

2018 Complete Streets Case Study

Mercer County, New Jersey



About

This report was developed by the New Jersey Bicycle and Pedestrian Resource Center of the Alan M. Voorhees Transportation Center (VTC) at Rutgers, The State University of New Jersey.

The Alan M. Voorhees Transportation Center (VTC) is a national leader in the research and development of innovative transportation policy. Located within the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, VTC has the full array of resources from a major research university on transportation issues of regional and national significance.

The New Jersey Bicycle and Pedestrian Resource Center (BPRC) assists public officials, transportation and health professionals, and the public in creating a safer and more accessible walking and bicycling environment through primary research, education and dissemination of information about best practices in policy and design. The Center is supported by the New Jersey Department of Transportation through funds provided by the Federal Highway Administration.

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Figure 1. Delaware and Raritan Canal Path and Province Line Road in Princeton (photo: Jerry Foster, GMTMA)

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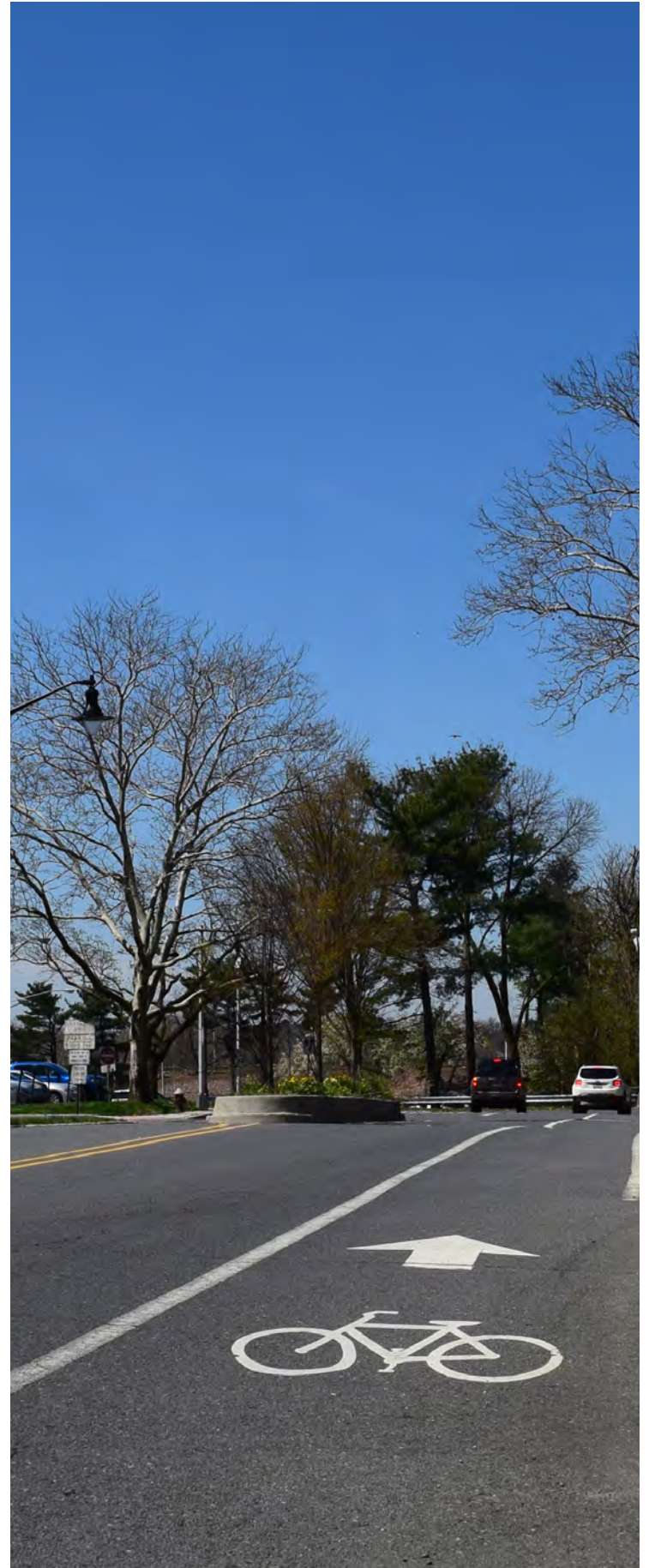


Figure 2. Bicycle lane in Trenton, New Jersey.



Figure 3. Mill Hill Park Trail Trenton, New Jersey

Introduction

In 2009, the New Jersey Department of Transportation adopted a Complete Streets policy which defined a complete street as one designed to provide safe access for all users by implementing a comprehensive integrated multi-modal network of transportation options. The benefits include increased safety for all users, connections between origins and destinations, and the promotion of healthier and more livable communities. Since the policy's adoption, Complete Streets has built momentum throughout the state. As of December 2018, 8 counties and 148 municipalities have followed the lead and adopted their own Complete Streets policy.

The New Jersey Bicycle and Pedestrian Resource Center, part of the Alan M. Voorhees Transportation Center at Rutgers University, has developed a series of case studies intended to highlight Complete Streets leaders in New Jersey. Previous case studies, published in 2016 and 2017, included Passaic County, the Borough of Somerville, and Morristown and can be found on the BPRC website (njbikeped.org). The purpose of this report, funded by the New Jersey Department of Transportation, is to highlight Mercer County's Complete Streets achievements. The report is based on findings provided in interviews with Matthew Lawson, Mercer County Principal Transportation Planner, Matthew Zochowski, Mercer County Assistant Planner, and Jerry Foster, Greater Mercer Transportation Management Association.

Mercer County and its municipalities have been proactive in developing and adopting Complete Streets policies. In fact, the county was the first in the state to witness all of its municipalities pass a Complete Streets policy. Mercer County represents an inspiration to all of New Jersey as it is home to both dense urban areas and rural suburban locales. Despite these differences, the county has promoted and enjoyed a culture of active transportation throughout.

The report begins with a summary of key findings, followed by background information including historical, demographic and land use data collected from county and Census documents. This information is essential in understanding the context of Complete Streets in Mercer County. The report then explores the implementation of Complete Streets in Mercer County, including the passing of policies in all of the county's municipalities. Successes and challenges are then highlighted for the benefit of other communities looking to implement Complete Streets and a number of next steps provide readers with insight into the county's future Complete Street efforts. The research team hopes that this report will serve as a valuable tool for engineers, planners, elected officials, and advocates who want to move forward with Complete Streets in their communities.

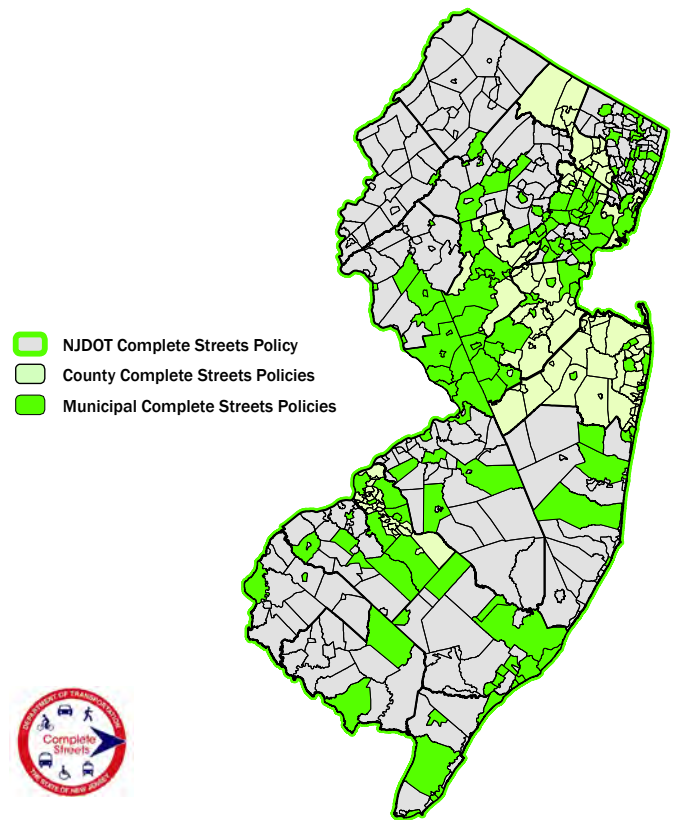


Figure 4. Map of New Jersey's Complete Streets policies

Complete Streets in New Jersey

New Jersey is a national leader in the campaign to complete the streets. According to the National Complete Streets Coalition, New Jersey ranked 1st nationally in terms of local policy adoption in addition to NJDOT's award-winning internal policy.

- 1 statewide award-winning policy
- 8 out of 21 counties have a policy
- 148 out of 565 municipalities have a policy
- 43% of New Jersey residents are covered by a municipal Complete Streets policy
- 57% of New Jersey residents are covered by a county Complete Streets policy

As of January 9, 2019



Mercer County, New Jersey

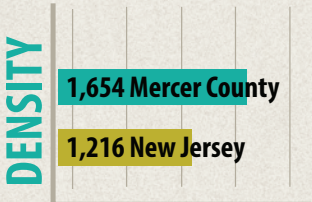
Background Data, 2017

Mercer County

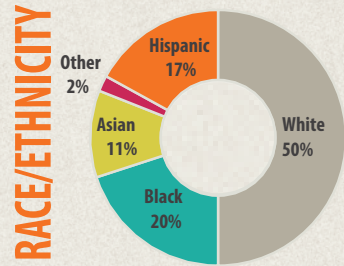


Population

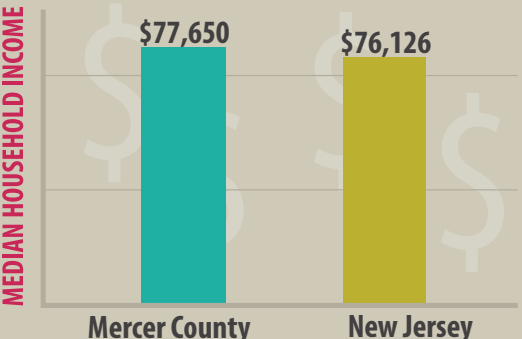
371,023
RESIDENTS



MEDIAN AGE
38.5 Yrs

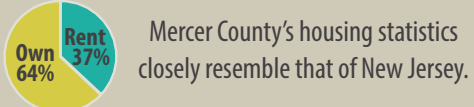
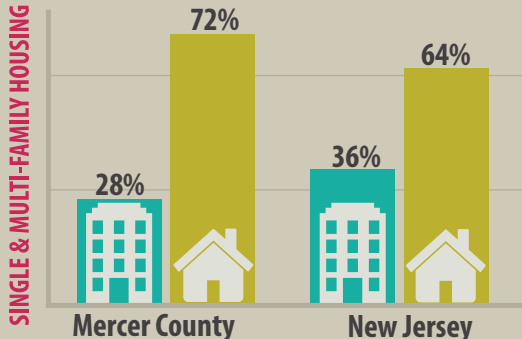


Economics

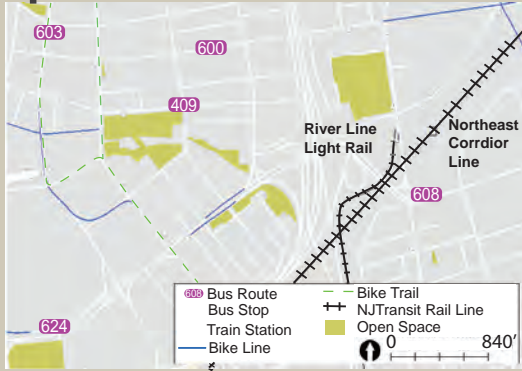


\$13,922 RETAIL SALES PER PERSON
which is just below the state average

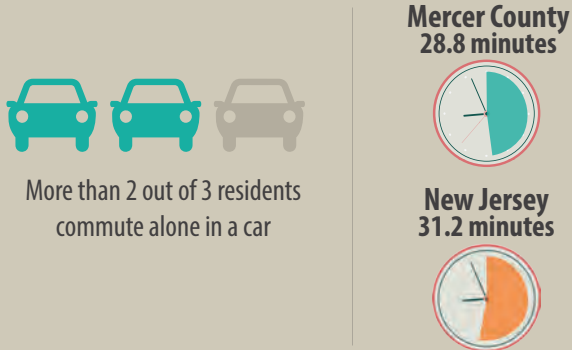
Housing



Transportation



Commute Mode



Key Findings

1. Policies throughout the county: Mercer County was the first county in the state to have all of its municipalities covered by both a county policy and a local policy.

2. Bicycle and Pedestrian Task Force: The county worked with Greater Mercer TMA to establish a Bicycle and Pedestrian Task Force which established priority route determinations, not just for county roads, but all jurisdictions, and helped to promote bicycle and pedestrian initiatives throughout the county.

3. Developed a Plan for Implementation: Mercer County has promoted Complete Streets implementation through the development of various plans that provide detailed guidance on Complete Streets options and cost estimates. These plans are not only developed at the county level, but also in my municipalities throughout the county.

4. Successes:

- **County Route 526, West Windsor Township**
- **County Route 526, Pedestrian Activated Crosswalk**
- **County Route 615 Pedestrian Improvements**
- **Lawrence-Hopewell Trail**

5. Challenges:

- **Variety of road types, rural to urban**
- **Obtaining community support**

6. Next Steps:

- **Incorporating Complete Streets into the master plan**
- **DVRPC Sidewalk inventory**
- **Improving bus access**



Figure 5. Pennington connector of the Lawrence Hopewell Trail (photo: Jerry Foster, GMTMA)



Figure 6. West Windsor Trolley Line enjoyed by a bicyclist and motorcycle police (photo: Jerry Foster, GMTMA)

Background

History

Mercer County is home to New Jersey's state capital, Trenton, and is centrally located in the state—approximately halfway between Philadelphia, PA and New York, NY. Mercer County has a strong colonial history, dating back to the Revolutionary War when General George Washington crossed the Delaware River into Hopewell Township in 1776. The significant Battles of Princeton and Trenton were fought on county soil. Several public parks celebrate the county's colonial past such as Washington Crossing State Park in Titusville, the Old Barracks Museum in Trenton, and Princeton Battlefield State Park in Princeton. The Lower Trenton Bridge, famous for the lettering "Trenton Makes, The World Takes" is a reminder of the city's strong industrial past. Iron, metal, wire rope, rubber, and steel were produced in the various mills and plants in the city. During the Civil War, World War I and II, as well as the Korean War, the city produced weaponry for soldiers. Today, some of these industrial sites have been torn down or vacated but many have been preserved and retrofitted for more modern uses. For example, Roebling Center, a collection of office, retail, and residential buildings was the home of John A. Roebling Sons Company best known for their manufacturing of wire rope used on suspension bridges.

Population

Mercer County is home to a total population of just over 371,000 people, placing it towards the bottom 50% of New Jersey counties ranked by population (see Table 1). It is also one of the state's smallest counties by land area with a total of 224.4 square miles. This combination of population and land area results in the county having a slightly larger population density than the state average. Mercer County's population per square mile is roughly 1,653 persons per square mile, with the greatest density in Trenton, Ewing Township and Princeton (see Figure 7). These densely populated and historic cities are in stark contrast to the suburban Robbinsville and Hopewell Townships, where larger property sizes create a more rural setting, according to Jerry Foster of Greater Mercer Transportation Management Authority (GMTMA). Jerry Foster explains that these rural winding roadways are highly attractive for experienced bicyclists.

Mercer County's median household income is slightly greater than the state average (see Table 1, Figure 9). However, 11.1% of the population is living in poverty, which is just over the New Jersey average of 10.4%. Majority of the households living under the federal poverty line reside in the City of Trenton and outskirts of Ewing Township, Lawrence and Hamilton townships. The median home value and median rent are below the state average at \$284,600 and \$1,144, respectively. Nearly two out of three households in Mercer County are owner-occupied (63%, as shown in Table 1). Single-family housing is predominant in the county, accounting for nearly three in four (73%) housing types, as compared to multi-family housing (27%). Commerce in the county is lower than the state average with a \$13,992 retail sale value per capita (New Jersey's average: \$15,079).

Overall the county is quite young, with a median age of 38 years old, but this average masks great disparity in the average age throughout the county (see Figure 10). The City of Trenton and sections of Princeton are noticeably younger than the rest of the county with a majority of Trenton's population being less than 38 years old. Pennington Borough, however, has a median age of 44 years, closely resembling the aging populations in neighboring counties of Hunterdon, with a median age of 46 years, and Somerset with a median age of 41 years. In sections of Lawrence, Hamilton, and West Windsor townships a majority of the population is over 49 years old.

Mercer County was rated the 5th most diverse county in New Jersey by Niche.com, a site used by millions to find a great place to live. The county's distribution of White, Hispanic/Latino, and Hawaiian or Pacific Islander residents is less than the state average (see Table 2). While the proportion of Black and Asian residents is higher than the state average. The distribution of various races and ethnicities changes widely across each municipality within the county. West Windsor Township, for example, is 48.3% White, and 45.7% Asian with all other races and ethnicities comprising 3% or less each. The City of Trenton, in comparison, has a population of 38.9% White, 50% Black/African-American, 35.5% Hispanic/Latino and all other races account for 1% or less each.

Table 1. Comparison of population and housing

Metric	Mercer County	New Jersey
Land area	224.4 mi ²	7,355 mi ²
Population	371,023	8,944,469
Population per square mile	1,654	1,216
Median Household Income	\$77,650	\$73,702
Retail Sales per capita	\$13,922	\$15,079
Owner-Occupied Housing	63%	64%
Median Home Value	\$284,600	\$316,400
Median Rent	\$1,144	\$1,213
Persons Below Poverty Line	11.1%	10.9%
Median Age	38.4	39.5
Single-Family Housing	72%	64%
Multi-Family Housing	28%	36%

US Census Bureau, 2017

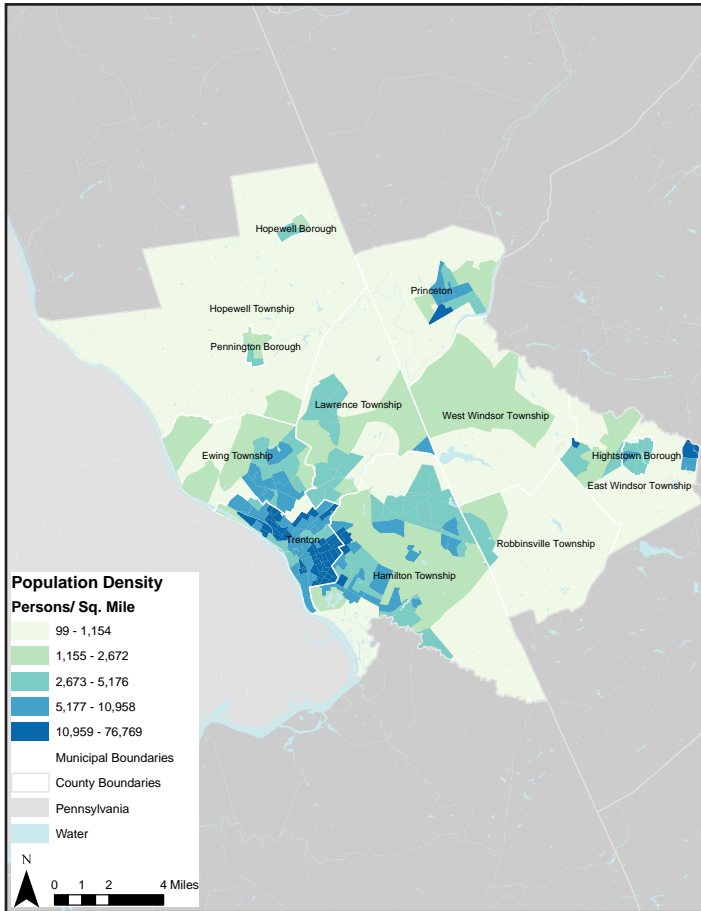


Figure 7. Mercer County Population Density Map

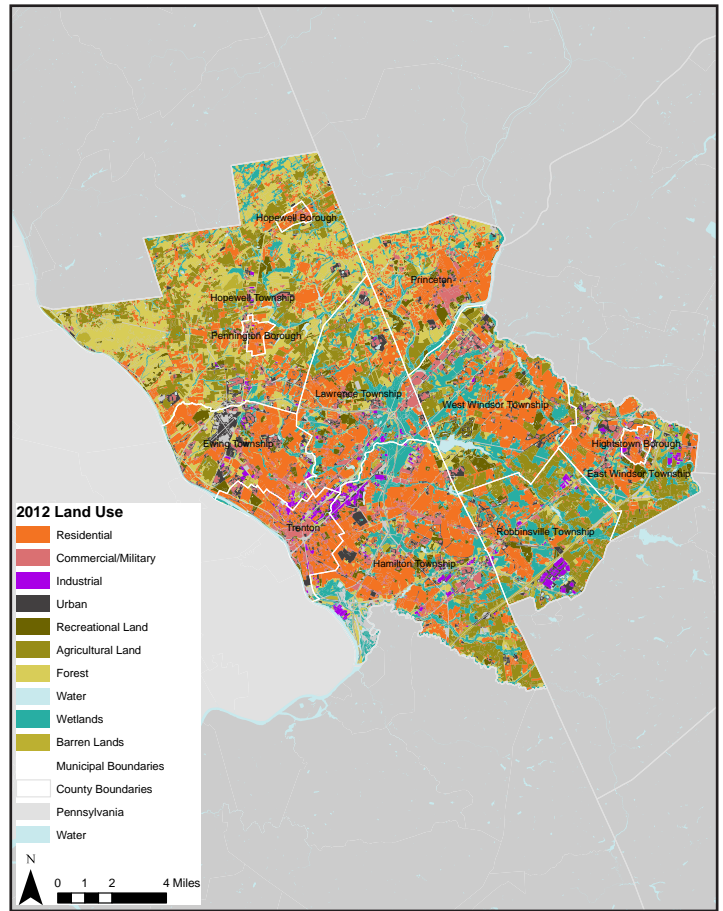


Figure 8. Mercer County Land Use Map, 2012

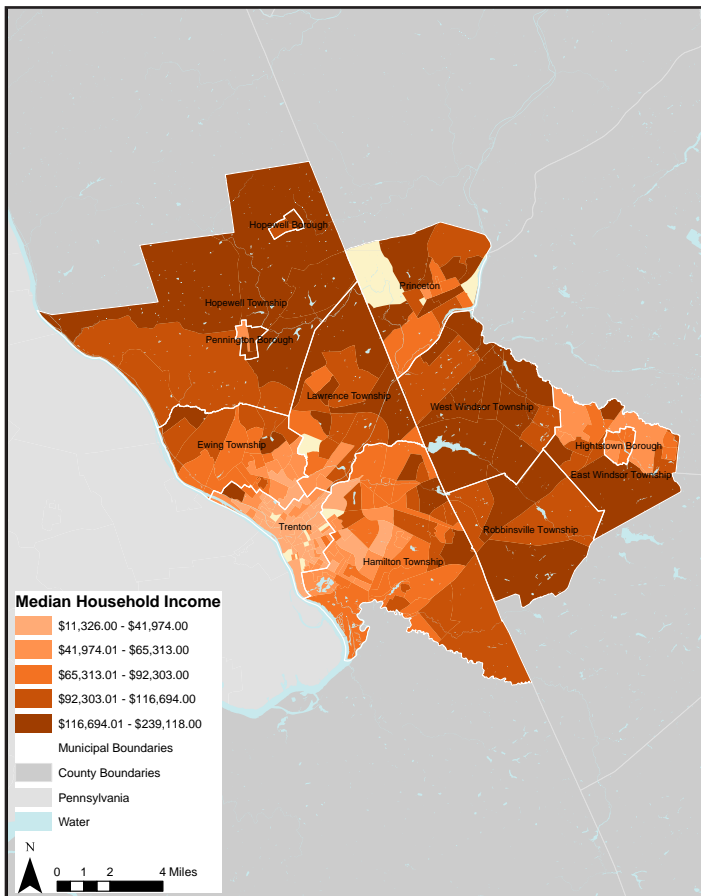


Figure 9. Map of median household income in Mercer County

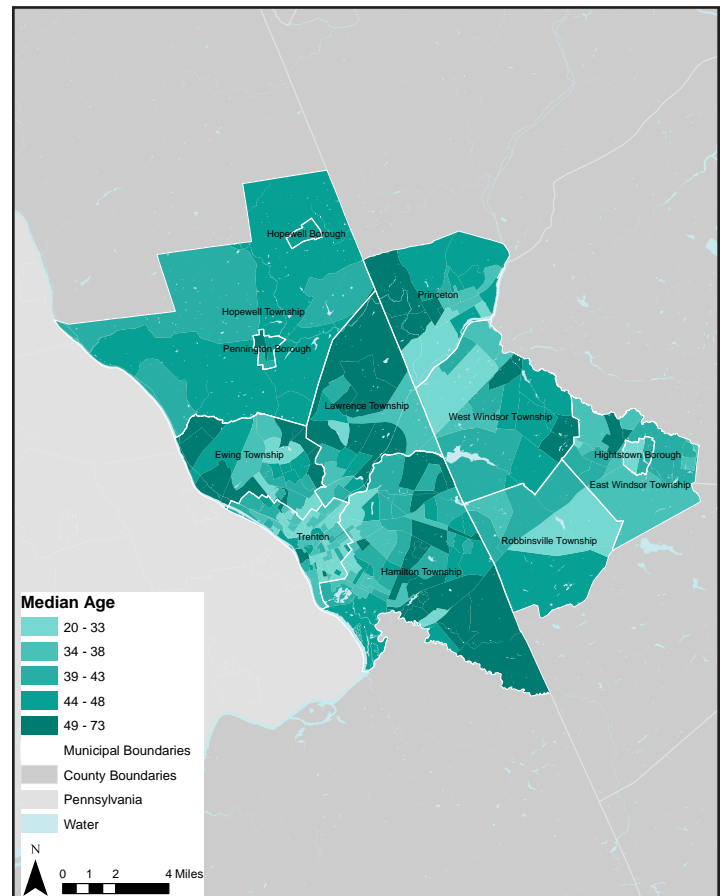


Figure 10. Median age of residents in Mercer County

Transportation

Whether, air, rail, bus, or highway travel, Mercer County is well-positioned. Mercer County’s prime location in the center of the state helps to provide residents great connectivity to the rest of the state and nearby major metropolitan areas of New York City and Philadelphia (see Figure 12). The Trenton-Mercer Airport, provides flights across the U.S, Mexico, and Puerto Rico. The Northeast Corridor New Jersey Transit Line stops in both Trenton and Princeton Junction at West Windsor. Trenton is also serviced by the Riverline light rail system connecting Mercer County to Camden and Burlington Counties along the Delaware River coastline. Trenton and Princeton are also serviced by Amtrak connecting the county to the rest of the United States. The Trenton Transit Center is the western terminus of the SEPTA regional rail line, connecting the county to eastern Pennsylvania and Philadelphia. There are over ten different bus lines servicing the county. These lines mostly terminate at Trenton Transit Center, Philadelphia, Camden and Willingboro. Even with the multiple heavy and light rail transit as well as bus service, 8% of residents used public transit to commute, around three percentage points less than the state average. Some municipalities used public transportation more than others, it is unsurprising that towns with a transit station have higher public transit ridership. West Windsor Township, Princeton and Trenton are the municipalities with the highest rates of public transportation ridership at 22.4%, 11.6% and 10.6% respectively (see Table 3).

Many inter- and intra-state as well as county highways pass through or intersect Mercer County. NJ-31 runs from Hunterdon County to Trenton. Route 206 connects the county to Interstate highway 287. Route 1 and route 130 are the most popular highways within Mercer County, holding a large percentage of the counties commercial and office facilities, such as the Bristol-Myers Squibb office park and Princeton Medical Center. The New Jersey Turnpike portion of Interstate 95, Interstate 195, and Interstate 295 all run through Mercer County connecting residents to Philadelphia, PA, Wilmington, DE, the Jersey Shore, and the rest of the United States.

The percentage of persons that drive alone to commute in Mercer County is just under the state average, at 71% (see Table 3). The counties collection of office parks, government offices and proximity to Philadelphia and New York City make it an ideal location for carpooling. Mercer County has a higher rate of carpooling (11%) than the state as a whole (8%). To the county’s benefit, a greater percentage of residents walk and bicycle to work than the state average as well. These mode choices highlight the county’s culture of active transportation. One percent of all Mercer County residents commute via bicycle, the majority of which live in Princeton Township. 15.8% and 5.8% of Princeton residents walk and bike to work respectively.

Walking is a more common form of commuting than bicycling in Mercer County. This is explained by the vast difference between the percentages of persons that bike and walk in the top three municipalities for biking and walking. The top three municipalities in which residents bike to work are Princeton (5.8%), West Windsor Township (.8%), and Lawrence Township (.6%). The top three municipalities in which residents walk to work are Princeton (15.8%), Pennington Borough (6.5%), and Hopewell (4.6%).

Mercer County has a great network of multi-use trails connecting many towns to one another. The Delaware and Raritan Canal State Park Trail runs from Hunterdon County, parallel to US Route 1 through West Windsor Township, Trenton and Lawrence Township. The Lawrence-Hopewell Trail connects Lawrence Township and Hopewell Townships to Pennington Borough and West Windsor Township on an off-road trail. The county’s continued efforts to promote both on and off-road trails and bicycle lanes will continue.

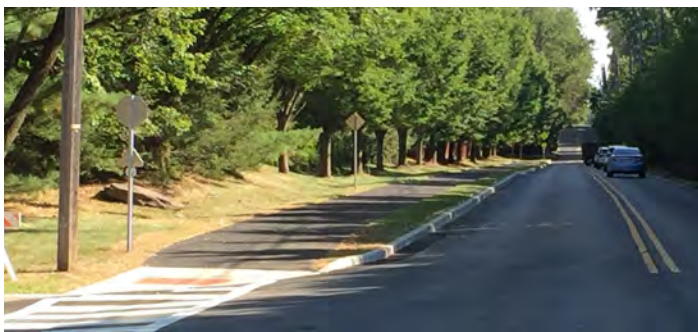


Figure 11. Lawrence Hopewell Trail

Table 2. Comparison of race and ethnicity of residents

Metric	Mercer County	New Jersey
White	49%	55%
Black	20%	13%
Native American	0%	0.1%
Asian	11%	10%
Hawaiian/Pacific Islander	0%	0.4%
Two or More races	2%	2%
Hispanic or Latino	18%	20%

US Census Bureau, 2017

Table 3. Transportation to Work

	Mercer County	New Jersey
Avg. Commute Time	28.8 min.	31.2 min.
Drove Alone	69%	71%
Carpooled	12%	8%
Public Transit	8%	12%
Bicycle	0%	0.3%
Walk	4%	3%
Worked at Home	6%	5%

US Census Bureau, 2017

Mercer County Transportation Network

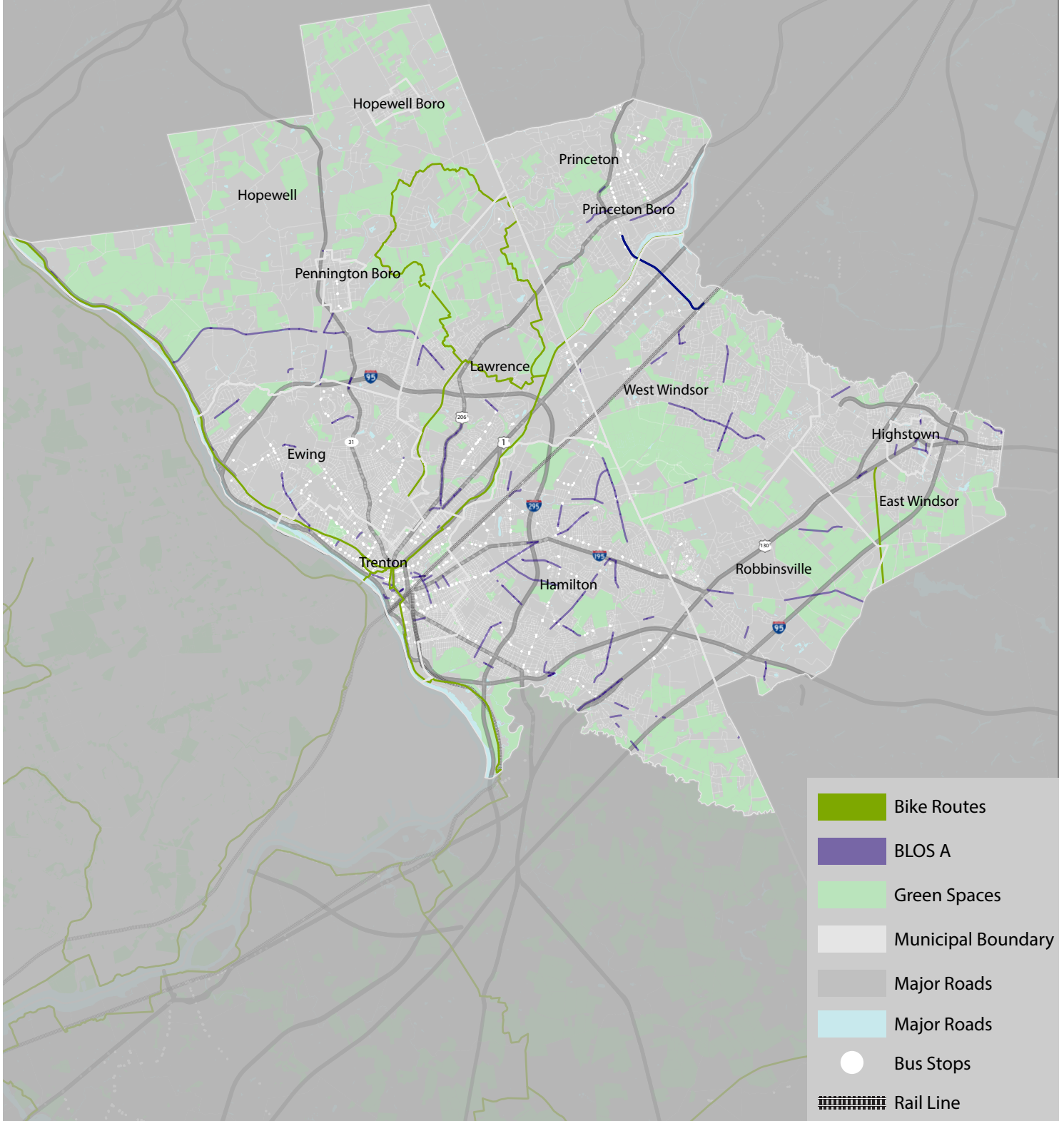


Figure 12. Map showing major transportation links throughout Mercer County. BLOS A refers to Bicycle Level of Service Grade Level A.



Figure 13. Lawrence Hopewell Trail

Creating Complete Streets Successes

Mercer County has had its eye on Complete Streets for quite some time. West Windsor Township was the second municipality in the state to pass a Complete Streets policy and Mercer County was the first county to witness the passing of Complete Streets policies across all of its municipalities. These policies have translated to implementation throughout the county and help to create a bright future for active transportation in the area, not just in the county's urban area, but in its rural towns, as well.

Passing Policies Throughout the County

What was it about Mercer County that helped propel the passing of Complete Streets policies throughout? To begin, the passing of the statewide Complete Streets policy ensured roadway projects supported by state or federal funding considered all users. The Sustainable Jersey Complete Streets program further encouraged municipalities. In 2004, West Windsor Township used a technical assistance grant from NJDOT and developed a Mayor's Taskforce. Over the course of the next several years the township's Complete Streets policy was developed with great support and advocacy from the West Windsor Bicycle and Pedestrian Alliance. In 2010, West Windsor Township became the second municipality in the state to pass a Complete Streets policy.

Once West Windsor Township's policy passed, there seemed to be a domino effect throughout the county, as Lawrence Township (passed in 2010), Trenton, Princeton, and the Borough of Hopewell (all in 2012) soon after passed their policies. By 2012, nearly half the county was covered by local policies. Mercer County realized a policy to connect all of these communities would be needed in order to create an interconnected network across the county. In April of 2012, Mercer County had passed its own county-wide policy, becoming the second county in the state with a Complete Streets policy. The remaining seven municipalities passed local policies within the following three years. It is one thing to pass a policy, though and quite another to follow through with Complete Streets infrastructure improvements which is where the county taskforce played a key role.

Bicycle and Pedestrian Task Force

Bicycle and pedestrian safety has always been a focus for Mercer County and its communities, especially in the urban areas of Trenton and Princeton, but even in the more suburban and rural areas such as West Windsor Township and Ewing Township. In 2007, the Mercer County Bicycle and Pedestrian Taskforce was formed. The taskforce, hosted by Greater Mercer TMA is a public-private partnership and members of the taskforce are chosen by mayors and can include local planners, business administrators, or engineers. Additional members include representatives from Greater Mercer TMA, Bicycle Coalition of Greater Philadelphia, Tri-State Transportation Campaign, and the Lawrence-Hopewell Trail. While some municipalities have more representation on the taskforce than others, all are committed and have been discussing Complete Streets for some time.

The taskforce helps to set a cohesive agenda for Complete Streets throughout the county and built upon previously completed studies. A 2011 study, which was completed by NV5 (formerly RBA), required that the priority routes consider not only county roads, but all roadways regardless of jurisdiction. Building upon this study, the taskforce worked on identifying priority routes throughout the county. Additional analysis is currently underway by Delaware Valley Regional Planning Commission (DVRPC), as they are developing the Mercer County Bicycle Plan, which will be published in 2019. The plan includes categorizations of roadways throughout the county that can be used in conjunction with multipliers that will allow county officials to quickly identify suitable improvements and estimate the costs, along with the costs of similar alternatives. The process should allow Complete Streets improvements to move forward more efficiently throughout the county.

Promoting Implementation

Throughout the county, implementation has been prioritized, particularly as it relates to bicycle routes, although future plans include a sidewalk inventory, trail network plan, and bus access plan. The taskforce played a key role in identifying priority routes and Greater Mercer TMA is building upon DVRPC's roadway analysis, which will support effective and efficient Complete Streets improvements along county roadways. Implementation plans have played an integral role in Complete Streets successes at the local level, as well.

Successes

In addition to the county's full coverage of Complete Streets policies and its culture of planning for Complete Streets, there are numerous successful infrastructure improvements. These improvements exemplify the county's commitment to work towards an interconnected multimodal network that provides access for all road users to destinations throughout the county.

County Route 526, West Windsor Township

Mercer County Planning Department has worked closely with the County Engineer to ensure that, as often as possible, any road resurfacing projects include installation of bicycle lanes. Evidence of this commitment can be seen along County Route 526 in West Windsor Township where the shoulders along both sides of the roadway have been transformed into bicycle lanes. Now that the shoulders have been replaced with bicycle lanes, they are official travel lanes where the rules that cover travel lanes, such as directionality, stopping, and yielding, apply. On street parking is not permitted so as not to obstruct the bicycle lane. The rural roadway provides a 35 mph speed limit with sidewalks installed on both sides. The roadway connects Mercer County Park with West Windsor Community Park and intersects the Trolley Line Trail, a 2.5 mile paved multiuse path that connects Penn Lyle Road with Rabbit Hill Road and crosses through West Windsor Community Park.

Washington Road/Route 571, Pedestrian Activated Midblock Crosswalk

County Route 526, or Washington Road, is a busy roadway that connects the downtown Princeton area, including Princeton University, with US Route 1. The speed limit coming through the downtown area is only 25 miles per hour; however, it increases to 50 miles per hour just beyond the roadway's intersection with the Delaware and Raritan Canal State Park Trail. The high volume of both pedestrian and vehicular traffic warranted the installation of the mid-block pedestrian activated flashing beacon. The crosswalk provides heightened visibility for approaching motorists allowing pedestrians to cross the roadway safely. Similar crosswalks exist at other trail crossings, including on Alexander Street to the south and Lower Harrison Street to the north.

County Road 615 Pedestrian Improvements

County Route 615, also known as Cranbury Road, is a narrow 22-foot suburban roadway that sees a high volume of both motorists and pedestrians as it is less than three-quarters of a mile from the Princeton Junction Train Station. Improving the area for all users was challenging, given the road's width and the roadway's 7,000 average daily motorists. Local residents lobbied for years to promote pedestrian improvements along the roadway. In 2013, according to the West Windsor Bicycle and Pedestrian Alliance, "more than 40 West Windsor residents of all ages walked up a narrow stretch of Cranbury Road during the afternoon of Friday, June 28, calling for sidewalks from Millstone Road to Princeton-Hightstown Road (County Road 571)." Finally, in 2018, after six different plans were developed for the roadway, an opportunity arose. The bridge over Bear Brook was being replaced, which required the county to completely close the roadway. During the bridge's construction a five-foot multi-use pathway was installed using permeable pavement, with little additional inconvenience to residents or motorists in the area. The pathway stretches approximately 2,000 feet from Bear Brook to Princeton Hightstown Road, where pedestrians connect with a sidewalk that can be followed all the way to the train station. Along the pathway, curbs were installed to delineate between the roadway and the path.



Figure 14. Princeton Littlebrook speed display (photo: Jerry Foster, GMTMA)



Figure 15. 526 South Mill Road bicycle lane in West Windsor (photo: Jerry Foster, GMTMA)

Lawrence-Hopewell Trail

The Lawrence-Hopewell trail is a 22-mile multi-purpose trail loop that connects open space, corporate campuses, downtown areas, and community amenities throughout the townships of Lawrence and Hopewell. The trail's development and upkeep is overseen by the Lawrence Hopewell Trail Corporation, a non-profit guided by board members from local businesses, universities, and non-profits. The trail provides a handicap accessible and family-friendly option for recreation throughout the county. Mercer County Parks is still working to address issues of the path's use for active transportation for commuters, as the parks close at dark, which impacts the evening commute during the winter months.

The King's Highway section of the trail received a Complete Streets Excellence Award in 2017. The segment of the trail runs for three-quarters of a mile along Province Line Road in Lawrence Township between Route 206 and Bannister Drive. Previously, this section of the route provided no shoulder or sidewalk space, creating an uncomfortable and potentially dangerous situation for users wishing to reach the next section of the trail. Along with installation of the 10-foot wide paved pathway, crosswalks with pedestrian activated flashing lights were installed to ensure trail users safe crossing over Province Line Road.



Figure 16. Lawrence Hopewell Trail

Challenges

Wide Range of Road Types from Urban to Rural

As previously described, Mercer County is home to a diverse array of communities with roadways that range from wide rural roadways to densely populated historic locations with narrow cobblestone streets. There is no one-size-fits-all approach that will work across the county's diverse roadway types. Instead, the county works closely with municipalities to provide Complete Street improvements that align with the communities they serve. In Lawrence Township, East Windsor, and Hopewell this translates to facilities that utilize an abundance of open space to provide nearly all off-road facilities. In West Windsor Township, bicycle lanes are installed in locations throughout the municipality. In Princeton, narrow roads with historic character are better suited for sharrows, or shared lane markings.

Getting Community Members on Board

While some communities have lobbied extensively for Complete Streets improvements, other communities have faced challenging organized opposition to Complete Streets projects. Persistent and long-term advocacy, especially from groups such as the West Windsor Bicycle and Pedestrian Alliance, Trenton Cycling Revolution, Ewing Bicycle Advocacy Committee, Lawrence Sustainable Mobility Committee and the Princeton Bicycle Advisory Committee, has been an essential element in moving projects forward with support from local residents. For example, Princeton witnessed community backlash with regard to its plans to install bicycle lanes along Hamilton Avenue. Continued efforts to advocate for bicycle and pedestrian safety translated to the installation of sharrows along Hamilton Avenue in 2015. Advocacy efforts have continued and in the spring of 2018 temporary separated bicycle lanes were installed along a different portion of Hamilton Avenue and Wiggins Street. The installation, known to the community as the "Beta Bike Lane" was accompanied by a survey to gather feedback from users about the removal of on-street parking in favor of the directional bicycle lane.

Next Steps

Incorporating Complete Streets into the Master Plan

To better support Complete Streets projects throughout the county, the Mercer County Planning Department has hired staff specifically to update the transportation element of the master plan. The update is intended to include explicit Complete Streets policy directives that consider mobility in all of its forms. The intention is to include a Complete Streets Checklist that will ensure appropriate steps are taken in all future roadway projects. A countywide bicycle plan is also in the works, as mentioned previously, which will help identify priority bicycle routes, appropriate infrastructure options for a given road type, and cost estimates. The county is also looking to develop a trail plan that will aim to take advantage of Mercer County's abundance of unused rail rights of way. Through these various undertakings, the county hopes to drive a capital improvement plan that highlights safety for all roadway users and a wealth of transportation options.

Sidewalk Inventory

Complementing the county's planning efforts is the upcoming sidewalk inventory conducted throughout the region by DVRPC. Findings from the analysis will feed into a mapping portal tool the county and its municipalities can use to enhance pedestrian safety. Through the findings, plans can be made to improve current sidewalks, prioritize missing links, and develop a plan for building out the system, as needed. The tool will also help in identifying "low-hanging fruit" for which quick and cheap improvements can be made to help build momentum for expanding the county's sidewalk inventory.

Improving Bus Access

Mercer County's bus lines were one of the three original bus systems incorporated into the founding of NJ TRANSIT. As such, these lines were developed in the 1950's and 1960's and served the county at a time when the population, development patterns, and economic opportunities looked quite different. In 2012, DVRPC published a bus plan for Mercer County, which identified ten potential new routes and laid out both short and long-term goals for the Mercer County bus network. The plan highlighted an especially important missing link, the need for a connection for low-income Trenton residents to suburban employment centers and opportunities. Additionally, there is currently no bus service to the Trenton-Mercer Airport or the county hospital. While bus routes can be challenging and expensive to implement, the county is dedicated to achieving a future where bus service is more readily available throughout the county.

Conclusion

Mercer County has been a leader in Complete Streets in New Jersey for some time and the momentum it has built over the last several decades is translating to outstanding improvements. The county is home to one of the state's first municipal policies and Mercer County was the second county to pass a policy in the state. The Bicycle and Pedestrian Task Force helps to keep the county and all of its municipalities moving forward together and provides a forum to ensure an interconnectivity that otherwise would have been quite challenging. In addition, the county has promoted action beyond the policies as studies and planning documents have been conducted and developed at all levels. No matter the location—suburban, urban or rural—Complete Streets improvements are moving forward throughout the county in projects that are tailored to the specific communities where they are located.



Figure 17. Bicycle corral on Witherspoon Street in Princeton (photo: Jerry Foster, GMTMA)

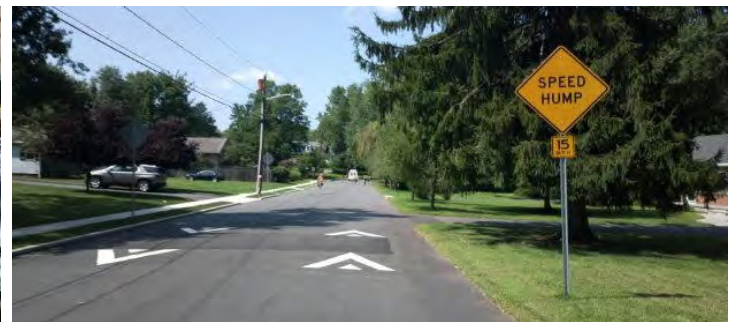


Figure 18. Traffic calming on King George Street in Pennington (photo: Jerry Foster, GMTMA)



Complete Streets Case Study: Appendix

Mercer County, New Jersey

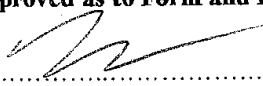


COUNTY OF MERCER, NEW JERSEY

RESOLUTION NO. 2012-249

Approved as to Form and Legality

Date



April 26, 2012

Board Counsel

MERCER COUNTY BOARD OF CHOSEN
FREEHOLDERS SUPPORTS A MERCER COUNTY
"COMPLETE STREETS" POLICY

WHEREAS, the Mercer County Board of Chosen Freeholders is committed to creating street corridors that accommodate all road users of all ages and abilities for all trips; and,

WHEREAS, a "Complete Street" is defined by the New Jersey Department of Transportation under Policy No. 703, as a "means to provide safe access for all users by designing and operating a comprehensive, integrated, connected multi-modal network of transportation options"; and,

WHEREAS, as part of the aforementioned policy, the New Jersey Department of Transportation strongly encourages the adoption of similar policies by regional and local jurisdictions who apply for funding through Local Aid programs; and,

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Clerk to the Board

RECORD OF VOTE													
FREEHOLDER	Aye	Nay	N.V.	Abs	Res	Sec	FREEHOLDER	Aye	Nay	N.V.	Abs	Res	Sec
Cannon	X						Frisby	X					
Carabelli	X				✓		Koontz	X					
Cimino	X						Walter	X					
Colavita	X					✓							

X—Indicates Vote Abs.—Absent N.V.—Not Voting
Res.—Resolution Moved Sec.—Resolution Seconded

WHEREAS, the benefits of complete streets include improving safety for pedestrians, bicyclists, children, older citizens, non-drivers and the mobility challenged as well as those that cannot afford a car or choose to live car free; providing connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities; promoting healthy lifestyles; creating more livable communities; reducing traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions; and saving money by incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project, thus sparing the expense of retrofits later; and,

WHEREAS, the Mercer County Board of Chosen Freeholders wishes to support a "Complete Streets" policy through the planning, design, construction, maintenance and operation of new and retrofit transportation facilities, enabling safe access and mobility of pedestrians, bicyclists, and transit users of all ages and abilities; and,

WHEREAS, the Mercer County Board of Chosen Freeholders supports to the extent practicable, the application of a Mercer County "Complete Streets" policy that shall apply to all road, bridge, and building projects undertaken by Mercer County; now, therefore,

BE IT RESOLVED, that the Mercer County Board of Chosen Freeholders supports a "Complete Streets" policy with the following goals and objectives as stated in New Jersey Department of Transportation Policy 703, adopted December 3, 2009:

1. Create a comprehensive, integrated, connected multi-modal network by facilitating connections to bicycling and walking trip generators such as employment, education, residential, recreational and public facilities, as well as retail and transit centers.
2. Provide safe and accessible accommodations for existing and future pedestrian, bicycling and transit facilities.
3. Establish a checklist of pedestrian, bicycle and transit accommodations such as accessible sidewalks curb ramps, crosswalks, countdown pedestrian signals, signs, curb extensions, pedestrian scale lighting, bike lanes, and shoulders for consideration in each project where county jurisdiction applies.

.....
Clerk to the Board

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4. Additionally, in rural areas, paved shoulders or a multi-use path shall be included in all new construction and reconstruction projects on roadways used by more than 1,000 vehicles per day. Paved shoulders provide safety and operation advantages for all road users. Exemptions shall be considered for County and State designated routes such as Scenic Roads, and Historic or Cultural Byways. If there is evidence of heavy pedestrian usage then sidewalks shall be considered in the project.
5. Establishment of a procedure to evaluate resurfacing projects for Compete Streets inclusion according to length of project, local support, environmental constraints, right-of-way limitations, funding resources, and bicycle and/or pedestrian compatibility.
6. Transportation facilities constructed for long-term use shall anticipate likely future demand for bicycling and walking facilities and not preclude the provision of future improvements.
7. Designs shall address the need for bicyclists and pedestrians to cross corridors, as well as travel along them, in a safe, accessible and convenient manner; therefore, the design of intersections, interchanges and bridges shall anticipate use by bicyclists and pedestrians.
8. Bicycle and pedestrian facilities shall be designed and constructed to the best currently available standards and practices including the New Jersey Roadway Design Manual, New Jersey Department of Transportation's Smart Transportation Guidebook, the AASHTO Guide for the Development of Bicycle Facilities, AASHTO's Guide for the Planning, Design and Operation of Pedestrian Facilities, the Manual of Uniform Traffic Control Devices and others as related.
9. Provisions shall be made for pedestrians and bicyclists when closing roads, bridges or sidewalks for construction projects as outlined in NJDOT Policy No. 705 – Accommodating Pedestrian and Bicycle Traffic During Construction.
10. Improvements shall also consider connections for Safe Routes to School, Safe Routes to Transit, Transit Villages, trail crossings and areas or population groups with limited transportation options.

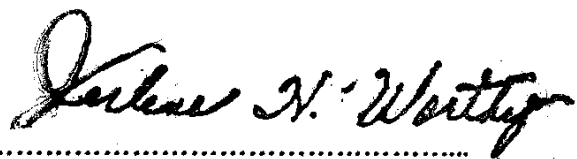
.....
Clerk to the Board

- 4 -

11. Improvements shall comply with Title VII Environmental Justice, Americans with Disabilities Act (ADA) and complement the context of the surrounding community.
12. Exemptions to the Complete Streets policy shall be presented for final decision to the County Engineer in writing and documented with supporting data that indicates the reason for the decision and shall be limited to the following:
 - a. Non-motorized users are prohibited on the roadway.
 - b. Scarcity of population, travel and attractors, both existing and future, indicated an absence of need for such accommodations.
 - c. Detrimental environmental or social impacts outweigh the need for these accommodations.
 - d. Cost of accommodations is disproportionate to cost of project.
 - e. The safety or timing of a project is compromised by the inclusion of Complete Streets.
 - f. An exemption other than those listed above must be documented with supporting data and must be approved by the County Engineer.

and,

BE IT FURTHER RESOLVED, that the Clerk to the Board shall forward a certified copy of this Resolution to the County Administration and all thirteen (13) municipalities of Mercer County.



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Clerk to the Board

Alan M. Voorhees Transportation Center

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New Brunswick, NJ 08901