

II. Identification of Opportunities and Solutions

Upon completion of the planning process for this report, a wide range of recommendations were developed throughout the City. The list of proposed recommendations has been divided into a Short-Term Action Plan (Table XIII) and Long-Range Action Plan (Table XIV).

A. Short-term action plan (Summary of Recommendations)

TABLE XIII – Short Term Summary of Recommendations

Congestion, Safety and Mobility Improvements – Short-term	
Recommendations	Summary
<p><i>Signal Coordination</i> - Implement a Newark Corridor Optimization Program. Initially to include:</p> <ol style="list-style-type: none"> 1.Elkton Rd. (10 signals) 2.Cleveland Ave. (6 Signals) 3.Library Ave (4 Signals) 4.S. College Ave. (10 Signals) 	<ul style="list-style-type: none"> • All non-compliant/faulty equipment shall be repaired and new traffic volume data shall be collected for use in developing corridor-specific optimized signal timing plans. • Installation of a modernized traffic signal system for the S. College Ave and Route 4 Corridors.
<p><i>Land Use and Travel Demand Management</i></p>	<ul style="list-style-type: none"> • Combining planned, mixed use development and programs to encourage use of walking, bicycling, transit and ridesharing can reduce demand for driving and thus reduce the impacts of congestion.
<p><i>Access Management and Traffic Flow</i></p>	
<p>Ogletown Rd (Route 273) at Marrows Road – Roadway alignment upgrade</p>	<ul style="list-style-type: none"> • Includes improvement to the existing lane alignment between Marrows Rd. and Library Ave in the westbound direction. (Paint Only)
<p>Cleveland Ave. at N. College Ave. – Addition of a northbound right-turn lane</p>	<ul style="list-style-type: none"> • Includes widening the northbound approach to include 5’ bike lanes, two 11’ through lanes and an 11’ right turn lane. • Right turn lane will add capacity to the intersection without increasing the length of the heavy utilized north to south crosswalks.

Congestion, Safety and Mobility Improvements – Short-term	
Recommendations	Summary
<i>Safety, Complete Streets and Traffic Calming</i>	
<p>W. Park Place traffic calming improvements from Elkton Rd to S. College Ave.</p>	<ul style="list-style-type: none"> • Implement a cost-effective traffic calming plan that keeps existing mid-block curb lines intact and restores the corridor to a more residential quality. Design concepts will include: <ul style="list-style-type: none"> ○ A reduced road width at intersections with short sections of raised medians/pedestrian refuges on intersection approaches. ○ Use of “sharrow” bicycle markings to delineate area of shared roadway use. ○ Re-evaluate signal warrants along the corridor. Consider converting signals to 4-way stop control. Candidate intersections for signal removal include: <ul style="list-style-type: none"> ○ W. Park and Apple Rd, ○ W. Park and Orchard Rd. ○ Pedestrian-scale lighting

Bicycle and Pedestrian Improvements – Short-term	
Recommendations	Summary
<i>Bicycle Improvements</i>	
<p>Stripe bike lanes – When road width allows, restripe pavement markings to include travel lanes and ride-able bike lane/shoulders (5’ preferred Min 4 ‘)</p>	<ul style="list-style-type: none"> • W. Main St, west of Hillside • Cleveland Avenue, College to Paper Mill - bike lane WB, Sharrows in the EB direction. • Hillside Rd –bike lanes • S. Chapel St, Academy St, and N. College Ave – restripe where existing width allows.
<p>Mark shared pavement markings (Sharrows) - Where sufficient width does not exist for bike lanes, provide “sharrows” in areas where vehicular and bike traffic share the road.</p>	<ul style="list-style-type: none"> • East Main Street: Pomeroy Trail to Elkton Rd. • New London Rd – Main to Cleveland • North Chapel St. • Cleveland Ave – West of College Ave. • Casho Mill Rd – SB through underpass • Apple Rd.- Park Pl. to Elkton • County Club, Windsor, Delrem

Bicycle and Pedestrian Improvements – Short-term	
Recommendations	Summary
<i>Pedestrian Improvements</i>	
Implement City-wide initiatives for walk ability	<ul style="list-style-type: none"> • Rejuvenate maintenance operations that focus on providing well-defined crosswalks with uniform markings and signage throughout the City. • Develop a program to convert all pedestrian signal indications to include countdown timers. • For new and re-construction projects, develop strategies that minimize crossing distances. Policies should aim to keep roadway improvements focused on more traditional urban design. Items shall include: <ul style="list-style-type: none"> ○ Controlling the number and width of travel lanes ○ Using the smallest curb radius practicable to better manage pedestrian conflicts with turning vehicles. ○ Placing crosswalks in a way that reduces or eliminates any degree of skew. ○ Utilize curb extensions (bulb outs) ○ Where medians of 4 feet or wider are present design the median as a pedestrian refuge, with two shorter and separate crossings on each side of the median. • Continue to design all crosswalk locations to accommodate disabled pedestrians (ADA compliant)

Parking Improvements – Short-term	
Recommendations	Summary
Expand supply of downtown parking	<ul style="list-style-type: none"> • Implement “Morepark” modular parking to provide added capacity to meet short-term economic development needs downtown.
Consolidate parking lots and entrances	<ul style="list-style-type: none"> • Add new Center Street entrance and/or exit to Lot #3 and reduce access points along Main Street to minimize possible pedestrian conflicts. Also continue to work with property owners to merge private parking into larger municipal lots.

Parking Improvements – Short-term	
Recommendations	Summary
Maximize space in existing lots	<ul style="list-style-type: none"> Consolidate dumpsters with trash compactors to reduce space requirements and improve lot aesthetics.
Improve wayfinding to parking entrances	<ul style="list-style-type: none"> Use of banners and more visible signs at and in advance of parking lots is recommended.
Expand car-sharing program. Coordinate with the University of Delaware to monitor and expand the Zipcar Program.	<ul style="list-style-type: none"> This newly implemented program should be monitored for its effectiveness. If successful, the program should be expanded in the future beyond the 4 initial vehicles
Add bicycle parking downtown	<ul style="list-style-type: none"> Install additional bicycle racks throughout Main Street.

Transit Improvements – Short-term	
Recommendations	Summary
Transit Hub Re-establishment Efforts	<ul style="list-style-type: none"> Currently, this transit facility is oriented primarily to DART bus routes while the potential connections with other bus routes are not well established. To respond to this situation, the adjacent bus stops on Main and Delaware would have special treatments that indicate the proximity of the Transit Hub. This would include features such as bus stops signs, passenger waiting shelters, real-time schedule information (e.g., Next Bus) and concrete pavers or other materials to denote the extension of the Transit Hub to the nearby cross streets.
City-wide Amenities	<ul style="list-style-type: none"> The current system is lacking in terms of features that identify the transit system. This would include bus stops signs at all locations which indicates the service, route and phone and web page to obtain transit information. With the exception of the City Hall, there are few bus stop signs along the UniCity bus routes. Other elements of this recommendation would be passenger waiting shelters or benches at the more heavily utilized bus stops. Another feature that can increase transit visibility and ridership is to install ride guides which list schedule times for that bus stop.
Improved Marketing Efforts	<ul style="list-style-type: none"> Provide a single source of information on the transit services provided by each agency. A

Transit Improvements – Short-term	
Recommendations	Summary
	single transit map should be prepared for Newark which would show all routes, schedule times, fare information and contact phone numbers and web addresses to contact each agency. Information might also include other “Car-free in Newark” travel choices.
Service Modifications	<ul style="list-style-type: none"> • Consider consolidation of the three existing UniCity routes into one or two bus routes. Due to uniform coverage area the DART Route 31 could also be eliminated as part of this consolidation. • In addition or as an alternative, additional trips could be added to DART’s best performing Newark routes (6, 33, 34, and 55).

B. Long-term action plan (Summary of Recommendations)

TABLE XIV – Long Term Summary of Recommendations

Congestion, Safety and Mobility Improvements – Long-range	
Recommendations	Summary
<i>Access Management and Traffic Flow</i>	
Wyoming Rd and Marrows Road Corridor Access Management	<ul style="list-style-type: none"> • As a means to accommodate growth and maintain acceptable levels of service along these corridors, land use decisions and access management strategies should be focused on the possibility of long term dualization (2 lanes in each direction) on these roadways.
Delaware Ave Extension to Marrows Rd.	<ul style="list-style-type: none"> • As means to address future growth and reduce traffic along Library Ave., any redevelopment of the College Square shopping area should include extending Delaware Ave. to Marrows Rd. • This added link would introduce a small grid system to the area, which would reduce trip lengths, distribute traffic more evenly throughout the area and provide improved driving, bicycle and walking access to this underused commercial area.
N. Chapel St. underpass and Cleveland Ave - northbound right-turn lane	<ul style="list-style-type: none"> • No operational traffic benefits are gained by extending the NB right turn lane within

Congestion, Safety and Mobility Improvements – Long-range	
Recommendations	Summary
extension and improvement of substandard design.	<p>current space. Traffic level of service and vehicular queues would be unchanged.</p> <ul style="list-style-type: none"> • Future improvements to the CSX overpass should include provisions for a standardized right-turn lane.
<i>Safety, Complete Streets and Traffic Calming</i>	
S. College Ave Gateway/Mobility Improvements from Main St. to the bridge over Amtrak.	<ul style="list-style-type: none"> • Modified roadway cross-section that focuses on improved mobility along the corridor for all modes. • Includes full width bike lanes throughout the corridor. • Improves connection from the City’s core to the Train Station area.
Cleveland Avenue Road Diet from Capital Trail (Kirkwood Hwy) to N. Chapel St. /Pomeroy Trail.	<ul style="list-style-type: none"> • Modified roadway cross-section that focuses on improved mobility along the corridor for all modes. • Includes full width bike lanes throughout the corridor. • Exclusive left turn lanes to be added along the corridor • Intersection capacity and Levels of service would not be negatively impacted. • Cons – Some existing business driveways would be restricted to right-turns only. A No stopping condition on Cleveland Avenue would need to be enforced.

Bicycle and Pedestrian Improvements – Long-range	
Recommendations	Summary
<i>Bicycle Improvements</i>	
Delaware Ave East/West Bicycle Linkage - Includes providing a separated cycle track between Orchard Rd and Tyre Ave.	<ul style="list-style-type: none"> • Delaware Avenue signals would be modified to accommodate westbound bike traffic. • The westbound bike lane would terminate at Orchard Rd. Cyclists would then be directed left onto Orchard Rd. to Amstel Ave. • Marked “Bike Boxes” are proposed at eastbound signalized locations.
Bicycle signal detections improvements	<ul style="list-style-type: none"> • Implement newer technologies. Continue the increased use of above ground video detection as a replacement for traditional inductive loop detectors.

Bicycle and Pedestrian Improvements – Long-range	
Recommendations	Summary
<i>Pedestrian Improvements</i>	
High Intensity Activated Crosswalks (HAWK)	<ul style="list-style-type: none"> Possible locations include: <ul style="list-style-type: none"> Delaware Ave between Academy St and College Ave. S. College Ave. between Ritter Lane and the railroad overpass. Elkton Rd. – mid-block crossing locations Academy St Corridor – south of Delaware Ave.
Library Avenue – Jaywalking mitigation efforts.	<ul style="list-style-type: none"> The proposed concept is to provide a center median to serve as a pedestrian refuge area with individually marked crosswalks for the eastbound and westbound travel lanes. Slight relocation to existing bus stops facilities would also be made to enhance visibility of pedestrians.
Main Street – Bump-out/crosswalk improvements between Chapel St and College Ave.	<ul style="list-style-type: none"> Provide additional intersection and crosswalk bump-outs along the corridor to reduce crosswalk widths and discourage illegal corner parking. Bump-outs can accommodate benches, bike racks, and trash receptacles and to better define off-street parking access points.

Parking Improvements – Long-range	
Recommendations	Summary
Continue Parking Management Initiatives	<ul style="list-style-type: none"> Construct parking garage on Lot #1 (behind Galleria) with ground level commercial or liner building to maximize use of prime location and accommodate parking needed for future economic development.

Transit Improvements – Long-range	
Recommendations	Summary
Service Modifications	<ul style="list-style-type: none"> Continue to add trips to support better performing routes.

III. Implementation of the Plan

The final section of this report provides a plan for implementing the recommendations contained in the previous sections. The first part of this implementation plan focuses upon the public agencies and other groups that will be responsible for implementing the recommendations, and it provides a summary of each agency and its proposed respective role. The second part outlines a plan for each area of improvement, including the responsible agencies and general time frames for implementation.

A. Agency/Jurisdictional Responsibilities

Wilmington Area Planning Council (WILMAPCO) - As the metropolitan planning organization (MPO) for the study area, WILMAPCO will continue to play an important role in the inter-agency coordination and public outreach processes. In this regard, WILMAPCO will conduct technical studies and ensure continuing public involvement and coordination is obtained regarding proposed transportation investments. Through its Regional Transportation Plan (RTP), WILMAPCO provides strategic direction for land use and transportation decision-making in the region. Also, WILMAPCO will play a role in facilitating and promoting public awareness of the strategies and policies set for the Newark area.

Delaware Department of Transportation (DelDOT) - DelDOT will continue to be the key agency for planning and implementing transportation facilities and services in the study area. It will conduct technical analysis of proposed projects, ensure public involvement in the capital investment decision-making process, and provide capital funding for key projects.

DelDOT will have an important role in implementing most recommendations along state-maintained roads. It will also play a role in implementing all modes of transportation.

Delaware Transit Corporation is responsible for the planning and implementation of all DART First State services as well as contracting with SEPTA for commuter rail. DelDOT will work together with the Delaware Transit Corporation DTC in providing new and improved transit services in the study area. DTC, DelDOT and WILMAPCO will all likely be involved in future coordination with Maryland Department of Transportation and Cecil County to coordinate bus service and future rail between the Newark area and Maryland.

For the *City of Newark*, a major emphasis of municipal involvement should be land use / growth management. Additionally, the various departments and committees currently in operation should continue to have an active role in both planning and operations. For example, the Police Department, Traffic, Parking and Bicycle committees should continue to play an active role in transportation planning issues, as their direct involvement in the development in this report, albeit unique, has been invaluable. Of particular relevance is the ongoing revitalization effort in the Train Station area. This redevelopment effort is directly related to many of the items recommended in this report. The City should also look to develop strong working relationships with the University of Delaware and new employers that may soon find a home at the former Chrysler Plant site.

University of Delaware is also an integral part of the land use and transportation situation in Newark, and as such the University should be

expected to collaborate with the City in implementing the recommendations discussed in this report. The University has been actively pursuing various expansion and redevelopment efforts, most notably is the potential for redevelopment of the former Chrysler Plant, which is also planned to spur a significant upgrade of the Newark Train Station facility. Beyond planning, one area of coordination should be in parking management, due to the overlap in parking demand between the University and the downtown area. The University should also be involved in bicycle and pedestrian circulation issues, since these issues directly impact many University students. In addition, consideration should be given to having the University play a central role in promoting public transit. The University, in coordination with DTC and the City should consider ways to increase bus ridership on all systems running within the City.

B. Implementation Strategy

This section provides an implementation plan for each recommendation identified in the Plan. For each area of improvement is listed the main agencies for implementation, a brief description of key steps involved in implementation, and an estimated time frame for implementing the recommendation. In some cases, the implementation action is already underway (ongoing). For all other recommendations, the time frames are classified as being either Short (5 years or less) or Long-Term (over 5 years).

Congestion, Safety and Mobility: Signal Coordination, Traffic Flow and Access Management

Short-Term Improvements

1. Implement a Newark Corridor Optimization Program
2. Revise/improve pavement markings on

Ogletown Rd (DE Route 273) at Marrows Road.

3. Install NB right-turn lane on N. College Ave at Cleveland Ave.

Key Steps: Review concepts and confirm scope of work with DelDOT, secure resources and funding.

Key Agencies: DelDOT – Traffic Section, City of Newark

Long-Term Improvements

1. Corridor Access Management (Wyoming Rd, Marrows Rd, and
2. Delaware Ave extended to Marrows Rd
3. N. Chapel St. underpass at Cleveland Ave – Provisions for an added right-turn lane should be made upon future improvements to the CSX overpass.

Key Steps: Define guidelines for future development. Prior to future development, determine adequate right of way dedications; identify guidelines for access management along key corridors.

Key Agencies: DelDOT – Planning Section and Transportation Solutions, City of Newark, University of Delaware

Safety, Complete Streets and Traffic Calming

Short-Term Improvements

1. W. Park Place Traffic Calming Improvements from Elkton Rd to S. College Ave.

Key Steps: Review concepts, check signal warrants and confirm scope of work with DelDOT, secure resources and funding.

Key Agencies: DelDOT – Traffic Section and Transportation Solutions, City of Newark

Long-Term Improvements

1. S. College Ave. gateway and mobility improvements
2. Cleveland Ave Road Diet

Key Steps: Review concepts and confirm scope

with DelDOT, secure resources and funding, public involvement.

Key Agencies: DelDOT – Traffic Section and Transportation Solutions, City of Newark

Bicycle Improvements

Short-Term Improvements

1. City wide – When road width allows, provide striping to show separate travel lanes and bike-able shoulders (5’ preferred)
2. City wide – When bike-able shoulders do not exist due to lack of space, provide “sharrows”.
3. Conduct project development analysis for Delaware Avenue east/west bicycle route linkage.

Key Steps: Review key locations as identified by the Newark Bicycle Committee, confirm scope of work with DelDOT, secure resources and funding.

Key Agencies: DelDOT – Traffic and Planning Sections, City of Newark

Long-Term Improvements

1. Delaware Avenue east/west bicycle route linkage
2. Bicycle signal detection improvements

Key Steps: Review concepts and confirm scope with DelDOT, secure resources and funding, public involvement/education.

Key Agencies: DelDOT – Traffic Section and Transportation Solutions, City of Newark, University of Delaware

Pedestrian Improvements

Short-Term Improvements

1. City wide – implement multiple new initiatives for walkability (as previously defined in this report)

Key Steps: Identify key existing target areas, infuse new initiatives into the development

process for growth areas.

Key Agencies: DelDOT Traffic and Planning Sections, City of Newark, University of Delaware

Long-Term Improvements

1. Evaluate future use of HAWK signals
2. Library Avenue – Mid-block/ Jaywalking upgrades
3. Main Street – Bump-out/crossing improvements between Chapel St and College Ave.

Key Steps: Review, evaluate concepts and confirm scope with DelDOT, secure resources and funding, public involvement/education.

Key Agencies: DelDOT – Traffic and Planning Sections, City of Newark, University of Delaware

Parking Improvements

Short-Term improvements

1. Possible expansion of the Zipcar Program
2. Implement the “Morepark” System on existing surface lots as needed.
3. Implement Center Street entrance and/or exit
4. Consolidate parking and access points
5. Improve wayfinding to parking

Key Steps: Evaluation of participation levels for Zipcar (expand if warranted), monitor parking occupancy on a lot by lot basis to determine parking need

Key Agencies: University of Delaware, City of Newark

Long-Term Improvements

1. Provide a multi-level parking structure on Lot1 (behind Grottos)

Key Steps: Review, evaluate demand on minimum 5 year increments, secure resources and funding

Key Agencies: City of Newark

Public Transit Service Improvements

Short-Term Improvements

1. Transit Hub Re-establishment Efforts (as per details listed in this report)
2. City-wide amenity upgrades (as per details listed in this report)
3. Improved Marketing Efforts (as detailed in this report)
4. Implement proposed services modifications – reducing UniCity from three routes into one or two routes, possible elimination of DART Route 31.

Key Steps: Develop conceptual plans for Transit

Hub improvement, identify target areas for amenity upgrades, determine full scope, and secure funds.

Key Agencies: DTC, City of Newark ,
University of Delaware

Long-Term Improvements

1. Continue Marketing Efforts (as detailed in this report)

2. Evaluate and expand service as needed.

Key Steps: Review, evaluate alternatives, confirm new routes

Key Agencies: DTC, City of Newark,
University of Delaware