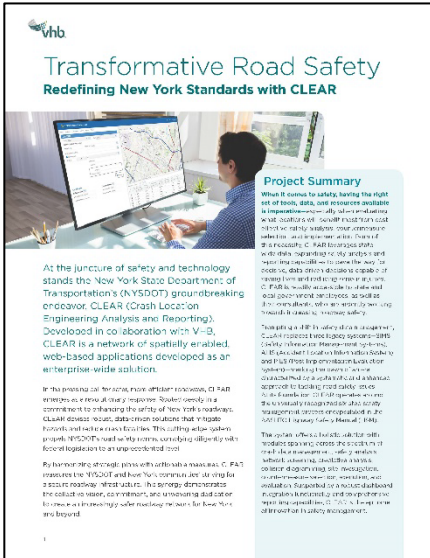# TRANSPORTATION ACHIEVEMENT AWARD — SAFETY

New York State Department of Transportation and VHB for the Redefining New York Standards with CLEAR Initiative

The **New York State Department of Transportation** (NYSDOT) and **VHB** have received a 2024 Transportation Achievement Award in the Safety category for the **Redefining New York Standards with CLEAR (Crash Location Engineering Analysis and Reporting) initiative**, which is significantly enhancing the safety of New York's roadways. The [Transportation Achievement Awards](#) recognize excellence in the advancement of transportation to meet human needs, by entities concerned with transportation, such as governmental agencies, Tribes, legislative bodies, consulting firms, industry partners, and other organizations. Awards are presented in five categories: Complete Streets, TSMO, Safety, Planning, and Traffic Engineering.

Project Scope and Description. CLEAR is a network of spatially enabled web-based applications developed as an enterprise-wide solution for NYSDOT. This advanced system replaces three legacy systems—SIMS (Safety Information Management Systems), ALIS (Accident Location Information System), and PIES (Post Implementation Evaluation System)—to provide a holistic and enhanced approach to crash data management, safety analysis, and countermeasure implementation. CLEAR leverages state-wide data, expanding safety analysis and reporting capabilities to support decisive, data-driven decisions aimed at saving lives and reducing serious injuries.

Application of Innovative Concepts. CLEAR incorporates numerous best practices in technology, including accessibility, scalability, interchangeability, integrability, flexibility, availability, reliability, maintainability, and robust security measures. Built on Esri ArcGIS Enterprise technology and leveraging SQL Server geodatabases, CLEAR integrates directly with the NYS DMV Accident Information System (AIS) for nightly data updates. The system features six distinct applications for geocoding, editing, querying, and analyzing crash data, with CLEAR Safety as its hallmark application designed to help safety engineers implement the six-step safety management process outlined in the AASHTO Highway Safety Manual.

Implementation of a Challenging Transportation Program. Developed through a collaborative effort between NYSDOT and VHB, the implementation of CLEAR was a complex and challenging process involving advanced technology and coordination across multiple jurisdictions. The system's deployment required meticulous planning and integration of various components to ensure seamless operation and data management. The collaboration included extensive stakeholder engagement and adherence to the highest security standards, ensuring the system's resilience and reliability.

Significant Effect on Transportation. CLEAR has had a transformative impact on road safety in New York. By integrating statewide crash, roadway, and traffic data, the system enables comprehensive safety analysis and network screening to identify high-risk locations. This data-driven approach facilitates the selection and implementation of targeted countermeasures, significantly reducing crash fatalities and serious injuries. The system supports NYSDOT's mission to move "Towards Zero Deaths" by providing tools for detailed diagnostic assessments, economic analyses, and post-implementation evaluations of safety projects.

Multi-Faceted Transportation Program. The CLEAR project is a multi-faceted initiative that combines various innovative and well-applied concepts. It includes modules for crash data management, safety analysis, network screening, predictive analysis, collision diagramming, site investigation, countermeasure selection, and evaluation. These tools enable NYSDOT to manage traffic safety effectively and improve mobility along major corridors. CLEAR's comprehensive dashboard integration and reporting capabilities ensure that safety engineers and decision-makers have access to accurate and timely information.

Promoting Major Advances in Efficiency and Economy. By replacing outdated legacy systems with an integrated, technologically advanced platform, CLEAR promotes significant advances in the efficiency and economy of transportation safety management. The system's real-time data integration and automated processes streamline safety analysis and project implementation, resulting in cost savings and more effective use of public funds. CLEAR's application of innovative technologies and data-driven strategies has set a new benchmark for transportation safety projects, demonstrating a strong commitment to preserving lives and preventing severe injuries.

Acknowledgements. Among those instrumental in the success of this initiative are:

Geoffrey W. Wood, Director, Highway Safety & Traffic Operations Bureau, New York State Department of Transportation Office of Traffic Safety & Mobility (OTSM); **Ankita Rathi,** Transportation Planning Manager, VHB

Visit here for more information on ITE's Awards Program. Click here for information on the CLEAR initiative.