



Project Overview

Union County initiated the *Truck Mobility Study* to better understand how and where trucks are moving on its roadway network; to identify barriers to efficient and safe regional freight movement; and to recommend potential strategies to address those barriers. The work was done in partnership with the North Jersey Transportation Planning Authority's (NJTPA) Subregional Studies Program. The goals of the Study are predominantly focused on freight centered safety improvements to support the economic vitality of the County. However, the Study outcomes also balance the needs of other users, including cyclists and pedestrians.

The County is the center of freight activity in New Jersey. It boasts numerous geographical and physical advantages for the goods movement industry, including the largest maritime port in the eastern United States and one of the busiest cargo airports in the region. With this volume of freight activity comes substantial truck traffic that relies on the County's roadway network to travel between freight origins or destinations and the regional highway network.

At the same time, this area is also home to numerous walkable and bikeable communities.

These include downtown areas like Summit or Westfield, where the main shopping district is on a County road.

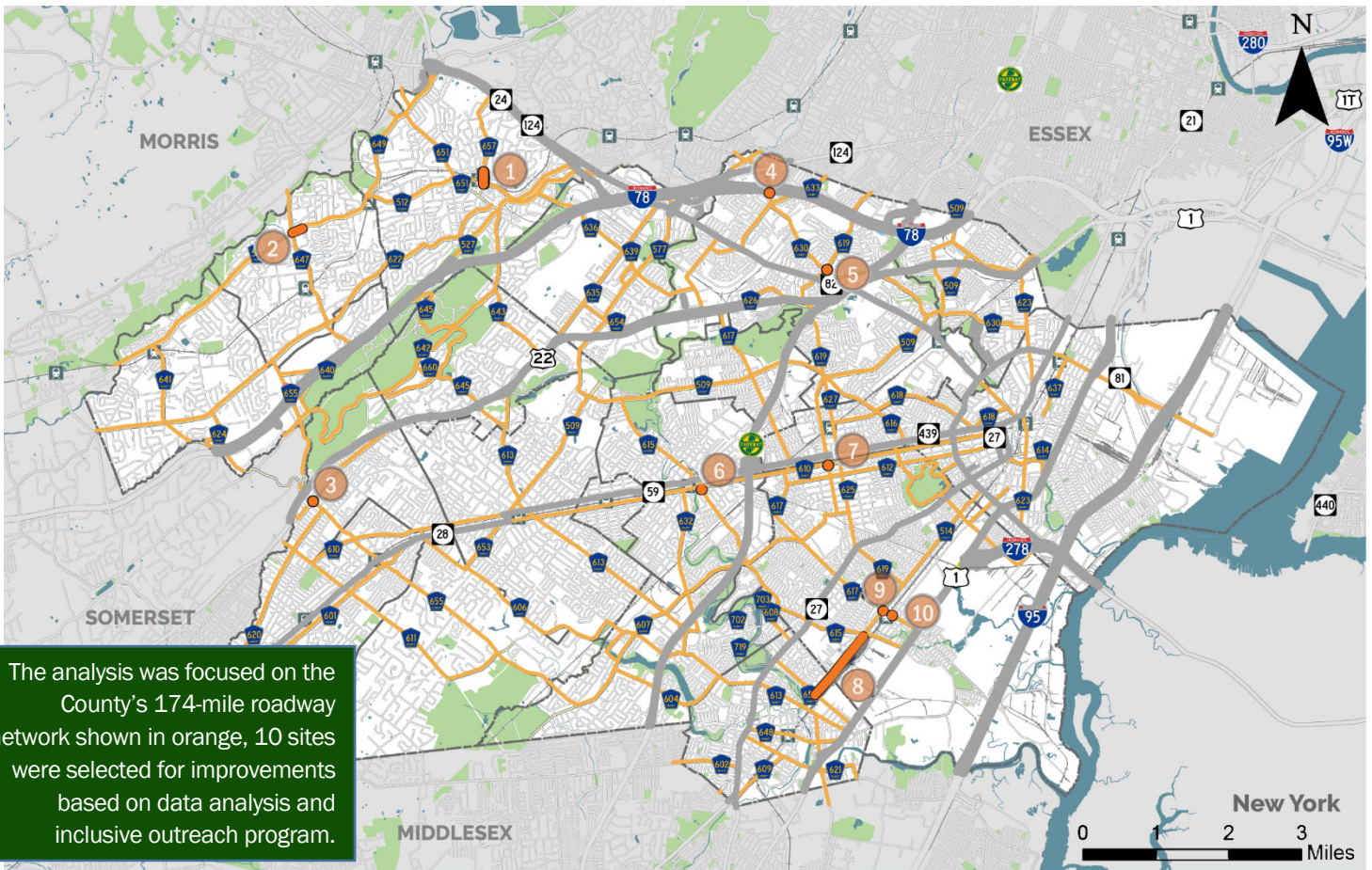
Why do we need trucks?

A common theme of many truck-focused planning studies like this one is a desire to remove or relocate truck traffic on specific routes. "Why are there so many trucks?" is a commonly asked question that likely resonates with many County residents. However, trucks play a critical role in the daily lives of those same residents. The trucks that are frequently criticized carry the goods that shoppers order online with ever-shrinking delivery windows. Trucks support the local businesses that are part of Union County's many thriving downtown areas. Those same trucks are often driven by County residents.

The Truck Mobility Study assumes trucks will remain a constant presence in Union County. The outcomes and improvements identified within this Study will ultimately optimize the County roadway network to allow for truck circulation where it is most needed, while ensuring that other modes, including non-motorized modes, are accommodated and supported.



Trucks are a visible presence on Union County's roads. The Truck Mobility Study will support future truck-focused investments on the County's roadway network.



The analysis was focused on the County's 174-mile roadway network shown in orange, 10 sites were selected for improvements based on data analysis and inclusive outreach program.

Planning Process & Improvement Site Identification

An inclusive and comprehensive planning process was used to inventory conditions, to analyze existing constraints, and to identify targeted sites for planning-level improvement concepts. This involved four elements that, when linked, provided the project team with a clear understanding of where improvements are most needed.

Data Analysis – The project team performed an extensive analysis using numerous transportation, land use, and other datasets. This comprehensive review included datasets compiled nationally, by NJDOT, by NJTPA, or by Union County. The work focused on the 174-mile County roadway network which links origins and destinations with the state and interstate highways which support regional and national mobility.

Public Input – A key tenet of any transportation planning effort is an inclusive and visible public

participation program. This effort included several outreach elements aimed at garnering feedback.

Opportunities for public input included a Wikimap, an online crowd-sourced mapping tool, where location-specific comments and concerns were collected. A virtual public meeting provided an open forum where a project summary and outcomes were presented, and the public gave feedback on the study. Additional opportunities that spanned the entirety of the project schedule included a project website with contact information and two summary newsletters that were used to explain and promote the Study.

Three categories of stakeholders were sought out to obtain critical issue-specific feedback. Due to pandemic restrictions, this outreach was performed virtually. For municipal stakeholders, an issue-specific survey was emailed to the Mayor and administrative staff of each of the County's 21

municipalities. To reach freight industry partners, a survey was emailed to trucking industry contacts at the New Jersey Motor Truck Association. Additional stakeholders were contacted directly by Union County. The County hosted a virtual focus group to learn more about bicycle and pedestrian concerns. The group included more than a dozen individuals familiar with local bicycle and pedestrian issues.

A Technical Advisory Committee (TAC) was formed and met twice to provide input and technical expertise. The TAC included members from Union County Planning and Engineering, NJTPA, and municipal officials and their representatives. The TAC provided invaluable local knowledge and feedback at key milestones.

Equity Assessment – An Equity Assessment, also known as an Environmental Justice Analysis, was conducted to identify communities that have been traditionally underserved or underrepresented in the planning process. As part of this effort, 11 indicators from the US Census Bureau’s 2015-2019 Five-Year American Community Survey were used to identify areas in the County that meet underrepresented thresholds. Equity was one of many factors used to identify potential improvement sites. The analysis was useful to understand and balance potential improvements

within historically underserved and underrepresented communities.

The project team used the planning elements noted in the previous section to identify locations where truck-specific improvements are most needed. This analysis resulted in the identification of 33 locations where truck-specific improvements would provide the most benefit to County-wide circulation.

Following additional data review and further input from County officials, that list was pared down to 10 sites deemed most critical for trucks. Those 10 sites are identified below.

Improvement Concepts

For each of the 10 sites, a series of planning-level improvements were developed. These improvements are drawn from numerous concept types described briefly on the following page.

Increased Capacity – Improvements that increase vehicle capacity along corridors or at intersections and interchanges.

Signage – Improvements that provide information (for instance, lane designation or substandard bridge clearances) for location- or corridor-specific locations.

Loc.	Street Name	Cross Street	Municipality	Crash Hotspot	Truck Generators	Connector Route	High Volume/Flow	Point of Interest
1	Summit Ave (CR 657)	Between Broad St (CR 512) to Springfield Ave	Summit	Truck/BikePed	Y	NJ 24	N	
2	Springfield Ave (CR 512)	Between Passaic St (CR 647) and Academy St	New Providence	Truck	Y	NJ 24	N	New Providence High School
3	New Providence Rd	Park Ave (CR 655)/ Bonnie Burn Rd (CR 641)	Scotch Plains	Truck	Y	I-78/ US 22	N	Weldon Concrete / School
4	Vauxhall Rd (CR 630)	Liberty Ave	Union	Truck	Y	I-78/ US 22	Y	Jefferson Elementary School
5	Vauxhall Rd (CR 630)	Stuyvesant Ave (CR 619)	Union	Truck/BikePed	Y	I-78/ US 22/ NJ 82/ NJ 28	N	
6	South Ave (CR 610)	Centennial Ave (CR 615)	Cranford	Truck	N	US 1&9/ NJ 28	Y	Lincoln School
7	1st Ave (CR 610)	Locust St (CR 619)	Roselle	Truck/BikePed	N	US 22/ NJ 28/ NJ 27	Y	
8	Elizabeth Ave (CR 514)	Scott Ave (CR 650) to N Stiles St (CR 615)	Linden	Truck	Y	CR parallel to US 1&9/ NJ 27	Y	Former GM Plant
9	Elizabeth Ave (CR 514)	Wood Ave (CR 617)	Linden	Truck/BikePed	Y	US 1&9/ NJ 27/ NJ 28/ US 22	-	Linden Train Station
10	Wood Ave (CR 617)	Linden Ave	Linden	Truck/BikePed	Y	US 1&9/ NJ 27/ NJ 28/ US 22	-	Linden Train Station

Wayfinding Improvements – Wayfinding campaigns are an often branded series of signs or maps that provide consistent information and support designated truck routes while reducing impacts of heavy vehicles on residential communities.

Signal Improvements –Upgrades to existing signals and equipment, the optimization of existing signal timings and phases, or the installation of new signals at targeted locations.

Truck Prohibitions – Limiting or barring truck trips on specific routes.

Alternate Routing – Providing operators of large vehicles with redundancy and options for making frequent trips.

Striping Improvements – Restriping of existing roadways where lane designations or markings are unclear or in poor condition.

Increased Bridge Clearances – Altering substandard clearances by raising the deck of a bridge, replacing a structure, or lowering the roadway profile.

Pedestrian or Bicycle Improvements – This may include upgraded crosswalk markings, upgraded sidewalks, curb extensions, shared-lane markings, or bicycle lanes.

Operator Outreach – This is a tool to address truck circulation issues via partnerships between County

and/or municipal stakeholders and trucking companies.

Next Steps

Each of the 10 improvement sites includes multiple concepts that can be implemented individually or in clusters when funding is available or when synergies with other projects exist. For each location, the County should identify and prioritize improvements that can be quickly implemented with robust community support. These early victories can build momentum for larger or more challenging projects, including those that may require additional study or design.

The County can also concurrently review the concepts that have been proposed at the 10 improvement sites and identify additional locations where those same concepts may be applicable, including the additional 23 locations that were identified as critical sites for truck-focused improvements, but were not advanced as part of this Study.

Finally, the County should advance new partnerships with the freight community. A recurrent and open dialogue between the County, its municipal partners, and truck operators can ensure that transportation concerns or improvements are discussed, and proactive solutions are advanced.

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