Chapter 6
TRANSPORTATION

Newark is a multimodal transportation community. Newarkers drive automobiles, ride bicycles, take public transit, use wheelchairs, and just plain walk or run. Table 6-1 shows the 2019 American Community Survey 5-year estimates, by mode, of the City of Newark's "Commuting to Work" of workers 16 years of age and over:

Table 6-1: Commuting to Work in Newark (Workers 16 Years and Over)

2022 Update

	Est 2009-2013	Est 2014-2019
Car, truck, or van: Drove alone	63.70%	66.3%
Walked	15.00%	14.2%
Car, truck, or van: Carpooled	9.80%	7.4%
Worked at home	4.70%	4.7%
Public transportation (excluding taxicab)	4.40%	3.9%
Bike/ Other	2.40%	3.4%

Source: 2019: American Community Survey (ACS), 5-Year Estimates Data Profiles; U.S. Census
Source: 2009-2013 American Community Survey

The data from the American Community Survey (ACS) are estimates, and it is common for variations to appear between data sets. However, a comparison of the ACS from 2019, to the set used in the 2016 edition of Plan V, shows an increase in the percent of commuters "driving alone" to work as compared to walking, bicycling, or taking transit. At a minimum, it shows that there has not yet been a significant shift towards alternative transportation choices among Newarkers commuting to work.

Newark's transportation network handles a diverse range of demands. Newark's portions of Routes 896, 273, 72, and 4 transports tens of thousands of automobiles from the surrounding areas through the City each day. The University of Delaware, with over 23,000 students and 4,700 employees, create a significant amount of traffic demand throughout the entire day into evening, utilizing all modes of transportation (pedestrian, bicycling, transit, and automobiles). Attractions such as University sporting events, the eclectic mix of restaurants downtown, and the surrounding State, County, and City parks system creates additional traffic demand challenges. The result is Newark is a vibrant, multimodal city that must use a variety of transportation demand management strategies to maximize efficiency.

Of course, the City of Newark's transportation network is about more than commuting to work, and its conditions impact on our "active living" quality of life. This chapter is meant to align Newark's

vision for a "Healthy and Active Community," a "Sustainable Community," and an "Inclusive Community" with its transportation goals and objectives.

Key Focus Areas

With assistance from the Wilmington Area Planning Council (WILMAPCO) and in conjunction with DelDOT, the Delaware Transit Corporation, and the University of Delaware, the City of Newark developed the *2011 Newark Transportation Plan* as an update to the *Newark/Elkton Intermodal Transportation Plan*. The purpose was to re-examine the City's transportation system, gather a renewed round of agency and public input, and develop a set of updated system-wide recommendations. Through a variety of Advisory Committee meetings, public workshops, and traffic analyses and planning analyses, the plan identified key transportation issues based on existing conditions:

- Congestion, safety, and mobility
- Bicycles and pedestrians
- Parking
- Transit

Each focus area will consist of goals, objectives, and analysis of its place within the City's vision of a "Healthy and Active Community," a "Sustainable Community," and an "Inclusive Community." For more specifics, please refer to the *2011 Newark Transportation Plan:*
www.wilmapco.org/newark

Table 6-2 shows results from the *2016 Newark Resident Survey* in which residents were asked to rate the "ease" of transportation choices in Newark. The "Satisfaction Rating" reflects the percentage of respondents indicating "Excellent" or "Good" for the question, excluding those that selected "Don't Know" or didn't answer. The survey results show that "Ease of walking" and "Availability of paths and walking trails" received the highest Satisfaction Rating with 81% and 84%. "Traffic flow on major streets" received the lowest Satisfaction Rating at 26%.

Table 6-2: Ratings by Residents of Transportation Characteristics in Newark **2022 Update**

	Excellent	Good	Fair	Poor	Don't Know	Satisfaction Rating*
A. Ease of car travel	13%	38%	28%	21%	1%	52%
B. Ease of bicycle travel	11%	34%	20%	8%	27%	62%
C. Ease of walking	29%	47%	15%	3%	6%	81%
D. Ease of bus travel	9%	22%	12%	6%	51%	63%
E. Ease of train travel	11%	24%	18%	13%	35%	53%
F. Amount of public parking	6%	25%	38%	27%	4%	32%
G. Traffic flow on major streets	4%	21%	42%	32%	1%	26%
H. Availability of paths and walking trails	28%	45%	10%	4%	13%	84%
I. Traffic signal timing	8%	38%	32%	19%	3%	47%

Source: 2016 Newark Resident Survey

Current Trends

DelDOT traffic volume data for the *2011 Newark Transportation Plan* showed data from 2001 to 2009 that traffic has generally increased at an average rate of 0.72% per year with the City's major roads. Based on recent data showing a 1.2% annual population growth rate and a 0.72% average annual traffic growth rate, the *2011 Newark Transportation Plan* assumes a 1% annual growth rate as a basis for developing traffic projections through 2030. The updated Table 6-3 shows DelDOT traffic Average Daily Traffic (ADT) counts has generally increased at an average rate of 0.25% per year within the City's major roads between 2011 and 2019.

There are distinct areas in the City with recurring congestion that continue to operate with poor levels of service. The *Congestion Management System* developed by WILMAPCO has identified intersections experiencing "significant" congestion along Library Avenue and Cleveland Avenue, as well as other locations highlighted in Map 6-1.

Table 6-3: Historical Traffic Data 2022 Update

Main Roadway	From	To	2011 ADT*	2019 ADT	% Change
Capitol Trail	Newark Christina Rd.	E. Cleveland Ave.	34,091	25,648	-24.8%
Main/Delaware Ave.	DE 2, Elkton Rd.	DE 896, S. College Ave.	24,329	23,934	-1.6%
E. Cleveland Ave.	N. Chapel St.	DE 2, Capitol Trail	22,238	21,122	-5.0%
DE 4, Christina Pkwy.	DE 2, Elkton Rd.	DE 896, S. College Ave.	24,772	36,174	46.0%
W. Cleveland Ave.	DE 896, New London Rd.	N. Chapel St.	22,238	18,194	-18.2%
Elkton Road	Newark Limits	Apple Rd.	19,335	28,734	48.6%
New London Rd.	DE 2, Main St.	Country Club Drive	15,846	15,934	0.6%
S. College Ave.	DE 4, Christina Pkwy.	Park Place	16,756	18,612	11.1%
W. Main St.	W. Newark Limits	Hillside Rd.	11,562	6,877	-40.5%
N. College Ave.	DE 2, Main St.	Cleveland Ave.	4,104	5,008	22.0%
			195,271	**200,237**	
				Difference	4,966
				% Growth over 10 years	2.54%
*ADT = Average Daily Traffic				% Growth per year	0.25%

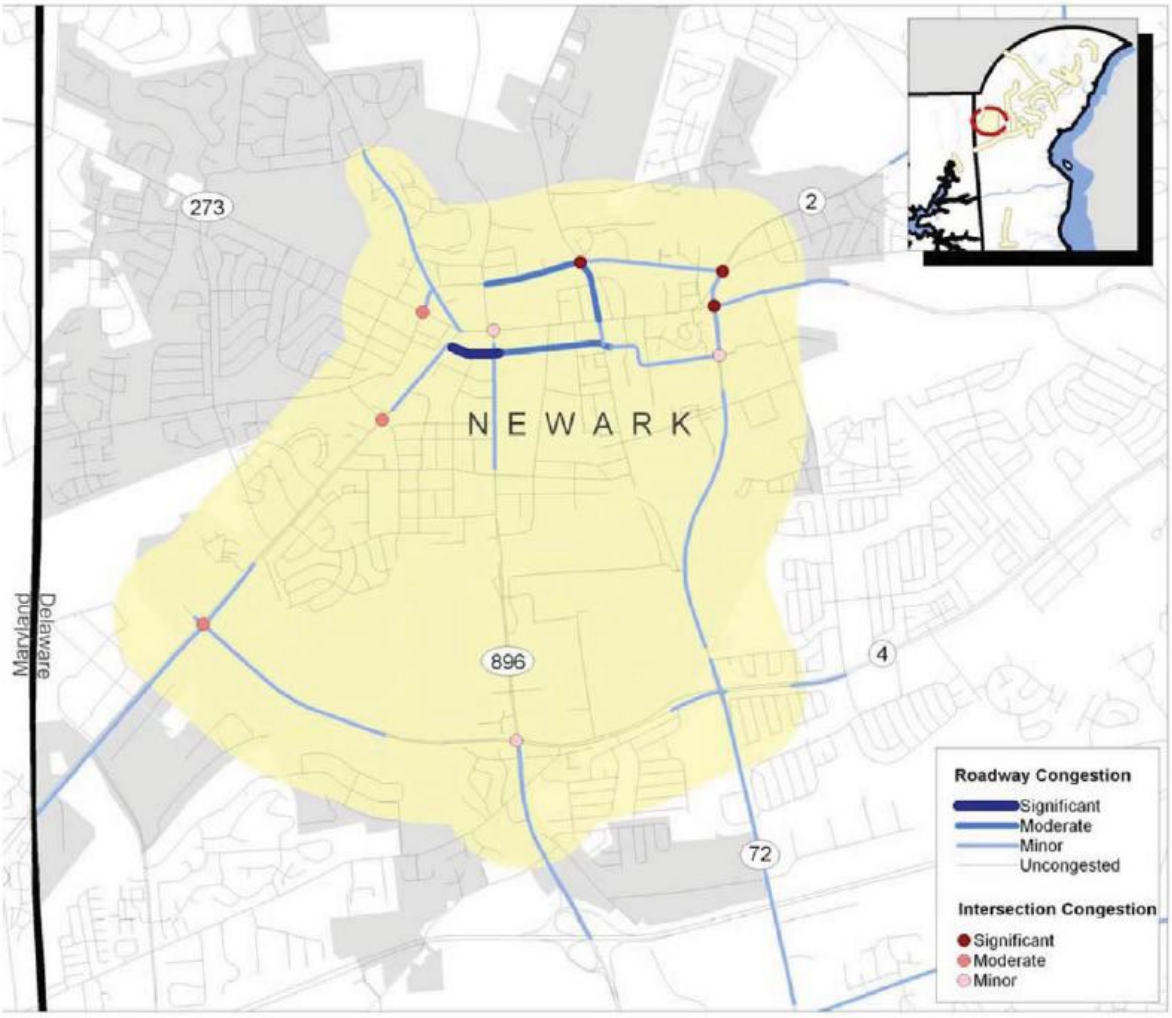
Source: DelDOT Traffic Counts at: Traffic Counts (arcgis.com)
(Updated traffic counts may be found here - https://deldot.gov/Publications/manuals/traffic_counts/index.shtml)

Congestion, Safety, and Mobility

As the Newark Resident Survey indicates, traffic remains one of Newark's leading public concerns. Indeed, results from the 2016 Resident Survey and from numerous public workshops indicate that "Ease of car travel", "Traffic flow on major streets", are the top transportation priorities from city residents. For residents, the issue of traffic congestion is a quality-of-life issue. As a result, any change in land development that might negatively impact present or future levels of roadway service must receive close scrutiny from the Planning and Development Department, City staff, the Planning

Commission and City Council. In developed communities such as Newark, the need for added roadway capacity is often limited by the value and density of adjacent land uses. WILMAPCO's *2011 Congestion Management System Summary* (CMS) in Map 6-1, Map 6-2, and Map 6-3 shows that areas throughout the city experience significant and recurring congestion, especially in the city's core, which includes many intersections with poor levels of service, particularly during peak travel times in the afternoon (Map 6-3).

Map 6-1: WILMAPCO Congestion Management System

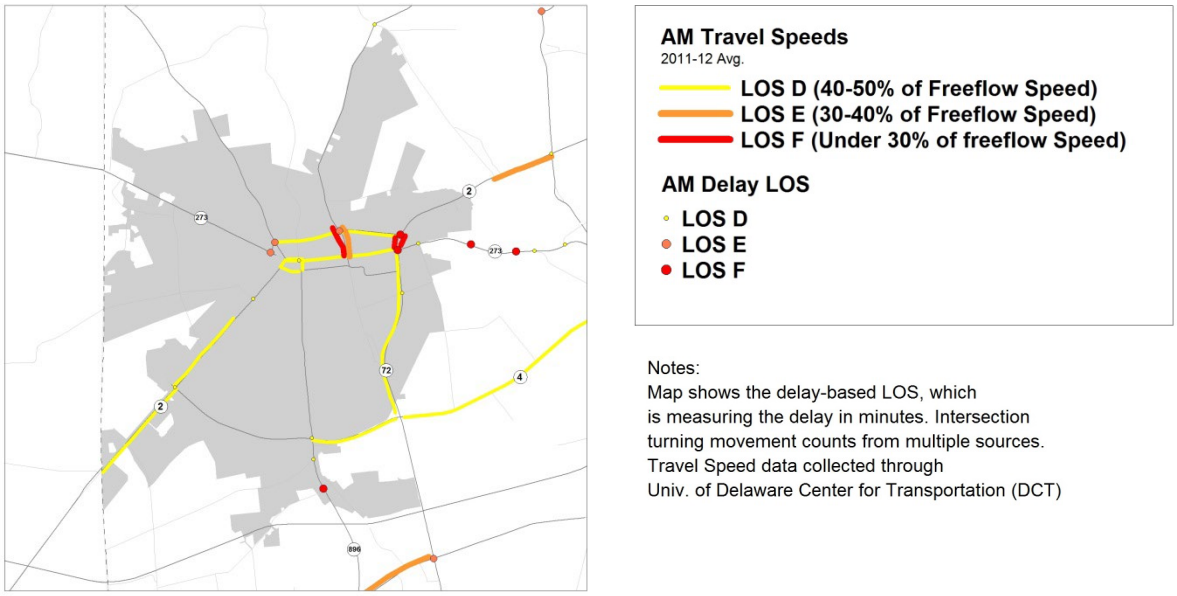


Source: City of Newark Transportation Plan (2011); WILMAPCO

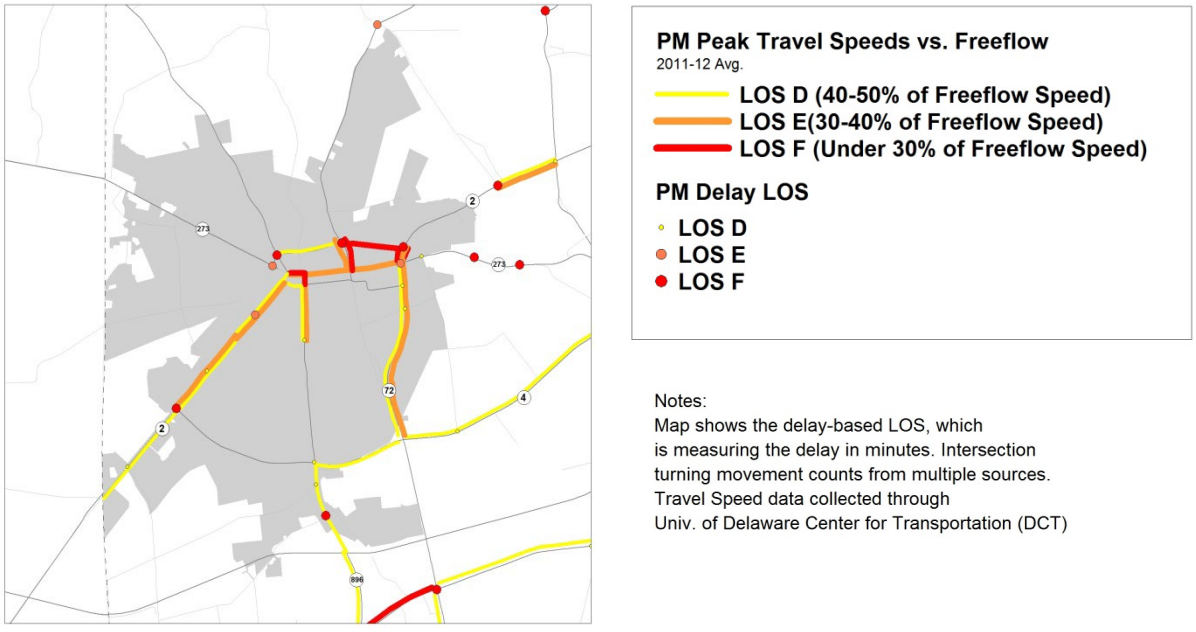
The City has also grown up alongside railroads and, as a result, there are homes, University buildings, and businesses directly adjacent to these heavily traveled Eastern Seaboard lines. Because it runs through the heart of Newark's downtown, the CSX rail line has especially significant impacts on our community. The CSX rail line has three at-grade crossings that are utilized by thousands of pedestrians each day, including substantial numbers of University students, faculty, and staff. These at-grade crossings often disrupt downtown traffic and emergency-vehicle access. The proximity of

the CSX rail line to homes, offices, businesses, and institutions means that a derailment and/or possible release of harmful materials, could have catastrophic results for Newark. As a result, the City's *Emergency Operations Plan* was developed in part to deal with the hazards associated with the CSX line. The City participates with the Railroad and the University in CSX's periodic efforts at safety upgrades and related public information and safety awareness programs.

Map 6-2: LOS: Early Morning Congestion



Map 6-3: LOS: Late Afternoon Congestion



Source: WILMAPCO, DelDOT

Recommendations to address congestion, safety, and mobility:

The following recommendations of the *2011 Newark Transportation Plan* are on-going and continue to be addressed through processes such as the development of the Newark Transportation Improvement Districts (TID) discussed on page 76, and recent redevelopments in the City.

1. **Create a corridor-optimization program.** An optimization program seeks to make the most efficient use of traffic signals by inspecting and modernizing signal equipment and taking advantage of new technologies. The City of Newark should coordinate with DelDOT on a corridor-optimization program for Newark's 56 signalized locations. To maximize its effectiveness, optimization should focus on four main corridors:
    a. *South Main Street/Elkton Road:* Includes 10 signals within the City.
    b. *Cleveland Avenue:* Includes 6 signals within the City.
    c. *Library Avenue:* Includes 4 signals within the City.
    d. *South College Avenue:* Includes 10 signals within the City.

    2022 Status: Optimization of traffic signals is on-going.

2. **Promote mixed-use development for downtown.** Newark's downtown, which includes development along East Main Street, Delaware Avenue, and South Main Street, experiences traffic congestion due to the vibrancy and success of Newark's commercial district. Accomplishing mixed-use development, as well as pedestrian, bicycle, and transit improvements recommended later in this chapter, will help reduce the demand for driving to the downtown area.

3. **Add road capacity to targeted areas to accommodate future growth.** Limited opportunities were identified to add capacity and future access to accommodate the University of Delaware's STAR Campus, and shift housing facilities to the eastern side of campus. These corridors are outlined in the *2011 Newark Transportation Plan* and include the following:
    a. *Access Management at Wyoming Road and Marrows Road Corridor* so as not to make land-use decisions that preclude the long-term possibility of providing two lanes in each direction or adding left-turn lanes.
    b. *Extension of Delaware Avenue to Marrows Road* for future redevelopment of the College Square shopping area.
    c. *Intersection improvements to North Chapel Street underpass and Cleveland Avenue.*
    d. *Intersection improvements to Ogletown Road (Route 273) at Marrows Road.*
    e. *Intersection improvements at Cleveland Avenue and North College Avenue.*

    2022 Status: DelDOT continues improvements to Cleveland Avenue, including completing improvements at the intersections of North College Avenue and North Chapel Street. The extension of Delaware Avenue to Marrows Road is being implemented through the redevelopment of the College Square Shopping Center – now known as "The Grove."

4. **Implement "complete streets" and "traffic calming."** Complete streets and traffic-calming designs make roads safer and balance the needs of drivers, pedestrians, bicyclists, and transit

users. Focus should be along corridors where crash clusters are present. The Newark Transportation Plan identifies three corridors in which to focus traffic-calming efforts:

a. *West Park Place from Elkton Road to South College Avenue.*
b. *South College Avenue from Main Street to the Newark Train Station.*
c. *Cleveland Avenue from Capitol Trail (Del. Route 2) to North Chapel Street/Pomeroy Trail.*

2022 Status: DelDOT has completed the corridor from Cleveland Avenue to Capitol Trail by reconfiguring the traffic lanes, improving pedestrian crossings, and adding bicycle lanes. Improvements to South College Avenue are in process.

In addition, the Comprehensive Development Plan V identified four corridors in which to focus traffic-calming efforts:

a. New London Road from Andrews Way to Cleveland Ave.
b. Corbit Street.
c. Barksdale Road from Casho Mill Road to Nottingham Road.
d. Country Club Drive from Windsor Drive to New London Road.

Bicycles and Pedestrians

Bicycling and walking are important forms of transportation in Newark. By promoting development, urban design, and land uses that are bicycle- and pedestrian-friendly, the City advances its aspirations of providing opportunities for a healthy and active lifestyle, promotes sustainability by reducing dependence on fossil fuels, and makes a community inclusive for children, seniors, and any resident desiring or needing transportation alternatives to automobiles.

According to the American Community Survey (Table 6-1), 17.6% of Newark residents report that they walk or bicycle to work, while the average in New Castle County is approximately 2.8%. Moreover, Newark is a college town wherein safety for bicycling and walking are key issues.

Bicycling in Newark

Approximately 3.4% of Newark's commuters bicycle to work, which ranks Newark with many of the most successful bicycle-friendly communities. Newark was recognized nationally by the League of American Cyclists as a "Bicycle Friendly Community" at the Bronze level in 2010, 2014, and 2018. Community organizations such as BikeNewark (formerly the Newark Bicycle Committee) and the Newark Bike Project have continued to work with the City toward identifying opportunities for enhancing facilities, as well as developing and sponsoring programs to promote bicycle safety and encouraging greater use of bicycling for transportation and recreation., Over the next few years, BikeNewark will again work with the City, as well as planning partners at WILMAPCO and DelDOT, to update the 2014 *Newark Bicycle Plan*, which sets a series of short-term and long-term goals.

Newark has made tremendous advances over the past 15 years in becoming a more bicycle-friendly community. Major improvement projects include the completion of the James Hall Trail and the Pomeroy Trail, the rehabilitation of a portion of Elkton Road that is now called South Main Street,

revising our City code to require new development to increase the number of bicycle parking facilities, and adding shared-lane markings ("sharrows") to Main Street and other streets as recommended by BikeNewark.

Building on the *2011 Newark Transportation Plan*, key recommendations for bicycle improvements include the following:

1. **Improve signalized detection systems at intersections.** Recommends improvements to bicycle detection at signalized locations through increasing the use of aboveground video detection or adjusting the position and sensitivity of traditional loop detectors.

2. **Use bicycle lanes and shared-lane markings (sharrows).** Use and mark bicycle lanes where appropriate and, where space is limited for bicycle lanes, use the newly approved Manual on Uniform Traffic Control Devices (MUTCD) shared-lane (sharrow) markings. Improved pavement markings should be coordinated with paving projects.

   2022 Status: Since adoption of the 2011 Plan, sharrows have been utilized successfully on several Newark streets including East and West Main Streets.

3. **Install a two-way bicycle lane (cycle track) on Delaware Avenue.** Recommend the reconfiguring of Delaware Avenue to include a two-way separated bike lane, known as a cycle track, from Tyre Avenue to Orchard Road.

   2022 Status: In 2015, JMT completed a feasibility study for a two-way separated bike lane along Delaware Avenue from South Main Street to Library Avenue. The project team included DelDOT, the City, WILMAPCO, the University of Delaware, BikeNewark, and other community groups. A "Pop-Up Cycle Track" event was held on July 14, 2015 where a temporary two-way bike lane was installed. The project is scheduled to be completed in 2022. For additional information, see the DelDOT project page:

   https://deldot.gov/information/projects/bike_and_ped/delaware_ave/

Walking in Newark

Newark has pioneered planning for pedestrian safety and accessibility. For instance, the City's mid-block "pedestrian peninsula" or "bump-outs" were spearheaded by the Planning and Development Department in an effort to assist pedestrians crossing Newark's heavily traveled Main Street between the long block from Academy Street to South College Avenue. The City has also spent more than $350,000 in federal community development funds to upgrade handicap access ramps throughout Newark. In 2020, DelDOT completed its upgrade and expansion of downtown sidewalks to include more space for café seating, benches and gathering areas, as well as increased bicycle parking.

To make Newark a more pedestrian-friendly place, the *2011 Newark Transportation Plan* identified areas where pedestrian improvements would be made:

1. **Streetscape improvements to East and South Main Streets.** The DNP's Design Committee developed plans to include adding bump-outs near parking lot entrances and crosswalks on Main Street. Bump-outs at these locations would reduce crosswalk length, discourage illegal parking at corners, and provide additional locations for benches, trash cans, and bicycle racks.

   2022 Status: This project was completed in 2020.

2. **Mid-block crossing with improved median for Library Avenue between Delaware Avenue and East Main Street.** Routine mid-block crossings occur on the busy four-lane road between the Newark Free Library, the College Square Shopping Center, and the DART First State bus stop. However, there is a lack of pedestrian amenities at this location. The mid-block crossing would include a marked crosswalk and a center median to serve as a pedestrian refuge area. Additional signage would also be necessary.

   2022 Status: The project is anticipated to be implemented as part of the TID discussed later in this chapter.

3. **Citywide initiatives for walkability.** These initiatives would include the following:
   a. Maintenance operations focusing on providing well-defined crosswalks with uniform markings and signage throughout the city.
   b. Convert all pedestrian signal indications to include countdown timers.
   c. Design crosswalk locations to accommodate pedestrians with disabilities.
   d. Utilize curb extensions and medians for pedestrian refuge to make crossings shorter.

   2022 Status: These projects are completed or in-process.

Parking

Downtown Newark has a mix of both on- and off-street parking opportunities. On-street parking spaces are managed either by kiosks to encourage short-term parking or residential parking permit restrictions. Off-street parking facilities include six municipally run parking lots providing unrestricted public parking for monthly and hourly/daily users, several private parking lots restricted for use by the owners' employees and customers, and two University–run parking garages.

Due to the combination of relatively high-density commercial and residential development and the nearby University of Delaware drawing a large influx of students and visitors, parking in the Downtown District remains an issue of concern for the community.

The *2011 Newark Transportation Plan* includes both short-term and long-term recommendations concerning parking:

1. **Consolidate parking lots and entrances.** Opportunities for linkages between exits and entrances of existing lots and opportunities to merge private lots into larger, adjacent public lots should be explored. Following this recommendation, a new entrance/exit on Center Street was completed in 2013, and a project to connect two municipal lots through a private lot was completed in 2016.

2. **Maximize space in existing lots.** Recommendations included consolidating dumpsters and/or replacing them with trash compactors to reduce space needed for trash services and to increase space in existing lots available for parking. The Planning and Development Department and the Parking Office are actively working with downtown business on this issue.

3. **Improve wayfinding to parking entrances.** Since much of Downtown's off-street parking supply is located behind businesses, visitors unfamiliar with Main Street may be unaware of available parking areas. It was recommended to use banners and more visible signs to advertise municipal lots. The new wayfinding and locational signage installed in 2012 have improved but not eliminated the problem. Street markings were also added directly on the driving lanes of East Main Street in 2015. Efforts continue to optimize signage.

4. **Add bicycle parking downtown.** In 2012, the City installed 16 dual-bike bicycle racks along Main Street. Additional bicycle racks were installed as part of the 2020 Main Street Rehabilitation. The City will continues to monitor the need for additional racks, especially in light of better accessibility of the downtown area for bicyclists through the completion of the Pomeroy Trail in 2012, as well as the anticipated construction of a cycle track along Delaware Avenue. The City has also amended the Zoning Code to require increased bicycle parking facilities for all new developments.

The Planning Commission's Parking Subcommittee

In 2016, the Planning Commission began a process of working with City staff to review downtown's parking capacity and demand, Zoning Code minimum parking requirements, and the Parking Waiver program to make recommendations of Code amendments based on their findings. A "Parking Study" was completed, and presented to Planning Commission, on June 7, 2016, which researched zoning regulations in similar jurisdictions, as well as the current Parking Waiver program, and provided a series of "policy options" for City officials to consider based on best practices and national trends. The Planning Commission also hosted two Public Workshops to get input from residents, developers, and local business owners,

At their May 2017 meeting, Planning Commission authorized a Parking Subcommittee with the purpose of convening to understand the challenges related to parking in the City's ever-changing downtown core. The Parking Subcommittee was composed of a diverse group of participants that included representatives from city government, the Planning Commission, downtown businesses and non-profits, developers, as well as residents and a University student. The Subcommittee first identified seven (7) "Strategic Issues".

- Parking distribution and availability.
- Cultural thinking about parking (Community perceptions and habits.)
- Zoning Code revisions
- Economics of parking
- Stormwater quality/quantity
- Employee parking
- Private lots not in the City network

Through a process of several public meetings and workshops, the Parking Subcommittee developed a policy matrix, shown in Chart 5-1, to link strategic issues and solutions to three (3) "Policy Layers".

The complete report, titled *A Bold New Future for Newark: A Comprehensive Parking Solution*, can be viewed at the link below:

https://newarkde.gov/DocumentCenter/View/12066/Comprehensive-Parking-Solution

Chart 6-1: Policy Matrix from the Staff Technical Review of the Planning Commission's Parking Subcommittee's Report

Policy Layer #1 Managing the Existing Parking Supply	Parking wayfinding signage with "real-time" parking information
	GIS "real-time" parking information and location on City's web page
	Development of "smart" downtown parking App for cell phones
	"Dynamic" Fee Structure for municipal parking rates
	Marketing strategy: Education and promoting parking options
Policy Layer #2 Evaluating Demand	Review of Zoning Code to identify impediments to creative parking solutions
	Reducing or eliminating minimum parking requirements
	Allowing "Decoupling" of parking in multi-unit developments
Policy Layer #3 Increasing Parking Access and Expansion	Negotiate lease agreements with private lot owners
	Negotiate lease agreements with Univeristy parking lots during off-peak hours
	Increase and promote transit use; operating internal downtown circular bus route
	Centrally located downtown parking garage

City Council reviewed the Parking Subcommittee's report in a special meeting in March of 2019 and directed staff to move forward with implementation. The City is working with a consultant on ways to develop policy and ordinance recommendations.

Transit

The *2011 Newark Transportation Plan* contains the following recommendations to improve transit service in Newark:

1. **Transit hub improvements:** The plan recommends reorienting the transit facility to better establish connections from DART First State buses to UNICITY and Unversity shuttle bus routes. This would include features such as increased signage, real-time schedule information, and improved passenger-waiting shelters.

2. **Citywide amenities and features that identify the transit system:** Recommendations from the plan include bus-stop signs at all UNICITY and University shuttle stops and coordinated schedule information. Other recommendations include greater use of shelters and benches at City bus stops and bicycle racks on all UNICITY and University buses.

3. **Improved marketing within the City:** Because the City has such a diverse array of bus and train services, it has been difficult to communicate with the public on the services available. The City is currently developing a user guide titled *Car-Free Newark*. The guide will include schedule information and list bus routes for common destinations. In addition, the guide will be a reference for bicycling and walking in Newark.

4. **Service modifications to University bus service and UNICITY:** The plan recommends that the University bus service should be expanded to provide at least a minimum level of service when school is not in session. Also, utilizing the Newark Transit Hub could improve connections for University students and staff with DART First State bus routes. Likewise, UNICITY could revise its routes to focus on key destinations and improve frequencies.

Public transportation in the City of Newark consists of both train and bus service. Bus service is offered through four separate agencies.

- **UNICITY:** The City of Newark's UNICITY bus system, initiated in 1980 and funded primarily by the State of Delaware through the Delaware Transit Corporation, provides a free bus service to local points in Newark. In terms of frequency, the service is relatively limited, with a daily (Monday through Friday) loop route and twice-daily morning and evening commuter service. In 2020, the City modified the UNICITY bus route to a loop service that was easier to understand and offered quicker route times. The modified route is down to approximately 1 hour, down from approximately a 2-and-a-half-hour loop. Because UNICITY is administered locally by the Planning and Development Department with University of Delaware bus drivers and bus supervisors, the City can quickly respond to community requests for route changes and new service demand, and the City can even try experimental services like weekend and evening routes in the summer.

- **University of Delaware Shuttle:** The University shuttle bus system provides local transit for students and staff when the University is in session and operates several routes oriented to the campus. While service is free for students and University staff, other residents or visitors are not permitted to ride these buses.

- **DART First State:** DART First State links Newark to Wilmington and other portions of New Castle County, as well as Middletown and Dover. The focal points of DART routes are the Newark Transit Hub, which is located between East Main Street and Delaware Avenue and is connected to the Pomeroy Trail, and the Newark Train Station located next to the STAR Campus. Both locations provide bus loading areas, shelters, and bicycle parking, as well as transit and transferring information.

- **Cecil County Transit**: Based in Elkton, Cecil Transit operate two bus routes to Newark that connect to Glasgow in Delaware, and Elkton and Perryville in Maryland. The service operates on weekdays only, with limited service approximately every 90 minutes with stops in Newark at the Newark Train Station, the Newark Transit Hub, and the Newark Municipal Building.

Other bus services include **Greyhound** and **MegaBus**. Both of these intercity bus providers pick up passengers at the University of Delaware's Laird Campus (Lot 6), off New London Road, for daily express service to points south to Washington, D.C., and Hampton, Virginia, and points north to New York City.

Newark is also served by two rail services:

- **SEPTA:** The commuter rail service operated by SEPTA is an arrangement with DART First State. It offers limited service to points north through Wilmington and Philadelphia. Further connections through NJ Transit to New York City can be made in Philadelphia. The new Newark Train Station at the STAR Campus (p.84) began construction in 2017 and is scheduled to be completed by December 2022.

Newark Train Station. Source: WRA

- **Amtrak:** Newark receives very limited service, with stops once a day for directions going to Washington, D.C., and points south, and New York City and points north.

In 2020, Maryland's Governor Lawrence Hogan signed House Bill 1236 – *Transit – Maryland Area Regional Commuter Train (MARC) – Expansion of Service ACT* for the purpose of evaluating the feasibility of expanding MARC service to Newark. Should the service be approved, the connection would eliminate a gap in commuter rail service between Newark (the end of SEPTA's service) and Perryville, MD (the current end of MARC service. The Maryland Transit Administration is connecting a study, with the assistance of WILMAPCO, and was due to submit its findings by December of 2021.

Newark Transit Improvement Partnership (TrIP)

In 2016, a partnership of stakeholder agencies was formed including WILMAPCO, the City of Newark, University of Delaware Transportation, DART First State, and Cecil County Transit to collaborate to provide more expansive transit services in Newark by consolidating and coordinating the existing bus services (listed on above on page 73-74), as well as better coordinating these services with the SEPTA and Amtrak services at the Newark Train Station.

The study, conducted by WILMAPCO, and adopted by WILMAPCO Council on July of 2019, worked to understand the existing conditions through data collection and analysis, which included

an extensive mapping effort to represent the demographic conditions such as population and employment density, along with minority, low-income, and zero car households. The complete report is available at the WILMAPCO website at the link below:

http://www.wilmapco.org/Newark/transit/newarktransit.pdf

The members of the TrIP partnership are continuing to work together to coordinate services and better amenities for transit users, seek additional grant funding for further studies, incorporate the various services into the mobile DART app, and identify other areas of coordination.

Transit-Oriented Development at the University of Delaware's STAR Campus

The City of Newark's *Comprehensive Development Plan IV* (2008) called for the redevelopment of the former Chrysler site in a mixed-use manner that included "high-tech research and educational facilities" as well as light manufacturing and commercial development. In 2009, the University of Delaware purchased the 272-acre former Chrysler site to redevelop into the STAR Campus. The long-term economic benefits of the STAR Campus are uniquely supported by transit-oriented development and a multimodal transportation center.

The STAR Campus's first major tenant, Bloom Energy Corporation, a manufacturer of solid-oxide fuel cells, located its East Coast manufacturing, management, and research facilities on 50 acres of the site. Bloom Energy opened its facility in the spring of 2013 and is anticipated to employ 900 individuals when at full capacity. The STAR Campus's proximity to other research centers is leading to collaborations that will have major benefits to the local economy. For example, as a direct result of the federal Base Realignment and Closure (BRAC) program, Aberdeen Proving Ground has emerged as one of the leading science and technology centers in the United States. A Cooperative Research and Development Agreement (CRADA) was signed between the University of Delaware and the U.S Army for collaboration on research and educational projects that focus on national security and defense, both in Aberdeen, Maryland, and at the STAR Campus.

In preparation for development of the *Comprehensive Development Plan V*, a key "Opportunity" from SWOT data gathered at public workshops is the feasibility of improving commuter rail services in Newark as a result of the redevelopment of the University's STAR Campus. In partnership with the University of Delaware, DelDOT, and WILMAPCO, the STAR Campus will include a *Newark Regional Transportation Center* that includes relocating the Newark Train Station as an expanded facility.

As of 2021, the STAR Campus has over 1 million square feet of real estate in use or under construction, including labs, offices, clinical, incubation and coworking space. In 2019, because the site is located on a former vacated industrial site, near several low-income communities, the IRS designated the STAR Campus as an Opportunity Zone, an economic development designation and tool to encourages investment in distressed areas in the United States in order to spur economic growth and job creation.

Map 6-4: STAR Campus Master Plan (2014)

Image: Framework for STAR Campus development; STAR Campus Master Plan, 2014

Part of the plan's development from the *Newark Train Station Study* was an engineering and feasibility study to examine conflicts between freight and commuter train service, as well as how to accommodate expansion of passenger rail services. The study's partnership received a TIGER IV Grant from the U.S. Department of Transportation to complete the *Newark Regional Transporation Center*. The improved Newark Rail Station is being constructed at the location of the previous SEPTA station, at the northern end of the STAR Campus. The new station will improve upon the previous station by providing Americans with Disabilities Act (ADA) compliant high-level platforms, expanded parking, and provide significantly improved passenger amenities. Construction began in 2017 and was anticipated to be completed by 2018. However, due to many complications, the facility is still under construction as of this writing, and anticipated to be completed in 2022.

The University of Delaware's site-development plan for the STAR Campus, shown in Map 6-4, includes an integrated transportation system incorporating transit-oriented development (TOD), rail service systems, and the reconfiguring of current transit service and bus routes to better serve the facility. Along with rail and bus service, the STAR Campus will also include a network of multimodal transporation links to include bicycle and pedestrian connections to other areas of Newark. The *University of Delaware's Conceptual Development Plan* (2014) indicates the expectation that approximately 15% of the STAR Campus workforce will use commuter rail.

For more specifics, please refer to the University of Delaware's STAR Campus website:
www.udel.edu/star/downloads.html

More information on the *Newark Train Station Study* and the *Newark Regional Transporation Center* is available at: http://www.wilmapco.org/newarktrain/

Transportation Improvement Districts (TID)

A transportation improvement district (TID) is defined in DelDOT's *Standards and Regulations for Subdivision Streets and State Highway Access* as a "geographic area defined for the purpose of securing required improvements to transportation facilities in that area" by comprehensively coordinating, with transportation-planning partners, land-use and transportation decisions. TIDs are created through an agreement by the local government, DelDOT, and WILMAPCO. The agreement would establish the TID's boundaries, the time frame (TIDs typically project 20 years from the previous Census), a criteria and standard for adequate transportation and the facilities needed, and the roles of each participating agency. The participating agencies develop a land-use and transportation plan for the TID, identifying a projected build-out plan, and a fee formula to fund the improvements, as well as a monitoring program to track the need for new projects. As projects are completed, they are incorporated into the TID agreement.

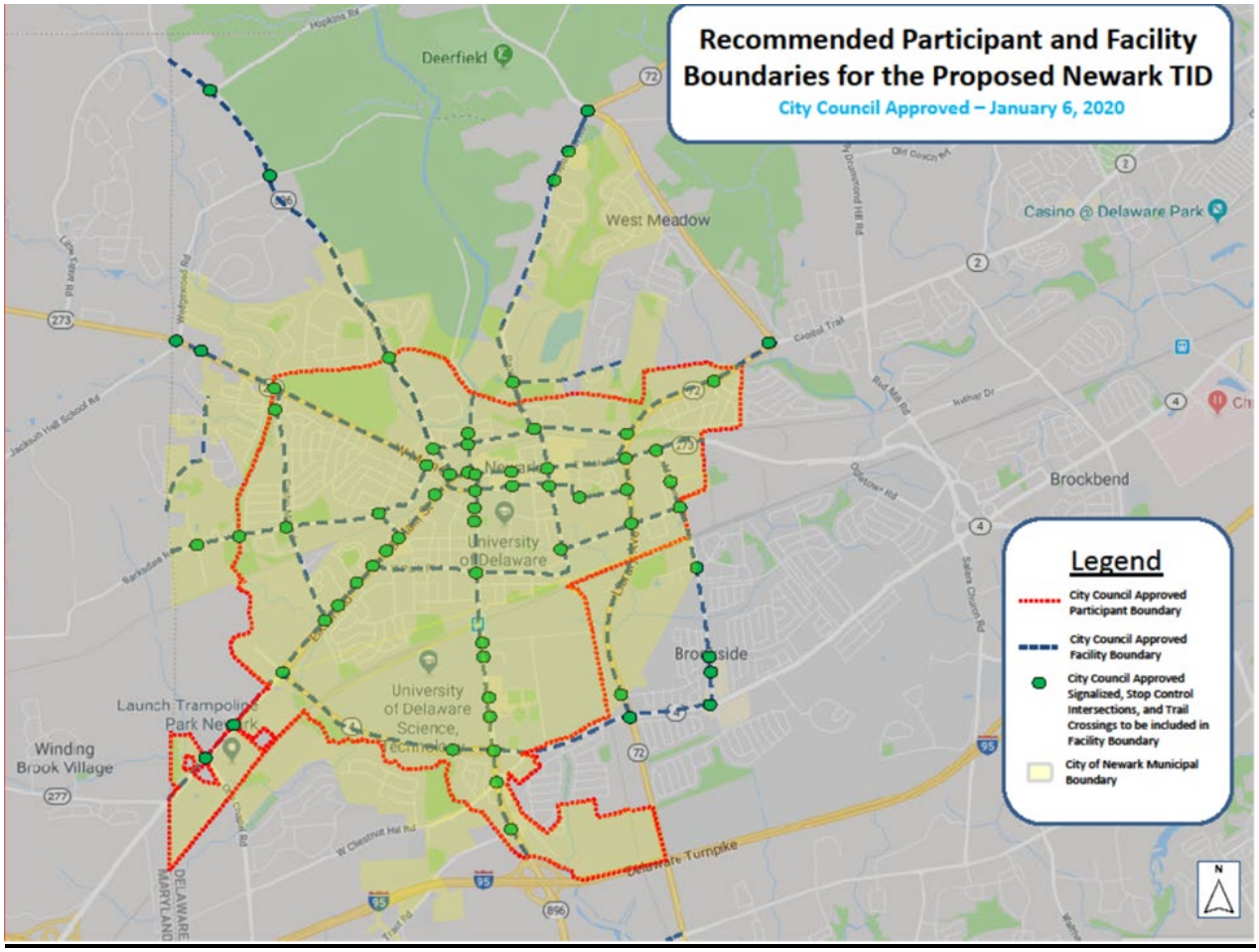
The benefit for local governments is that the TID creates a comprehensive land-use and transportation plan for the established district. For developers, as long as the proposed development is consistent with the planning done for the TID, it eliminates the need for traffic-impact studies (TIS) and, thereby, accelerates the plan-approval process.

The *Comprehensive Development Plan V* (2016) established an Action Item to begin a process to enter into an agreement with DelDOT and WILMAPCO "to establish an area in Newark's downtown core to create a TID." The agreement would establish the TID's boundaries, the time frame, the roles for each agency, and criteria and standards for adequate transportation, as well as the facilities needed.

On September 24, 2018, City Council approved the formation of a Steering Committee to facilitate the planning process, as well as provide feedback and guidance to the professional planning staff. The TID Steering Committee includes a wide range of stakeholders including City staff, DelDOT, WILMAPCO, New Castle County, the University of Delaware, and citizen-appointees. The City also retained the services of AECOM, a planning consultant firm, to provide technical expertise and administrative assistance.

The Newark TID Steering Committee reviewed analysis of existing conditions, identified strategic and problem areas within the city, and defined the TID Participant and Facility Boundaries for the proposed TID, shown in Map 6-5. The scope of the TID boundary not only includes the downtown "core" of East Main Street, Delaware Avenue, and Cleveland Avenue, but also includes outer areas of the City such as West Main Street, South College Avenue/896, Christina Parkway, New London Road, and Capitol Trail.

Map 6-5: Council Approved Newark Transportation Improvement District (TID) Boundary



Source: DelDOT Presentation to WILMAPCO TAC; September 17, 2020

The Planning and Development Department completed an analysis of growth projects within the proposed TID boundary based on the Future Land Use designations of the *Comprehensive Development Plan V*, the City's Zoning Code, and current and anticipated development trends. Other tasks include setting the capacity-related service standards. DelDOT recommends a capacity-related service standard of a maximum increase in travel time per link and per segment of 10%.

Projects to be funded under the TID will focus on all modes of transportation, including automobiles, bicycles, pedestrians, and transit. This project is on-going. For the latest information on the TID's development, link below to the City of Newark's webpage:

https://newarkde.gov/1127/Transportation-Improvement-District-Comm

Plan Goals and Action Items: Transportation

Provide feasible and attractive transportation choices for all citizens through an efficient transportation network that encourages a healthy lifestyle and promotes environmental and economic sustainability

Strategic Issues:

- Balancing the needs of automobile, transit, bicycle, and pedestrian traffic for a multimodal transportation network.
- Traffic congestion, safety, and mobility.
- Adequate parking for automobiles and bicycles to support local businesses.
- Methods to evaluate the relationship between land use and transportation.

Community Vision: **Sustainable**

Goal 1	**Reduce traffic congestion and prepare for future infill development by maximizing the efficiency of the existing transportation network.** Maximizing the efficiency of the City's existing transportation network advances the City's vision as a "Sustainable Community" by reducing both traffic-idling time, thereby improving air quality, and the need to widen or construct new roads, which is not only cost-efficient but also preserves open space.

Action Item 1

Work with DelDOT to establish an area in Newark's downtown core to create a TID. The TID should include East Main Street, Delaware Avenue, and Cleveland Avenue from New London Road to Library Avenue. The WILMAPCO Congestion Management System has identified these major roads and their connectors as experiencing "moderate" to "significant" traffic congestion. Furthermore, the TID should consider connectors west of the downtown core (West Main Street, New London Road, and Hillside/Barksdale Road) in anticipation of possible redevelopment of the Newark Country Club. To the east of the Downtown core, the TID should include Wyoming Road, Marrows Road, and Ogletown Road to accommodate redevelopment of University Plaza and expansion of the STAR Campus.

2022 Status: In progress. See pages 81-82.

Partnering agencies:
City of Newark Planning Commission
City of Newark Department of Planning and Development
City of Newark Department of Public Works and Water Resources
WILMAPCO
New Castle County Department of Land Use
Delaware Department of Transportation

Action Item 2

Conduct a corridor-optimization program. The City will work with partnering transportation agencies to maintain the most efficient use of traffic signals at key corridors identified in the *Newark Transportation Plan (2011)* by inspecting and modernizing signal equipment and taking advantage of new technologies. Key corridors include the following:

a. *South Main Street/Elkton Road:* Includes 10 signals within the City.
b. *Cleveland Avenue:* Includes 6 signals within the City.
c. *Library Avenue:* Includes 4 signals within the City.
d. *South College Avenue:* Includes 10 signals within the City.

2022 Status: In progress. Included with the analysis of the TID. See pages 81-82.

Participating agencies:
City of Newark Planning Commission
City of Newark Department of Planning and Development
WILMAPCO
Delaware Department of Transportation

Community Vision: **Health/Active, Sustainable, and Inclusive**

Goal 2	**Advance Newark as a bicycle- and pedestrian-friendly community by creating facilities that support bicycle and pedestrian safety and reduce conflicts with automobiles.** Creating facilities that support bicycle and pedestrian safety and reduce conflicts with automobiles advances the City's vision of being a "Healthy and Active Community," a "Sustainable Community," and an "Inclusive Community." A bicycle- and pedestrian-friendly transportation network encourages a healthy lifestyle and provides transportation alternatives that reduce fuel consumption, carbon emissions, and traffic congestion. Furthermore, for residents who are unable to drive, such as children and many senior citizens, bicycling and walking are the most feasible transportation choices.

Action Item 3

Create a "Downtown Newark Pedestrian and Streetscape Plan" to focus on pedestrian safety, reduce pedestrian/automobile conflicts, and improve bicycle and transit facilities downtown. The purpose is to evaluate and reduce areas of pedestrian and automobile conflict in Downtown Newark by implementing appropriate traffic-calming and pedestrian safety methods to reduce jaywalking and better coordinate pedestrian crossings that affect traffic congestion. The plan will identify opportunities for expanded sidewalks for better utilization of benches, streetlights, and bicycle racks, as well as for improving facilities for public transit.

2022 Status: Completed. See pages 74-75 "Walking in Newark".

Action Item 4

Adopt, as an addendum to the *Comprehensive Development Plan V*, the recommendations of the updated *Newark Bicycle Plan* (2014). The Newark Bicycle Committee has worked in conjunction with the City of Newark's planning process for the development of the *Comprehensive Development Plan V* to include the City's *Newark Bicycle Plan*. The *Newark Bicycle Plan*'s recommendations adopts the bicycle-improvement projects outlined in the *Newark Transportation Plan (2011)* and outlines the key policy preferences and initiatives consistent with the "Five E's" from the League of American Bicyclists:

- **Engineering:** Creating safe and convenient places to ride and park
- **Education:** Giving people of all ages and abilities the skills and confidence to ride
- **Encouragement:** Creating a strong bike culture that welcomes and celebrates bicycling.
- **Enforcement:** Ensuring safe roads for all users.
- **Evaluation and Planning:** Planning for bicycling as a safe and viable transportation option.

2022 Status: Completed. The Newark Bicycle Plan was officially recognized by the Comprehensive Development Plan V upon adoption in 2016. Implementation of the Newark Bicycle Plan is on-going. BikeNewark, in conjunction with the City of Newark, WILMAPCO, DelDOT, and other planning partners will work to update the Newark Bicycle Plan for 2022 or 2023.

Partnering agencies have included the following:
City of Newark Department of Planning and Development
City of Newark Department of Public Works and Water Resources
City of Newark Department of Parks and Recreation
Newark Police Department
University of Delaware
WILMAPCO
Delaware Department of Transportation

***Community Vision:* Sustainable**

Goal 3	**Improve the supply and user experience of automobile parking in and near downtown Newark.** An effectively managed and customer-friendly parking system will provide for a more "Sustainable Community" business environment for existing and future downtown businesses. While it is feasible for many residents to walk or bicycle to Downtown, a significant portion of Downtown's customer base chooses to drive to and park downtown, and the City's parking service should take those potential customers into consideration.

Action Item 5

Use a data-driven approach to manage downtown parking and evaluate the need to build a municipal parking garage in the downtown area. The City may identify a location, such as an

existing municipal surface lot, to construct a municipal parking garage. Opportunities for a public/private partnership and mixed use may also make the costs more feasible.

2022 Status: Implemented. See pages 80-81 "Newark Planning Commission's Parking Subcommittee" Report. Implementation of the report is on-going.

Action Item 6

Pursue opportunities through redevelopment to add to the City's downtown parking supply. The City will continue to look for other opportunities to increase the parking supply through lot reconfiguration and opportunities created by redevelopment (e.g., ground-floor parking).

2022 Status: In progress through the development review process.

Action Item 7

Research and implement new technologies to allow for better management of the current parking system and improved customer experience. The Planning and Development Department, along with the Downtown Newark Partnership's Parking Committee, continues to research and implement better technologies that assist with the better management of the downtown parking supply and improve service to the customers. A current example is a pilot project of on-street parking meters that accept credit card payment, allowing customers greater flexibility in purchasing. New technologies offer a variety of improved approaches to managing downtown parking and City and partnering agencies will continue to research and evaluate their practicality for downtown.

2022 Status: On-going. . See pages 80-81 "Newark Planning Commission's Parking Subcommittee" Report. Implementation of the report is on-going.

Participating agencies:
City of Newark Department of Planning and Development
Newark Parking Office
Private-sector partners

Community Vision: **Sustainable and Inclusive**

Goal 4	**Maximize existing transit resources to allow for increased opportunity for use of transit services.** Increasing opportunities for using transit services advances the City's vision of being a "Sustainable Community" and an "Inclusive Community" by providing reliable transportation alternatives for residents who either cannot or choose not to drive and reducing dependency on the automobile.

Action Item 8

Develop and distribute a user guide titled *Car-Free Newark*. The purpose of the user guide is to better coordinate information of transportation choices in Newark to create a more user-friendly approach. In addition to transit options, the guide will also outline the bicycle and pedestrian facilities network.

2022 Status: In process. A review will begin in 2022.

Participating agencies:
City of Newark Department of Planning and Development
WILMAPCO
BikeNewark
DART First State

Action Item 9

Establish partnership among the City of Newark, the University of Delaware, DART First State, and transit users to improve coordination and enhance the services and facilities of DART, UNICITY, and UD Transit, which all serve the Newark area. The partnership is to create a "working committee" to evaluate and recommend policies and service modifications for the three bus services operating in Newark, as well as commuter train services and private bus services, with the intent of improving coordination, linkages, and services to provide a more comprehensive, dependable, and frequent transit network. Recommendations should also include improvements to transit facilities.

2022 Status: In process. See pages 81-83.

Participating agencies:
City of Newark Department of Planning and Development
University of Delaware Transit Services
WILMAPCO
DART First State

Action Item 10

Explore the feasibility of "Microtransit" Services in Newark. Microtransit is a form bus on-demand transit that offers more flexible routing and scheduling than fixed routes and appointment-like paratransit. The service allows transit agencies to respond more directly to demand, especially in areas that do not support dedicated fixed routes with frequent service.

Participating agencies:
City of Newark Department of Planning and Development
University of Delaware Transit Services
WILMAPCO
DART First State