

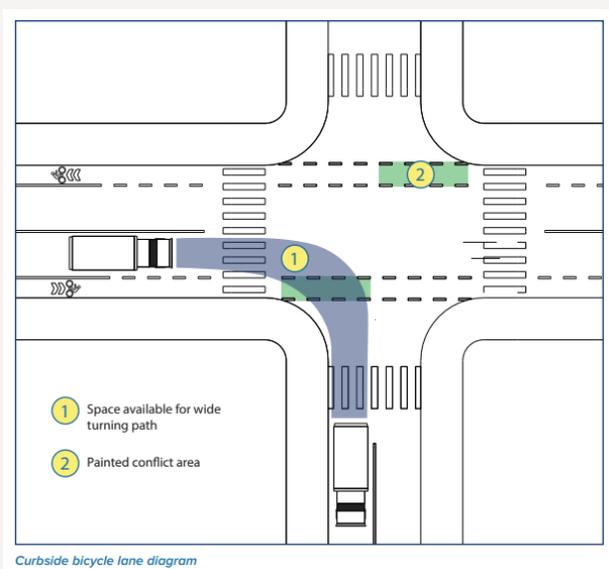
# Project Capsule

## Complete Streets Means Trucks, Too: Integrating Freight Traffic Needs with Active Transportation Planning and Policy

### PROBLEM

The state of Louisiana, and numerous regions and municipalities therein, have embraced a Complete Streets policy approach that encourages the development of new facilities for walking, bicycling, and transit on state and local roads. While this concept offers significant safety and mobility benefits, conflicts can occur where bicyclists and pedestrians interact with freight vehicle traffic. For example, specific design features emphasized by Complete Streets, such as tighter turning radii, curb extensions, narrower lanes, roundabouts, and protected bike lanes, have the potential to restrict truck movement, as well as loading and unloading activities. Additionally, the development of facilities that encourage walking and bicycling on designated truck routes without due consideration of the interactions between these modes poses significant risks to non-motorized road users.

Many of these conflicts could potentially be avoided through holistic, multimodal planning that reduces the potential for conflict among modes, whether through specific geometric or operational improvements to increase safety, changes in the placement of future bikeways to avoid truck routes, or shifts in policy to clarify obligations in planning and designing roadways for all modes. Research is needed to understand the extent of these issues in Louisiana, to directly integrate freight planning and traffic patterns into Complete Streets policy implementation activities, and to develop recommended mitigation actions to reduce conflicts between freight vehicles and non-motorized road users.



**Figure 1. Complete Streets considerations for freight and emergency vehicle operations**

### Start Date

January 6, 2025

### Duration

18 months

### Funding

SPR: TT-Fed/TT-Reg - 5

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## OBJECTIVE

The objective of this planning-level study is to analyze a range of observed and anticipated conflicts among road users; define stakeholder-identified gaps in data and guidance for Complete Streets implementation with respect to the integration of freight activities; and develop planning, policy, and design recommendations to mitigate safety and operational concerns. Specifically, the study seeks to identify best practices for considering freight and trucking needs in Complete Streets by addressing the following objectives:

1. Develop a better understanding of identified and potential future conflicts on Louisiana roadways using a) spatial conflict/gap analysis of existing and planned pedestrian and bicycle facilities relative to existing and proposed designated truck routes, and b) research into current DOTD practices for determining designated design vehicles, estimating freight demand, and prioritizing multimodal accommodations.
2. Analyze crash records for freight and vulnerable road user-involved crashes and identify proven safety countermeasures, as well as non-infrastructure strategies which may prevent future injuries and fatalities.
3. Survey stakeholders in the freight industry to gain perspective on conflicts, tensions, and needs to better support safe freight operations.

## METHODOLOGY

This study will take a two-pronged approach to addressing Louisiana's safety needs with respect to the role of freight transportation in Complete Streets implementation:

1. Reactive: a retrospective review of crash data, as well as an analysis of current practice and stakeholder experiences, allows identification of the planning, design, and operational factors that may have led to previous crashes involving freight/heavy vehicles and vulnerable road users.
2. Proactive: an analysis of current and planned projects will, along with reactive analysis results, help identify potential conflicts based on existing data sources, as well as gaps in the data and guidance practitioners need to successfully implement these plans.

In order to address this problem, several tasks will be completed. First, the research team will conduct a literature review of national research, policy language, and actions to identify best practices in considering freight/truck needs in Complete Streets policy implementation. Second, the research team will complete a spatial analysis of existing and planned pedestrian and bicycle facilities relative to existing and proposed designated truck routes to identify potential priority conflict areas.

The research team will further analyze at least five years of statewide data for crashes involving trucks and non-motorized road users to understand the characteristics and behaviors of road users involved in such crashes, the temporal and built environment contexts in which crashes occur, and any similarities or dissimilarities among crashes based on land use context and urban or rural areas. The team will then conduct a survey of freight industry stakeholders to understand perceived problems and concerns with respect to traffic safety around people walking and bicycling. This task will also include interviews with key stakeholders and collaboration with relevant regional working groups or committees. Finally, a report will be prepared to document all of the findings of this research.

## IMPLEMENTATION POTENTIAL

This research provides immediate implementation benefits. The results of the spatial and crash analysis will be shared with DOTD, as well as with local and regional transportation authorities, to highlight existing areas of concern and potential future conflicts for proposed projects. The results of the industry survey will be shared with local planners and advocates to encourage the integration of trucking industry perspectives into their activities and facilitate a productive dialogue around shared safety and economic goals. Furthermore, this research is expected to model an analytic process and the use of tools which may be incorporated into future project development and planning processes to ensure a more "complete" version of Complete Streets- one that embraces the imperative of safe and efficient freight vehicle movement for years to come.