

APPENDIX F

Safety Strategies & Programs

UNION COUNTY SAFE STREETS FOR ALL ACTION PLAN



Complete Streets Resolution



UNION COUNTY Board of County Commissioners

RESOLUTION NUMBER: 2026-265

4/30/2026

Commissioner James E. Baker Jr.

WHEREAS, the County of Union is committed to implementing projects that provide a safe, accessible, healthy, environmentally friendly and economically beneficial transportation system within Union County for all users; and

WHEREAS, certain Complete Street policies support the goals of the County of Union; and

WHEREAS, a Complete Street is defined as “an integrated transportation roadway network designed to enable safe and convenient travel and access along and across streets for all users of all ages and abilities, including pedestrians, bicyclists, motorists, movers of commercial goods, and transit riders”; and

WHEREAS, the New Jersey Department of Transportation supports Complete Street Policies and adopted its own policy on December 3, 2009, which encourages local governments to provide complete street policies of their own; and

WHEREAS, Complete Streets implementation enhances access to local businesses, encourages reinvestment, increases property values and employment, and stimulates private investment, especially in retail districts, downtowns, and tourist areas; and

WHEREAS, a balanced and flexible transportation system where all users

No Sufficiency of Funds Required	
----------------------------------	--

Approved as to Form:		
Certifying as an Original Resolution:		
Certified as a True Copy:		

Vote Record - RES-2026-265					
		Yes/Aye	No/Nay	Abstain	Absent
	James E. Baker, Jr.	✓			
X Adopted	Michèle S. Delisfort				✓
___ Adopted as Amended	Lourdes M. Leon <i>S</i>	✓			
___ Defeated	Alexander Mirabella <i>M</i>	✓			
___ Tabled	Stanley J. Neron	✓			
___ Withdrawn	Kimberly Palmieri-Mouded	✓			
	Joseph Signorello III	✓			
	Rebecca L. Williams	✓			
	Joseph C. Bodek	✓			

Complete Streets Resolution

can easily and safely walk, bicycle, drive, or take transit to everyday destinations, enhances neighborhood economic vitality and livability; and

WHEREAS, the Complete Streets policy must be considered for new, reconstruction, retrofit, and roadway resurfacing projects, including design, planning, construction, maintenance and operations, for the entire right-of-way; and

WHEREAS, the Complete Streets Policy shall apply for the County repaving projects and planning board applications, and

WHEREAS, requests for all exceptions must be submitted in writing to the County, with supporting documentation; and

WHEREAS, this Policy shall be incorporated into the next Union County Master Plan and revision to the Union County Transportation Policy; and

NOW THEREFORE, BE IT RESOLVED, by the County of Union, that the County adopts the Complete Streets Policy attached herein, and made part of this Resolution.

Complete Streets Policy

POLICY

The County of Union shall promote an integrated and connected multimodal transportation system of Complete Streets that serve all neighborhoods and populations. Towards this end:

1. All **transportation projects** shall have a result goal of Complete Streets that allow safe, environmentally healthy, economically sound, equitable, accessible, and convenient travel along and across streets for users of all ages and abilities and for all modes of transportation, including motorists, bicyclists, pedestrians, public transportation vehicles and their passengers, delivery trucks and movers of commercial goods and strive to meet the following goals:
 - a. **Environment:** Improve air and water quality; reduce flooding; mitigate traffic congestion.
 - b. **Safety:** Eliminate all road fatalities, significantly reduce crash severity and injury, eliminate all road fatalities, significantly reduce crash severity and injury, and improve personal safety through increasing the number of people of walking and bicycling.
 - c. **Economic:** Stimulate economic prosperity.
 - d. **Health:** Increase physical activity and social connectivity with the goal of lowering the risk of obesity, reducing chronic disease and promoting wellness.
2. This section shall apply to all public and/or private transportation projects, including those using funds awarded by federal, state, regional, county, municipal, or any other public agency. This shall include new construction, reconstruction, resurfacing, restoration, repaving, rehabilitation, private development projects, and maintenance of highways, roads, and streets.
3. The various County of Union Departments & Divisions shall routinely work in coordination with each other and adjacent jurisdictions, and any relevant advisory committees/teams, to create Complete Streets and to ensure consistency with **Master Plans and Elements**¹ and any other existing Pedestrian/Bicycle/Multimodal Plans, Stormwater Management Plans, Pollution Prevention Plans, and Historic Preservation Plans.
4. Transportation projects and Capital Plans may include, when appropriate, sustainable design elements, including, but not limited to:
 - a. Green stormwater infrastructure practices
 - b. Traffic Calming
 - c. Shade trees and other vegetation
5. Transportation projects and Capital Plans may include, where appropriate, pedestrian and bicycle design elements and transit amenities, including but not limited to: striped or painted curb extensions, sidewalks, radar feedback signs, pedestrian countdown signals, pedestrian refuge islands, road diets, lane width reductions, , shared bike lanes, bike lanes, protected bike lanes, bike parking, lighting, , transit amenities, etc.
6. The County of Union shall utilize the most current editions of **guides, manuals, and best practices** on street design, historic preservation construction, operations, and maintenance that apply to bicycle, pedestrian, transit, stormwater and highway facilities. All manuals, standards, and guidelines shall be made publicly available online.

¹ Complete Streets concepts should be included in the Master Plan and Master Plan Elements to ensure that land use and transportation decisions are considered together in a way that encourages walking, bicycling and public transportation use and connectivity, and makes these transportation options safe and convenient.

Complete Streets Policy

7. The County of Union may lead the implementation of this Policy and formally coordinate with various departments to set measurable goals to ensure the successful implementation of the Complete Streets Policy, including in Priority Communities.

EXCEPTIONS

1. A transportation project may not be required to comply with the Complete Streets Policy if the County of Union and its designee determine in writing that:
 - a. Street alteration/resurfacing is due to utility repair or replacement.
 - b. Regulatory compliance requirements preclude accommodations.
 - c. There is a demonstrated absence of both a current and future need.
 - d. The adverse impacts of implementing this Complete Streets Policy significantly outweigh the benefits.
 - e. A specific hardship is identified.
2. However, every effort to work within the flexibility allowed should be made, including Design Exceptions for roadway projects.
3. An exception shall be granted if:
 - a. Request for an exception is submitted **in writing** with supporting documentation,
 - b. The exception is approved **in writing** by the County of Union

Complete Streets Checklist

Union County Complete Streets Checklist

Instructions:

For each box checked, please provide a brief description about how the item is addressed, not addressed, or not applicable and include documentation to support your response.

Item to be Addressed	Checklist Consideration	YES	NO	N/A
<i>Pedestrian Operations</i>	Does the proposed design consider pedestrian accommodation and safety, including future walking conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Bicycle Operations</i>	Does the proposed design consider biking accommodation and safety, including future biking conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Design Standards or Guidelines</i>	Does the proposed design follow all applicable design standards or guidelines appropriate for bicycle and/or pedestrian facilities? Specify which guides were used below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Transit Operations</i>	Does the proposed design consider transit accommodation and access, including future transit conditions/operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				

Complete Streets Checklist

Union County Complete Streets Checklist

Item to be Addressed	Checklist Consideration	YES	NO	N/A
<i>Motor Vehicle Operations</i>	Does the proposed design consider motorist accommodation and safety, including future driving conditions/operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Truck/Freight Operations</i>	Is the project located on a designated truck route? If so, does the proposed design consider truck accommodation and safety, including future freight conditions/operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Access and Mobility</i>	Is the proposed design ADA compliant? Are there constraints that compromise ADA compliance? If so, please specify below.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				
<i>Streetscape</i>	Does the proposed design include lighting, landscaping, street trees, or other environmental enhancements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Response/Documentation:				



Recommended Safety Countermeasure Toolkit For Project Corridors

Recommendations for high-risk project corridors in Union County incorporate Proven Safety Countermeasures from the Federal Highway Administration (FHWA). These evidence-based strategies aim at reducing roadway fatalities and serious injuries. They address speed management, pedestrian and bicyclist safety, roadway departure prevention, intersection safety, and crosscutting measures like lighting and safety plans. Their effectiveness spans urban, rural, and local roads, and they adapt well to varied user needs.

Recommended Countermeasures

Upgraded Traffic Signals		Leading Pedestrian Interval (LPI)		Yellow Change Interval		Intersection Daylighting & Curb Extension		Improved Street Lighting	
High-Visibility Crosswalks		Sidewalks & Curb Ramps		Rectangular Rapid Flashing Beacon (RRFB)		Pedestrian Hybrid Beacon		Pedestrian Refuge Island	
Reduced Speed Limits		Road Diet		Reconfigured Intersection		Right Turn In/Out Only		Edge Lines	
Bus Stop Delineation		Speed Feedback Signs		Improvements at Stop Controlled Intersections		Horizontal Curve Warning		Reconfigured Roadway	
Bike Lanes									



Recommended Safety Countermeasure Toolkit For Project Corridors



Upgraded Traffic Signals

Add retroreflective backplates to traffic signals to create a high-contrast background and reflective frame that helps the signal stand out. *Improves signal visibility for all road users.*

Helps reduce crashes up to 15%



Improved Street Lighting

Street lighting improves visibility on streets, sidewalks, and intersections. *Better lighting helps reduce crashes, deters crime, and increases safety for pedestrians, cyclists, and drivers.*

Helps reduce nighttime pedestrian crashes at intersections up to 42%



Leading Pedestrian Interval (LPI)

Leading Pedestrian Intervals (LPI) give pedestrians a head start before vehicles at traffic lights. *Improves pedestrian visibility*

Helps reduce pedestrian crashes up to 13%



High-Visibility Crosswalks

High-visibility crosswalks use reflective paint in bold patterns. *Improves visibility and makes roads safer by guiding drivers and pedestrians.*

Helps reduce pedestrian crashes up to 40%



Yellow Change Interval

The change interval is the time a traffic signal shows a steady yellow light before turning red. *Improves safety by giving drivers enough time to stop before entering the intersection.*

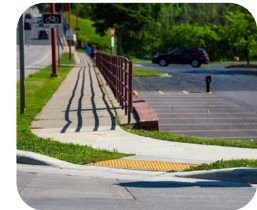
Helps reduce crashes up to 14%



Sidewalks & Curb Ramps

Sidewalks are designated spaces for walking or wheelchair use. ADA compliant curb ramps enhance accessibility for all users. *Improves pedestrian safety and visibility.*

Helps reduce pedestrian crashes up to 89%



Intersection Daylighting & Curb Extension

Prevent cars from parking near intersections using paint, planters, or curb extensions that extend the sidewalk and shorten crosswalks. *Improves visibility for drivers and pedestrians, slow-turning vehicles, and makes crosswalks safer.*



Rectangular Rapid Flashing Beacon (RRFB) aka High Intensity Activated Crosswalk (HAWK)

RRFBs are flashing amber lights at unsignalized crosswalks and midblock crossings. *Help alert drivers to improve pedestrian safety.*

Helps reduce pedestrian crashes up to 47%





Recommended Safety Countermeasure Toolkit For Project Corridors



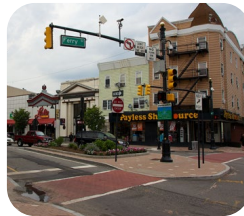
Pedestrian Hybrid Beacon

A Pedestrian Hybrid Beacon is a traffic control device for crosswalks at uncontrolled locations. *Help makes crossing safer by signaling drivers.*
Helps reduce pedestrian crashes up to 55%



Pedestrian Refuge Island

Pedestrian refuge islands are areas in the middle of the road where pedestrians can wait while crossing. *Help pedestrians cross in two stages on wide or multi-lane streets.*
Helps reduce pedestrian crashes up to 56%



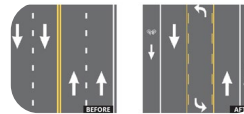
Reduced Speed Limits

Reduced speed limits lower the maximum legal speeds on streets, *helping drivers travel at safer speeds.*



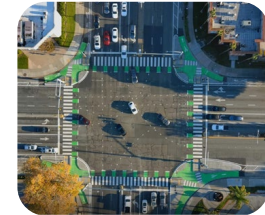
Road Diet

Road diets typically involve converting four-lane roads into three-lane roads with two traffic lanes and a center lane for left turns. *Helps slow down traffic and reduce lane conflicts.*
Helps reduce pedestrian crashes up to 47%



Reconfigured Intersection

Reconfiguration may involve modifying intersection layout, geometry, or operations to reduce conflict or decision points. Could include removing slip lanes, reassigning approach or receiving lanes, installing new turn lanes, or reconfiguring a traditional intersection as a roundabout. Crash reduction dependent on type of intersection modification. *Improves traffic flow, safety for drivers, pedestrians, and cyclists, and reduces crash risk.*



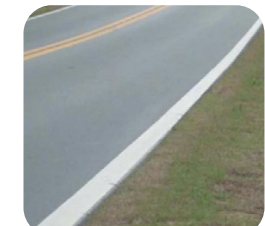
Right Turn In/Out Only

Right turns in/out allows vehicles to make only right turns at a driveway or intersection, reducing conflicts with oncoming traffic. *Improves traffic flow and safety by reducing left turn crashes which can result in higher rates of injury or fatality.*



Edge Lines

Edge lines increase drivers' perception of the edge of the travel lane. *Improves lane visibility, helping to reduce run-off-the-road crashes.*
Helps reduce crashes up to 37%





Recommended Safety Countermeasure Toolkit For Project Corridors



Bus Stop Delineation

Bus stop delineation involves marking the bus stops on the sidewalks to indicate the routes served. *Improves visibility of the bus stop for approaching drivers, discourages illegal parking in the stop zone, and supports safer boarding.*



Speed Feedback Signs

Speed feedback signs are electronic signs that display a driver's current speed as they approach, often paired with a message like "Slow Down" if the driver is exceeding the limit. *Improves driver compliance with speed limits by providing immediate feedback.*



Improvements at Stop Controlled Intersections

Systemic application of low-cost countermeasures at stop-controlled intersections involves deploying enhanced signage, retroreflective posts, and improved pavement markings. *Improves visibility of stop and warning signs and clarify lane edges.*
Helps reduce crashes up to 10%



Horizontal Curve Warning

Horizontal curve warnings utilize signs, pavement markings, or reflective treatments to alert drivers to an upcoming curve and its degree of sharpness. *Improves visibility, helps drivers adjust their speed in advance, and reduces run-off-road and loss-of-control crashes.*

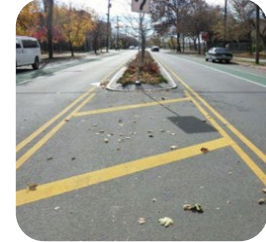


Helps reduce crashes up to 38%



Reconfigured Roadway

Roadway Reconfiguration involves modifying the layout or geometry of a roadway to reduce conflict points and crashes. Could include reducing horizontal and vertical curves, clearing sightlines, etc. *Improves traffic flow and safety.*



Bike Lanes

Bike lanes are designated roadway sections with striping, signage, and markings for bike use. Bicycle facilities vary depending on roadway geometry and may include traditional bike lanes, buffered bike lanes, protected bike lanes, or off-road trails. *Helps reduce conflicts between bikes and vehicles.*



Helps reduce crashes up to 49%