



CAMDEN CAPITAL IMPROVEMENT & INFRASTRUCTURE MASTER PLAN

Prepared For

Camden Economic Recovery Board

Prepared By

**Hammer Siler George Associates - Langan Engineering & Environmental Services, Inc. - Wallace Roberts & Todd, LLC - DMJM+HARRIS
Slade Partners Consulting - Sadat Associates, Inc. - ARD/Government Finance Group - Charles Dilks**

July 2003

PREFACE

In July 2002 Governor McGreevey signed into law the Municipal Rehabilitation and Recovery Act as a comprehensive redevelopment strategy to enable cities like Camden to achieve economic growth and self-sufficiency. The Act formulates a plan to reorganize government operations and the delivery of services and also to make substantial investments in infrastructure improvements and development projects that will improve the quality of life and economic opportunities for Camden residents.

The Act establishes a subsidiary corporation of the New Jersey Economic Development Authority known as the Economic Recovery Board (ERB) which is charged with the preparation of a Strategic Revitalization Plan (SRP) and a Capital Improvement and Infrastructure Master Plan (CI/IMP). The SRP is to evaluate redevelopment projects and areas that will contribute to the revitalization of the City. The CI/IMP is to evaluate possible capital infrastructure projects that can facilitate the achievement of the following goals:

- Support the efforts of the Strategic Redevelopment Plan by providing necessary infrastructure improvements required to

support developments that will catalyze private investment in Camden.

- Protect the health and safety of the residents by improving the overall performance of the City's infrastructure systems.
- Remediate negative impacts to the environments within and around the City caused by inadequate infrastructure.

This document is a draft version of the Capital Improvement and Infrastructure Master Plan. It provides a summary of the infrastructure projects including water, sewer, transportation, public facilities, parks and open space which satisfy the stated goals. The various recommended capital improvements and associated costs when available are summarized in Table 1 following the text.

The CI/IMP recognizes that a certain degree of flexibility must be incorporated into the implementation of the improvement program as needs and priorities change in conjunction with the revitalization of the City.

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1. INTRODUCTION

1. INTRODUCTION

The State Economic Recovery Board for the City of Camden retained the Hammer Siler George Associates consulting team to prepare a Draft Strategic Revitalization Plan and Capital Improvement and Infrastructure Master Plan. The team includes Langan Engineering and Environmental Services, Inc., Wallace, Roberts & Todd, LLC, Sadat Associates, DMJM + HARRIS, Slade Partners Consulting, Government Finance Group/ARD, and Charles Dilks.

The purpose of the Capital Improvement and Infrastructure Master Plan (CI/IMP) is to identify the critical infrastructure improvements necessary to support the goals defined herein. This Plan is also intended to establish goals, formulate strategies, and identify projects that will improve the overall performance of the City's infrastructure system and support the SRP projects that will have a high probability of revitalizing the City, and which therefore should be supported with financial resources by the State of New Jersey, Camden County, and the City of Camden over the next three to five year period. After that period, the strategy should be updated to take into consideration the impact of the progress made to that date.

1.1 SUBPLANS

The "Municipal Rehabilitation and Economic Recovery Act" requires that the Capital Improvement and Infrastructure Master Plan contain the following:

- A Water and Sewer Subplan, which provides "a detailed blue print for the separation of storm drains from the sewer system throughout the municipality," and
- A Parks and Public Open Space Subplan "which encompasses projects to improve streetscapes, parks, public spaces and any other relevant aspects of the public environment". The subplan is to include analysis of public building needs such as administrative offices, fire houses, police stations, libraries and other types of buildings housing government functions.

In addition to the Water and Sewer Subplan and Parks and Public Open Space Subplan, the CI/IMP includes a Transportation Subplan and a Public Facilities Subplan.

With respect to the Water and Sewer Subplan, the concept of sewer separation was discussed in detail with the Technical Advisory Committee (established by the New Jersey Economic Development Authority) and during several meetings with representatives of the

New Jersey Department of Environmental Protection. It was concluded that the present form of separation utilized in Camden wherein typical storm/sanitary flows are conveyed to the treatment plant in a combined system and heavy flows occurring during wet weather are diverted to adjacent water bodies is an acceptable procedure and is in accordance with all current regulations. Identical procedures for handling dry weather/wet weather flows are utilized throughout most of the older cities of the Northeastern United States. Details of the system and separation procedures are contained in Section 3.3.

The Water and Sewer Subplan focuses on the evaluation of improvements mandated by regulatory agencies as well as on those improvements satisfying the goals of the Plan.

Although the legislation does not specifically emphasize the need for evaluation of transportation infrastructure, a Transportation Subplan was developed since this aspect of the infrastructure is so critical to the daily life of the City as well as its future revitalization. Additionally, a separate subplan focusing only on public facilities was also developed.

1.2 DEFINITION OF A REVITALIZATION PROJECT

As discussed in the Strategic Revitalization Plan, an important objective of the SRP is to create a common definition for a “revitalization project.” This is an important tool for the ERB members and constituent entities making funding requests in that there must be a shared and common understanding and sense of the basis for decisions made by the ERB.

To that end, the SRP defines a revitalization project as follows:

A revitalization project is a planned physical improvement that, when completed, will contribute to the economic, cultural, recreational, tourism, social (including housing parks, and community centers) or educational development of the City of Camden. A revitalization project has a specific location within the City and costs associated with its design, construction, and implementation. A revitalization project must be capable of being started in two years and completed in four years. A revitalization project will include those mandated by the Municipal Rehabilitation and Recovery Act and may include certified redevelopment projects.

Revitalization projects can involve the construction or rehabilitation of buildings, supporting infrastructure (utilities,

streetscape, drainage, etc.) or community facilities (parks, libraries, community centers, etc.). They can also include land acquisition and assembly provided they can be concluded in two years and there is presented a credible financial and development plan for the reuse of the land that can be started within one year after land acquisition. Funds allocated to a revitalization project that do not meet the time requirement will be recaptured and reprogrammed.

1.3 EVALUATION PROCEDURES

Since very few detailed plans of existing infrastructure conditions are available, current and past projects accomplished by the City were reviewed to assist in the formulation of future needs and costs. Information from State agencies, such as the New Jersey Department of Environmental Protection and the New Jersey Department of Transportation, and local government, such as Camden Water, the Camden Department of Utilities, and the Camden County Municipal Utilities Authority, was obtained to provide insight regarding current needs and possible future projects. This data accumulation procedure resulted in the formulation of comprehensive lists of current and possible future projects

associated with infrastructure rehabilitation. Hundreds of such projects were listed, many of which lack definition, verification of need, and funding sources. These initial project lists/inventories are contained in the Appendices.

Another source of information regarding the condition of the water/sewer system was provided through a review of the “Emergency Service Requests” as maintained by Camden Water. These are records of reports by individual citizens detailing a specific failure or malfunction of the infrastructure system. These reports provide details relating to the nature and location of the complaint. All 2001 reports were input into a GIS database to illustrate specific locations. Review of these reports allowed a generalized evaluation of condition to be made and provided a source for additional infrastructure improvement projects.

The entire list of proposed improvements/projects was then reviewed in relationship to the goals of the CI/IMP in order to formulate the final list as summarized in Table 1, Summary of Critical Infrastructure Projects.

The CI/IMP summarizes the important aspects of the various systems and provides a preliminary framework for future capital improvements.

2. GOALS OF THE CI/IMP

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The Capital Improvement and Infrastructure Master Plan is a document that will be used by the Economic Recovery Board (ERB) to guide their recommendations regarding investment in the City of Camden on a year-to-year basis. It is a tool to initiate ERB funding for projects that will improve the overall performance of the City's infrastructure systems and support proposed development that will catalyze private investment in Camden.

The Capital Improvement and Infrastructure Master Plan identifies existing and proposed programs and projects designed to improve the quality of life for residents of Camden.

Based on an understanding of Camden's existing strengths, weaknesses and recent development achievements and the City's strategic opportunities, three interrelated and complementary goals were developed for the CI/IMP. They are:

Goal One: Protect the health and safety of the residents by improving the overall performance of the City's infrastructure systems

Goal Two: Support the efforts of the Strategic Redevelopment Plan by providing necessary infrastructure improvements required to support developments that will catalyze private investment in Camden

Goal Three: Remediate negative impacts to the environments within and around the City caused by inadequate infrastructure

2.1 PRIORITIZING THE CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

The final purpose of the Capital Improvement and Infrastructure Master Plan is to create a framework for prioritizing projects within the CI/IMP Report. Such projects include the reconstruction and improvement of water, sewer, transportation facilities, public facilities, parks, public open space, and brownfields.

**3. WATER AND SEWER
SUBPLAN**

3. WATER AND SEWER SUBPLAN

3.1 BACKGROUND

The water and sewer infrastructure of Camden is generally old and deteriorated due to its age and lack of maintenance. The sewers, which date back to the late 1800's, convey both stormwater and sewage wastewater (known as a combined system). Portions of the water system are nearly 100 years old, with many of the pipes laid in the 1920s. The existing water and sewer systems once served the thriving City during periods of historic high levels of industry and residency.

Until about eight years ago, a utility maintenance and rehabilitation program was not regularly practiced and the systems developed numerous structural and operational defects. In 1995, the City began utilizing funds borrowed from the New Jersey Environmental Infrastructure Financing Program to initiate a rehabilitation program. While significant progress has been made, Camden has accumulated a debt service of approximately \$62 million, which must be paid back from local sources over the next 20 years.

Leaks and breaks in the water mains and service laterals are common throughout the City's 145 mile-long pipe network. Corrosion

and sedimentation accumulated within the water lines often choke the smaller laterals and house connections. High levels of lead detected in the water caused the City to initiate a replacement program for residential lead service laterals, but over 3,000 lead laterals have been identified by the City for replacement at a cost of approximately \$8 million. Additional lead-service laterals to homes, schools, and commercial establishments likely exist. Many water valves and fire hydrants throughout the City are non-operational.

The water system supply reportedly meets the existing demand, however no significant excess capacity exists. The incapacitation of the Puchack Run Water Treatment Plant and several City wells due to high contaminant levels has reduced system capacity by over 6 million gallons per day (MGD), nearly 50 percent of the existing daily demand. Ongoing and planned well and water treatment plant upgrades will reportedly restore the available supply to original levels. Occasional localized pressure drops within neighborhoods are often experienced as a result of the corrosion of existing service laterals and small distribution lines.

While there are numerous deficiencies in the physical water system, the quality of water within the distribution system reportedly meets standards required by the New Jersey Department of Environmental Protection (NJDEP) and United States Environmental Protection

Agency (EPA) and there are presently no enforcement actions against the City. Several schools within Camden, however, reportedly exceed USEPA lead levels.

In addition to the water system, the City depends on a 180 mile-long combined sewer system which has 28 combined sewer outfalls (CSO), and nine pump stations.

Like most older urban areas, the sewer system is a “combined system” which carries both sanitary wastewater as well as stormwater runoff. During dry weather, all flows are directed to a wastewater treatment plant where the water is processed before discharging into the Delaware River. During heavy rains, the flows become too large to treat and the water is directed away from the treatment plant and discharged directly to the receiving water body. This procedure is common to most older cities in the Northeast United States and is an accepted practice by regulatory agencies.

Over 90 percent of the combined sewer system was reportedly constructed prior to 1930 and served the City during periods of historic high levels of industry and residency. Sewer lines are constructed primarily of brick and mortar, which have become fragile with age. Construction and heavy traffic loads on or near the existing sewers often result in sewer collapses. Sewer mains,

laterals and inlets often clog due to heavy silt deposits. A majority of the nine pump stations include the original components, which are antiquated and often non-operational.

Sewer clogs, breaks, and inoperable pump stations frequently result in localized flooding of streets and basements. Flooding impacts are magnified during high tide, when tide gates (on outfalls to rivers and creeks) close, preventing both river water infiltration into the sewer system and also stormwater discharge to the river. Odors from flooding of combined sewage and the operation of the wastewater treatment plant are reported concerns.

The assessment of the water and sewer systems and proposed recommendations are based on extensive research and meetings with various groups and agencies. The primary agencies include:

- The City of Camden Department of Utilities
- Camden Water, LLC
- Camden County Municipal Utilities Authority (CCMUA)
- The New Jersey Department of Environmental Protection (NJDEP)

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- New Jersey American Water Company (NJAWC)

The following paragraphs provide a detailed description of the findings and recommendations relating to the water and sewer systems within the City.

3.2 WATER SYSTEM

The City's water system, which is owned by the City and operated by Camden Water, serves all of Camden west of the Cooper River. This area accounts for approximately 50,000 residents (62% of the City's total population). The current average daily demand on the City's water system is approximately 11 MGD. New Jersey American Water Company (NJAWC) owns, operates, and maintains the water system in East Camden (east of the Cooper River) and serves the remaining 30,000 residents.

The Capital Improvement and Infrastructure Master Plan focuses on the City's water system (i.e. excludes the NJAWC system), which includes an extensive pipe network, three water tanks, a series of wells, and three water treatment plants. A brief description of these components is as follows.

3.2.1 System Components

Pipe Network

Camden's water main network includes approximately 145 miles of water pipes ranging in size from 16-inches to 36-inches in diameter. Most notably, the City has an impressive network of primary distribution mains (20-, 24-, 30-, and 36-inches) that could support future development. Additional primary distribution mains run north and south in Broadway, South 9th Street, Mt. Ephraim Avenue, Newton Avenue, North 7th Street, and Delaware Avenue. Primary distribution mains run east and west in Federal Street, River Road, State Street, Kaighn Avenue, Arch Street, Elm Street, Erie Street, and Benson Street. Map W-1 illustrates the approximate locations of 12-inch mains and greater.

Water Tanks

Three water tanks are strategically located throughout the City, as illustrated on Map W-1. The 5-million gallon (MG) capacity North Camden water tank and pump station is located at Elm Street and Delaware Avenue in the Cooper Point neighborhood. The 2-MG capacity Kaighn Avenue water tank is located at Kaighn Avenue and Locust Street in the Central Waterfront neighborhood and maintains system-wide pressure by means of a constant elevation head. The

2-MG Whitman water tank is located at Whitman Avenue and Rose Street in the Whitman Park neighborhood.

Wells

The City's sole water source is derived from an extensive series of wells. Primary production wells are located near the Morris-Delair Water Treatment Plant (WTP) (located in Pennsauken), Parkside WTP (located in Camden), and Puchack Run WTP (located in Pennsauken). Based on data reported by Camden Water in January 2000, ten operational wells are located in the Morris wellfield, one operational well is located in the Delair wellfield, and two operational wells are located near the Parkside WTP.

Two other operational wells, City Well Nos. 7 and 11, are located within the City. City Well No. 7 is used to supply a maximum of 0.7 MGD of water directly to the Camden County Resource Recovery Facility, located in the Waterfront South area of Camden. City Well No. 11 is disinfected with sodium hypochlorite and the water is delivered directly into the Camden water distribution system during water emergencies only. The City-operated wells have individual pump capacities generally ranging from 1,000 to 2,000 gallons per minute (gpm), and have a reported collective capacity of

approximately 30,000 gpm. Abandoned wells throughout the water system are currently being closed as required by the NJDEP.

Water Treatment Plants

The City owns two operating water treatment plants, the Morris-Delair WTP and the Parkside WTP, and one non-operational water treatment plant (Puchack Run WTP). The Morris-Delair WTP, located in Pennsauken, has an original design capacity of 18 MGD. However, Camden Water representatives have indicated that the current capacity is likely in the 13-MGD range. The Parkside WTP, located in the Parkside neighborhood of Camden, has a design capacity of 3 MGD. The Puchack Run WTP, also located in Pennsauken, has a design capacity of 6 MGD, but has been out of service since approximately 1998 due to high volatile organic compound (VOC) levels.

NJAWC supplies East Camden from its own WTP, located in Delran. The NJAWC water treatment plant uses the Delaware River as its sole water source. Several emergency cross-connections exist between the City system and the NJAWC system.

3.2.2 Completed and Ongoing Water System Projects

The Camden Department of Utilities has recently completed many projects to upgrade the water infrastructure within the City. The Department is responsible for capital improvements and, as such, acts as the contracting agent for such projects. Camden Water, the operator of the system, is responsible only for routine maintenance and minor emergency repairs.

Notable projects recently completed by the Department of Utilities include:

- Installation of a 20-inch water main extension in Broadway from Kaighn Avenue to Gloucester City
- Replacement of all three-inch and four-inch water mains with eight-inch water mains
- Phase 1 sealing of water wells (sealing program mandated by the NJDEP)
- Construction of the Whitman water tank to improve system-wide service and pressure
- Renovation of the North Camden water tank

- Renovation of the Parkside WTP
- Refurbishment of Morris-Delair WTP upgrades (Phase 1)
- Drilling of 10 new wells at the Morris-Delair WTP to comply with an NJDEP mandate
- Installation of a new grit and screenings pad at the Parkside WTP to dewater manually pumped grit and screenings from sewers and catch basins prior to disposal

The City also has numerous ongoing projects including:

- Rehabilitation of 15,800 feet of 30-inch water mains.
- Replacement of 3,000 residential lead service lines with copper pipe. This lead service line replacement is planned to include approximately 60,000 total feet of service laterals from the mainline to the water meter located within each residence.
- Phase 2 sealing of water wells. Phase 3 of the well sealing program, which includes wells located within riparian areas, has not begun due to NJDEP and Army Corps of Engineers (ACOE) permitting issues.

-
- Refurbishment of Morris-Delair WTP upgrades (Phase 2). The contract is due to be awarded in Spring 2003.
 - Replacement of all 12,000± water meters for both residential and commercial customers. Camden Water has undertaken this project.

Map W-2 illustrates recently completed and ongoing water main replacement and rehabilitation projects within the City.

In order to improve water quality, both Camden Water and NJAWC have hydrant flushing programs for their respective systems. Camden Water flushes the system twice per year while NJAWC flushes the system once per year.

NJAWC currently has no plans for capital improvements in East Camden; however, their general policy is to replace all water mains in redevelopment areas as the roadway and redevelopment improvements occur.

3.2.3 Existing Water System Problems and Deficiencies

Even though the City has established a significant improvement program, a multitude of problems and deficiencies still exist within

the water system. Significant problems and deficiencies are as follows:

- Water main and service lateral leaks and breaks continue to occur throughout the City. Leaking water mains often undermine roads, cause localized pressure drops in the system, and reduce overall system efficiency. Lateral leaks and breaks reduce water pressure in individual buildings. Sedimentation and tuberculation, also major problems within distribution mains, reduce the flow capacity of the pipes and often choke small service laterals. These conditions appear to be random and no specific city-wide studies have been made. However, emergency service requests made by residents indicate that the problems are regular and often occur on a repetitive basis. Map W-3 identifies the locations and nature of the various water complaints identified from a review of Camden Water's Emergency Service Requests for 2001.
- Historically, the Camden water system has been plagued by water quality issues, including high lead concentrations. Recent operation and maintenance improvements by Camden Water have reportedly reduced levels to within acceptable limits and 3,000 lead service laterals are currently being replaced. Additional residential lead service laterals (beyond the 3,000

identified) likely exist. Also, lead pipes have reportedly been identified in various Camden schools. However, the recent installation of “water flushing devices” has reportedly reduced lead levels to within the acceptable USEPA range.

- Approximately 115 old fire hydrants reportedly remain in the City that are non-operational and need to be replaced. Camden Water has also indicated that water valves throughout the pipe network are old, difficult to operate, and in many cases, non-operational (i.e. stuck in the open position).
- Approximately seven dead-end water mains reportedly have no “end” hydrant (for flushing purposes).
- The United Water (parent company of Camden Water) “2001 Camden City Capital Improvement Plan” identifies a 4.8-MG storage deficiency to support fire demand within the City. The recently constructed Whitman water tank added 2 MG of storage; however, a fourth tank is needed to close the remaining 2.8-MG storage deficit and boost system-wide pressure.
- According to Camden Water, the Kaighn Avenue water tank has recently been inspected and found to require some minor maintenance.
- Despite the fact that City Well No. 11 and other production wells have been shut down, the City-operated wells reportedly meet the current demand. However, this requires continuous 24 hour/7 day operation of all functioning wells. This continuous operation leads to reduced capacity of the well system. According to studies by Camden Water, some wells in the Morris Wellfield yield less than half the rate of water they originally produced, with much of the loss occurring in the past four to five years. Camden Water primarily attributes the reduction to constant well operation.
- Significant upgrades and repairs to the Puchack Run WTP are required in order to bring the WTP into compliance with existing regulations. The NJDEP has mandated that the WTP be upgraded to address VOC contamination if the treatment plant is returned to operation. Based on the current demand, the Puchack Run WTP upgrade does not appear necessary at this time. However, it may be required once significant development occurs within the City.

3.2.4 Candidate Water System Capital Improvements

System-Wide Improvements

1. Install Fairview water tank: A new water tank is required in the Fairview section of Camden to boost system-wide water pressure and eliminate the 2.8-MG storage deficiency within the City to support fire flow demands on the water system.
2. Replace old fire hydrants: Old fire hydrants are a fire safety concern. The City's Fire Department must be able to rely on the functionality of the fire hydrants. Approximately 115 hydrants within the water system have become old and stopped functioning properly. Consequently, they need to be replaced.
3. Install fire hydrants at dead-end water mains: Camden Water has identified approximately seven dead-end water mains in the City. Installing fire hydrants will allow the dead-end mains to be flushed periodically in order to maintain the distribution system's water quality.

Strategic Revitalization Areas

1. Localized water main, lateral, and valve rehabilitation/reconstruction: Throughout the City, water mains and laterals

are old and leaking. Water valves are old and, in many cases, non-functioning. Rehabilitated water mains, laterals, and valves will help to boost water system performance and facilitate responses to water pressure problems and water main breaks. Localized replacement should occur to support redevelopment projects identified in the Strategic Revitalization Plan and in those areas that need immediate repair, which would be identified by the recommended leak detection survey. In addition, localized replacement should occur within roadways targeted for reconstruction by the Transportation Subplan (Section 4 of this report).

Planning Studies

1. Perform a leak detection survey of the entire water system during the first year of Plan implementation (currently no survey program is being implemented). The leak detection survey will identify critical areas throughout the City that are in need of immediate repair. In addition, the survey would provide data for development of a long-term water system repair and maintenance program. The program's success will depend on the method used to collect, manage, and evaluate the survey data. A recommendation for a GIS management plan is provided in Other Water System Recommendations/Programs.

Other Water System Recommendations/Programs

1. Develop a comprehensive and current GIS database for the water system regarding physical condition, repairs and complaints. This database would act as a working water system management plan.
2. Perform a reassessment of the number of lead service laterals that may exist. Inadequate documentation was provided during the preparation of this Plan.
3. Assess the lead service laterals and internal pipes within the City's schools to facilitate and ensure the replacement of all lead service lines. This will require coordination between the City and Camden Board of Education.
4. Develop a City-wide hydraulic model of the existing water system to assess the existing system and identify impacts of future development.

3.3 SEWER SYSTEM

Camden's sewer system was originally constructed in the late 1800's and early 1900's to flow to large diameter trunk sewers which discharged untreated sanitary and storm flows to the local waters. Camden's first water pollution control facility (WPCF), or wastewater treatment plant, was constructed in the early 1950's at the site of the present Camden County Municipal Utilities Authority (CCMUA) Delaware No. 1 WPCF. Interceptor sewers, pump stations, and regulators were constructed at this time to convey dry weather flow (sanitary sewage) to Camden's WPCF.

CCMUA was formed in 1972 to regionalize wastewater management throughout Camden County and the surrounding municipalities. In the late 1970's, CCMUA purchased and began expanding Camden's WPCF. Major WPCF upgrades were performed in 1979, 1983, 1987, and 1993. By the early 1990's, CCMUA was capable of serving the region through expanded operations and an extensive interceptor system.

In addition to wastewater treatment, the City also began subcontracting the operation and maintenance of the City's sewer pipe network, pump stations, and combined sewer outfalls (CSO) to Camden Water (a subsidiary of United Water) in 1999. However, the

City retained responsibility for capital improvements and major emergency repairs of the system.

This Capital Improvement and Infrastructure Master Plan will focus on the City's sewer system (the portions owned by the City and operated by Camden Water), which includes an extensive pipe network, nine pump stations, and 28 CSO's. Brief references will be made to CCMUA's components, which include one CSO, one pump station, and the WPCF. A brief description of the various components is as follows.

3.3.1 System Components

Pipe Network

The pipe network includes approximately 150 miles of combined sewers, 25 miles of sanitary sewers, and 5 miles of storm sewers. Two primary interceptors, a 72-inch pipe and a 36-inch pipe, convey flows generated throughout the City to the Delaware No. 1 WPCF. The 72-inch diameter interceptor conveys all flow from the City with the exception of the Baldwin's Run area (located in East Camden). The 36-inch force main owned by CCMUA conveys combined sewage (sanitary and stormwater) from the Baldwin's Run area and sanitary sewage from some of CCMUA's upstream service areas to the Delaware No. 1 WPCF. Smaller, localized, City-owned force

mains convey combined sewage from City pump stations to the gravity sewer system, which eventually discharge to the WPCF. Map S-1 identifies major interceptor sewers and trunk mains.

Pump Stations

The City owns nine combined sewer pump stations, including one non-operational combined sewer ejector pit. Pump station locations are summarized below and illustrated in Map S-1.

<u>Pump Station</u>	<u>Neighborhood</u>
Arch Street PS	Cooper Grant
State Street PS	Cramer Hill/Pavonia
Federal Street PS	Marlton
Baird Boulevard PS	Marlton
Pine Street PS	Gateway
City Line (Ferry Avenue) PS	Whitman Park
Mt. Ephraim Avenue PS	Morgan Village
Fairview PS	Fairview
Morgan Blvd. sewage ejector	Waterfront South

As previously stated, the City's pump stations and ejector pit are operated and maintained by Camden Water. The CCMUA owns, operates, and maintains the Baldwin's Run Pump Station.

Combined Sewer Outfalls

Twenty-eight City-owned CSO's and one CCMUA-owned CSO are located throughout Camden and discharge stormwater and untreated sewage to the Delaware River, Cooper River, and Newton Creek during storm events. During dry weather flows, the regulators direct sanitary sewage into interceptors that flow to the WPCF. Map S-1 identifies the approximate CSO locations.

Wastewater Treatment Plant

The City is served by the CCMUA's Delaware No. 1 WPCF located along the Delaware River within the Waterfront South neighborhood, as illustrated in Map S-1. The WPCF has a primary treatment capacity of 150 MGD and a secondary treatment capacity of 110 MGD. According to CCMUA representatives, the plant currently treats an average of 55 MGD (69 percent of its dry weather capacity) during dry weather flows. During wet weather flows, plant capacity is exceeded, resulting in combined sewage overflows throughout the City.

Plant treatment operations are fully automated, however the odor control measures are highly operator-dependent.

3.3.2 Completed and Ongoing Sewer System Projects

With few exceptions, most sewer projects within the City have been limited to emergency repairs of sewer collapses, which are significantly more expensive to fix than scheduled routine repairs. However, the City has recently completed several scheduled routine projects as discussed below and illustrated in Map S-2.

- Phase 1 of a two phase sewer replacement project is strategically targeting sewer lines that have been televised (as part of Camden Water's agreement to televise 15 miles of sewer per year) and identified as having a high potential for collapse. Phase 1 will replace 31,560 feet of deteriorated brick sewer and is scheduled to be completed by September 2003.
- A Phase 2 sewer improvement project will replace 10,000 ft of brick sewer and will begin immediately following the completion of Phase 1. It is important to note that Phase 1 and 2 sewer replacement programs will cost approximately \$20 million (financed through the NJDEP Clean Water Trust), yet represent only five percent of the City's sewers, most of which are in need of repair or replacement.
- Portions of the sewer system in Cooper Street and Market Street in 2001 were relined as part of the light rail project.

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- The City upgraded all CSO's in the early 1990's to eliminate dry weather flows in accordance with NJDEP and USEPA requirements. CCMUA updated its CSO in 1991 to eliminate dry weather overflows.
 - The City upgraded all mechanical CSO regulators in 1993 to address general maintenance concerns.
 - CCMUA upgraded its CSO in 2002 in accordance with the DEP Solids and Floatables Control mandate. The cost of construction was \$710,000, according to CCMUA representatives. The City is faced with upgrading their 28 CSO's as part of an NJDEP mandate.
 - CCMUA recently renovated the WPCF. Upgrades have focused primarily on sludge handling and odor control measures. An odor control program was adopted in November 2002, which included two new sludge-thickening centrifuges, an odor control hotline, and 24/7-supervisor control to facilitate responsiveness to odor problems.

CCMUA has recently applied to the New Jersey Environmental Infrastructure Trust to fund several other projects in the planning phase. Projects that need funding include:

- Replacement of outdated sludge dewatering equipment.
- Installation of additional sludge-thickening equipment.
- Extension of the WPCF outfall farther into the Delaware River to prevent exposure of the outfall during low tide and reduce foaming at the outlet.

3.3.3 Existing Sewer System Problems and Deficiencies

Despite the recent improvements, many problems exist within the City's sewer system, including:

- Clogged or collapsing sewer mains and laterals. Clogged sewers backup the system and cause localized flooding in streets and basements. Floodwaters, in these cases, contain raw sewage. Moreover, collapsed sewers and flooded intersections can make roads impassable. In certain instances, sewers and inlets have significant sediment accumulation, which reduces the storage capacity of the pipe network and can also lead to localized flooding. Map S-3 illustrates the approximate locations of a multitude of sewer complaints throughout the City that have been identified from a review of Camden Water's Emergency Service Requests for 2001.

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- The City is currently under an NJDEP mandate to retrofit all CSO's for solids and floatables removal. A plan has been developed by CH2MHill for Camden, Gloucester City, and CCMUA to address solids and floatables removal and chronic maintenance problems for the mechanical regulators. The plan, which will include the elimination of 8 CSO's, will provide screening devices at the remaining 21 CSO's. The plan has already been approved by the NJDEP. Design and construction of the plan is anticipated to cost approximately \$25 million as discussed in the Recommended Sewer System Capital Improvements section.
 - Camden will be faced with future CSO permit requirements once the Phase 2 CSO Control Plan (Long-Term Control Plan) is introduced by the NJDEP and USEPA in late 2003. The Phase 2 Permit requirements, which will affect all existing CSO's, will require a system-wide feasibility study for pathogen control. No implementation will be required as part of the Phase 2 permits, which will be in effect for at least five years. A schedule for the implementation of the pathogen control measures has not been determined by the USEPA or NJDEP.
 - All of the City's pump stations are in desperate need of repair. Most notably, the Morgan Boulevard sewage ejector is currently

non-operational and requires manual pumping during storm events. Many pump stations operate using the original pumps and motors. Pump stations do not have back-up generators for emergencies or power outages, which most often occur during major storm events when pump station operation is critical. The lack of pump station safety features, including explosion control measures, is also a reported concern.

- CCMUA restricts wet weather flow from the City's combined sewer system during storm events to maximize the concentration of sewage flowing to the WPCF from upstream municipalities with separated systems and to increase "in-line storage" within the system. This restriction causes system backups, CSO discharges, and storm system surcharging. Flooding impacts are magnified during high tide, when tide gates close, preventing both river water infiltration into the sewer system and stormwater discharge to the local waters.
- Odors emanating from the WPCF have also been identified as a concern for residents.

3.3.4 Candidate Sewer System Capital Improvements

System-wide Improvements

1. CSO discharge control: An Interim Solids and Floatables Plan was developed for Camden, Gloucester City, and CCMUA to adhere to the mandate. The plan, which will eliminate 8 CSO's from the City and provide screening devices at the remaining 21 CSO's, has already been approved by the NJDEP. Design fees to upgrade the City's CSO's are estimated at \$4 million and will likely be financed through the New Jersey Sewer Infrastructure Improvement Act (SIIA) program. Camden and the NJDEP are currently finalizing the manner by which the project's design phase will be funded. Based on recent construction costs for CCMUA, we would anticipate that CSO upgrades required by the NJDEP mandate will cost on the order of \$21 million based on the actual construction cost of the CCMUA CSO rehabilitation (28 CSO's x \$750,000/CSO = \$21 million). Based on the significant capital expense, a portion of the construction will likely be financed through loans from the New Jersey Environmental Infrastructure Financing Program.

The approved Interim Solids and Floatables Plan will allow for compliance with the State requirements of the General Permit for

Combined Sewer Systems NJPDES permit. In order to implement the approved Plan, a series of Federal, State, and local permits would be required. Permits include but are not limited to:

- USACOE Section 404 Wetland Permits (for approximately nine sites)
- NJDEP Waterfront Development Permits
- NJDEP Stream Encroachment Permits
- NJDEP Wetland Permits, both Tidal and Freshwater
- NJDEP Water Quality Certificate
- NJDEP Treatment Works Approvals
- Camden County Soil Erosion and Sediment Control Permit

In addition, several of the outfall sites may require approvals from the State's Green Acres program if the projects are located on parcels funded by Green Acres.

Following design of the CSO's, a time frame of 12-18 months would likely be required for permit submission and approval.

It should be noted that the approved plan addresses the State's requirements for floatable size restriction, however does not address issues of volume and frequency of overflow events. The State requires elimination of floatables by size but does not regulate volume and frequency of wet weather overflows. If future Phase 2 CSO Permit requirements require the management of frequency and volume of wet weather overflows, significant additional capital investment would likely be necessary. In addition, some of the facilities constructed as part of this plan may be incompatible to address the concerns.

2. Pump station repair: All nine of the City's pump stations are in dire need of repair. Upgraded pump station performance will help to alleviate localized flooding problems and improve flow to the WPCF. The non-operational Morgan Boulevard sewage ejector should be rehabilitated, as it regularly discharges sewage to local water bodies and requires periodic manual pumping.

Strategic Revitalization Areas

1. Localized sewer replacement/rehabilitation: Throughout the City, sewer mains and laterals are old and collapsing. Rehabilitated

sewer mains and laterals will help to boost sewer system performance and help reduce the frequency of localized flooding. Localized replacement should occur in areas of the City that are targeted by the Strategic Revitalization Plan as revitalization areas and in those areas that need immediate repair, which would be identified by the recommended video inspection program. In addition, localized replacement should occur in conjunction with transportation improvements in portions of the City that have been targeted by the Transportation Subplan (Section 4 of this report).

Planning Studies

1. Expedite the schedule of the existing sewer video inspection program (currently approximately 15 miles per year) to 75 miles per year, which will complete the program within the first two years of implementation. The sewer inspection program will identify critical areas throughout the City that are in need of immediate repair. In addition, the survey would provide data for development of a long-term sewer system repair and maintenance program. The program's success will depend on the method used to collect, manage, and evaluate the survey data. A recommendation for a GIS management plan is provided in Other Sewer System Recommendations/Programs.

Other Sewer System Recommendations/Programs

1. Develop a comprehensive and current GIS database for the sewer system regarding physical condition, repairs and complaints. This database would act as a working sewer system management plan.
2. Prepare a comprehensive regional (City-wide) watershed management plan for the City to identify key stormwater detention areas. If done on a site by site basis (not regionally), stormwater detention within the City could have minimal impact or may worsen flooding within the City. A regional stormwater management plan would likely promote stormwater management (detention or retention) within the upper reaches of the watershed. Generally, stormwater management is not promoted in tidal areas since floodwater elevations are governed by the tide and not runoff volumes.
3. The CSO's have been upgraded to eliminate dry weather overflows, although occasional dry weather overflows are still reported. The current CSO Solids and Floatables Control Plan will eliminate all dry weather overflows and improve discharge quality at the outfalls in accordance with USEPA and NJDEP requirements. Measures can be implemented to further improve

the quality of CSO discharge and to eventually eliminate the CSO's entirely, including:

- The City currently requires on-site separation of the stormwater and sanitary systems for all new development projects. Any improvements to private sanitary or stormwater systems should include the separation of the on-site systems.
 - All projects reasonably proximate to the waterfront and other local water bodies should connect on-site sanitary systems to the existing City trunk mains and on-site stormwater directly to the receiving water body. In many instances, this will require the construction of new outfall structures. Proper permits and water quality measures will be required for new outfall construction. Proper planning of the new storm piping and outfall structures would be required in order to facilitate the connection of future stormwater systems and encourage the expansion of the separated system throughout the City.
4. The CCMUA has recently completed a significant odor control program and continues to implement operational odor controls. Should additional odor control measures be deemed appropriate

to support the SRP, allocation from CCMUA's pledged \$20 million should be a considered funding source.

3.4 GAP ANALYSIS

The completed, ongoing, and proposed (funded and non-funded) water and sewer projects within the City are extensive. The documents reviewed to prepare this CI/IMP appear to highlight the major infrastructure issues within the City as previously discussed.

The only apparent significant gap in all of the reviewed documents is the lack of a systematic method to inspect, document, and assess existing water and sewer pipe networks. Existing water and sewer inspections should be mapped in a GIS database to track pipe conditions and identify specific sewers in need of immediate cleaning, repair, or replacement. This GIS database would act as a working water or sewer system management plan. The database would provide a basis for future capital improvements, which could begin to strategically target water and sewer pipes in danger of collapse and in need of immediate repair or replacement.

3.5 WATER AND SEWER CAPITAL PROGRAM

3.5.1 Water and Sewer Priority Projects

From a wide set of sources (government and non-profit organizations), two tables were created: 1) completed and ongoing water and sewer projects, and 2) water and sewer proposals and future actions. The tables are provided in Appendix A-1 and Appendix A-2, respectively.

Based on the reported immediate needs of the City and a project completion schedule of 3 to 5 years as specified in the Act, a list of priority water and sewer projects was developed. Priority water and sewer projects are summarized below, identified on Maps W-4 and S-4, and detailed in Appendix A-3.

Water Recommendations

1. Install Fairview water tank
2. Replace 115 old fire hydrants
3. Provide fire hydrants at the end of seven dead-end water mains within the City
4. Localized water main, lateral, and valve replacement at key revitalization project areas
5. Perform leak detection survey

Sewer Recommendations

1. Implement CSO discharge control plan
2. Repair pump stations
3. Localized sewer main and lateral replacement at key revitalization project areas
4. Expedite sewer video inspection and documentation

As discussed in the recommendations, priority water and sewer projects focus primarily on system-wide improvements necessary to

enhance the overall performance of the City's infrastructure systems and improve the health and safety for all residents.

3.5.2 Potential Funding Sources

Several programs are available to the City by which priority infrastructure projects can be funded or financed. A brief discussion of the various funding sources is provided below.

- One source of funding for priority infrastructure projects is the ERB funds provided as a result of the Act. These funds would be provided to the City in the form of a grant and would not require repayment to the State.
- A Community Development Block Grant (CDBG) is available to the City through the Department of Housing and Urban Development (HUD). The City currently participates in the program. We understand that Camden currently receives approximately \$3 million as a CDBG through HUD. Approximately 15% of the allocated amount is dedicated to administrative costs associated with the grant program. The remaining amount is left to the City to grant to eligible projects through an application process. In recent years, the City has reportedly had difficulty dedicating the entire amount of allocated money to projects within the City due to administrative and

application processing difficulties. As a result, the federal government has threatened to reduce the level of funding the City currently receives from the CDBG program. According to HUD officials, this past year, City officials had to petition the federal government to maintain the City's current funding level.

- The Public Works and Development Facilities Program, administered through the federal Economic Development Authority (USEDA), is another grant program that may be available. This program provides grants for infrastructure improvements within distressed communities. A key element of this program is that any project eligible for funding must demonstrate that it will provide new jobs as a result of its construction. The USED A recently provided funding to the City for upgrades in downtown Camden. Specifically, fiber optic networks were expanded as part of the upgrades for the L3 Communications building. The USED A is also presently reviewing an application to further expand the fiber optic network in the downtown area. In general, projects are typically awarded \$1 to \$2 million. The money allocated by the USED A must be matched by the applicant. Typically, the entire State is allocated \$4 to \$5 million per year although recent federal government budget constraints have resulted in budget cuts on the order of 20 percent.
- CCMUA has pledged \$20 million toward sewer improvements in Camden and Gloucester City. The anticipated allocation is approximately \$15 million to Camden and \$5 million to Gloucester City. The sewer projects would most likely be financed by the CCMUA through a low-interest loan from the New Jersey Environmental Infrastructure Financing Program. CCMUA has expressed their willingness to work with the ERB and City to identify candidate sewer projects within the City.
- CCMUA has also indicated that they have recently received a grant from HUD for \$1.35 million for sewer improvements within Camden and Gloucester City. We understand this money will be evenly split between the two cities. The funds are not expected to be available until Summer 2003.

4. TRANSPORTATION SUBPLAN

4. TRANSPORTATION SUBPLAN

4.1 BACKGROUND

4.1.1 Transportation and Development History

According to the Camden County Historical Society, the City of Camden has always had a close relationship with the City of Philadelphia on the opposite bank of the Delaware River. West Jersey and Pennsylvania were both founded in the late 1600s as Quaker colonies. The economic growth of Philadelphia spurred a brisk trade across the Delaware, based on ferry operations. Around the ferry docks, three villages developed, hosting houses, hotels, and taverns. From its origins, Camden's locational advantages were exploited through transport activity, providing the basis for growth. The Cooper, Kaighn, and Mickle families dominated early settlement and shaped the first neighborhoods and street patterns through the progressive subdivision of their land holdings, from the 1750s through the 1800s.

Industrial development and the immigration of factory workers from Europe in the late 19th and first half of the 20th centuries generated additional neighborhoods to the east and south. Residential streets were extended from the initial stagecoach routes linking the early

settlement to the surrounding farmlands and towns, along Kaighn Avenue, Haddon Avenue, River Road, Federal Street, and Mount Ephraim Avenue.

The industrialization of Camden (1800 through the 1920s) was supported by transportation through the introduction, and later consolidation, of six railroads (1835 through 1890s). In fact, the Pennsylvania Railroad held almost unfettered influence over the industrial development of the City during the last two decades of the 19th Century. The arrival of the horse-drawn trolley (1866) and its conversion to electric traction (after 1889) contributed to industrial expansion and further residential neighborhood development, resulting in concentrations of housing along some of these lines. Land development and innovations in transport progressed hand in hand.

During the first half of the 20th Century, the emergence of the automobile supported Camden's economy. The Benjamin Franklin Bridge, opening in 1926 and adding passenger rail service in 1936, allowed easy access to Philadelphia from Camden and its environs via highways today known as Routes 30, 70, 38, 168, and 130.

A second wave of major additions to the transportation network serving Camden was put in place during the second half of the 20th

Century. The following significant projects were completed on the regional transportation network, both within and outside the City:

- New Jersey Turnpike, Delaware Memorial Bridge to George Washington Bridge, completed 1952
- Walt Whitman Bridge, Gloucester City to Philadelphia, completed 1957
- Port Authority Transit Corporation High-speed Line (PATCO), Lindenwold to Philadelphia, completed 1969
- Interstate 295, Deepwater to Lawrence Township, completed 1994 (Westville to Haddon Heights, completed 1961)
- Interstate 676, Gloucester City to Camden, completed 1980
- RiverLink Ferry, Camden to Philadelphia, completed 2000

4.1.2 Camden Transportation Today

As a result of this evolution from village to regional center, the City of Camden today possesses significant transportation assets. Camden functions as the transportation hub for the tri-county area encompassing Burlington, Camden, and Gloucester counties. The Benjamin Franklin Bridge delivers cars and buses directly from

downtown Camden over the Delaware River to Center City Philadelphia. The Walt Whitman Bridge, just south of the City limits, accesses the Port of Philadelphia and the Pennsylvania regional roadway network heading north, south, and west. In contrast, alternative river crossings (the Betsy Ross, Tycony-Palmyra, and Commodore Barry bridges) do not directly access Center City Philadelphia. Within New Jersey, regional highways radiate from Camden to the north, east, and south: Routes 30, 168 and Interstate 676 from the Benjamin Franklin Bridge and downtown; Routes 38, 70 and 130 from the Airport Circle. These routes link the City to the freeway system of Interstate 295, the New Jersey Turnpike, and the Atlantic City Expressway. These connections give the City regional access unparalleled on the eastern side of the Delaware River.

Camden's transit facilities provide a mobility alternative for commuters and residents who do not own an automobile. PATCO, a subsidiary of the Delaware River Port Authority (DRPA), operates high-speed rail service from the suburbs to Camden and over the Benjamin Franklin Bridge to downtown Philadelphia, with three Camden stations: Ferry Avenue, Broadway, and City Hall. The high-frequency service, with trains running every eight minutes or better during peak commute hours, carries 38,000 riders per day and supports existing (and future) business and government offices downtown and in the Ferry Avenue Station area.

Another transit service will start operations in the summer or fall of 2003, linking Camden to Trenton. The trains on the Southern New Jersey Light Rail Transit System (SNJLRTS) will enter the City from the northeast and travel into Camden's central business district (CBD) and the Waterfront. Here, it will serve the Rand Transportation Center (transfer point to PATCO line), Rutgers University, Rowan University, Camden County College, Cooper Hospital/University Medical Center, L3 Communications, Campbell's Field, the Tweeter Center, and many offices and facilities via four stations.

Bus routes, providing both local and express services, converge from throughout the tri-county area at the Rand Transportation Center, connecting to the two rail services as well. A current list of active routes serving Camden appears in Appendix B-1. Many of these bus routes provide direct service to the City via the regional roadway system or indirect service by linking to suburban PATCO stations. Bus service provides access within the City from one neighborhood to another, including to the CBD and the Waterfront. Paratransit services carry City residents to training and job opportunities at locations not served by regular transit in New Jersey and Philadelphia, as well as offering mobility to the elderly and disabled. This rich and integrated transit system serves Camden at a level not equaled elsewhere in southern New Jersey.

The South Jersey Port Corporation (SJPC) owns and operates marine port facilities at the Beckett and Broadway terminals along the Delaware River in south Camden. While not the largest port in New Jersey or Pennsylvania in terms of commodity flows, the Port of Camden is a niche operation handling two primary types of commodities: fresh fruit from South and Central America and bulk materials such as steel, wood, scrap material, cocoa, nuts, and slag for the production of cement. Both rail and truck operations deliver and distribute shipments flowing through the port. CONRAIL, the reorganized shared asset operator of CSX Transportation and Norfolk-Southern Railroad, runs the rail freight service for the port and most of southern New Jersey.

The City has another asset it can use as an advantage over its neighbors. The City is built on a system of grids, an open, intertwined network of streets and boulevards, mostly at near right angles, with a few diagonals cutting across the grid. This dense street network offers advantages for traffic flow in and around the city, both in the CBD/Waterfront and in the neighborhoods. Traffic is not constricted to just one pathway or route to go from point A to point B, but can use alternative paths for each trip. The redundancy of parallel streets and the flexibility of a grid system allow traffic burdens generated by existing and future development to be easily dispersed, in contrast to the common suburban pattern of cul-de-

sacs and single ingress/egress points for office or housing complexes. In addition, this grid network provides a platform for safe and convenient pedestrian and bicycle travel.

The “US Route 30 Corridor Study” completed by the Delaware Valley Regional Planning Commission (DVRPC) in July 2002 indicates congestion in downtown Camden at two locations. First, for traffic congestion associated with events held at the Tweeter Center and at Campbell’s Field, the study calls for a detailed investigation to identify whether new roadways, traffic operations, or other measures are the best solution. This investigation would involve a balancing of the event-generated non-recurring congestion against the impacts solutions could have on the urban fabric of the City and redevelopment opportunities.

The study also highlights the weekday congestion that occurs along Cooper Street between Broadway and 7th Street, associated with left and right turns and dropping-off children at the Leap Academy Charter School. Operational measures to separate through from turning traffic, set signal timings, and provide a dedicated drop-off location are proposed. Other areas of congestion noted during field observations are at 27th Street at Federal Street/Baird Boulevard and at Flanders Avenue at Admiral Wilson Boulevard/Federal Street.

Further analysis at all of these congested locations can develop solutions that fit the travel and community needs.

In summary, Camden has the basic infrastructure framework to deliver and improve the efficient travel of people and goods, across all the modes and for both local intra-city and regional trips. Continuation of the current level of investment to repair and restore and, in limited locations, expand this system will, over time, assure that the transportation foundation remains intact and ready to support redevelopment and rebirth.

4.2 RECENT AND CURRENT IMPROVEMENTS

As described above, the City of Camden has in place an extensive transportation infrastructure foundation. However, over the years, disinvestment has taken place; new investments are now needed to sustain growth in the City. Many City streets display varying degrees of disrepair. Camden County roadways present less severe repair/reconstruction needs since many County roads were resurfaced within the past 10 years, according to the Camden County Engineer.

On the regional roadway network, some improvements in terms of operations and safety and capacity are also in order. Bus service is routinely evaluated to adjust schedules and routings to meet changing needs, within operational/budgetary limits. PATCO service is reliable and efficient and the train fleet is well-maintained. Stations and parking require some investment to modernize and expand both. The Southern New Jersey Light Rail System is to start service summer/fall of 2003. In response to these issues, several transportation agencies and the City and County have completed construction of transportation projects and currently are advancing other improvements.

To understand recent and current investment activity, the following agencies were contacted in person, by phone, and through review of documents:

- The City of Camden Department of Utilities
- The City of Camden Department of Development and Planning
- Coopers Ferry Development Association
- Camden County Improvement Authority

- Camden County Department of Public Works – Division of Engineering and Division of Planning
- The Delaware River Port Authority (DRPA)
- The South Jersey Port Corporation
- The Delaware Valley Regional Planning Commission
- NJ TRANSIT Corporation (NJ TRANSIT)
- The New Jersey Department of Transportation (NJDOT)

The review of the materials from all these sources produced two sets of information. One is a list of projects that are capital investments having sufficient definition, an implementation sponsor, and full or partial funding such that there exists a reasonably high expectation that the project will be built. The second is a list of proposals, ideas, needs, or desires put forth in plans or studies conducted by any of the above-listed entities or by one of the numerous non-profit organizations active within the City's neighborhoods. The former list contains 92 projects, some of which are groupings of local system minor improvements – a total of 203 individual items. Each project is proposed or designed to improve either travel within and/or access to Camden. The full list of these projects appears in Appendix B-2.

The following section describes the results of this investigation, first related to the infrastructure in the City and then related to infrastructure on the regional system. .

4.2.1 City Roadway Infrastructure

The Camden City Department of Utilities indicates that 182 centerline miles of paved and 27 centerline miles of unpaved facilities comprise the network of City-owned streets and sidewalks. The condition of these facilities presents the greatest challenge on the overall transportation system. While the City does not have an inventory of the condition of each street, field observations indicate a significant need. Many streets, especially in the residential neighborhoods, are in modest to severe disrepair, due in large part to the limited fiscal capacity of the City to maintain a robust restoration program. The same is true regarding sidewalks – they are frequently missing or severely deteriorated and unserviceable. In response, the City has, over the past several years, undertaken efforts to secure financial assistance from the State, through the State Aid Program administered by NJDOT and funding programs available from DVRPC for roadway and streetscape/pedestrian improvements. The Cooper’s Ferry Development Association has also been successful in gaining financial assistance to develop and implement various street and pedestrian improvements in the

Waterfront and downtown area and, more recently, in the residential neighborhoods. In addition, the DRPA has supported projects in these same areas, under its economic development authority. From these combined efforts, 186 “projects” are either built or under some level of advancement or consideration to improve the local transportation system. Table 4.1 shows details of these “projects,” and they are also portrayed in MAP T-1: Roadway Capital Investments, depicting infrastructure renewal (resurfacing, reconstruction, and replacement), operational improvements and capacity improvements; and MAP T-2: Streetscape and Bicycle/Pedestrian Improvements.

The number and distribution of these investments demonstrate the high level of interest on the part of the City and the State in redressing the past poor record of maintaining the City’s infrastructure. This level of improvement activity can be sustained if Camden can successfully compete on an annual basis for formula and discretionary funds from the State and DVRPC. The value of the projects in Table 4.1 and Figures 4.1 and 4.2 represents some \$84 million, averaging \$12 million per year over seven years. Comparable sustained investment can improve the travel experience for the City’s residents, workers, and visitors.

Table 4.1: Recent and Active Transportation Investment Projects on the Camden Local Transportation System

PROJECT TYPE	TOTAL NO.	NUMBER OF PROJECTS			
		Built	Construction	Development	Planning
New Streets	7	2		5	
Resurfacing/ Reconstruction	93	39	22	32	
Signals	35		15	20	
Streetscapes/ Pedestrian	38	16	20	2	
Bikeways	1			1	
Transit	2			1	1
Other/Special	5	1	2	2	
Study	5				5
TOTALS	186	58	59	63	6

The current policy of both the City and the County is to coordinate roadway projects with other utility infrastructure and

development/redevelopment construction to assure valuable transportation resources are not wasted on work that would have to be soon disturbed to address other needs. Priority setting for the application of funds would be greatly enhanced if funds were dedicated to two strategic studies. The first would be a circulation plan to assess the capacity, current and future demand, and performance of the City’s roadway system, focusing on primary and secondary collector and arterial roadways. Drawing on the redevelopment strategy identified in the Strategic Redevelopment Plan, a companion product to this plan, a circulation plan could help establish priorities for investment, including timing.

A second valuable management tool for the City would be a comprehensive and current database of each block of each street (and sidewalk) regarding physical condition, most recent improvement, and remaining life expectancy – a street management system. With these two tools in hand, resources could be allocated to projects that either meet immediate needs and/or best support development/redevelopment in the short or long term while continuing the coordination with utility and land development project schedules

Absent from the projects is any improvement for parking. While it is clear that a parking strategy is needed to develop sufficient spaces

to meet the needs of the businesses, institutions, and attractions in Camden, caution must be taken to not embark on a program that replicates parking standards in suburban locations. To enhance the urban character and fabric of Camden, parking standards should be established that balance parking needs with urban design considerations. The Camden City Parking Authority has recently retained a consultant to develop a parking program – this effort should achieve that balance. In particular, the very significant investment of the State in the SNJLRTS and the PATCO service offer an excellent basis for reducing auto dependence in the City, and thus limiting the demand for parking. The parking strategy would need to be incorporated into the circulation plan proposed above.

According to NJDOT and DVRPC, the regional system within the City is comprised of 16.5 centerline miles of Camden County roads and 19.8 centerline miles of New Jersey State roads. MAP T-3: Camden Region Transportation Investments, displays the regional transportation system within the City proper and in its immediate environs. MAP T-3 also shows the recent, current, and expected projects to improve the quality of access to or circulation in the City. Table 4.2 summarizes these investments, and details are contained in Appendix B-2. Their combined value is some \$141 million. In light of competing statewide and countywide priorities, continuing

investment at this level is not guaranteed, but critical future regional needs will likely be addressed over time.

Table 4.2: Recent and Active Transportation Investment Projects on the Regional Network of Significance to Camden.

PROJECT TYPE	TOTAL	STATUS			
		Built	Construction	Development	Planning
Roadway Capacity	1			1	
Infrastructure Repair	3	1	1	1	
Operations	5		1	4	
Paratransit Capacity	2		2		
Transit Infrastructure	2		1	1	
Transit Services					
Transit Capacity	2	1	1		
Study	2				2
TOTALS	17	2	6	7	2

The regional investments of benefit to Camden are diverse and include major and minor roadway and transit improvements. Transit improvements include PATCO station refurbishing and signal upgrades and finishing SNJLRTS. Important to the residents of Camden is the regular purchase of paratransit vehicles that transport users to training and employment sites outside the City, in both New Jersey and Pennsylvania. The system, operated by the Camden County Improvement Authority, provides 53,000 one-way trips annually and 90-95% of these riders are Camden residents.

Completing the direct alignment for I-295 within the I-295/I-676/Route 42 Interchange will alleviate the daily traffic jams caused by the need for I-295 traffic to use Route 42 to complete a continuous trip north or south on I-295. The resulting relief to Route 42 will improve access to Camden from the south via I-676, especially truck access. The removal of the Route 30/Route 130 Collingswood Circle and the improvement to Route 30/130 northward to just beyond the Cooper River will likewise benefit Camden. The circle project will improve access to the Ferry Avenue Station and its environs and improve storm water management for an area extending far beyond the normal project area. The northern segment will improve access to Camden via the Airport Circle and Admiral Wilson Boulevard. The Route 30 Cooper River flood management project will relieve the recurrent and severe Admiral Wilson

Boulevard flooding and likewise for areas of Camden along the north bank of the Cooper River.

4.3 GOODS MOVEMENT

4.3.1 The Port of Camden

The South Jersey Port Corporation (SJPC) owns and operates the Beckett Street and Broadway terminals, together known as the Port of Camden. These terminals anchor the north and south ends of a larger “Port District” that extends generally from Newton Creek to the south, east to the railroad, which curves west to approximately 3rd Street, and north to Clinton Street.

SJPC owns approximately 320 acres of land, including 125 acres at the Beckett Street Terminal, 180 acres at the Broadway Terminal, and approximately 15 to 20 acres of disconnected properties within the “hinterlands” of the Port District. Most of the SJPC’s acreage is developed either for direct Port usage (such as piers, warehouses, etc.) or for tenant usage (warehouses and other industrial and office buildings). The remainder of SJPC’s property is primarily used for exterior storage, truck access, parking, and related uses. See Appendix B-3 for details.

Approximately half of the acreage within the Port District is owned by SJPC. The remainder of the properties are owned and operated by primarily industrial entities, including the Camden County Municipal Utilities Authority, with small amounts of incompatible residential land use.

The Beckett Street Terminal consists of a 125-acre area with four berths measuring 2,655 linear feet. Specifically, as listed in SJPC’s 2001 annual report:

- Berths 1 & 2 - 30 foot depth at MLW. These two berths collapsed in 2001 and are currently not usable. Restoration will occur shortly using funds either from an insurance settlement or, barring failure or slow negotiations, use of bond proceeds,
- Berth 3- 35 foot depth at MLW, and
- Berth 4 - 40 foot depth at MLW.

Two heavy lifts are present: one 95-ton and one 35-ton crane capable of unloading bulk and containered goods.

The terminal has 13 dry warehouses totaling 900,000 sq feet, including food-grade and temperature-controlled facilities, and access to highways and rail connections. Cargos include wood and

steel products, cocoa beans, containers, iron ore, furnace slag, and scrap metal.

The Broadway Terminal is located on a 180-acre area with an associated industrial park including trucking companies, stevedores, tug companies, manufacturers, chandlers, etc.¹ Its facilities include:

- one 800-foot pier, one 1,050-foot dry dock, and a 600-foot pier, each with a 35-foot depth MLW,
- 30 dry warehouses totaling 1,241,053 sq feet, and two temperature controlled warehouses of 60,000 and 75,000 sq feet,
- 130 reefer plugs,
- access to highway and railroads.

Cargos include petroleum coke, furnace slag, dolomite, steel and wood products, minerals cocoa beans, and fresh fruit. The fresh produce terminal is Del Monte's largest fruit port and distribution facility worldwide.²

¹ SJPC webpage: "Terminals"

² SJPC webpage: "Terminals"

In 2001,³ SJPC's facilities handled over 2.348 million tons of international bulk, breakbulk and container cargoes including cocoa beans, fruit, steel, wood products, slag, and scrap metal. Preliminary estimates⁴ indicate that 2.366 tons of cargo were handled in 2002.

Port Tenants

The Port of Camden terminals are home to over 30 tenants. They provide jobs and revenue to SJPC and the City but at the same time depend on the strength of the Port for growth. A brief discussion of the port's major tenants is as follows:

- Del Monte Fresh Fruit, among the Port's largest tenants, provides two to three shipments per week. The port made a \$5 million investment for this tenant for a climate-controlled 60,000-square-foot warehouse and an 80,000-square-foot warehouse. Del Monte has outgrown these warehouses, currently storing its produce in refrigerated containers. Del Monte and SJPC are negotiating the development of additional warehouse space.
- St. Lawrence Cement imports over 300,000 tons of blast furnace slag annually from Italy to process in its granulated blast furnace

³ SJPC 2001 Annual Report, p 8-9

⁴ SJPC "Five Year Tonnage Projection"

slag processing facility. Slag is received at Beckett Street and trucked to its \$60 million facility leased at the Broadway Terminal. Imports account for \$1.4 million in Port revenue, plus land rental. St. Lawrence employs 20 people, including nine Camden residents. The facility is capable of processing one million tons of slag per year. Beckett Street received roughly 370,000 metric tons of blast furnace slag in 2001 and exported 100,700 tons of the finished GranCem product. In 2002, GranCem exports increased to over 275,000 tons. SJPC and St. Lawrence are negotiating a solution to SJPC's inability to construct certain promised pier facilities, which St. Lawrence then built on its own. Negotiations are expected to result in a fixed payment settlement by SJPC to St. Lawrence in return for contractually guaranteed cargo tonnage of 500 to 600 thousand tons per year, doubling the current guaranteed annual tonnage of 250 thousand. Amicable resolution could result in St. Lawrence expanding its operations up to 1 million tons per year within the next five to ten years.

- Camden International Commodities Terminal (CICT) seasonally imports and distributes cocoa beans, a labor-intensive operation. Over 43,000 tons of cocoa beans from West Africa were handled at Beckett Street in 2001; imports increased in 2002 to over 60,000 tons. CICT currently occupies 230,000 square feet of

space at the Port, and requires 60,000 additional square feet to handle beans now being imported from Indonesia and Malaysia. This would result in the business being a year-round operation, with positive job impacts.

- Camden Yards Steel, a new tenant (January 2002), leases over 50,000 square feet for the manufacture of carbon steel sheets, plates, and coils. Camden Yards would like to expand its operations, pending expansion of the space as proposed in the New Projects listed in SJPC's 5-Year Plan.
- Camden Iron & Metal is a 75-year-old scrap metal recycler exporting over 212,000 tons of scrap metal in 2001. This facility occupies five acres. 1992 SJPC plans indicate the intent to radically expand the land area of the scrap operation to buffer it from adjacent areas and increase the capacity and revenue-generating impacts. These plans had been put on hold while the future of SJPC relative to the DRPA was evaluated. At this time, SJPC hopes to acquire a nearby property and pier for \$3 million in order to further isolate the operation from the tourist areas north of SJPC. The current scrap area could then be used for other revenue-generating projects.

-
- Joseph Oat Corporation was founded in 1788 and is the oldest continuously operating industrial fabrication business in the United States. This company produces heat exchangers, pressure vessels, specialty products for general and power industry, and fabricates the alloys and steels used in construction. Joseph Oats needs additional space, and SJPC plans to provide them with extra storage in conjunction with the space increase for Camden Yards Steel. Expansion of the business could ultimately result in 50-75 additional jobs.
 - Divers Academy International is an underwater welding school for professional divers that is located and trains at the port facility.

Administrative/Financing Issues

The SJPC, created as an agency of the New Jersey Department of Commerce and Economic Development in 1968, has jurisdiction over port facilities between Trenton and Cape May. This jurisdiction is shared with the Delaware River Port Authority (Pennsylvania portion of the Delaware River) and the Delaware River and Bay Authority (Delaware portion of New Jersey's Delaware River and Delaware Bay coastline).

At this time, there are no finalized, up-to-date SJPC planning documents for the Port, although a draft Strategic Development Plan was prepared in April 2002. The most recent finished planning reports were prepared in 1989 and 1992; however, execution of the plans within those documents was put on hold for several years while local authorities considered the consolidation of the SJPC into the larger, regional DRPA. Just recently, it was decided that the SJPC should remain a separate entity. As such, the SJPC recently moved forward with the refinancing of historic debt and has been working on a series of initiatives to modernize the Port and provide opportunities for existing and potential tenants, as indicated above. On December 5, 2002, SJPC initiated a bond issue that included \$75 million in refinancing bonds and \$46 million in Port revenue bonds.

In addition, the State provides the SJPC with funds to cover all debt service and property tax requirements when the Corporation's earned revenues are anticipated to be insufficient to cover these obligations. On December 1, 2001, the Corporation certified that it would be unable to provide sufficient funds from operations for debt reserve and, therefore, required a State appropriation for Fiscal Year (FY) 2002 in the amount of \$5.2 million. The State also provided funds for similar purposes in FY 2001 (\$4.4 million), FY 2000 (\$3.4 million), FY 1999 (\$5.2 million) and FY 1998 (\$4.7 million). Recent reports indicate that the SJPC earns \$1.5 million to \$2.2 million annually over its operating expenses, which is then provided to the State of New Jersey for the debt service payment.

Port of Camden Projections

The Corps of Engineers recently generated trade forecasts for several Delaware River ports as part of its cost-benefit analysis of the proposed deepening of the main river channel. The forecast for Camden is presented below:

Table 4.3: Army Corps of Engineers Forecast of Total Trade in Metric Tons

	2000	2010	2020*	2030	2040	2050
Camden Exports	59,805	75,039	96,342	109,686	115,758	116,882
Camden Imports	998,687	1,287,155	1,655,165	1,879,281	1,976,635	1,987,532

The Port's own 2002 figures (387,890 tons of cargo exported and 1,960,961 tons imported) greatly exceed the above estimates. However, it is unclear from the Corps of Engineers report whether these figures were limited to the Beckett Street Terminal or also included the Broadway facility. Likewise, the 2000 tonnage for SJPC was reported at 1,953,773 in DRPA and SJPC documents, whereas the Corps of Engineers reported only 1,058,492 tons of cargo for 2000. As such, the values in the above forecast appear to indicate that reasonable growth in annual tonnage can be anticipated over

the next several years. Note that if St. Lawrence begins operating at full capacity, annual imports may increase to one million tons for this user alone.

SJPC's own projections for the upcoming five-year period are provided below in Table 4.4.

Table 4.4: SJPC Forecast of Total Trade in Tons (thousands)

	2002*	2003	2004	2005	2006	2007
Breakbulk	1,341	1,440	1,527	1,605	1,691	1,773
Bulk	886	1,480	1,760	1,839	1,878	1,928
Containers**	139	146	186	223	268	321
Total	***2,379	3,066	3,473	3,667	3,837	4,022

*actual figures

**short tons; 20% container growth anticipated if Port Inland Distribution Network project commences

***total for 2002 includes 12 thousand tons of other, non-specific bulk and breakbulk commodities that were not affected by domestic policy, international supply, and other factors specifically included in the projections due to low and unpredictable quantities. The total tonnage figure is correct.

While these projections appear ambitious, 33% of this increase is based on expansion of the St. Lawrence Cement operations, which

is already being planned. Another 11% is related to the anticipated inclusion of Camden in the Port Inland Distribution Network program. Therefore, while the total projection may not be realized, a substantial portion of the increase is highly likely to occur. However, it should be noted that the forecasts are very sensitive to market forces. Demand for commodities such as steel and scrap, for example, are significantly impacted by fluctuating market demands.

Impacts on the Community

The Port is a major revenue generator in the City of Camden and is its second largest employer. A recent report commissioned by the DRPA indicated the following:

Employment:

- 2,446 jobs are directly related to the Port, of which 355 are held by Camden residents (e.g., longshoremen, trucking, Port employees, construction, government oversight)
- 1,132 jobs are indirectly related to the Port (e.g., providing goods and services to the 2,446 direct employees of the Port)

-
- 252 jobs were generated through the local purchasing power of the firms directly dependent on the Port (office supplies, parts & equipment, utilities, etc.)
 - 20,775 jobs are with firms that ship and receive cargo via SJPC.

In an effort to better understand the role played by Port-dependent businesses in Camden's economy, SAI conducted an informal survey with the assistance of SJPC. Eight businesses responded to the survey, including:

- Camden Iron & Metal,
- Champion Service, Inc.,
- D&M Transport Services, Inc.,
- Innovative Recovery Products, LLC,
- Jen-Cyn Enterprises, Inc.,
- Joseph Oat Corp.,
- St. Lawrence Cement Co., and
- Tri-State Bulk Handling, Inc.

These businesses employ a total of 377 people, with 90 (24 percent) being residents of Camden. The survey responses indicated that many of these businesses are anticipating business expansions, which would result in an additional 70 to 102 jobs for these eight companies alone. The ability for these expansions to occur, however, is limited by physical constraints (e.g. sufficient warehouse space), neighborhood constraints (e.g. crime and incompatible adjacent land uses), and personnel constraints (inadequate access to qualified employees).

Revenue:

- In 2001, SJPC maritime activity generated \$161.3 million, including truck and rail transportation, maritime services, port authorities, and banking/insurance/law.
- In 2001, direct employees at the Port received a total of \$97.5 million (average annual earnings of \$39,828); indirect job holders received \$9.5 million.
- In 2001, firms directly dependent on the Port spent \$13.5 million locally, supporting the 1,132 indirect jobs.
- In 2001, New Jersey State and local corporate and personal taxes, state fuel taxes, property taxes, and local sales taxes

totaled \$12.1 million. An additional \$8 million was distributed within Pennsylvania.

Environmental Impacts:

- While the Port brings much-needed commerce and jobs to the Camden area, it also brings some negative effects in the form of heavy truck traffic on already substandard residential areas and air quality problems from both mobile and stationary sources.
- Many properties within the Port District, including both the Beckett and the Broadway terminals, are identified by the NJ Department of Environmental Protection (NJDEP) as known contaminated sites with environmental damage caused during the long industrial history of these properties. Areas of concern range from radiological contamination associated with former ship building operations to spills from railcars to former discharges from underground storage tanks. Contaminated environmental media are to be expected in other areas of the Port District that have not yet been fully evaluated.

In accordance with New Jersey's Industrial Site Recovery Act (ISRA), when industrial properties or leaseholds are transferred, environmental site investigation and remediation, if necessary, are required. The ISRA process may slow property transfers

and development. However, it is not anticipated that environmental damages within the Port district would significantly hamper development activities, given that land use would remain industrial.

Infrastructure Needs

The Port can fund many specific capital improvements through the issuance of bonds and/or special lease agreements. However, the use of these mechanisms is most often limited to projects that benefit specific tenants such as those described above (warehouse space, specialized berth reconstruction, tenant relocation), since monies can be more effectively recouped. The Port also can bond for more general improvements such as berth rehabilitation, fire protection, and other similar activities. Costs for some activities, such as paving, may also be directly shared with tenants.

In its draft April 2002 Strategic Development Plan, SJPC identifies approximately 25 specific improvements recommended to benefit both general and specific Port users. These improvements, which amount to \$143 million, will be made as needed over the next several years and as financing can be obtained. Monies for certain items within the Strategic Development Plan, such as warehouse construction, relocation of Camden Iron & Metal, and

demolition/paving of the Terraces, are already identified within the December 2002 bond issue.

However, other items within the Port's Strategic Development Plan are unlikely to be funded through typical mechanisms in the near term since cost recovery would be difficult. These proposed infrastructure improvements, which would provide benefits both to the Port and to the City of Camden as a whole, include the following:

- An Industrial Access Road to connect the Broadway and Beckett Street terminals, estimated at \$7 million. This road is needed both to improve intra-Port traffic, which would substantially increase efficiency and reduce transportation costs, and to simultaneously remove Port traffic from local streets, providing substantial environmental quality benefits.
- Streetscape/Signage to visually and physically define the Port District, estimated within SJPC's Strategic Development Plan at \$300,000 for a new terminal entrance at Broadway Street and \$1.5 million for a screening wall to separate the northern portion of the Beckett Street Terminal from Camden's tourist district. It is believed, however, that an expenditure of \$0.5 to \$1 million would be sufficient to visually and physically separate the Port District from the surrounding land uses via clearly marked signs,

landscaping, and fencing to provide aesthetic buffering and delineate entry areas.

Other general infrastructure items proposed by SJPC, such as the rebuilding of the Newton Creek railroad bridge, do not show as clear a benefit to the citizens of Camden, and should appropriately be funded through the Port's own or other mechanisms.

4.3.2 Trucks and Rail Freight

As shown above, access to the port facilities at the Beckett and Broadway terminals is currently provided by both local roads and rail freight lines. Freight service is provided by CONRAIL, as well as service for freight movements traveling up from the southern portions of New Jersey (primarily bulk petroleum and chemical materials/products). North of Camden, most freight traverses the Delaware River via the Delair Bridge and uses the trunk rail lines in Pennsylvania to head west, south, or north. This routing is very circuitous and time consuming and the rail lines have only single-stack overhead clearances. Further, rail freight moving north toward Trenton shares track use with passenger transit services (SNJLRTS) from downtown Camden – MAP T-4 shows transit and freight services in Camden, including the active main CONRAIL service relative to the rail network and the soon-to-be shared operations

between CONRAIL and SNJLRTS on trackage northward from downtown.

Currently, trucks access the Port of Camden via Atlantic Avenue, Martin Luther King Boulevard, Morgan Boulevard (these three provide access to I-676), and other east-west streets. But access is not direct and requires truck travel on neighborhood streets. The same is true in the very northern Camden neighborhoods. Here, trucks traveling to/from Pettys Island, a smaller but active and primarily barge port servicing the Caribbean and Puerto Rico, use local streets to access 36th Street and the Pettys Island Bridge approach.

4.4 IMPROVEMENT PROPOSALS AND INITIATIVES

From a wide set of sources (government and non-profit organizations), a set of transportation proposals for future actions was identified. These conceptual proposals for improving transportation infrastructure in the City are listed in detail in Appendix B-4 and are summarized in Table 4.5 below. It should be noted that five individual items are included both here and on the project list.

Table 4.5: Summary of Capital Proposals by Category

PROPOSAL CATEGORY	NUMBER
Resurfacing/ Reconstruction	13
Streetscape/ Bicycle/ Pedestrian	33
Public Transit	14
Roads/ Operations	28
TOTAL	88

To establish relative priorities for advancing alternative proposals, a set of five criteria was developed and applied (see next page). These criteria were used to screen a set of 24 for consideration from among the 81 proposals. The 24 screened proposals are shown on MAP T-5.

Three smaller-scale types of proposals were not easily assessed relative to the criteria. These include streetscapes, bike paths, and resurfacings for which no context in terms of complementary projects in housing, neighborhood commercial, or industrial redevelopment could be identified at the time of the screening. Streetscapes, resurfacings, and bike path proposals, however, can be very important improvements at the neighborhood level and therefore can

be added to the program when a strategic rationale for doing so is in hand – especially given that standing funding programs for pedestrian, streetscape, bicycle, and resurfacing projects exist. Funds can be secured through the State’s annual application/selection cycles for Local Aid funds or the annual development of the regional Transportation Improvement Program by DVRPC. Alternately, the City can assign Community Development Block Grant funds or apply to the State for additional funding.

The criteria were applied in two rounds: first, to screen before estimating cost; second, to set forth priorities for capital programming. These criteria are expressed in terms of a proposal that has the potential to:

- Support economic development or neighborhood well-being through improved access, mode choice, traffic relief, or safety
- Significantly improve travel on the transportation system beyond the benefits of recent or current projects
- Demonstrate independent utility (not dependent on other actions)
- Present no known fatal flaws for implementation (environmental, property or community impacts)

- Be easily assigned to a lead agency with implementation capacity.

During the second round, the proposals were then reevaluated in terms of cost and the other criteria, as presented in Appendix B-5. Costs were calculated on a uniform basis, using 2003 pricing of unit costs (linear feet of roadway and shoulder, transit guideway, transit stations, signals, intersection upgrades, bridge deck repair, etc.). The results are order-of-magnitude costs sufficient to consider the likelihood of funding. This funding factor was then coupled with the results of the other criteria to establish priority transportation proposals. Table 4.6 summarizes the resulting priorities for eight proposals to be included in a capital program for the City, drawing on all potential transportation funding sources (also, see Table 1).

Table 4.6: Priority Proposals

PROPOSAL	TYPE	REVITALIZATION AREA	COST	PRIORITY
Newton Avenue at 10th Street	signalize intersection	Gateway	273,000	1
Newton at Broadway	intersection upgrade	Bergen Square	689,500	2
Industrial/port access road	New alignment road	Waterfront Central/ Waterfront South	15,732,171	2
Atlantic Avenue	Roadway resurfacing/reconstruction	Various in South Camden	2,240,935	2
3 Intersections @ Baird/27th Street/ Westfield/Federal	Intersection reconfiguration	Cramer Hill/Pavonia, Rosedale/Dudley,	689,500	2
Federal St./ Flanders Ave, at Admiral/Wilson	Ramp widening	Gateway/Pine Point	898,829	2
City Hall Station Upgrade, Cooper & 5th Street	PATCO Station upgrade	Downtown	4,247,500	1
Broadway Station Upgrade, north of Mickle	PATCO Station upgrade	Downtown	4,247,500	1

4.5 GAP ANALYSIS

The recent, current/active, and proposed transportation improvements compiled from all sources and presented in

Appendices B-2, B-4, and B-5 are extensive, modally diverse, and geographically dispersed (shown in Figures 4.1 through 4.4). When taken as a whole, the nature and magnitude of investment in Camden’s transportation is very significant and can greatly advance a redevelopment-driven economic recovery plan. There are no important gaps, or areas of the system that stand out as not addressed or considered. The challenge is to achieve alignment of transportation and revitalization priorities. For example, the absence of many streetscape or resurfacing proposals from the priority list above reflects only the need for specific information to support a rationale for making them a priority. Such information may well emerge in the Strategic Revitalization Plan. Therefore, while ultimate costs for implementing proposals must await both selection and further project development, establishing a set aside fund capital program for subsequent specific streetscape, pedestrian, or local street proposals is appropriate.

Regarding bus service proposals, these can be forwarded to NJ TRANSIT for action, but since these are operational considerations, they cannot be specified or resolved within the scope of this assessment. However, it is strongly recommended that the City and the other interested parties meet with NJ TRANSIT to pursue this need. This dialogue could be created in the development of the

comprehensive, citywide multi-modal circulation plan proposed above.

Likewise, the concept of extending the hours of SNJLRTS operation beyond the current 10:00 PM limit, at least for scheduled events at waterfront attractions, merits full consideration by NJ TRANSIT, even knowing the logistical challenges such extensions present under a shared-trackage operation environment.

Finally, sidewalks warrant attention. Many parties and plans have pointed to this need, perhaps often masked as a call for streetscape treatments. Throughout the City, sidewalks are missing or deteriorated. While sidewalk investments are eligible projects under a few Federal and State programs, sidewalk investment also must be strategic in terms of the related considerations of location and timing. Locational issues pertain to the likelihood of use and safety benefits. Timing issues pertain to other development or infrastructure activities that may alter the need and priority, provide an implementation option (cost sharing, cost savings, funding, construction contracting) and/or coordination to ensure investments are not negatively impacted by subsequent actions for other purposes (utility improvement, in particular). Again, a line item can be placed in a capital program at an annual funding level to address stand-alone sidewalk projects that are later prioritized as a result of the Strategic

Revitalization Plan or the results of the City street management system and circulation plan proposed above.

One final pedestrian concern is children walking to school. NJDOT recently commissioned consultant support to identify what kind of program would be appropriate to assist communities to improve the safety of children walking to school. Development of the Safe Routes to Schools Program will investigate a range of measures from community monitoring to traffic controls to infrastructure. A two-phased approach will deliver a program framework in phase one and pilot applications in phase two. The City of Camden can volunteer a host community and school site for the pilot applications program.

4.6 TRANSPORTATION CAPITAL PROGRAM

A Transportation Infrastructure Capital Program that integrates all the preceding information and analysis appears in Appendix B-6 below. The program draws on the projects, the proposals, and the programmatic recommendations in the gap analysis. The program lists current active and continuing projects and priority proposals to improve travel for accessing and/or circulating within Camden. It also shows costs (sponsor-documented for the more advanced projects and preliminary estimates for new proposals), established

funding, needed funding, and potential funding sources. They are arranged in the following categories:

- Camden City System: improvements on facilities owned by the City of Camden or facilities not having regional travel significance:
 - Projects in Development/Proposals: improvements advancing toward construction
 - Specialty Projects: non-traditional projects receiving transportation funding still under development and/or requiring full or partial funding to complete
 - Priority Transportation Proposals: the top eight projects from the transportation priority setting
- Regional System: Proposals or projects not under City jurisdiction that are under development or pending funding for completion.

These actions are set out against an estimated timeline for advancement to indicate when funding would be needed for future phases of work. Recently built and projects under or about to begin construction are not included, as these are considered fully

committed through implementation. The total program level is aggressive, but the completion of the Capital Improvement Plan/Infrastructure Master Plan and the Strategic Revitalization Plan will provide the platform for decision-making and action. City, County, and State agencies that have participated in the planning process will share in the strategy and in the anticipated expanded payback generated by synergy and the leveraging of investments. The program dollar value becomes less daunting when the regional improvements are set aside. Although higher in cost, they are driven by travel issues larger than Camden alone. Funding the remaining City-oriented improvements is more attainable. The array of funding sources and implementation partners are available, offering options to mix and match and innovate.

Several significant and promising proposals did not rise to the priority list, but should not be dismissed. The City and its partners can secure planning and project development resources to examine these ideas in more detail and reach informed judgments on their strategic merits. The following are those that hold promise worthy of further investigation:

- Alternative truck access to/from Pettys Island – connector to River Road in Pennsauken – \$1,300,000

-
- Industrial collector/truck route on new alignment from River Road, Pennsauken, to River Avenue, Camden, along CONRAIL rail line – \$25,000,000
 - Saunders Street Extension in Rosedale-Dudley, from 30th Street to Rosedale Avenue – \$200,000
 - Realign Station Drive and provide left turns and signal at Davis on Ferry Avenue at Ferry Avenue Station – \$1,000,000
 - Expand Flanders Avenue ramp at Admiral Wilson Boulevard and Federal Street – \$900,000
 - Operational/safety improvement along Cooper Street from Broadway to 8th Street – \$300,000

In addition to infrastructure investment, other concepts developed earlier should be given full consideration, including:

- Preparation of a multi-modal circulation plan
- Establishment of a City parking strategy and action agenda
- Development and maintenance of a street/sidewalk asset management system

- Reevaluation of bus service to optimize transit-dependent mobility
- Continued support and strategic expansion of paratransit services for training and job access
- Extended SNJLRTS hours of operation beyond 10:00 PM for Waterfront attractions and events, and on a regular basis over time
- Continued infrastructure planning and implementation across water, sewer, transportation, and development activities.

Securing these tools will enable this plan to be readily replicated, updated, and focused through the formation of data and information pointing to a new and more documented strategic direction.

5. PARKS AND PUBLIC OPEN SPACE SUBPLAN

5. PARKS AND PUBLIC OPEN SPACE SUBPLAN

The City of Camden has a well developed parks and public open space network. However, decades of disinvestment in the City and the lack of funding and resources have affected Camden's ability to maintain and/or improve its parks and open space facilities. The growth of the City's younger population, the most intensive users of public open space, reinforces the need for updated and well-managed parks in neighborhoods throughout the City.

5.1 EXISTING PARKS AND PUBLIC OPEN SPACE

The City of Camden Parks and Public Open Space network includes forty-eight dedicated park sites covering approximately 300 acres of land (Map POS-1). The types of City parks as defined by the City's Master Plan are:

1. City-owned Mini-Parks

There are fifteen mini-parks located in the oldest neighborhoods in the City. These parks, containing up to ½ acre, serve the immediate

population within a ¼ mile radius. According to the City, these parks are dilapidated and in need of clean-up and rehabilitation. Examples of these parks are Alberta Woods and Clinton Park in Lanning Square.

2. Neighborhood Parks

There are twenty-six neighborhoods parks located throughout the City. These parks generally provide for recreational activities such as field games and playgrounds. Neighborhood parks in Camden range from 0.1 to 2.7 acres. The service area for neighborhood parks is a ¼ to ½ mile radius. Most of these parks are in the newer sections of the City and, even though they are not rated as dilapidated by the City, they are in great need of improvement or upgrading. Examples of these parks are Elijah Perry Park in Centerville and Whitman Park in Whitman Park.

3. Community Parks

There are seven community parks throughout the City. These parks contain recreational uses such as athletic complexes and ball-fields. They may also include passive activity areas. These parks generally contain 4 to 5 acres per 1,000 people served. These parks are generally distributed throughout Camden's neighborhoods and their size ranges from 15 to 51 acres. Examples of these parks are Pyne

Point Park in North Camden and Ulysses Wiggins Waterfront Park in Downtown Camden.

4. Open Space and Conservation Areas

These areas have sensitive environmental features such as wetlands, floodplains, ponds, wooded open space corridors and steep slopes. Limited activity is permitted in these areas and development is not encouraged.

5. Greenways

Greenways are continuous corridors of open space along the City's main rivers that act as connections between existing parks and adjacent neighborhoods and the river corridor. They typically provide bike trails and access to the waterfront. Greenways not only connect City parks but also connect to regional parks in neighboring municipalities across the County. The "Camden Greenways Plan" adopted by City, proposes a greenway network along the Delaware River, the Delaware River back channel, and the Newton Creek.

According to the City, in addition to the needs for improvement and creation of a management program for these parks, there is a shortage of parkland for Camden's residents. The City's Master Plan notes that Camden provides 3.4 acres of park and open space per

1,000 people, well below the area provided by Philadelphia (6.5 acres per 1,000 people) or Trenton (4.0 acres per 1,000 people). In Camden, vacant land surrounding existing parks may be an opportunity for consolidation and addition to the City's park system. In the past, funding for parkland acquisition has been obtained from the Federal TEA-1 program, the Camden County Open Space Farmland, the State's Green Acres Program, and other public or private sources.

5.2 RECENT AND CURRENT PARKS AND PUBLIC OPEN SPACE IMPROVEMENTS

Recent activity in the area includes the planning, expansion, and improvement of existing facilities according to their level of deterioration and impact in the surrounding community. The City of Camden Bureau of Parks and Open Space has created a list of twelve Priority Parks targeted for improvement throughout the City. Out of the twelve Priority Parks, ten are Neighborhood Parks. These include Alberta Woods, Cornelius Martin, 22nd and Harrison, Ralph Williams, Whitman, Elijah Perry, South Camden, Staley, 4th and Washington, and Yorkship Square. The other two, Farnham Park

and Pyne Point Park, are Community Parks. Appendix C-1 lists the complete inventory of all City Parks.

There is currently \$6,285,000 in place for the improvement of eleven parks throughout Camden, nine of which are active construction projects and two of which are projects in the design phase. Of the construction projects, four are Priority Parks anticipated to be dedicated in 2003. These include Whitman Park in Whitman Park, Alberta Woods in Stockton, 4th and Washington Park in Lanning Square, and Staley Park in Centerville. The other six currently active projects are 7th and Clinton Park in Lanning Square, 8th and Carl Miller Park in Liberty Park, Parkside Trail II in Parkside, 9th State Bikeway in Pyne Point, and Mickle Boulevard in downtown Camden. Parks with funding in place but still in the design phase include Farnham-Cooper Bikeway in Parkside and Commonplace Park in downtown Camden.

5.3 RECOMMENDED PARKS AND PUBLIC OPEN SPACE IMPROVEMENTS

Recommended improvements for Parks and Public Space include those facilities that need improvement according to the Bureau of

Parks and Open Space. The City has created a list of priority projects listed according to the severity of the needed improvement and has requested funding, for most of them, from CBDG funds in 2002. The total requested funding for these projects of \$3,275,000 has not yet been secured (Map POS-2). Their priority list follows.

- **Priority 1:**

- Farnham Park Rehabilitation Project (Parkside)

- The total amount requested is \$775,000 for the rehabilitation of the 45-acre lower section of the park. Of the requested amount, \$275,000 serves as City match for anticipated rehabilitation funding from the Army Corps of Engineers for engineering services and construction costs. The remaining \$500,000 will be used as matching funds for the anticipated Green Acres funding for the rehabilitation of the upper section of the park.

- **Priority 2:**

- 2nd Phase Whitman Park (Whitman Park)

- A total of \$500,000 is requested to complete the 2nd phase of improvements to this park. Items included in this phase are lighting and accessories for ball games.

- **Priority 3:**

Whitman Poetry Place Park (Whitman Park)

The amount requested is \$500,000 to replace items reprogrammed from this project to meet deficiencies in other projects that are now under construction. Engineering design is 80 percent completed.

Yorkship Square (Fairview)

The amount requested is \$250,000 for general improvements to the park.

Cornelius Martin Park (Pyne Point)

The amount requested is \$375,000 for general improvements to the park. This number will replace the amount reprogrammed from this project.

Multiple Parks Safety Upgrade

The amount requested is \$500,000 for ADA and NPSI safety upgrade improvements to selected parks. The requested funds will be used to upgrade two out of nine parks that do not meet safety standards: 9th and Ferry Avenue in Centerville and South Camden Park.

Other Recommended Projects

The Bureau of Parks and Open Spaces has also requested, but not received, capital appropriation funds for the following allocations:

New Facilities

The total amount requested for new facilities is \$1,425,000. They include new playgrounds at 10th and Linden, State and Harrison Avenue, Randolph Street; a new pool complex at Centerville; the rehabilitation of Evers Park, 6th and Washington Park, Eutaw Street Park, 22nd and Harrison Park, Wesley Village Park, Pleasant Avenue Community Park, and Ralph Williams Park.

6. PUBLIC FACILITIES SUBPLAN

6. PUBLIC FACILITIES SUBPLAN

Public facilities are key community anchors that can assist in the revitalization of neighborhoods in Camden. Public facilities include libraries and community centers, schools, universities, hospitals and health care centers, and police and fire stations.

6.1 EXISTING PUBLIC FACILITIES

6.1.1 Libraries and Community Centers

Community Centers

Community Centers, with associated services, are provided by the Department of Health Care and Social Services and non-profit organizations. There is a total of nine community centers throughout Camden serving most of Camden's neighborhoods (Map PF-1). There are two proposed new facilities that will cover the underserved areas. According to the City of Camden, existing community centers are in need of rehabilitation and/or facility upgrades including the improvement of their programs and services. Due to the City's lack of funding for the improvement of these facilities, some of the

existing community centers have consolidated their activities with other uses such as schools or churches.

Libraries

The City of Camden has five public libraries located in North, Central and Downtown Camden. According to the City, all these facilities require significant upgrading as assessed by the City's Library Commission, neighborhood organizations and residents. In addition, there are three private libraries located in Camden. Currently, South and East Camden do have not library facilities. Two new facilities are proposed in these areas.

6.1.2 Schools

In 1998, the New Jersey Supreme Court endorsed the "whole-school reform" and directed the Department of Education to study approaches to improving the academic achievement of students from low-income families. Whole-school reform is an approach that enables students in the 30 so-called Abbott School Districts, Camden being one of them, to achieve the Core Curriculum Standards. These standards prescribe what students need to learn as the result of a "thorough and efficient education" as promised in the State Constitution.

The Educational Facilities Construction and Financing Act signed into law in 2000 establishes the financing resources that will be needed for the improvement of Camden's public schools. These resources will not only make possible the upgrade of all school facilities, and the construction of new ones, but will also be an invaluable tool in helping neighborhood revitalization efforts throughout Camden.

There are a total of 35 school facilities in Camden. These include 22 Elementary schools, six Middle Schools, five High schools, and one Adult Education Center (Map PF-2). According to the City, renovation and additions have been proposed for all these facilities to meet current and projected educational adequacy requirements.

6.1.3 Universities, Hospitals and Health Care Centers

The City of Camden contains six institutions of higher education and healthcare (Map PF-3). These institutions are:

- Camden County College
- Rowan University
- Rutgers University

- The Cooper Health System
- Our Lady of Lourdes Medical Center
- University of Medicine and Dentistry of New Jersey

According to a report prepared by the Higher Education and Healthcare Task Force, these institutions employ 6,727 workers within the City of Camden, 843 of whom live in the City. These institutions are also a key resource for revitalization efforts throughout the City. Their combined capital investment totaled over \$22 million in 2001/2002. Their planned initiatives total approximately \$66 million between 2003 and 2005.

6.1.4 Police and Fire Stations

Police Stations

The Police Department Headquarters is in the Police Administration Building located on Federal Street in downtown Camden. The Department operates four police sub-stations, one in each of the four police districts. Additional mounted police and mini-stations are located throughout the City (Map PF-4).

Fire Stations

The Fire Department Headquarters is located in the Fire Administration building at 3rd and Federal Streets in downtown Camden. The Department operates six firehouse facilities with eleven companies. The City currently has three ladder companies, seven engine companies, one rescue company, and two fire rescue units. The Fire Department considers four of the existing buildings to be either structurally deficient or functionally obsolete.

6.2 RECENT PUBLIC FACILITIES IMPROVEMENTS

6.2.1 Libraries and Community Centers

Community Centers

The Department of Health Care and Social Services has a public bond for \$1,460,000 for the renovation of all the community centers throughout the City. Although all these facilities require major improvements, the current committed fund is targeted to the construction of additions, the repair of structural problems, or in most of the cases, aesthetic improvements such as painting or lighting. Renovation and expansion plans are currently being prepared for

three facilities, the Cramer Hill Center and the Angel Perez Center in East Camden, and the Broadway Center in downtown Camden. The remaining facilities are currently undergoing minor renovation improvements.

Libraries

There is no activity related to improvements of the existing public libraries underway.

6.2.2 Schools

The New Jersey Department of Education approved Camden's Long-Range Facilities Plan in April 2001. Goals of Camden's Long Range Facilities Plan (CLRFP) as stated in the Letter of Determination include:

- The renovation of Early Childhood Development Center.
- The replacement of 7 Elementary schools, 1 Junior high school, and 2 Specialized schools.
- The construction of 2 new Elementary schools and 2 new Junior high schools.

- The alteration of 14 Elementary schools, 5 Junior High schools, and 5 High schools.
- The closure of 1 Elementary school.

The “Total Estimated Cost of the Plan for State Capital Planning Purposes” approved by the Department of Education in the Final Determination Letter in April 2001 was \$436,994,541.

According to the report prepared by Don Todd Associates, Inc, released in August 2002, the Department of Education has entered into an agreement with the New Jersey Economic Development Authority to execute the CLRFP. This effort entails the preparation of a plan to implement all work involved in financing, acquisition of land and design, and construction of all new schools and/or renovation to existing schools.

The first phase is the pilot program, started in 2000, which consists of Health and Safety Projects at 4 of the 36 existing schools in Camden. The second phase, currently underway, consists of Health and Safety Projects at the remaining 32 schools. The third phase, not started yet, consists of the implementation of the 1st Year Priority Projects approved by the Department of Education. The fourth phase will consist of the 2nd and 3rd Year Priority Projects and the re-

submittal of any 1st Year Priority Project rejected by the Department of Education.

6.2.3 Universities, Hospitals and Health Care Centers

Camden County College

Camden County College has received \$3.5 million in state funds as part of the Camden Revitalization Act to construct a new Technology Center that will be an important addition to downtown’s revitalization efforts. The new Camden Technology Center at the Blackwood Campus is located at the corner of Broadway and Cooper Streets. The funding for this project is allowing Camden County College to build the 8-story Camden Technology Center as the city’s major training facility for technology-driven careers in health, business and computer fields. Construction has started on the \$20 million facility, which will house eight "smart" classrooms, a computer lab, a learning theater and two wired conference rooms. Additional features of the project will include a bookstore and a 650-space garage.

6.3 RECOMMENDED PUBLIC FACILITIES IMPROVEMENTS

6.3.1 Libraries and Community Centers

Community Centers

The Department of Health Care and Social Services currently desires to construct two new facilities that would cover underserved neighborhoods in Camden (Map PF-1). These facilities are located in South Camden and in Parkside. There is no estimated funding identified or land secured for these projects yet.

Libraries

Camden County has proposed three new libraries in the City. The potential locations have been identified as State and River Avenue in Cramer Hill, 9th Street and Ferry Avenue in Centerville, and at Westfield and Dudley in Stockton. The proposed 15,000 sq. ft. facility at State Street and River Road will replace the Isabel Miller Library at 8th and Carl Miller in Liberty Park.

The County will finance the construction of the proposed libraries and the City will provide the land including environmental remediation if needed. It has not been decided whether the new libraries will become City property or part of the Camden County Public Library System. There is no estimated funding for these projects yet.

6.3.2 Schools

According to the CLRFP, recommended actions include the implementation of the plans prepared for the remaining 1st, 2nd and 3rd Year Priority Schools. These include the renovation and/or additions of facilities, the construction of new schools with sites at New Jersey Economic Development Authority (NJEDA) and the construction of new schools without sites at NJEDA (Map PF-5 and PF-6).

The following is the current sequence of action:

1st Year Priority Schools – 2005/2008

The total estimated cost for the 1st Year Priority Schools is \$194,776,756 and includes the following facilities:

- Pyne Point Middle School

- Dudley Elementary School
- Powel Elementary School
- H.B. Wilson Elementary School
- Morgan Village Middle School
- R.C. Molina Elementary School
- Davis Elementary School
- Cramer Elementary School
- Catto Elementary School
- Parkside Elementary School

2nd Year Priority Schools – 2006

The total estimated cost for the 2nd Year Priority Schools is \$168,601,338 and includes the following facilities:

- Mickle Elementary School – New Creative and Performing Arts High School
- Washington Elementary School

- Sumner Elementary School
- Early Childhood Development Center
- McGraw Elementary School
- New Elementary School No. 1
- East Camden Middle School
- New Junior High No. 2

3rd Year Priority Schools – 2007

The total estimated cost for the 3rd Year Priority Schools is \$82,538,476 and includes the following facilities:

- Broadway Elementary School
- Camden Vocational School
- New Elementary School No. 2

The New Jersey Department of Education, through the Abbot Program, will fund all of the facilities included in the 1st, 2nd and 3rd Year Priority List. However, there are other programs that will not be

funded by the State and which have no funding source identified to date. These include a Renaissance School and a Demonstration School.

Renaissance School

The Commissioner of Education has expressed interested in building a “Renaissance School” in Camden. This facility will be a small school designed to improve learning and to improve the surrounding neighborhoods by combining the school into a larger development with diverse uses associated with students’ and residents’ activities. A Renaissance School in Camden can be used as a powerful tool for neighborhood revitalization.

Demonstration School

A Demonstration School is one that explores an innovative curriculum giving students and the neighborhood a competitive advantage in the area of the selected specialty. The New Jersey Department of Education approves the program needs and designates the facility that will become the Demonstration School.

6.3.3 Universities, Hospitals and Health Care Centers

The total planned renovation and new construction projects for Universities, Hospitals and Health Care Centers have a value of \$95.5 million including \$37 million in state matching funds. Notable benefits include \$13.7 million in new salaries generated, 405 permanent jobs created, and 3,970 new students (Map PF-3).

Rutgers University

Rutgers University has plans for land acquisition and construction activities around its campus in downtown Camden. The total planned investment is \$27 million and includes:

- The acquisition of 3.5 acres for a future expansion zone adjacent to Interstate 676.
- The expansion of the Law School with the construction of a 50,000 sq. ft. building located on Cooper and 5th Streets.
- The acquisition of buildings for student housing on Cooper Street and neighboring areas.
- The acquisition and renovation of buildings on Cooper Street, between 3rd and 6th Streets for offices and classrooms.

Rowan University

Rowan University has plans for the construction of a 50,000 sq. ft. academic building on Market Street between 5th and 6th Streets. The total planned investment is \$11.5 million. Funding has not been secured yet.

University of Medicine and Dentistry of New Jersey (UMDNJ)

UMDNJ has plans for the construction of a 54,000 to 60,000 sq. ft. clinical academic building containing classrooms, research and clinical space adjacent to Cooper Hospital. The total planned investment is \$18.5 million. Funding has not been secured to date.

The Cooper Health System

The Cooper Health System has plans for the renovation and expansion of the Adult Intensive Care Unit, the Pediatric Intensive Care Unit, the Trauma Operating Room and Post-Anesthesia Care Service. In addition, planned enhancements to the Cooper Plaza District Campus environment will improve connectivity of the campus to the adjacent neighborhoods and the Walter Rand Transportation Center. The total planned investment is \$17.8 million. No funding has been secured yet.

Our Lady of Lourdes Medical Center

Our Lady of Lourdes Medical Center has plans to construct and expand the School of Nursing facility by replacing the existing building. It also plans to build a 7,000 sq. ft. Emergency Department expansion and a new parking garage providing 300 additional

spaces. The total planned investment is \$9.7 million. Funding has not been secured yet.

6.3.4 Police and Fire Stations

Police Department Facilities

According to the Police Department, the following improvements are recommended for efficient functioning of the police force. These are not defined plans and, therefore, funding has not been secured yet (Map PF-7).

- Of the eleven police facilities, seven are to be closed and replaced by three new mini-stations. These include the 1st, 2nd, 3rd mini-stations, the 3rd sub-station, the mounted unit, and the two Mini-Station Crime Prevention Units.
- The 1st in North Camden and the 4th District sub-station serving Parkside and Gateway will be converted to Fire Houses.
- The renovation of the Main Police Administration Building in downtown Camden.

Fire Department Facilities

According to the Fire Department, the existing firehouses have become obsolete due to the change in fire fighting equipment and the need for additional equipment and space to accommodate contemporary operations. Plans for new construction and/or renovation are under discussion and funding has not been secured yet. These likely projects include:

- Renovation of the Fire Administration Headquarters and Firehouse in downtown Camden, and the Firehouse located at Federal and 27th Streets serving Rosedale Dudley, Marlton, and Stockton.
- Construction of new facilities at or near Federal and 27th Streets, 27th and Hayes Streets, Haddon and Kaighns Avenues, and 27th Street and River Avenue.
- Renovation of the Main Police Administration Building in downtown Camden.

7. IMPLEMENTATION OF THE PLAN

7. IMPLEMENTATION OF THE PLAN

The scope of Capital Improvements recommended by this Plan and required by the City is extensive. Many of the improvements require additional definition so that they can be appropriately scoped and prioritized. For instance, the sewers throughout the City are in poor condition. Total replacement is not technically warranted nor is it economically feasible. A citywide detailed condition survey is necessary to define the appropriate scope of work in priority areas before plans, specifications and bid documents can be prepared.

Additionally, the need to move forward quickly on a Capital Improvement program is obvious both to support the revitalization efforts and to provide the citizens with adequate services. While it is recognized that the City has been performing improvements of the utility infrastructure systems for the past few years, it is recommended that the schedules be accelerated substantially in order to achieve noticeable gains in the near future.

Based on these requirements, it is recommended that the implementation of the Capital Improvement Plan be managed through partnerships with the City of Camden. Recommended implementation and management strategies may include the following:

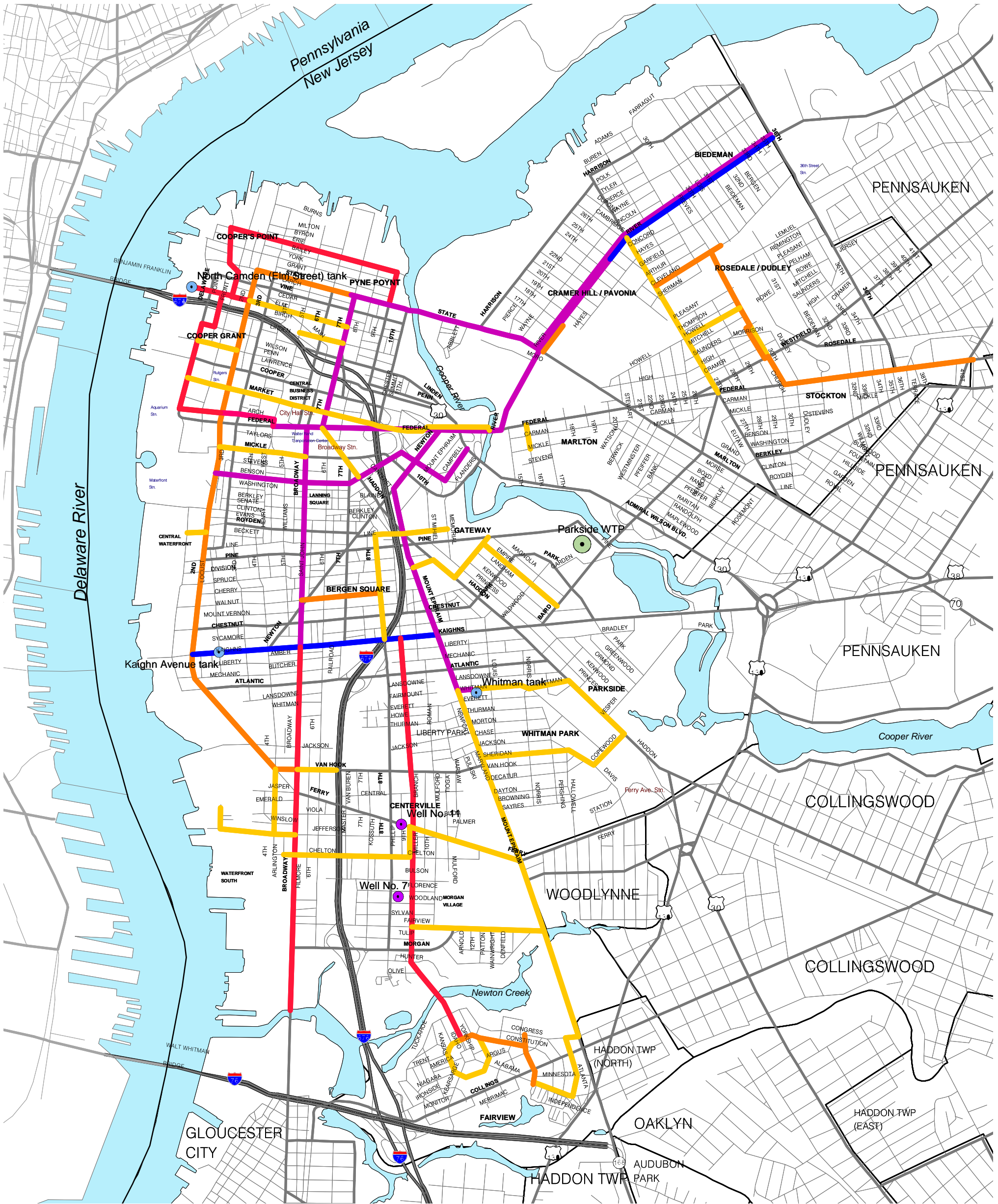
- Partnership of the New Jersey Economic Development Authority and the City of Camden. The EDA has exhibited its ability to accomplish a variety of accelerated construction projects in the past, and such a partnership would allow the appropriate resources to be dedicated to the Capital Improvement Program.
- The Technical Advisory Committee should remain intact to help guide the selection process and ensure the proper implementation of the Plan. This would ensure that the various State agencies could assist in the selection, implementation and revitalization process so that the appropriate projects and funding sources are identified.
- Project management will be an important factor to implement this plan. Experienced project/construction management firms should be considered to oversee redevelopment/infrastructure projects throughout the City. Once priority projects are identified and funded, an experienced project management firm could act to manage the day-to-day operation and implementation of the project. This firm could also advise the ERB, the City, and partnering agency during project scope development and during the bidding process.

-
- Infrastructure projects, including transportation, water, sewer, etc., that support a priority project should be “bundled” for design, bidding, and construction. This would simplify the coordination efforts for all parties involved and streamline the design, approval, and construction process.
 - Projects undertaken by the CCMUA using a portion of the pledged \$20 million must be implemented directly by CCMUA. Every measure should be taken to coordinate CCMUA projects with the City and various agencies.

8. CLOSING

8. CLOSING

The Capital Improvement and Infrastructure Master Plan presents our findings and preliminary recommendations for critical water, sewer, transportation, public buildings, parks, and public open space projects that will improve the quality of life and economic opportunities for Camden residents. As redevelopment of the City occurs, proposed projects will be evaluated for consistency with the Strategic Revitalization Plan and eligibility for Economic Review Board funding.

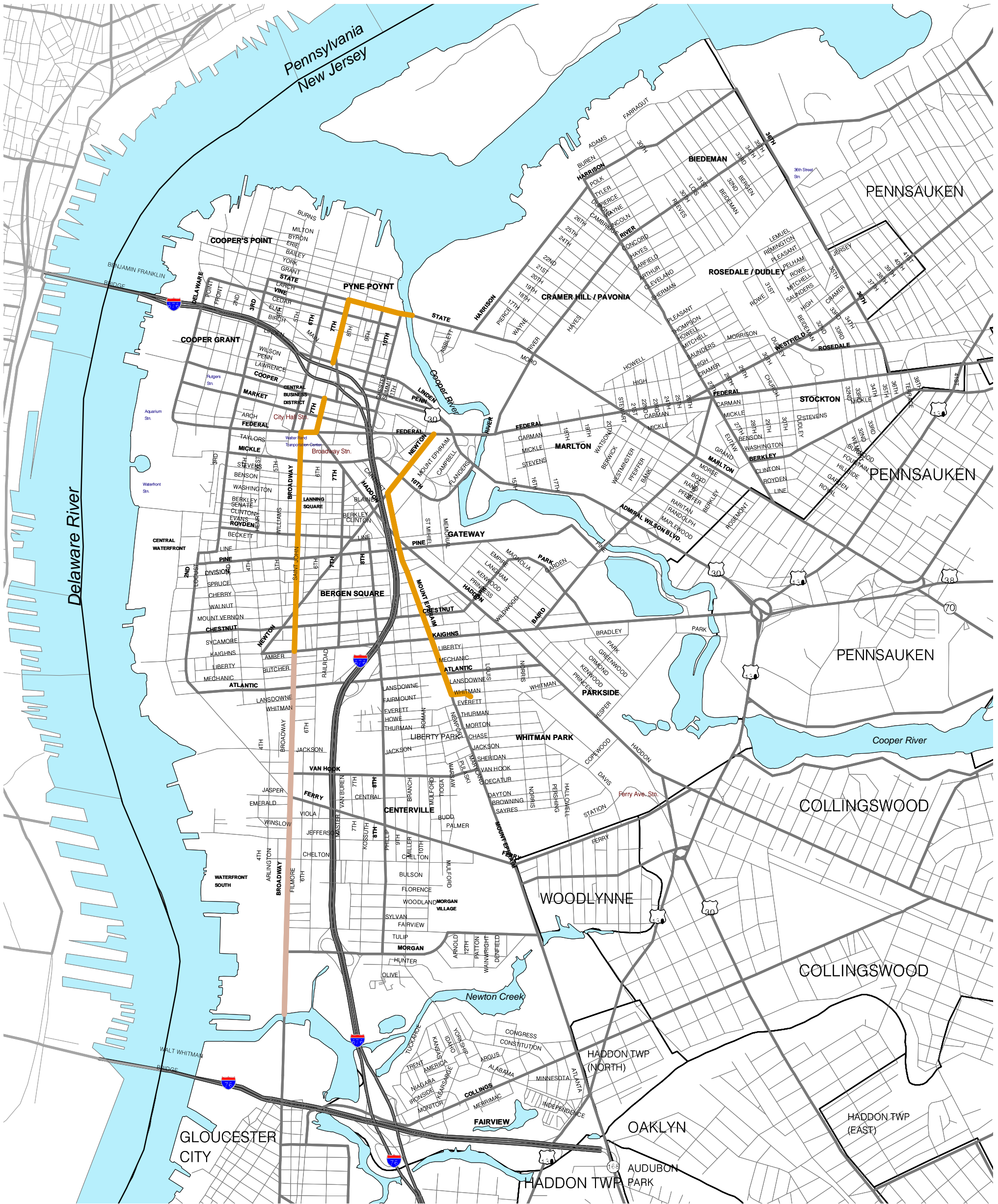


Legend

- 12-inch water main
- 16-inch water main
- 20-inch water main
- 24-inch water main
- 30-inch water main
- 36-inch water main
- Water Treatment Plant
- Water Tanks
- Well Locations

MAP W-1: EXISTING WATER SYSTEM COMPONENTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet ↗
 Source: City of Camden Master Plan, Works Progress Administration

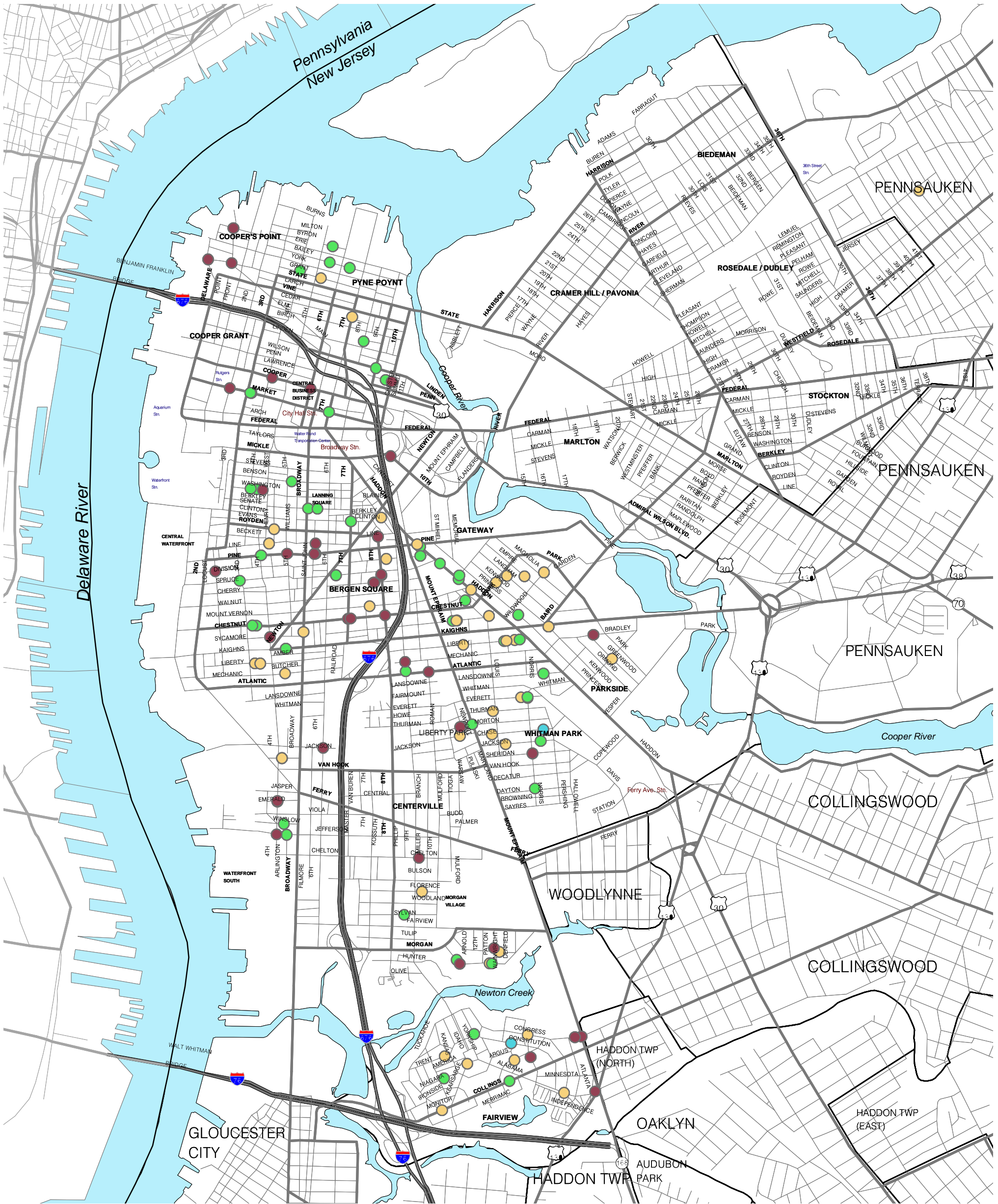


Legend

- 30-in water main rehabilitation
- 20-in water main replacement

MAP W-2: RECENTLY COMPLETED AND ONGOING WATER MAIN PROJECTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 Source: Camden Department of Utilities

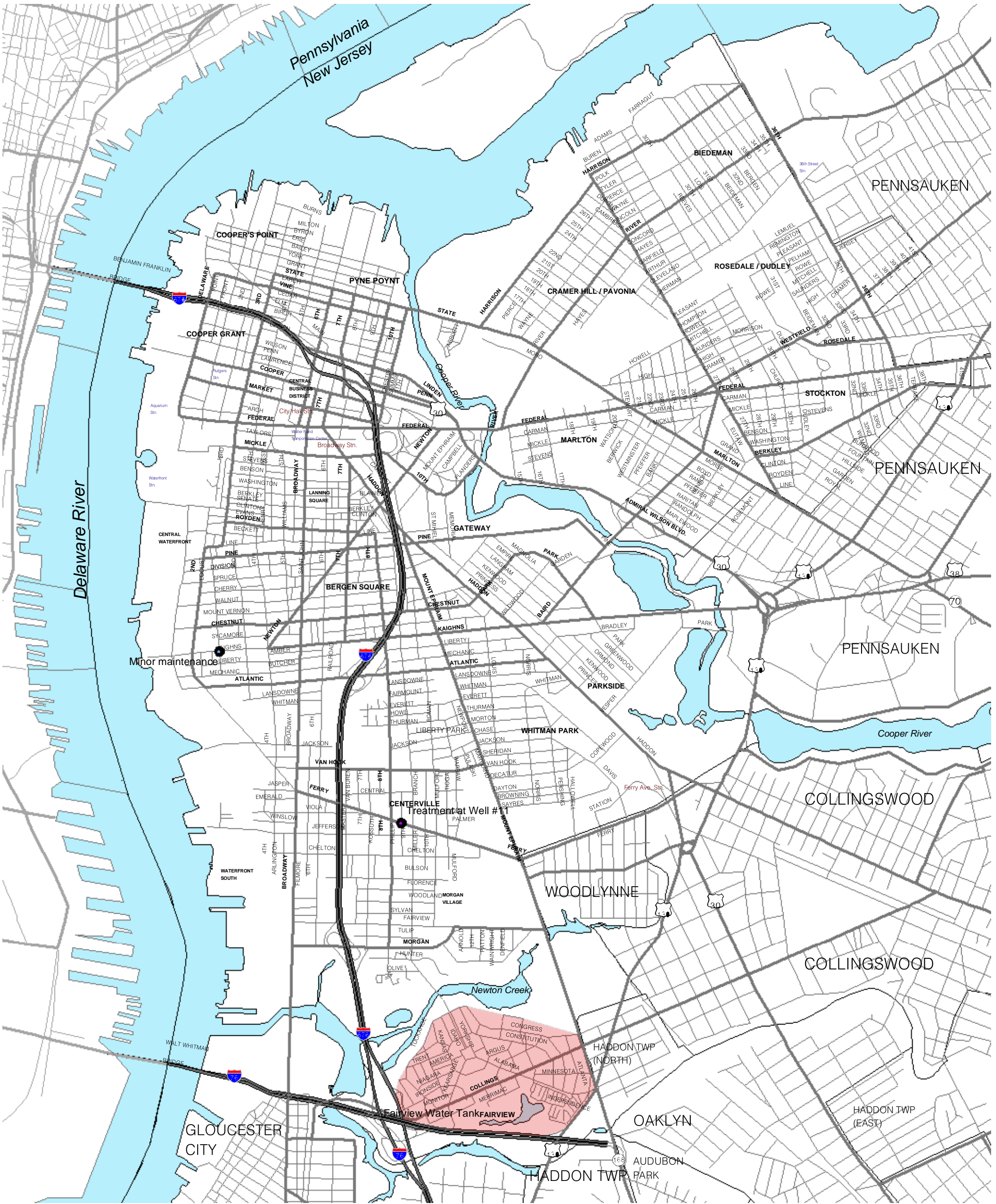


Legend

- Water main cave-in
- Water lateral leak
- Water quality complaint
- Water pressure complaint

MAP W-3: WATER SYSTEM EMERGENCY SERVICE REQUESTS
Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 Source: Camden Water, LLC



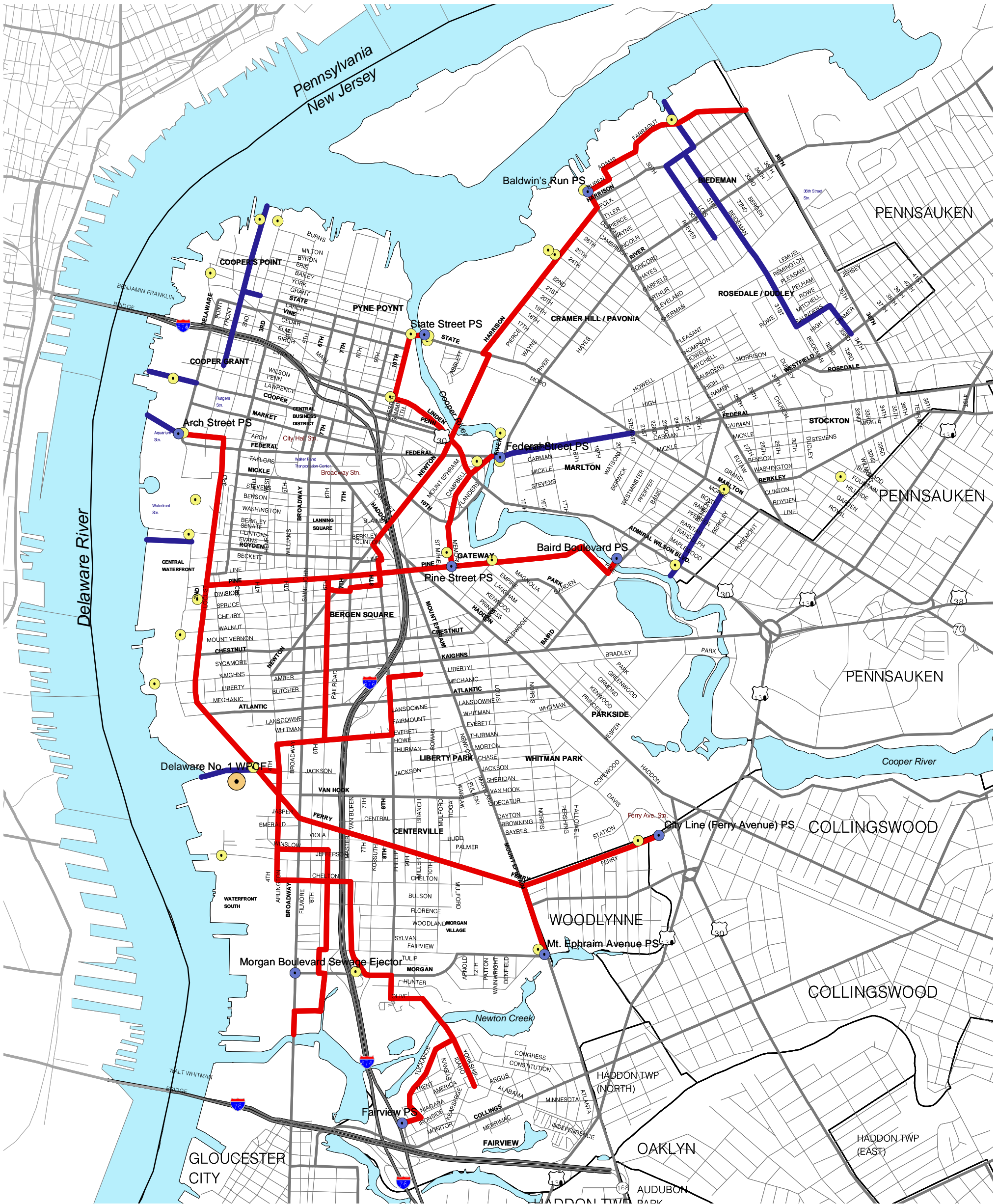
Legend

- Kaighn Ave. Water Tank maintenance
- Treatment at Well No. 11
- Fairview Water Tank

MAP W-4: WATER SYSTEM PRIORITY PROJECTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

Source: CI/IMP

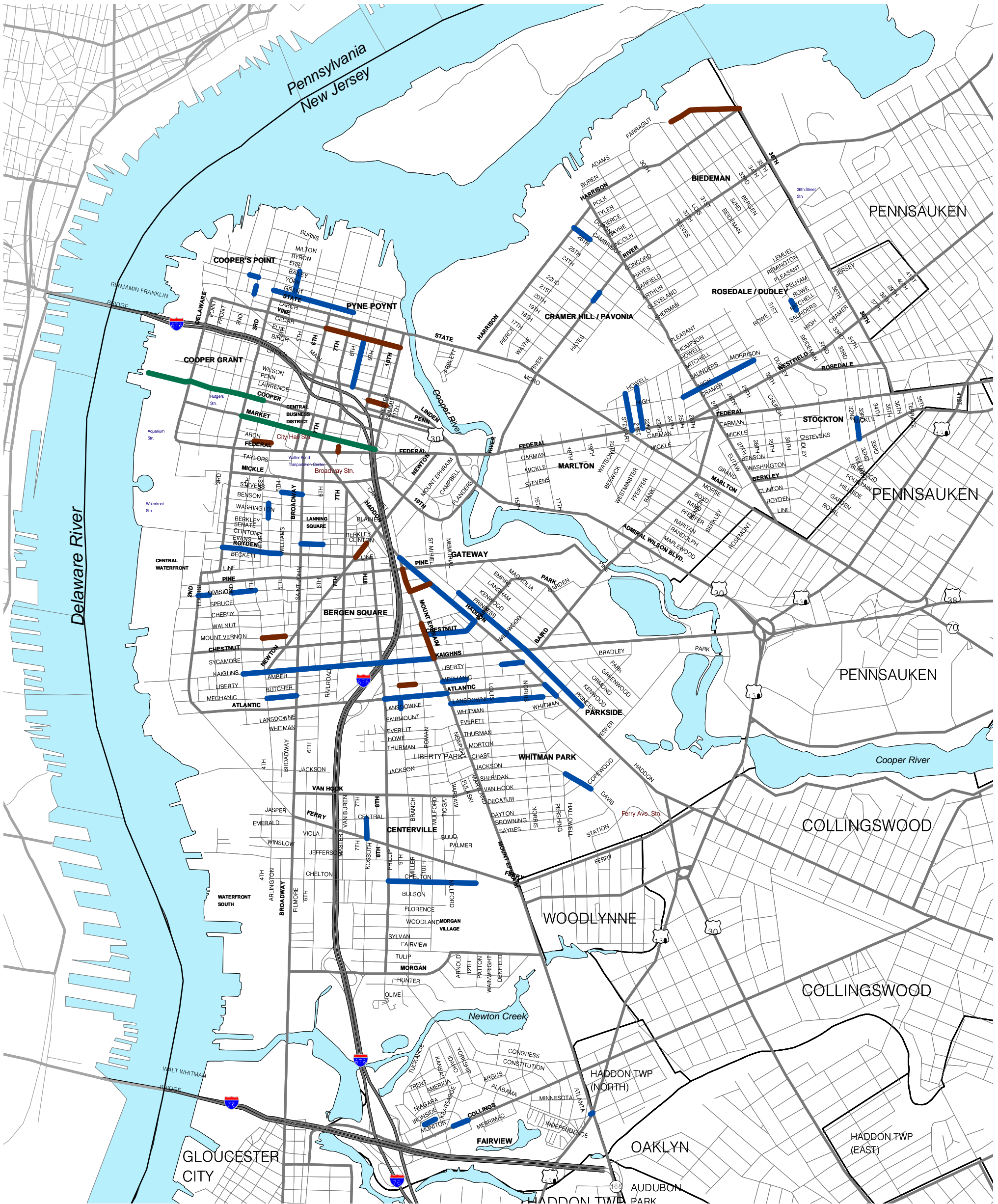


Legend

- Delaware No. 1 Water Pollution Control Facility
- Pump Stations
- Combined Sewage Outfall
- Sewer mains greater than 72-inches
- Sewer interceptors

MAP S-1: EXISTING SEWER SYSTEM COMPONENTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet ▲
 Source: CH2MHill Interim and Long-Term Solids and Floatables Control Plan



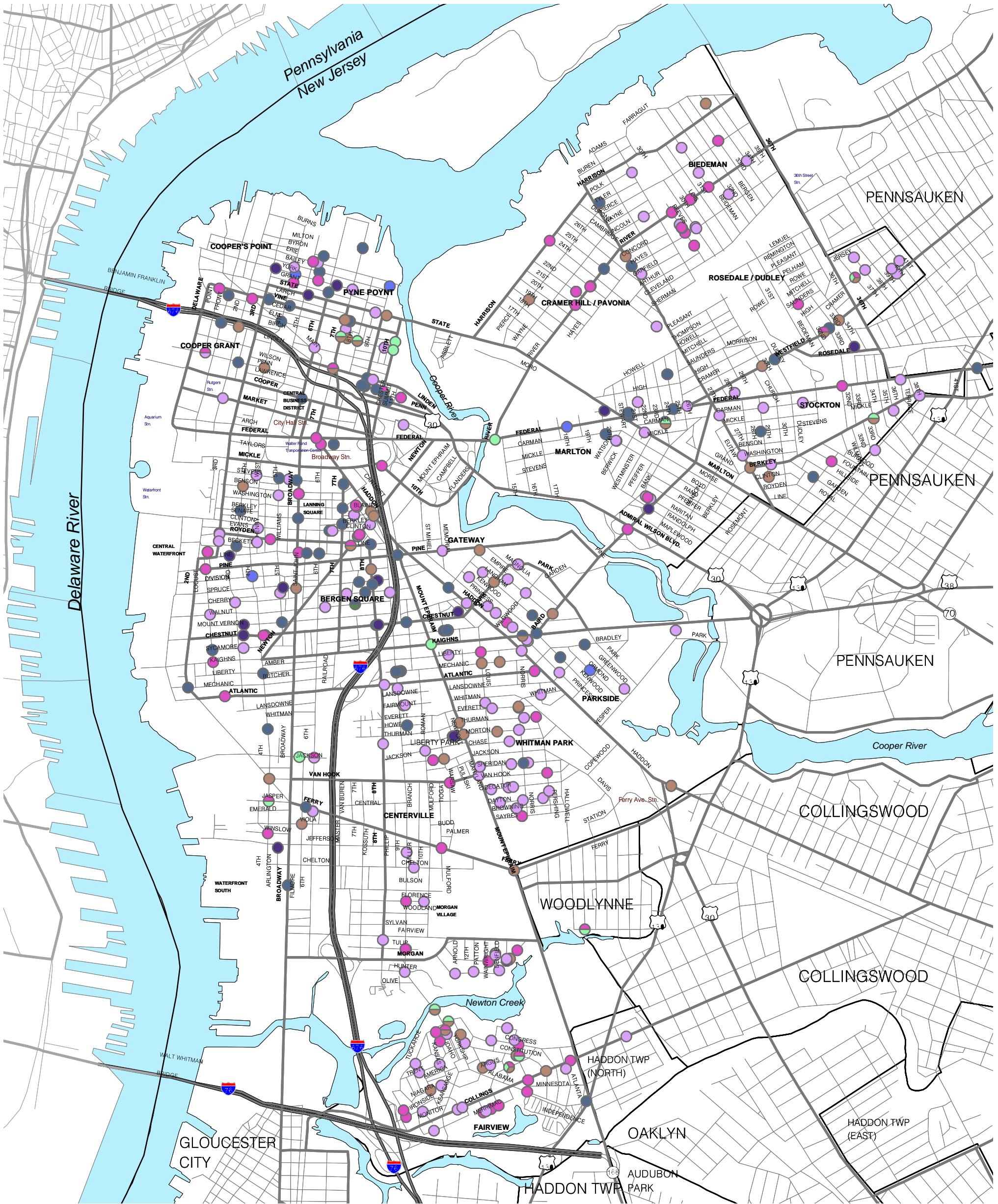
Legend

- Reline sewer
- Phase 1 sewer replacement
- Phase 2 sewer replacement

MAP S-2: RECENTLY COMPLETED AND ONGOING SEWER MAIN PROJECTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet ▲

Source: Camden Department of Utilities

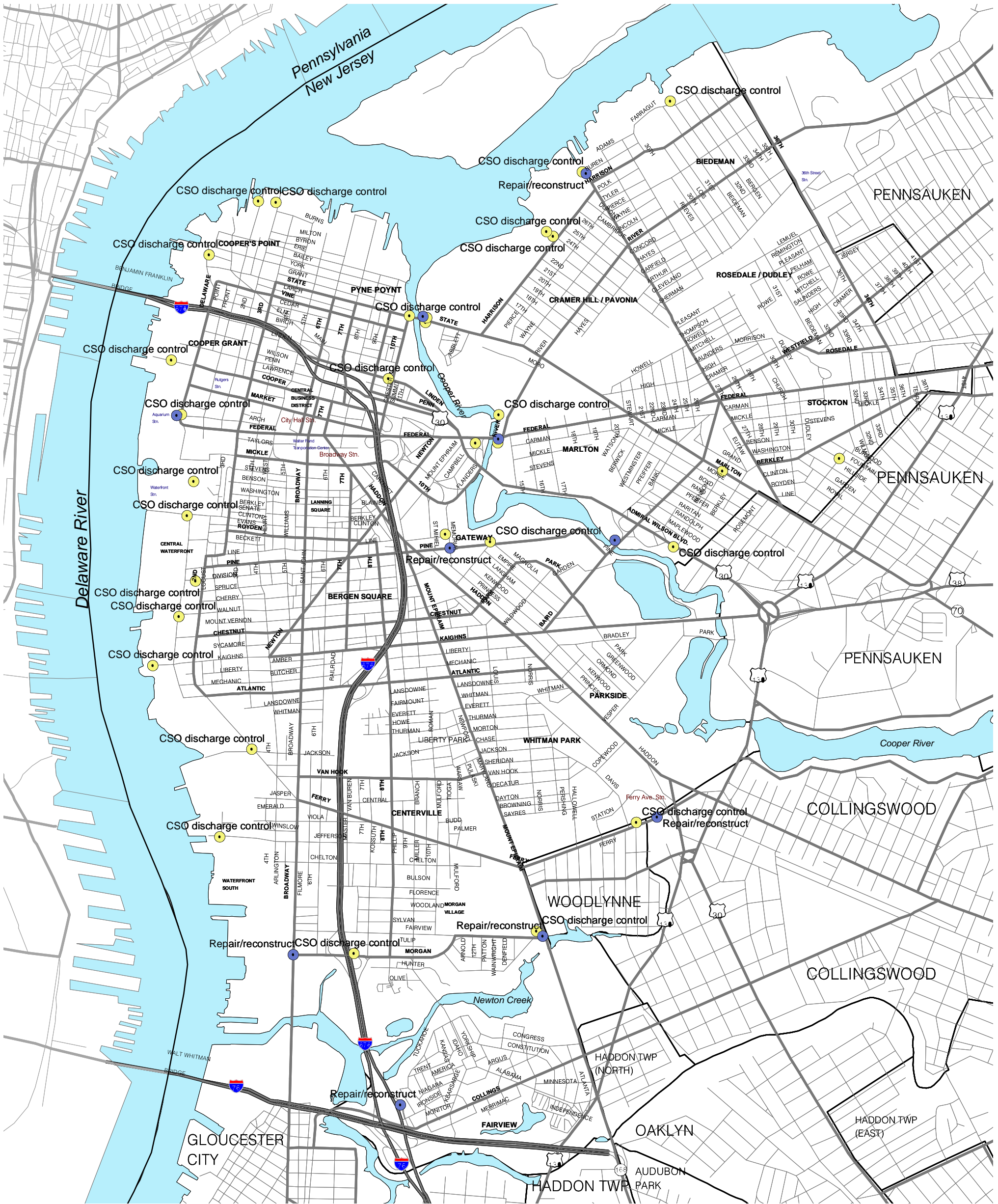


Legend

- Sewer main leak
- Sewer main clog
- Sewer main cave-in
- Sewer lateral leak
- Sewer lateral clog
- Sewer lateral cave-in
- Flooding
- Inlet cleaned

MAP S-3: SEWER SYSTEM EMERGENCY SERVICE REQUESTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 Source: Camden Water, LLC



Legend

- Repair Pump Stations
- CSO Discharge Control

MAP S-4: SEWER SYSTEM PRIORITY PROJECTS
 Capital Improvement and Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

Source: CI/IMP



Legend

- Signal Replacements Under Development
- Signals Under Construction
- Capacity Improvements Under Construction
- Capacity Improvements Completed
- Resurfacing Under Development
- Resurfacing Under Construction

- ✱ Drainage Under Construction
- Resurfacing Completed
- HELIPAD Under Construction
- Capacity Improvements Under Development
- Intersection Improvements Completed
- Existing PATCO Stations
- Existing LRT Stations

MAP T-1: ROADWAY CAPITAL INVESTMENTS
 City of Camden Capital Improvement Plan / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet ▲



Legend

- Built
- Project Development
- Construction
- Existing PATCO Stations
- Existing LRT Stations

MAP T-2: STREETSCAPE AND BIKE/PEDESTRIAN IMPROVEMENTS

City of Camden Capital Improvement Plan / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet





Legend

- Existing PATCO Stations
- Existing LRT Stations
- Intersection Improvements
- Roadway Improvements
- ✦ Drainage Improvements
- Delaware River Tram Terminal
- = Paratransit Service
- New LRT Line

- PATCO
- Bus Routes

Regional Transportation Projects

- 2 Route 30 (Admiral Wilson Blvd.) Rehabilitation and linear park
- 57 Delaware River Tram - new aerial crossing
- 58 Direct Connector, I-295 through Interchange with Routes I-76 and 42
- 59 I-876 Ramp widening to 2 lanes: from Martin Luther King Blvd I-876 southbound.
- 72 Ferry Avenue Station - upgrade station
- 78 I-876 at Atlantic Avenue - storm water drainage improvement
- 80 Route 30 Drainage Improvement: manage Cooper River flooding
- 82 Routes 30/130 Collingswood B (Camden-Pennsauken) - widening from 4 to 8 lanes
- 83 Route 30 & 130, Collingwood Circle - eliminate circle
- 88 Southern New Jersey Light Rail Transit System: construct line and stations

Codes

- First Letter - Status of Project :**
- B = Built (completed)
 - C = Construction (under or ready for construction)
 - P = Pipeline (under development - planning, needs or feasibility assessment, environmental clearance, final design)
- Second Letter - Type of Project :**
- I = infrastructure renewal
 - O = operational improvement
 - C = capacity addition

MAP T-3: CAMDEN REGIONAL TRANSPORTATION INVESTMENTS
 City of Camden Capital Improvement Plan / Infrastructure Master Plan

Scale 1:48,000 0 4800 9600 Feet ▲



Legend

- Freight Rail Lines
- CONRAIL : Active Service
- LRT
- PATCO
- Bus Routes
- Existing PATCO Stations
- Existing LRT Stations

MAP T-4: TRANSIT AND FREIGHT
 City of Camden Capital Improvement Plan / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet



- Legend**
- New Alignment
 - Rebuild/Upgrade Existing
 - Operation and Safety Upgrades
 - LRT Extension
 - New LRT Stations
 - ▲ New Traffic Light
 - Intersection / Interchange Upgrade
 - PATCO Stations Upgrade
 - Existing PATCO Stations
 - Existing LRT Stations

Camden City Transportation Proposals

- 6 PATCO City Hall Station Upgrade
- 7 PATCO Broadway Station Upgrade
- 9 Broadway/Newton Ave. Intersection Improvement
- 12 Admiral Wilson Blvd./Flanders Ave. Ramps Widening
- 13 Atlantic Ave. Restoration (at I-676)
- 15 Farragut Ave. Reconstruction (32nd-35th)
- 17 Pettys Island Alternate Truck Route
- 18 New Cramer Hill Industrial Truck Route
- 19 New Cramer Hill Industrial Truck Route
- 22 Saunders St. Extension (to Rosedale)
- 24 New Port Access Industrial Road - Morgan/I-676 to Becket Terminal
- 27 New SNJLRTS Station - near Federal/17th Sts.
- 30 Federal St/Baird Blvd/27th St Intersection Improvement
- 32 17th St. Reconstruction
- 34 Sewell St. Extension (to 23rd/Federal Sts.)
- 36 Atlantic Ave Restoration (Ferry Ave. to I-676)
- 42 SNJLRTS Extension to Morgan Blvd (Stations: Spruce, Kaighn/Atlantic, Jackson & Morgan).
- 44 Atlantic Ave Restoration (I-676 to Mt. Ephraim Ave)
- 48 New Industrial Connector Road (10th St. to I-676/New Port Truck Route)
- 51 Morgan Blvd Bridge Rehabilitation (Newton Creek)
- 53 New Route 130 Access Ramps (Fairview)
- 58 Atlantic Ave. Restoration (Mt. Ephraim to Haddon)
- 59 Station Dr. Realignment & Ferry Ave. Operational Improvements
- 68 10th St. at Newton Ave. Signalization
- 69 Cooper St. Operational Improvements (Broadway-8th)
- 72 New Downtown/Waterfront Access Connector (Rt. 30 to Market)

MAP T-5: TRANSPORTATION PROPOSALS
 City of Camden Capital Improvement Plan / Infrastructure Master Plan





Legend

- Parks and Open Spaces
- Greenways**
- Built
- Under Construction

Existing City Owned Parks, Open Spaces and Greenways * Parks not noted in Plan

- | | | | |
|--------------------------------|--------------------------------|---------------------------|---|
| 1 Alberta Woods | 16 7th and Clinton | 31 Commonplace Park / | 45 325-337 Vine St. |
| 2 South Camden Park | 17 Staley Park | Whitman Poetry Place Park | 46 Bradley and Ormond |
| 3 Broadway and Ferry | 18 Ralph Williams | | 47 Rev. Evers Park |
| 4 Cornelius Martin Park | 19 22nd and Harrison | | 48 Rutgers Community Park |
| 5 Dudley Grange Park | 20 Union Field / Mae Schultz | | 49 Grant Street Park |
| 6 R. B. Johnson Park | 21 Veterans Park | | 50 3rd and Kaighns / Von Neida |
| 7 Farnham Park | 22 Whitman Park | | 51 Wiggins Waterfront Park |
| 8 4th and Washington | 23 Whitman Square | | 52 8th and Washington Street Park |
| 9 Isabel Miller Center | 24 Yorkship Square | | 53 7th and Spruce |
| 10 Johnson Park | 25 <i>Butler Dempsey*</i> | | 54 <i>Wesley Village Park*</i> |
| 11 Mickel / Eutaw | 26 Camden High Athletic Fields | | |
| 12 Elijah Park | 27 <i>Cramer Hill Center*</i> | | Greenways |
| 14 Pyne Poynt | 28 Northeast School Park | | AA CBD Waterfort (Built) |
| 15 <i>North Camden Center*</i> | 29 Northgate Park II | | BB Cooper River North Camden (Under Construction) |
| | 30 Cooper Plaza Commons | | CC Parkside Trail (Built) |
| | | | DD Parkside Trail Phase II (Under Construction) |

MAP POS-1: EXISTING PARKS & OPEN SPACE SYSTEM
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000
0
2500
5000 Feet

Source: Camden Bureau of Parks and Open Spaces

April 2003



Legend

- Existing Parks and Open Spaces
- New Parks
- Priority Parks
- Greenways**
- Citywide Greenways
- Under Design

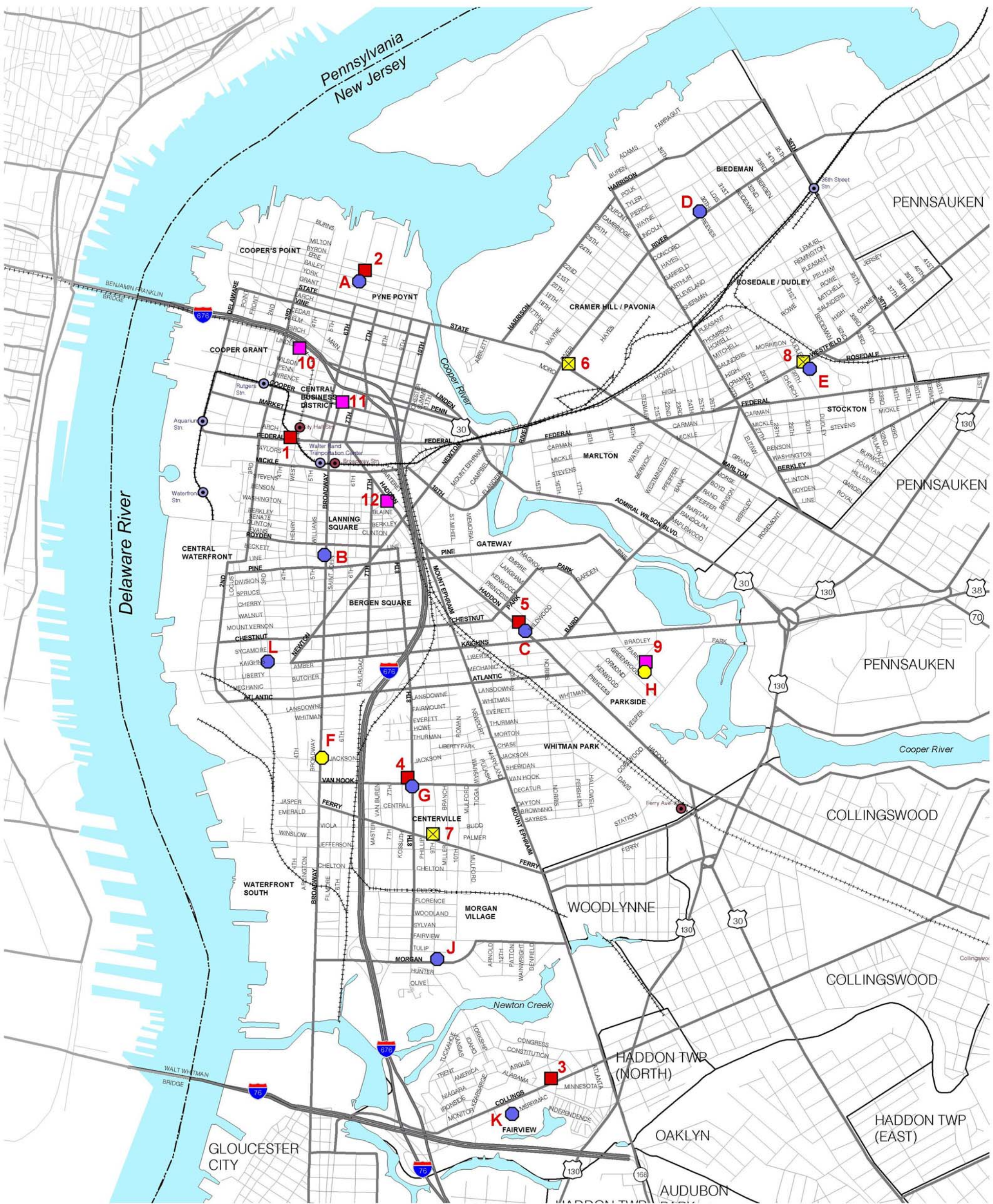
Priority City Owned Parks, Open Spaces and Greenways * Exact Location not known

- | | |
|--|---|
| <ul style="list-style-type: none"> 1 Alberta Woods 2 South Camden Park 3 Cornelius Martin Park 4 4th and Washington 5 Elijah Park 6 Staley Park 7 Ralph Williams 8 22nd and Harrison 9 Whitman Park 10 Yorkship Square | <ul style="list-style-type: none"> New Parks A New pool complex at Centerville* B Pleasant Avenue Community Park* C Randolph Street Playground* D Playground at 10th and Linden E Playground at State and Harrison F Playground at 9th and Elm G City Hall Park (State Urban Park) New Greenways EE Farnham Cooper Bikeway (under design) FF Citywide Trail System |
|--|---|

MAP POS-2: PROPOSED PARKS & OPEN SPACE SYSTEM
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

Source: Camden Bureau of Parks and Open Spaces



Legend

Libraries

- Public Library
- Private Library
- ⊠ Proposed Library Facility

Community Centers

- Community Center
- Proposed Community Center

Camden Libraries

Public Libraries

- 1 Main Library
- 2 Cooper Library
- 3 Fairview Library
- 4 Isabel Miller Library
- 5 Martin Luther King Center Library

Proposed Public Libraries

- 6 State Street and River Avenue
- 7 9th Street and Ferry Avenue
- 8 Westfield and Dudley Avenue

Private Libraries

- 9 Camden County Historical Society Library
- 10 Paul Robeson Library / Rutgers Law Library
- 11 Rueben L. Sharp Health Science Library
- 12 Coriell Research Library

Camden Community Centers

Community Centers

- A North Camden Center
- B Broadway Center
- C Martin Luther King Center
- D Cramer Hill Center
- E Angel Perez Center
- F East Camden Center
- H Isabel Miller Center
- K 9th Street and Morgan Boulevard
- L New Jersey Road and Merrimac Street
- M Parkside
- N Kaighn Ave. Community Center

Proposed Community Centers

- G Broadway and Jackson Street
- J Euclid and Park Boulevard (Renovation of Pamaona Hall or Former Hatch School)

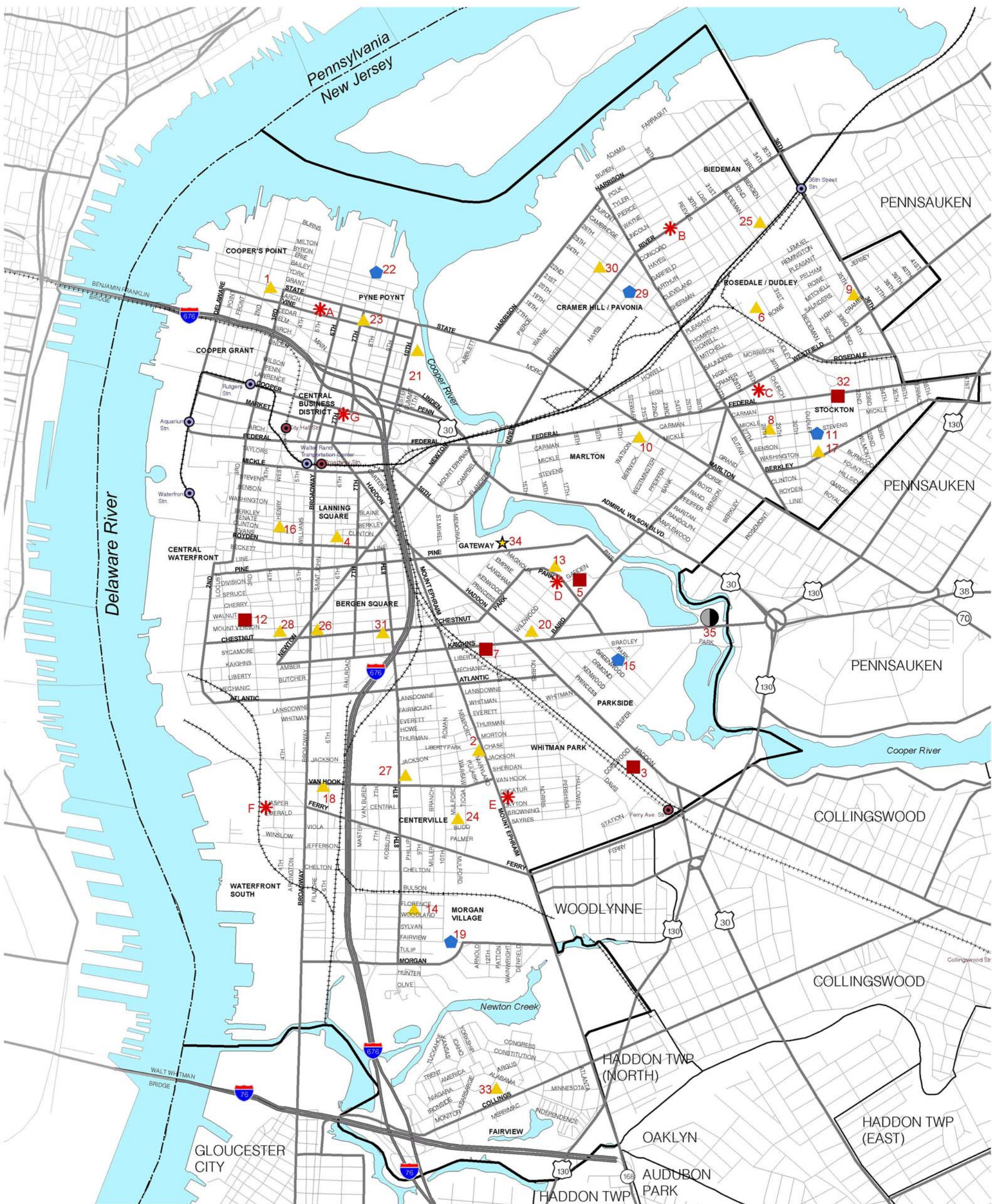
MAP PF-1: LIBRARIES AND COMMUNITY CENTERS

Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000

Source: FutureCamden, 2001

April 2003



Legend

- ▲ Elementary Schools
- Middle Schools
- High Schools
- ★ Early Childhood Dev.
- Adult Education School
- * Private / Parochial / Charter Schools

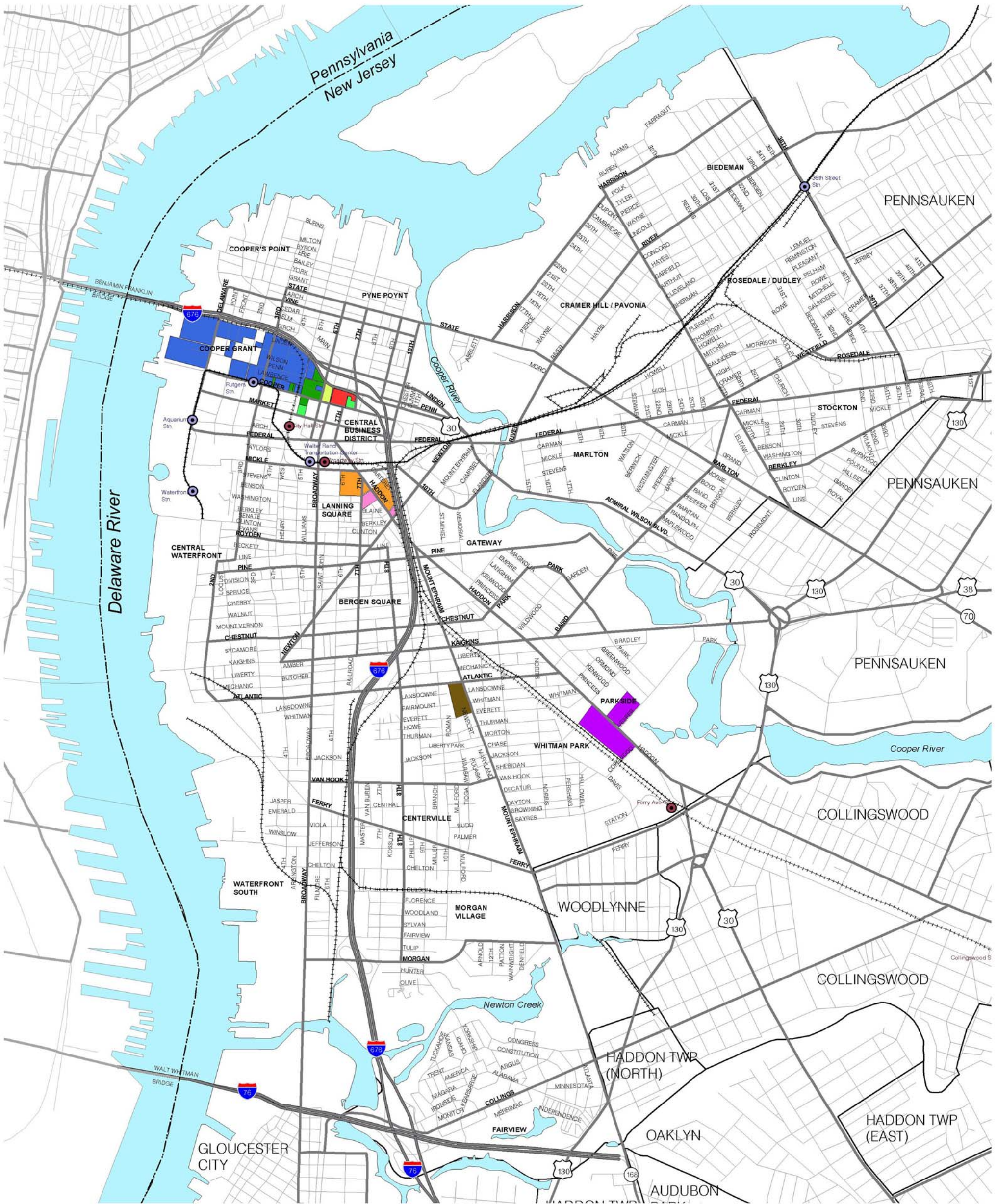
Camden City Existing Public Schools

- 1 Cooper's Point Elementary School
- 2 Bonsall Elementary School
- 3 Brimm Medical Arts High School
- 4 Broadway Elementary School
- 5 Camden High School
- 6 Catto Elementary School
- 7 Challenge Square Academy
- 8 Cramer Elementary School
- 9 Davis Elementary School
- 10 Dudley Elementary School
- 11 East Camden Middle School
- 12 Fetters High School
- 13 Forest Hill Elementary School
- 14 H. B. Wilson Elementary School
- 15 Hatch Middle School
- 16 Lanning Square Elementary School
- 17 McGraw Elementary School
- 18 Mickie Elementary School
- 19 Morgan Village Middle School
- 20 Parkside Elementary School
- 21 Powell Elementary School
- 22 Pyne Point Middle School
- 23 R. C. Molina Elementary School
- 24 R.T. Cream Elementary School
- 25 Sharp Elementary School
- 26 South Camden Middle School
- 27 Sumner Elementary School
- 28 Ulysses Wiggins Elementary School
- 29 Veterans Memorial Middle School
- 30 Washington Elementary School

- 31 Whittier Elementary School
 - 32 Woodrow Wilson High School
 - 33 Yorkship Elementary School
 - 34 Early Childhood Development Center
 - 35 Riggs Adult Education Center
- Private / Parochial / Charter Schools**
- A Holy Name Elementary School
 - B St. Anthony of Padua Elementary School
 - C St. Joseph Elementary School
 - D St. Bartholomew Catholic School
 - E St. Joseph High School
 - F Sacred Heart
 - G Leap Academy Middle School

MAP PF-2: EXISTING SCHOOLS
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000
Source: Camden School District Facilities Master Plan, August 21, 2002



Legend

Existing Hospitals & Universities

- Our Lady of Lourdes Medical Center
- The Cooper Health System
- University of Medicine and Denistry of New Jersey
- Rowan University & Camden County College
- Rutgers University
- Virtua Health

Proposed Expansions

- Camden County College Expansion
- Rowan University Expansion
- Rutgers University Expansion

MAP PF-3: UNIVERSITIES AND HOSPITALS
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000
0
2500
5000 Feet

Source: "A Winning Investment for the City of Camden & New Jersey" Report



Legend

Fire Station Facilities

- Fire Administration Building
- Fire Station

Police Station Facilities

- Police Administration Building
- Police Stations

Camden City Existing Fire and Police Station Facilities

- | | |
|--|---|
| <p>Fire Services</p> <ul style="list-style-type: none"> A Fire Administration Headquarters (3rd & Federal St.) B Firehouse (27th St. & Hayes Ave.) D Firehouse (Mt. Ephraim and Kaighns Ave.) E Firehouse (Broadway & Mechanic St.) G Firehouse (9th St. & Morgan Village) H Firehouse (Federal & 27th St.) | <p>Police Services</p> <ul style="list-style-type: none"> 1 1st District Sub-Station (7th & State St.) 2 1st District Mini-Station (Broadway & Washington) 3 2nd District Sub-Station (2800 Mt. Ephraim) 4 2nd District Mini-Station (1201 Yorkship Square) 5 3rd District Sub-Station (2851 River Ave.) 6 3rd District Mini-Station (2641 Federal St.) 7 4th District Sub-Station (1222 Kaighns St.) 8 Police Administration Building (800 Federal St.) 9 Mounted Unit (3195 Federal St.) 10 Mini-Station-Crime Prevention Unit (33rd & Westfield Ave.) 11 Mini-Station-Crime Prevention Unit (200 Marlton Pike) |
|--|---|

MAP PF-4: EXISTING POLICE AND FIRE STATION FACILITIES
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

Source: FutureCamden, 2001

April 2003



Legend

- ⊕ 1st Priority Schools
- ⊕ 2nd Priority Schools
- ⊕ 3rd Priority Schools
- Existing Schools
- ★ Proposed Joint Projects

Camden City Priority Schools * Site to be determined

- | | |
|--|---|
| <ul style="list-style-type: none"> 1 Pyne Poynt Elementary School 2 Dudley Elementary School 3 Powell Elementary School 4 H. B. Wilson Elementary School 5 Morgan Hill Junior High School 6 R. C. Molina Elementary School 7 Davis Elementary School 8 Cramer Elementary School 9 Catto Elementary School 10 Parkside Elementary School 11 Creative and Performing Arts High School 12 Washington Elementary School 13 Sumner Elementary School 14 Early Childhood Development Center 15 Woodrow Wilson High School | <ul style="list-style-type: none"> 16 New Elementary School No. 1* 17 East Camden Junior High School 18 New Junior High School No. 2* 19 Broadway Elementary School 20 New Technical High School* 21 New Junior High School No. 1* 22 New Elementary School No. 2* 23 Cooper's Poynt Elementary School 24 Lanning Square Elementary School |
|--|---|

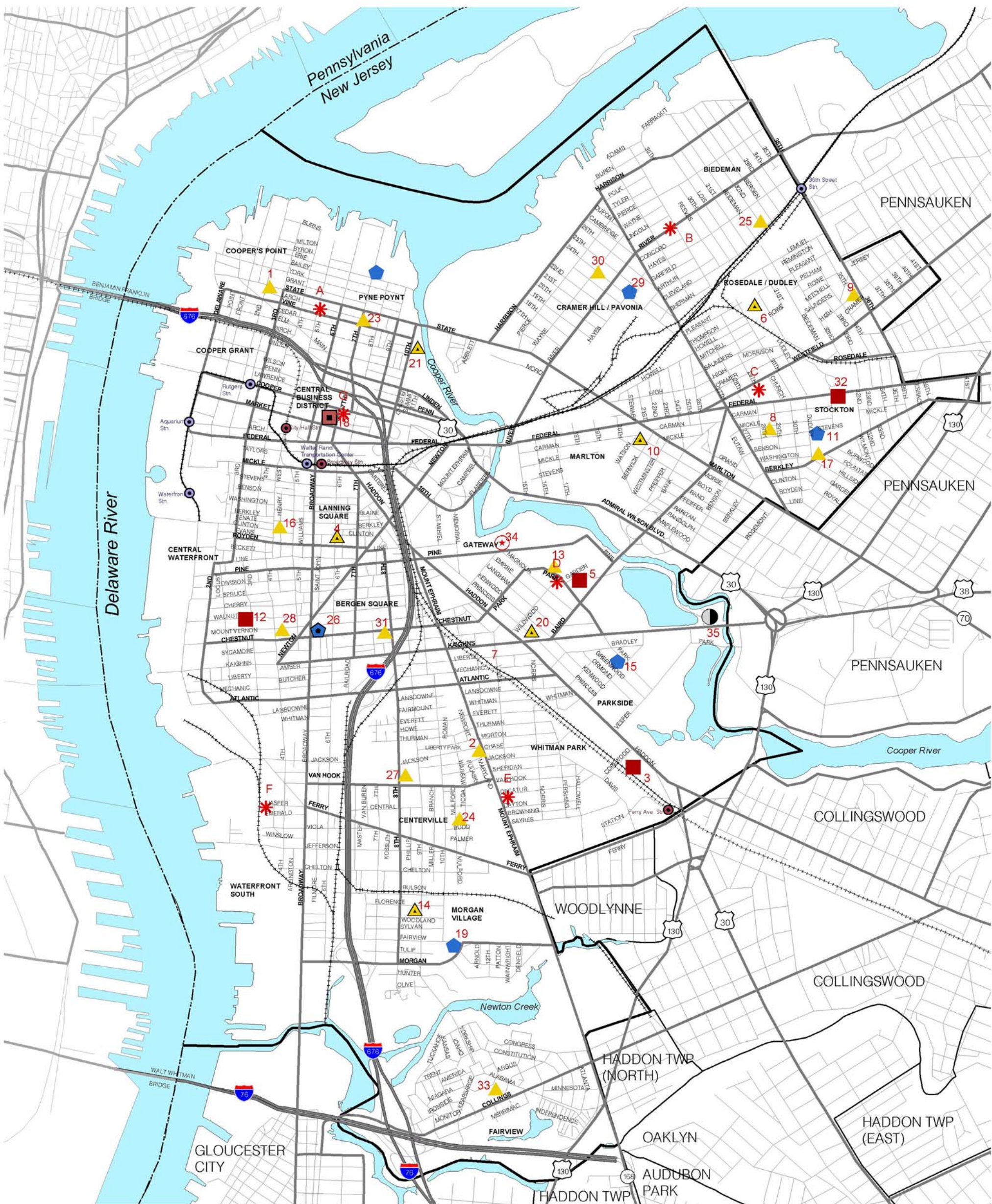
Proposed Joint Projects

- A Stockton Station / Catto Elementary School
- B Centerville
- C North Camden
(Cooper's Poynt ES, Pyne Poynt ES,
R. C. Molina Middle School, Powell ES)

MAP PF-5: PRIORITY SCHOOLS (ABBOTT PROGRAM)
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

Source: Camden Board of Education / NJ School Construction Corporation, March 4, 2003



Legend

Renovations

- ▲ Elementary Schools
- ▣ Middle Schools
- High Schools
- Adult Education School
- ★ Private / Parochial / Charter Schools

New Replacement Buildings

- ▲ Elementary Schools
- ▣ Middle Schools
- High Schools
- ★ Other related facilities

Camden City Public Schools : New Proposals

- 1 Cooper's Point Elementary School
- 2 Bonsall Elementary School
- 3 Brimm Medical Arts High School
- 4 Broadway Elementary School
- 5 Camden High School
- 6 Catto Elementary School
- 7 New District Technology Center
- 8 Cramer Elementary School
- 9 Davis Elementary School
- 10 Dudley Elementary School
- 11 East Camden Middle School
- 12 Feters High School
- 13 Forest Hill Elementary School
- 14 H. B. Wilson Elementary School
- 15 Hatch Middle School
- 16 Lanning Square Elementary School
- 17 McGraw Elementary School
- 18 New Creative and Performing Arts High School
- 19 Morgan Village Middle School
- 20 Parkside Elementary School
- 21 Powell Elementary School
- 22 Pyne Point Middle School
- 23 R. C. Molina Elementary School
- 24 R.T. Cream Elementary School
- 25 Sharp Elementary School
- 26 South Camden Middle School
- 27 Sumner Elementary School
- 28 Ulysses Wiggins Elementary School
- 29 Veterans Memorial Middle School

- 30 Washington Elementary School
- 31 Whittier Elementary School
- 32 Woodrow Wilson High School
- 33 Yorkship Elementary School
- 34 New District Administration Offices
- 35 Riggs Adult Education Center

New School Buildings (Site yet to be determined)

- 36 New Elementary School No. 1
- 37 New Elementary School No. 2
- 38 New Junior High School No. 1
- 39 New Junior High School No. 2
- 40 Camden Technical High school

Private / Parochial / Charter Schools

- A Holy Name Elementary School
- B St. Anthony of Padua Elementary School
- C St. Joseph Elementary School
- D St. Bartholomew Catholic School
- E St. Joseph High School
- F Sacred Heart
- G Leap Academy Middle School

MAP PF-6: PROPOSED SCHOOL IMPROVEMENTS
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000 0 2500 5000 Feet

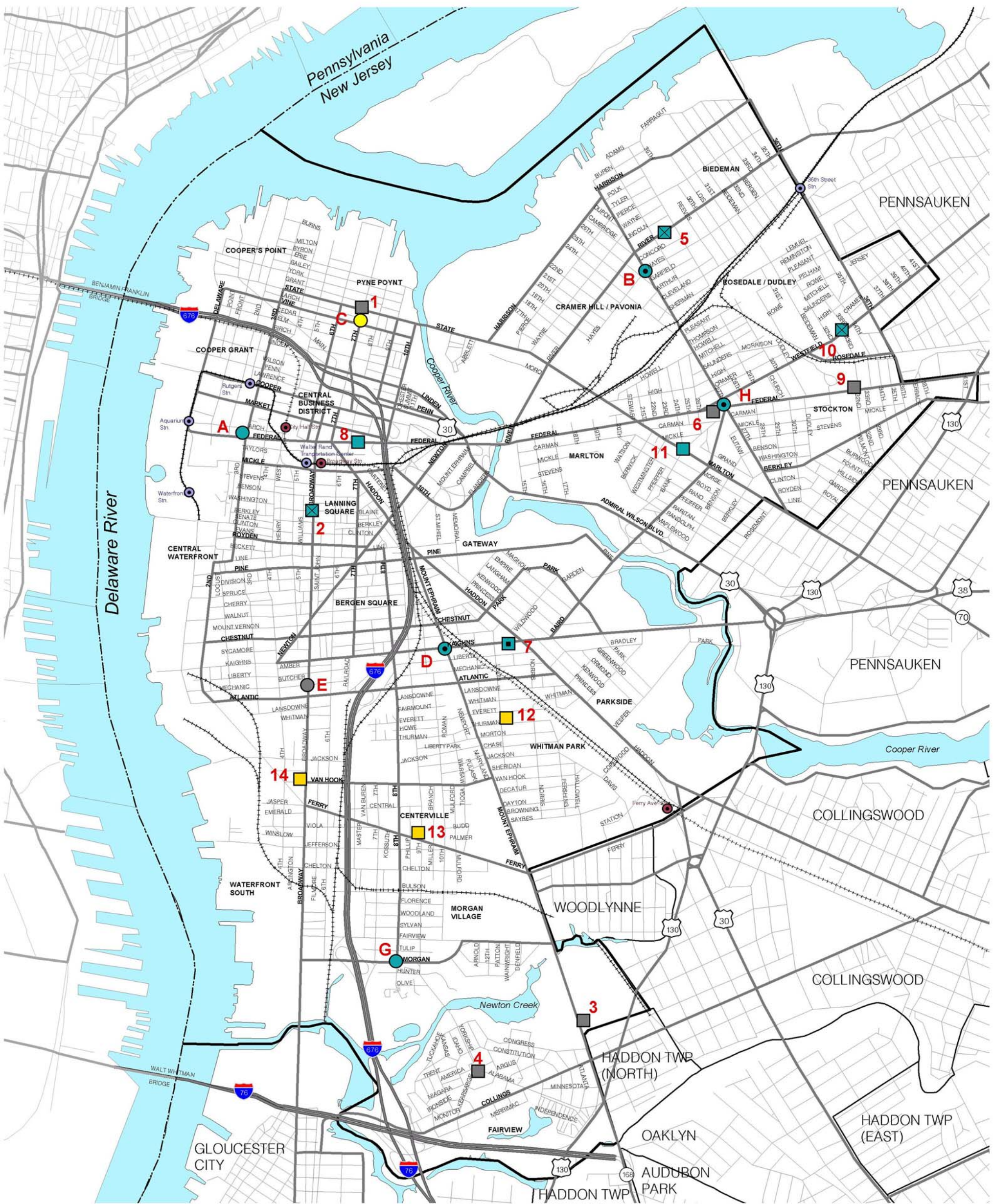
Source: Camden School District Facilities Master Plan, August 2002

April 2003



New Jersey Economic Development Authority

Hammer Siler George Associates - Langan Engineering & Environmental Services, Inc. - Wallace Roberts & Todd, LLC - DMJM + HARRIS
Slade Partners Consulting - Sadat Associates - Government Finance Group/ARD, Inc. - Charles Dilks



Legend		Fire Station Facilities		Police Station Facilities	
Fire Stations	Police Stations	Existing - No Proposals	Existing - No Proposals	Existing - No Proposals	Existing - No Proposals
● Existing - No Proposals	■ Existing - No Proposals	E Firehouse (Broadway & Mechanic St.)	■ Existing - No Proposals	1 1st District Sub-Station (7th & State St.)	5 3rd District Sub-Station (2851 River Ave.)
● Proposed Renovations	■ Proposed Renovations	Proposed Renovations	■ Proposed Renovations	3 2nd District Sub-Station (2800 Mt. Ephraim)	12 Mini-Station (Vicinity of Louis and Thurman St.)
● To Be Replaced	■ To Be replaced	A Fire Administration Headquarters (3rd & Federal St.)	■ To Be replaced	9 Mounted Unit (3195 Federal St.)	13 Mini-Station (Vicinity of Ferry Avenue and 9th St.)
● Proposed Fire Stations	■ Proposed Police Stations	G Firehouse (9th St. & Morgan Village)	■ Proposed Police Stations	10 Mini-Station-Crime Prevention Unit (33rd & Westfield Ave.)	14 Mini-Station (Vicinity of Broadway and Van Hook)
		Fire Stations to be Replaced		11 Mini-Station-Crime Prevention Unit (200 Marlton Pike)	
		B Firehouse (27th St. & Hayes Ave.)		Proposed Renovations	
		D Firehouse (Mt. Ephraim and Kaighns Ave.)		2 1st District Mini-Station (Broadway & Washington)	
		H Firehouse (Federal & 27th St.)		4 2nd District Mini-Station (1201 Yorkship Square)	
		Proposed Fire Stations		6 3rd District Mini-Station (2641 Federal St.)	
		C New Facility (7th & State St.)		Police Stations/Facilities to be Replaced	
		Vacated		7 4th District Sub-Station (1222 Kaighns St.)	
		F Firehouse (Kaighns Ave. & 7th St.)		8 Police Administration Building (800 Federal St.)	

MAP PF-7: PROPOSED POLICE AND FIRE STATION FACILITIES
Camden Capital Improvement / Infrastructure Master Plan

Scale 1:25,000

Source: FutureCamden, 2001

APPENDIX A: Water and Sewer Subplan Tables

**APPENDIX A-1: COMPLETED AND ONGOING PROJECTS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, LOCATION, ETC	ATTRIBUTE:	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)
		CODES:	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)
20	Broadway transmission main	Phase 1	CI	2	2	Bergen Square, Waterfront South	INF	4	\$3.2M	ST	2002	NJDEP -	COMPLETE	NJDEP mandate: Improve system efficiency/water quality	CCMP, CCCIP, CIPR, OPBR, Camden Water	A,C
		Kaighn Ave. to Gloucester City														
21	Conduct engineering evaluation of water mains in	Broadway	CI	2	2	Bergen Square and Lanning Square	INF	4	\$3.2M	ST	2002	NJDEP -	COMPLETE	Improve system efficiency/water quality	CCMP, CCCIP, CIPR, OPBR	C
22	Evaluate system upgrades necessary in	Broadway	CI	2	2	Waterfront South	INF	4	\$3.2M	ST	2002	NJDEP -	COMPLETE	Improve system efficiency/water quality	CCMP, CCCIP, CIPR, OPBR	C
23	Lead service line replacement		CI	2	2	Varies	INF	3	\$7M L (\$6.7M)	ST	2002	NJDEP - EIT	ONGOING	Improve system water quality	CCCIP, CIPR, OPBR, PIR, BR	C
24	Pursue engineering evaluation of water main distribution lines in	East State St.	CI	2	2	North Camden	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CCMP, CIPR, OPBR, PIR, BR	b,c
25	Pursue engineering evaluation of water main distribution lines in	8th St.	CI	2	2	North Camden	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CCMP, CIPR, OPBR, PIR, BR	b,c
26	Evaluate engineering options for water main supply upgrades to	Newton Ave.	CI	2	2	Gateway, Bergen Square, Lanning Square	INF	1,2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CCMP, CIPR, OPBR, PIR, BR	b,c
27	Evaluate engineering options for water main supply upgrades to	Border St.	CI	2	2	Gateway	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CIPR, OPBR, PIR, BR	b,c
28	Evaluate engineering options for water main supply upgrades to	Mt. Ephraim Ave.	CI	2	2	Gateway	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CIPR, OPBR, PIR, BR	b,c
29	Evaluate engineering options for water main supply upgrades to	Whitman standpipe	CI	2	2	Gateway	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CIPR, OPBR, PIR, BR	b,c
30	Evaluate engineering options for water main supply upgrades to	Federal St.	CI	2	2	CBD	INF	2,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CIPR, OPBR, PIR, BR	b,c
31	Upgrade neighborhood water system		CI	2	2	North Camden	INF	1,3	\$3M L	ST		NJDEP - WRL	Construction awarded to contractor	Improve system efficiency/water quality	CIPR, OPBR, PIR, BR, The North Camden Plan	b,c
32	Upgrade neighborhood water system		CI	2	2	Waterfront South	INF	1,4	\$3.2M	ST	2002	NJDEP -	Broadway main (Ph. 1) complete	Improve system efficiency/water quality	CCMP, CCCIP, CIPR, OPBR, Waterfront South	b,c
SEWER																
1	Interim and Long-Term Solids and Floatables Control Plan	Design	AUTH (CCMUA)	5	1	Cramer Hill	ENV	4	\$0.5M	AUTH (CCMUA)	2002		COMPLETE	Solids and floatables removal	CH2M, AK	A
		Design	CI	5	1	Varies	ENV	4	\$4M	ST	2003	NJ SIA	Design fee appropriated	Solids and floatables removal	CH2M, CDU	A
2		Construction	AUTH (CCMUA)	5	1	Cramer Hill	ENV	4	\$0.71M	AUTH (CCMUA)	2002		COMPLETE	Solids and floatables removal	CH2M, AK	A
3	Maintain and repair	Baldwin Point PS	AUTH (CCMUA)	4	1	Cramer Hill	INF, OPS, CAP	4		AUTH (CCMUA)	2002		COMPLETE	Improve system efficiency/performance	CCMP	b,c
4	Grit & screenings pad		CI	4	1	Other	OPS, ENV	3,4					Complete, but Camden Water will expand		CCCIP, Camden Water	B
5	Alarm panels		CI	4	1	Varies	OPS	4					COMPLETE	Improve on-site safety	CCCIP, Camden Water	B

APPENDIX A-1: COMPLETED AND ONGOING PROJECTS CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

#	PROJECT: NAME, LOCATION, ETC	ATTRIBUTE:	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)
		CODES:	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)
11	Replace 4th St. sewers in specific locations	CI		2	1	North Camden	INF	4	\$17.1M L	ST	2003	NJDEP - CWT	Complete Sept. 2003	Upgrade existing sewer system	CCCIP, CIPR, PIR, OPBR, BR	b,c
12	Maintain 2nd St. sewer line	CI		2	1	Central Waterfront, Cooper-Grant, CBD	INF	4	\$17.1M L	ST	2003	NJDEP - CWT	Complete Sept. 2003	Upgrade existing sewer system	CCCIP, CIPR, PIR, OPBR, BR	b,c
13	Upgrade and maintain Tuckahoe Road sewer lines	CI		2	1	Fairview	INF	2	\$2.9M	ST		NJDEP -	Begin construction Sept. 2003	Upgrade existing sewer system	CCCIP, CIPR	b,c
14	Upgrade sewer system on 4th St. between Grant and York	CI		2	1	North Camden	INF	4	\$17.1M L	ST	2003	NJDEP - CWT	Complete Sept. 2003	Upgrade existing sewer system	The North Camden Plan	b,c
15	Upgrade sewer system on Grant St. between 3rd and 5th	CI		2	1	North Camden	INF	4	\$17.1M L	ST	2003	NJDEP - CWT	Complete Sept. 2003	Upgrade existing sewer system	The North Camden Plan	b,c
16	Hydraulic modeling and sewer drawings	CI, AUTH (CCMUA)		1,2,4,5	1	Varies	INF, OPS, CAP	4						Improve system efficiency/performance	CCCIP	C

*** Funding Abbreviations**

EIT = NJ ENVIRONMENTAL INFRASTRUCTURE TRUST FUND
 WRL = WATER SUPPLY REHABILITATION LOAN
 CWT = CLEAN WATER TRUST
 SIAA = STATE INFRASTRUCTURE IMPROVEMENT ACT PROGRAM
 EDA = ECONOMIC DEVELOPMENT AUTHORITY GRANT

**** Resource Abbreviations**

CCCIP = CAMDEN CITY CAPITAL IMPROVEMENT PLAN FOR THE WATER SYSTEM AND WASTEWATER COLLECTION SYSTEM
 CCMP = CITY OF CAMDEN MASTER PLAN
 CIPR = CAMDEN DEPARTMENT OF UTILITIES CAPITAL IMPROVEMENTS PROJECT REPORT
 PIR = CAMDEN DEPARTMENT OF UTILITIES PROJECT INFORMATION REPORT
 OPBR = CAMDEN DEPARTMENT OF UTILITIES OVERALL PROJECT BACKGROUND REPORT
 BR = CAMDEN DEPARTMENT OF UTILITIES PROJECT BACKGROUND REPORTS
 MEMO = NJDEP MEMO DATED 30 OCTOBER 1994
 CH2M = SEWAGE INFRASTRUCTURE IMPROVEMENT ACT PLANNING STUDY - FINAL REPORT
 Main Street Study = MAIN STREET A STUDY TO DETERMINE THE NEED FOR REDEVELOPMENT
 Camden Water = INFORMATION GATHERED FROM A MEETING WITH CAMDEN WATER ON 8 JANUARY 2003
 Camden Water memo = MEMO FROM CAMDEN WATER TO PAUL REDMAN DATED 30 MAY 2001
 Baldwin's Run Flood Study = PRELIMINARY ENGINEERING ANALYSIS FOR STORMWATER STUDY FOR EDA FUNDING, BALDWIN'S RUN DRAINAGE BASIN, CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY
 NJDEP = INFORMATION GATHERED FROM A MEETING WITH NJDEP ON 16 JANUARY 2003
 EW = INFORMATION GATHERED FROM A MEETING WITH ED WILLIAMS (CAMDEN) ON 14 JANUARY 2003
 FPS = DRINKING WATER STATE REVOLVING FUND FINAL PRIORITY SYSTEM, INTENDED USE PLAN, PROJECT PRIORITY LIST, AND RESPONSE DOCUMENT
 AK = INFORMATION GATHERED FROM DISCUSSIONS WITH ANDREW KRICUN (CCMUA)
 CDU = INFORMATION OBTAINED FROM THE CITY OF CAMDEN DEPARTMENT OF UTILITIES

**APPENDIX A-2: PROPOSED PROJECTS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

ATTRIBUTE CODES	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)		
# PROJECT: NAME, LOCATION, ETC	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER PRIORITY) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)		
1	New elevated storage tank	Fairview Tank	CI	3	2	Fairview	CAP	1		ST		NJDEP		NJDEP mandate; Improve system capacity/pressure	CCCIP, MEMO, Camden Water	A
2	Kaighn Ave. tank improvements		CI	3	2	Central Waterfront	CAP	1,4					Inspection complete, but no work has been done	NJDEP mandate; Improve system capacity/pressure	MEMO, Camden Water	A
3	30-in water main rehabilitation	Phase 2 - To be determined	CI	2	2	Varies	INF	1	\$3M	ST		NJDEP -		NJDEP mandate; Improve system efficiency/water	CIPR, MEMO, CDU	A
4	Ongoing distribution upgrades	Fire hydrants and valves	CI	2	2	Varies	INF	2,3,4			ONGOING		ONGOING	Improve system efficiency/water quality	Camden Water, Waterfront South	c
5		Various	CI	2	2	Varies	INF	1		ST		NJDEP	To be determined	Improve system efficiency/water quality	CCCIP	c
6	Loop dead-end water mains		CI	2	2	Varies	INF	1	\$5.5 M	ST		NJDEP		Improve system efficiency/pressure	NJDEP	b
7	Puchack WTP		CI	1	1	Other	CAP	2	\$27M	ST		NJDEP		NJDEP mandate; Improve system capacity	NJDEP, MEMO	A
8	Repainting of pressure filters		CI	1	2	Parkside, Other	OPS	1	\$0.15M	ST		NJDEP		Improve system quality/pressure	NJDEP	c
9	Pursue engineering evaluation of water main distribution lines in	Elm St.	CI	2	2	North Camden	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
10	Pursue engineering evaluation of water main distribution lines in	Erie St.	CI	2	2	North Camden	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
11	Pursue engineering evaluation of water main distribution lines in	Front St.	CI	2	2	North Camden	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
12	Upgrade local distribution lines as part of redevelopment		CI	2	2	Varies	INF	1		PR (DEVELOPER)		PRIVATE		Improve system efficiency/water quality	CCMP, Waterfront South, The North Camden Plan, Main Street Study	b,c
13	Conduct engineering evaluation of water main distribution lines in	Penn St.	CI	2	2	Central Waterfront, Cooper-Grant, CBD	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
14	Conduct engineering evaluation of water main distribution lines in	2nd St.	CI	2	2	Central Waterfront, Cooper-Grant, CBD, Bergen Square, Lanning Square	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
15	Continue maintenance of main distribution system in	River Ave.	CI	2	2	Cramer Hill	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
16	Upgrade local distribution lines along	Federal St. near 17th St.	CI	2	2	Marlton	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
17	Repair main distribution line in	27th St.	CI	2	2	Stockton	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
18	Evaluate maintenance needs for water distribution system with NJAWC at	Federal St.	CI	2	2	Rosedale/Dudley	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
19	Evaluate maintenance needs for water distribution system with NJAWC at	30th St.	CI	2	2	Rosedale/Dudley	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
20	Evaluate system upgrades necessary in	4th St.	CI	2	2	Waterfront South	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
21	Maintain water line distribution in	8th St.	CI	2	2	Liberty Park, Centerville, Morgan Village	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
22	Continue repair of main water line distribution network for	Ferry Ave./ Chelton Ave.	CI	2	2	Morgan Village	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c
23	Continue maintenance of water line main in	Morgan Blvd. along Octagon and Atlanta lines	CI	2	2	Fairview	INF	1		ST		NJDEP		Improve system efficiency/water quality	CCMP	b,c

**APPENDIX A-2: PROPOSED PROJECTS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

ATTRIBUTE CODES	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)	
# PROJECT: NAME, LOCATION, ETC	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER PRIORITY) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)	
24	Repair water main network at Whitman St.	CI	2	2	Whitman Park	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
25	Repair water main network at Haddon Ave.	CI	2	2	Whitman Park	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
26	Repair water main network at Sheridan St.	CI	2	2	Whitman Park	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
27	Maintain and repair water main system at Empire St.	CI	2	2	Parkside	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
28	Maintain and repair water main system at Walnut St.	CI	2	2	Parkside	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
29	Maintain and repair water main system at Haddon Ave. to Mt. Ephraim main water line supply system	CI	2	2	Parkside	INF	1			ST		NJDEP	Improve system efficiency/water quality	CCMP	b,c
30	Upgrade water system in Main St. corridor	CI	2	2	North Camden	INF	1			ST		NJDEP	Improve system efficiency/water quality	Main Street Study	b,c
31	Hydraulic model & study	CI	1,2,3	2	Varies	INF, OPS, CAP	1			ST		NJDEP	Prioritize and size system improvements	CCCIP	B
32	Leak detection survey	CI	2	2	Varies	INF, OPS, CAP	1			ST		NJDEP	Improve system efficiency	CCCIP	A
SEWER															
1	Interim and Long-Term Solid and Floatables Control Plan	Design	CI	5	1	Varies	ENV	2	\$4.2M	ST	ONGOING	NJDEP - SIIA	NJDEP mandate	CH2M, NJDEP	A
2	Control of CSO discharges	Construction	CI	5	1	Varies	ENV	2	\$58.7M	ST		NJDEP - SIIA	NJDEP mandate	CH2M, NJDEP	A
3	Miscellaneous CSO improvements		CI, AUTH (CCMUA)	5	1	Varies	ENV	2,4	\$4.2M	ST, AUTH (CCMUA)	Design ONGOING		NJDEP mandate	CCCIP, AK	A
4	Upgrade or rehabilitate all City-owned pump stations		CI	5	1	Varies	CAP	1		ST		NJDEP	Improve system efficiency/performance	CCCIP	B
5	Repair and upgrade		CI	4	1	Varies	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	Camden Water memo	b,c
6	Repair and upgrade or replace	Arch St. PS (Ferry Ave. PS)	CI	4	1	Central Waterfront, Cooper-Grant	INF, OPS, CAP	1	\$0.9M	ST		NJDEP - SRF	Improve system efficiency/performance	CCMP, NJDEP	b,c
7	Repair and upgrade	Baird Blvd. PS	CI	4	1	Whitman Park	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCCIP, CCMP, Camden Water memo, NJDEP, Camden Water	b,c
8	Repair and upgrade	Federal St. PS	CI	4	1	Marlton	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCMP, Camden Water memo, NJDEP	b,c
9	Repair and upgrade	Pine St. PS	CI	4	1	Marlton	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCMP, Camden Water memo, NJDEP	b,c
10	Repair and upgrade	Fairview PS	CI	4	1	Gateway	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	Camden Water memo	b,c
11	Repair and upgrade	Mt. Ephraim Ave. PS	CI	4	1	Fairview	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCMP, Camden Water memo	b,c
12	Repair and upgrade	State St. PS	CI	4	1	Morgan Village	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCMP, Camden Water memo	b,c
13	Repair and upgrade	Morgan Blvd. PS	CI	4	1	Cramer Hill	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	Camden Water memo	b,c
14	Replace Morton Blvd. PS sewage ejector		CI	4	1	Waterfront South	INF, OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	Camden Water memo	b,c
15	Upgrade Pine St. PS transformers		CI	4	1	Morgan Village	ENV	1		ST		NJDEP	Improve system efficiency/performance	CCCIP, Camden Water	A
16	Roofs & exterior walls		CI	4	1	Parkside	ENV	1		ST		NJDEP	Improve environmental quality	CCCIP, Camden Water	A
17	Automatic mechanically cleaned screens		CI	4	1	Varies	OPS	1		ST		NJDEP	Improve worker safety	CCCIP, Camden Water	A
18	Ventilation systems		CI	4	1	Varies	OPS, CAP	1		ST		NJDEP	Improve system efficiency/performance	CCCIP, Camden Water	A
19	Emergency generators		CI	4	1	Varies	OPS	3,4		ST	ONGOING	ONGOING	Improve worker safety	CCCIP, Camden Water, CH2M	A
20			CI	4	1	Varies	OPS	1		ST		NJDEP	Improve system efficiency/performance	CCCIP, Camden Water, CH2M	A

**APPENDIX A-2: PROPOSED PROJECTS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

ATTRIBUTE	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)	
# PROJECT: NAME, LOCATION, ETC	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER PRIORITY) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)	
21	Pumps, motors, & VFDs	CI	4	1	Varies	OPS, CAP	2,3,4			ONGOING		ONGOING	Improve system efficiency/performance	CCCIP, Camden Water	B
22	Electrical & safety	CI	4	1	Varies	OPS	3,4			ONGOING		ONGOING	Improve worker safety	CCCIP, Camden Water	B
23	Doors & windows	CI	4	1	Varies	OPS	2,3,4			ONGOING		ONGOING	Improve on-site safety	CCCIP, Camden Water	C
24	Security & grounds	CI	4	1	Varies	OPS	2,3,4			ONGOING		ONGOING	Improve worker/on-site safety	CCCIP, Camden Water	C
25	Building interior areas	CI	4	1	Varies	OPS	2,3,4			ONGOING		ONGOING	Improve worker safety	CCCIP, Camden Water	C
26	Valves & piping	CI	4	1	Varies	OPS, CAP	1	ST			NJDEP		Improve system efficiency/performance	CCCIP, Camden Water	C
27	Sump pumps	CI	4	1	Varies	CAP	1	ST			NJDEP		Improve system efficiency/performance	CCCIP, Camden Water	C
28	Continue CCTV program	PR (Camden Water)	2	1	Varies	INF	1,2,3,4	AUTH (Camden Water)	ONGOING			ONGOING	Document sewer conditions	Camden Water, CDU	b,c
29	Manhole & catch basin replacement	CI	2	1	Varies	INF	2,3,4						Improve system efficiency; safety	CCCIP	A
30	Evaluate East State St. sewer line maintenance program	CI	2	1	North Camden	INF	1	ST			NJDEP		Improve system efficiency/performance	CCMP	b,c
31	Evaluate 10th St. for infiltration and deterioration	CI	2	1	North Camden	INF, CAP	1	ST			NJDEP		Improve system efficiency/performance	CCMP	b,c
32	Reline 72" sewer line in Front St.	CI	2	1	North Camden	INF, CAP, ENV	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
33	Upgrade sewer line at 7th St.	CI	2	1	Bergen Square and Lanning Square	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
34	Upgrade sewer line at Pine St.	CI	2	1	Bergen Square and Lanning Square	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
35	Maintain sewer lines in Newton Ave.	CI	2	1	Gateway	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
36	Maintain sewer lines in Memorial Ave.	CI	2	1	Gateway	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
37	Maintain and repair sewer line in Harrison Ave.	CI	2	1	Cramer Hill	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
38	Rebuild sewer collection network along Federal St.	CI	2	1	Marlton	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
39	Maintain sewer lines in Ferry Ave. network	CI	2	1	Waterfront South	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
40	Maintain sewer lines in 4th St. network	CI	2	1	Waterfront South	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
41	Reline 48" sewer line in Division St.	CI	2	1	Waterfront South	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
42	Maintain Ferry Ave. line	CI	2	1	Morgan Village	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
43	Maintain Mt Ephraim sewer line	CI	2	1	Morgan Village	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
44	Upgrade and maintain Morgan Blvd. sewer lines	CI	2	1	Fairview	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
45	Maintain and repair Ferry Ave. sewer line	CI	2	1	Whitman Park	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
46	Maintain and repair Pine St. sewer line	CI	2	1	Parkside	INF	1	ST			NJDEP		Upgrade existing sewer system	CCMP	b,c
47	Upgrade sewer system in Main St. corridor	CI	2	1	North Camden	INF	1	ST			NJDEP		Upgrade existing sewer system	Main Street Study	b,c
48	Repair local sewer system as part of redevelopment	CI	2	1	Varies	INF	1,2,3,4	ST, PR (DEVELOPER)			NJDEP, PRIVATE		Upgrade existing sewer system	CCMP, Waterfront South	b,c
49	Create separate storm and sanitary lines as part of redevelopment	CI	2	1	Gateway, Cramer Hill, Rosedale/Dudley, Waterfront South, Central Waterfront, Cooper-Grant, CBD	INF, CAP, ENV	1	ST, PR (DEVELOPER)			NJDEP, PRIVATE		Upgrade existing sewer system	CCMP	a,b,c

APPENDIX A-2: PROPOSED PROJECTS CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

ATTRIBUTE	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM	YEAR	FUND*	SCHEDULE	PURPOSE	REFERENCE/ SOURCE**	URGENCY (per Source)
CODES:	ST = STATE CO = COUNTY CI = CITY AUTH = AUTHORITY PR = PRIVATE (EXPLAIN)	1 = WTP, WWTP, WELLS 2 = PIPE NETWORK/ CONVEYANCE 3 = WATER TANKS 4 = PUMP STATION 5 = CSO DISCHARGE	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE 2 = LOCAL SYSTEM/ SIGNIFICANCE	CITY NEIGHBORHOOD	INF = INFRASTRUCTURE OPS = OPERATIONS/ SAFETY CAP = CAPACITY EN = ENHANCEMENT (EXPLAIN) ENV = ENVIRONMENTAL	1 = NEW IDEA, NEED, PLAN & CONCEPT 2 = PROPOSAL/ ENVIRONMENTAL DESIGN 3 = CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE) L following amount indicates loan	ST = STATE LA = LOCAL AID CO = COUNTY CI = CITY AU = AUTHORITY CAPITAL PROG. PR = PRIVATE (EXPLAIN) Bold indicates potential capital funding program		* Abbreviations can be found at bottom of table Bold indicates potential funding source	MILESTONES/DATES	INTENT/OBJECTIVES OF THE PROJECT	** Abbreviations can be found at bottom of table	A = REGULATORY MANDATE (HIGHEST PRIORITY) B = HEALTH & SAFETY (HIGHER PRIORITY) C = QUALITY/ RELIABILITY OF SERVICE (PRIORITY)
#	PROJECT: NAME, LOCATION, ETC													

DRAINAGE & FLOODING															
1	Examine alternatives to correct flooding along Admiral Wilson Blvd.	ST	2	1	Marlton	INF, CAP, ENV	2	\$14.5M	ST		NJDOT	Develop final scope Jan. 2004; Begin construction March 2006	Eliminate/reduce flooding occurrence	CCMP, NJDOT Project Briefing Paper	b
2	Resolve flooding near 34th St. and Westfield Ave.	CI	2	1	Cramer Hill, Rosedale/Dudley, Stockton, Other	INF, CAP, ENV	2		ST		NJDEP		Eliminate/reduce flooding occurrence	CCMP, CIPR	b
3	Construct retention basin to correct flooding at River Ave. between 29th and 30th St.	CI, CO, ST	2	1	Cramer Hill	INF, CAP, ENV	2	\$1M	CI, CO, ST		NJDEP		Eliminate/reduce flooding occurrence	CCMP, FMAS	b
4	Correct flooding at Kaighn Ave. and 10th St.	CI	2	1	Gateway	INF, CAP, ENV	1		ST		NJDEP		Eliminate/reduce flooding occurrence	CCMP	b
5	Correct flooding at 7th St. and Linden St.	CI	2	1	North Camden	INF, CAP, ENV	1		ST		NJDEP		Eliminate/reduce flooding occurrence	CCMP	b
6	Resolve flooding at I-676 and Atlantic Ave.	ST	2	1	Waterfront South, Bergen Square, Gateway, Liberty Park	INF, CAP, ENV	2	\$2.5M	ST		NJDOT	Develop final scope Spring 2003; Design Spring 2006; Begin construction Summer 2006	Eliminate/reduce flooding occurrence	NJDOT Project Briefing Paper	b
7	Resolve flooding at Westfield Ave. and 33rd St.	CI	2	1	Cramer Hill	INF, CAP	2	\$2.5M	CI, ST, FEDERAL		NJEDA	Application for federal assistance submitted 9	Eliminate/reduce flooding occurrence	Baldwin's Run Flood Study	b
8	Resolve flooding at High Street and 33rd St.	CI	2	1	Centerville	INF, CAP, ENV	1		ST		NJDEP		Eliminate/reduce flooding occurrence	EW	b
9	Correct flooding in Centerville	CI	2	1	Centerville	INF, CAP, ENV	1		ST		NJDEP		Eliminate/reduce flooding occurrence	EW	b
10	Rehabilitate flooded portion of Famham Park	CI	2	1	Parkside	INF, CAP, ENV	1		ST		NJDEP		Increase green/open space	Camden Greenways	b
11	Repair or replace storm drains	CI	2	1	Waterfront South, Rosedale/Dudley	INF, CAP, ENV	1		ST		NJDEP, PRIVATE		Upgrade existing storm system	CCMP, Waterfront South	b

* **Funding Abbreviations**
EIT = NJ ENVIRONMENTAL INFRASTRUCTURE TRUST FUND
WRL = WATER SUPPLY REHABILITATION LOAN
CWT = CLEAN WATER TRUST
SIA = STATE INFRASTRUCTURE IMPROVEMENT ACT PROGRAM
EDA = ECONOMIC DEVELOPMENT AUTHORITY GRANT

** **Resource Abbreviations**
CCIP = CAMDEN CITY CAPITAL IMPROVEMENT PLAN FOR THE WATER SYSTEM AND WASTEWATER COLLECTION SYSTEM
CCMP = CITY OF CAMDEN MASTER PLAN
CIPR = CAMDEN DEPARTMENT OF UTILITIES CAPITAL IMPROVEMENTS PROJECT REPORT
PIR = CAMDEN DEPARTMENT OF UTILITIES PROJECT INFORMATION REPORT
OPBR = CAMDEN DEPARTMENT OF UTILITIES OVERALL PROJECT BACKGROUND REPORT
BR = CAMDEN DEPARTMENT OF UTILITIES PROJECT BACKGROUND REPORTS
MEMO = NJDEP MEMO DATED 30 OCTOBER 1994
CH2M = SEWAGE INFRASTRUCTURE IMPROVEMENT ACT PLANNING STUDY - FINAL REPORT
Main Street Study = MAIN STREET A STUDY TO DETERMINE THE NEED FOR REDEVELOPMENT
Camden Water = INFORMATION GATHERED FROM A MEETING WITH CAMDEN WATER ON 8 JANUARY 2003
Camden Water memo = MEMO FROM CAMDEN WATER TO PAUL REDMAN DATED 30 MAY 2001
Baldwin's Run Flood Study = PRELIMINARY ENGINEERING ANALYSIS FOR STORMWATER STUDY FOR EDA FUNDING, BALDWIN'S RUN DRAINAGE BASIN, CITY OF CAMDEN, CAMDEN COUNTY, NEW JERSEY
NJDEP = INFORMATION GATHERED FROM THE NJDEP
EW = INFORMATION GATHERED FROM A MEETING WITH ED WILLIAMS (CAMDEN) ON 14 JANUARY 2003
FPS = DRINKING WATER STATE REVOLVING FUND FINAL PRIORITY SYSTEM, INTENDED USE PLAN, PROJECT PRIORITY LIST, AND RESPONSE DOCUMENT
AK = INFORMATION GATHERED FROM DISCUSSIONS WITH ANDREW KRICUN (CCMUA)
CDU = INFORMATION OBTAINED FROM THE CITY OF CAMDEN DEPARTMENT OF UTILITIES
FMAS = FLOODING MITIGATION ALTERNATIVES STUDY, VON NEIDA PARK/CRAMER HILL, CITY OF CAMDEN CAMDEN COUNTY, NJ

**APPENDIX A-3: PRIORITY WATER AND SEWER PROJECTS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Priority Project	Amount	Unit Cost	Total Cost	Potential Funding Source*
WATER SYSTEM				
1 Fairview Water Tank	1 LS	\$ 3,500,000 /LS ¹	\$ 3,500,000	ERB, CDBG, PWDF
2 Replace old fire hydrants	115 HYD	\$ 2,500 /HYD ²	\$ 287,500	ERB, CDBG, PWDF
3 Hydrant installation at dead-end water mains	7 HYD	\$ 2,500 /LF ³	\$ 17,500	ERB, CDBG, PWDF
4 Localized water main rehabilitation/reconstruction	20,000 FT	\$ 350 /LF ⁴	\$ 7,000,000	ERB, CDBG, PWDF
5 Leak detection survey	1 LS	\$ 40,000 /LS ⁵	\$ 40,000	ERB, CAMDEN WATER
TOTAL			\$ 10,845,000	

2004	2005	2006	2007	2008	TOTAL
\$ 3,500,000	\$ -	\$ -	\$ -	\$ -	\$ 3,500,000
\$ 287,500	\$ -	\$ -	\$ -	\$ -	\$ 287,500
\$ 17,500	\$ -	\$ -	\$ -	\$ -	\$ 17,500
\$ -	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 7,000,000
\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 40,000
\$ 3,845,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000	\$ 10,845,000

SEWER SYSTEM					
1 CSO discharge control	Construction	28 CSO	\$ 750,000 /CSO ⁶	\$ 21,000,000	NJ SIIA, ERB, CDBG, PWDF, CCMUA
2 Repair PS	Arch St. PS	1 LS	\$ 900,000 /LS ⁷	\$ 900,000	CCMUA
	City Line (Ferry Ave.) PS				
	Baird Blvd. PS				
	Federal St. PS				
Repair PS	Fairview PS	1 LS	\$ 225,000 /LS ⁸	\$ 225,000	CCMUA
	Pine St. PS	1 LS	\$ 225,000 /LS ⁸	\$ 225,000	CCMUA
	Mt. Ephraim Ave. PS	1 LS	\$ 225,000 /LS ⁸	\$ 225,000	CCMUA
	State St. PS	1 LS	\$ 225,000 /LS ⁸	\$ 225,000	CCMUA
Repair/replace Morgan Blvd. sewage ejector		1 LS	\$ 75,000 /LS ⁹	\$ 75,000	CCMUA
3 Localized sewer rehabilitation/reconstruction		25,000 FT	\$ 550 /LF ¹⁰	\$ 13,750,000	ERB, CDBG, PWDF
4 Sewer main CCTV program		1 LS	\$ 500,000 /LS ¹¹	\$ 500,000	ERB, CAMDEN WATER
TOTAL			\$ 37,125,000		

\$ -	\$ 21,000,000	\$ -	\$ -	\$ -	\$ 21,000,000
\$ 900,000	\$ -	\$ -	\$ -	\$ -	\$ 900,000
\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
\$ -	\$ 3,437,500	\$ 3,437,500	\$ 3,437,500	\$ 3,437,500	\$ 13,750,000
\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ 500,000
\$ 2,125,000	\$ 24,687,500	\$ 3,437,500	\$ 3,437,500	\$ 3,437,500	\$ 37,125,000

GRAND TOTAL

\$47,970,000

APPENDIX A-3: PRIORITY WATER AND SEWER PROJECTS CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

Unit Cost Information Source

- 1 = Camden Department of Utilities
- 2 = Camden Water
- 3 = Camden Department of Utilities, Cooper's Ferry Development Authority
- 4 = Camden Department of Utilities, Cooper's Ferry Development Authority
- 5 = Discussions with contractors
- 6 = NJDEP, CH2MHill
- 7 = NJDEP
- 8 = NJDEP
- 9 = Camden City Capital Improvement Plan for the Water System and Wastewater Collection System
- 10 = Camden Department of Utilities
- 11 = Discussion with contractors

* Potential Funding Source

- ERB = ECONOMIC REVIEW BOARD
- NJ SRF = NEW JERSEY STATE REVOLVING FUND
- NJ SIIA = NEW JERSEY SEWER INFRASTRUCTURE IMPROVEMENT ACT
- NJDOT = NEW JERSEY DEPARTMENT OF TRANSPORTATION
- CDBG = USHUD COMMUNITY DEVELOPMENT BLOCK GRANT
- PWDF = USEDPA PUBLIC WORKS AND DEVELOPMENT FACILITIES PROGRAM
- CCMUA = CAMDEN COUNTY MUNICIPAL UTILITIES AUTHORITY

PROGRAMS AND STUDIES

WATER SYSTEM

- | | |
|---|---|
| 1 | Water valve inventory and assessment |
| 2 | Hydraulic model & study of water system |

SEWER SYSTEM

- | | |
|---|---|
| 1 | Expand existing inlet and street cleaning program |
| 2 | Stabilize abandoned sites |
| 3 | Feasibility study for Phase 2 CSO Long-Term Control Plan compliance |

GENERAL RECOMMENDATIONS

- | | |
|---|---|
| 1 | Developer's on-site stormwater systems shall conform to NPDES BMPs |
| 2 | Operations coordination between City, Camden Water, and CCMUA for regulators |
| 3 | Increase coordination within City organizations (Dept. of Utilities, Dept. of Public Works, Planning Board) |
| 4 | Developer's responsibility to replace existing water mains and laterals for all new development (along entire frontage) |
| 5 | Developer's responsibility to replace existing sewer mains and laterals for all new development (along entire frontage) |
| 6 | Developer's responsibility to separate storm/sanitary lines along waterfront redevelopment |
| 7 | Demolition of any existing structure shall include removal of water and sewer laterals (along entire frontage) |

APPENDIX B: Transportation Subplan Tables

**APPENDIX B-1: EXISTING NJ TRANSIT BUS SERVICE
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Bus Routes	Roadways Served	Employment Areas Served	Times of Service	Headways (min.)	
				Peak	Off-Peak
313/ 315	I – 676, Broadway, Route 47, NJ Ave., Ocean Dr.	Philadelphia (Greyhound Bus Terminal), Vineland, Millville, So. State/Bayside Correctional Facility, Woodbine, Wildwood, Cape May, Pennsauken Rowan U. (Glassboro), Cape May Court House	Wkday: 6:25 AM – 12:46 AM	NA	NA
			Sat: 6:25 AM – 12:46 AM Sun: 6:25 AM – 12:46 AM To Camden/ Philadelphia		
			Wkday: 6:30 AM – 11:59 PM Sat: 6:30 AM – 11:59 PM 6:30 AM – Sun: 11:59 PM To Cape May	NA	NA
317	Admiral Wilson Blvd., NJ Route 38, Elizabeth St., Route 528, NJ Route 88, NJ Route 71, NJ Route 530	Ft. Dix, McGuire Air Force Base, Burlington County College, Browns Mills Shopping Center, Brick Plaza, Cherry Hill Mall, Moorestown Mall, Deborah Hospital, Walson Hospital, VA Center, Philadelphia, Mt. Laurel, Mt. Holly, Pemberton, Browns Mills, Wrightstown, Cassville, Lakewood, Brick, Point Pleasant, Belmar, Asbury Park	Wkday: 4:53 AM – 10:15 PM	75	120
			Sat: 4:01 AM – 10:19 PM Sun: 4:01 AM – 10:19 PM To Asbury Park	120	120
			Wkday: 5:33 AM - 12:54 AM Sat: 6:53 AM - 12:53 AM Sun: 6:53 AM - 12:53 AM To Camden/ Philadelphia	75 160 180	120 160 120
400	Mt. Ephraim Ave., Main St., Black Horse Pike, Center City, Philadelphia	Sicklerville, Avondale Park and Ride, Williamstown, Turnersville, Lakeland, Deptford Mall, Camden County College, Blackwood, Runnemede, Bellmawr, Mt. Ephraim, Audubon Park, Black Horse Center, Philadelphia, Rutgers University, Cooper Hospital, Bellmawr Industrial Park, Rowan University (Camden campus)	Wkday: 4:47 AM – 2:45 AM	15	15
			Sat: 5:22 AM – 2:27 AM Sun: 6:02 AM – 2:09 AM To Sicklerville	15 30	15 30
			Wkday: 3:58 AM - 1:02 AM Sat: 3:57 AM - 12:52 AM Sun: 4:38 AM - 12:32 AM To Philadelphia	12 15 30/ 60	15 15 30
401	Broad St., Kings Highway, Broadway, Main St., Market St., Center City, Philadelphia.	Rutgers University, Camden County College, Rowan University, Salem, Woodstown, Swedesboro, Woodbury, Westville, Brooklawn, Gloucester, Philadelphia	Wkday: 5:22 AM – 1:23 AM Sat: 5:22 AM – 11:50 PM Sun: 6:49 AM – 12:13 AM To Salem	50/ 120 120 60	120 120 60/ 120

**APPENDIX B-1: EXISTING NJ TRANSIT BUS SERVICE
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

			Wkday:	4:45 AM – 11:09 PM	60	120
			Sat:	4:46 AM – 9:19 PM	120	120
			Sun:	6:09 AM – 11:22 PM	60/ 120	30/ 90
			To Camden/ Philadelphia			
402	Broadway, I – 676, Crown Pt. Rd., Broad St., US Route 130, Shell Rd., Center City, Philadelphia. (limited service)	Cooper Hospital, Rutgers, Government Offices, Pureland Industrial Park, Philadelphia, Gloucester, Brooklawn, Westville, Woodbury, Paulsboro, Gibbstown, Pedricktown, Beckett, Penns Grove, Pennsville, Camden County College, Rowan University (Camden Campus)	Wkday:	5:42 AM – 10:14 PM	30	60/ 80
			Sat:	5:52 AM – 8:52 PM	60	120
			Sun:	7:49 AM – 7:47 PM	NA	NA
			To Pennsville			
			Wkday:	4:57 AM – 11:32 PM	30	70/ 90
			Sat:	4:58 AM – 10:42 PM	60	120
			Sun:	6:53 AM – 9:22 PM	NA	NA
			To Camden/ Philadelphia			
403	Haddon Ave., White Horse Pike, Berlin Rd., Gibbsboro Rd., Erial Rd., Center City, Philadelphia	Cooper Hospital, Rutgers, Government Offices, Collingswood, White Horse Pike Corridor, Turnersville, Erial, Camden County College, Pine Hill, Gloucester, Lindenwold PATCO, Echelon Mall, Haddon Heights, Audubon, Barrington, Philadelphia, Our Lady of Lourdes Hospital, Ferry Ave. PATCO, Rowan College (Camden), Camden Co. college (Camden), Kennedy Memorial Hospital (Stratford)	Wkday:	5:37 AM – 2:00 AM	15	30
			Sat:	6:24 AM – 2:59 AM	45	45
			Sun:	6:42 AM – 2:20 AM	60	60
			To Turnersville			
			Wkday:	4:21 AM – 1:27 AM	15	30
			Sat:	5:10 AM – 1:26 AM	45	45
			Sun:	5:25 AM – 12:52 AM	60	60
			To Camden/ Philadelphia			
404	Broadway, Market St., Federal St., Westfield Ave., Center City, Philadelphia	Cooper Hospital, Rutgers, Government Offices, Cherry Hill Mall, Pennsauken Industrial Park, Cherry Hill, Pennsauken, Merchantville, Camden Co. college (Camden), Rowan U. (Camden), Philadelphia	Wkday:	5:02 AM – 12:15 AM	10	45
			Sat:	5:18 AM – 12:12 AM	40	40
			Sun:	8:19 AM – 11:16 PM	60	60
			To Cherry Hill Mall			
			Wkday:	5:10 AM – 11:22 PM	10/ 20	45
			Sat:	6:07 AM – 11:22 PM	40	40
			Sun:	7:37 AM – 10:22 PM	60	60
			To Camden/ Philadelphia			
405	Center City, Philadelphia, Federal St., Chapel Ave.	Cooper Hospital, Rutgers University, Government Offices, Cherry Hill Mall, Garden State Park, Pennsauken, Cherry Hill, Merchantville, Philadelphia, Kennedy Memorial Hospital, Camden County College, Rowan University (Camden)	Wkday:	6:44 AM – 10:19 PM	30/ 60	45
			Sat:	7:29 AM – 10:50 PM	60	60
			Sun:	10:13 AM – 6:36 PM	60	60
			To Cherry Hill Mall			
			Wkday:	6:09 AM – 11:55 PM	30	45
			Sat:	8:30 AM – 11:55 PM	60	60
			Sun:	10:46 AM – 7:19 PM	60	60
			To Camden/ Philadelphia			

**APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM, IF INCLUDED/PROGRAMME D IN:	YEAR	FUNDING SOURCE	SCHEDULE	PURPOSE
CODES:	STATE=ST; COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT			MILESTONES/ DATES	INTENT/OBJECTIVES OF THE PROJECT	
1	S. 19th Street-Admiral Wilson Blvd. to Skate	DRPA	2	2	Marlton	CAP	4	\$150K	LA		CDBG, ST, DRPA	des-spr; open 02	open site for dev.
2	Admiral Wilson Blvd Rehabilitation	ST/Auth - DRPA	1	1	various	INF	4	\$30 million	AU		AU		rehab, restoration, amenities
3	28th Street & Various - resurfacing	CI	1	2	see last page	INF	4	\$496 k	LA/CDBG		ST, CI-CDBG		repair streets
4	Baird Ave. Drainage Improvement	DVRPC	1	2		INF	3		TP: FSD/450	2	FED		improve drainage
5	Baird Blvd/Camden Park Bikeways -- new	CI	1	2	Pyne Poynt/ Parkside	EN - new bikeways	4	\$172K	LA - Bike Program	02/03	LA - Bike Program		local bikeways
6	Battleship USS NJ Historic Museum - ship	PR - Homeport Alliance	MUSEUM	2	Central Waterfront		3	\$22m	TP: cons/0.4M; LA	02	FED/CO/DRPA		creation of ship museum
7	Beacon School Signals traffic controls	CI	1	2	11 school zones	OPS	3	\$150K	LA		ST		safety of school children
8	Benjamin Franklin Bridge 6th St	Auth - DRPA	1	2	CBD	INF	ongoing	\$551k	AU		DRPA		rehab - pedestrian safety
9	Camden City Resurfacing-Phase 1	CI	1	2	various - *below	INF	3	\$2.53M	TP: con/2.29; LA	03	FED	des-spr02; cons sum03;	repair streets
10	Camden City Resurfacing-Phase 2			2	various - below	INF	2	\$2.294M	LA	4	FED		repair streets
11	Camden City Signal Upgrade - Group 1 -	CI	1	2	various - ** below	INF	3	\$1.267 million	TP con/1.05; LA	03/04	FED	CONS 03	improve intersections
12	Camden City Signal Upgrade - Group 2 -	CI	1	2	various - ** below	INF	2	\$1.050M	TP con/1.05	04	FED		improve intersections
13	Camden Infrastructure Improvement Plan		STUDY	?		Study	1						
	Camden Interior Gateway Projects - Phase 1 - New Streetscape & Utility	DRPA/Cooper's Ferry	1	2	Cooper/Grant, CBD	EN - streetscapes		\$17 million	FED/LA/DRPA/NJ TRANSIT/Rutgers/ Camden Empowerment Zone		FED		
14	- Market St.						4	\$2.2 million					
15	- Penn St.						4	\$900 k					
16	- Broadway						4	\$2.5 million					
17	- 4th Street						4	\$600 k					
18	- 2nd Street						4	\$1 million					
19	- Delaware Avenue						4	\$3 million					
20	- Point Street						4	\$400 k					
21	- Cooper Street						4	\$3.3 million					
22	- Linden Street						4	\$900 K					
23	- 5th Street						4	\$800 k					
24	- 3rd Street						4	\$400 k					
25	- Front Street						4	\$400 k					

**APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM, IF INCLUDED/PROGRAMMED IN:	YEAR	FUNDING SOURCE	SCHEDULE MILESTONES/ DATES	PURPOSE
CODES:	STATE=ST, COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT					
26	- Mickle Blvd. Camden Interior Gateway Projects - Phase 2 - New Streetscape & Utility	DRPA/Cooper's Ferry/etc.	1	2	Cooper/Grant, CBD	EN - streetscapes	4	\$500 k			FED		
27	- Market St.							\$1 million					
28	- Mickle Blvd.							\$1.33 million					
29	- 7th Street							\$200 k					
30	- 6th Street							\$500 k					
31	- 2nd Street							350					
32	- Friends Street							500					
33	- Federal Street							\$2 million					
34	- Haddon Avenue							\$900 k					
35	- Broadway							\$200 k					
36	- 5th Street							\$1.05 million					
37	- 3rd Street							\$600 k					
38	- Front Street							\$400 k					
39	Camden Interior Gateway Projects - Phase 1 Street Paving	DRPA/Cooper's Ferry/etc.	1	2	Cooper/Grant, CBD	EN - streetscapes	4	\$1.25 million	LA/DRPA/NJ TRANSIT		FED		
40	Camden Interior Gateway Projects - Phase 2 Street Paving	DRPA/Cooper's Ferry/etc.	1	2	Cooper/Grant, CBD	EN - streetscapes	4	\$1.5 million	LA/DRPA/NJ TRANSIT		FED		
41	Camden Interior Gateway Projects - Façade Improvements	DRPA/Cooper's Ferry/etc.	1	2	Cooper/Grant, CBD	EN - streetscapes	2	\$2 million	LA/DRPA/NJ TRANSIT		FED		
42	Camden Interior Gateway Projects - Johnson Park Restoration	DRPA/Cooper's Ferry/etc.	1	2	Cooper/Grant, CBD	EN - streetscapes	2	\$1 million			FED		
44	Camden Signage & Wayfinding Prog - Phase 1	CI/Cooper's Ferry	1	2	Throughout		4	\$500K	LA	02	ST		
45	Camden Signage & Wayfinding Prog -	CI/Cooper's Ferry	1	2	Cooper/Grant, CBD		3	\$560K			CI		
46	Camden Interior Gateway Projects - Neighborhood Commercial	DRPA/Cooper's Ferry/etc.	1	2	Five neighborhoods: Whitman Park (Mt. Ephraim Avenue, Parkside (Baird Blvd.), M Mariton (Mariton Pike), Cramer	EN - streetscapes	2	\$5 million	LA/DRPA/NJ TRANSIT		FED		
47	Camden Transit Street Improvements	Local Lead	2	2	TBD	INF/CAP	1	\$3.75M	TP: erc/3.75	03/04	ST		street improvements to enable LRT
48	Camden Waterfront Access improvement Study	Auth - DRPA	STUDY	1/2	Gateway/ Downtown	CAP	1	\$25M	none	n/a	n/a		improve regional access to Downtown and Waterfront

**APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY
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	PROJECT: NAME, ROUTE #, ETC												
49	Camden Waterfront Dev. Access Roads: new block of city streets at Waterfront, Cooper to Arch, Aquarium to Riverside	CI/Cooper's Ferry	1	2	Cooper-Grant/ Central Waterfront. - *****below	CAP	2	\$3 million	LA	02, 03	ST		improve waterfront access
50	Camden Waterfront Development Assessment/Site Inv	AU-DRPA	STUDY	2	Waterfront - One Port C enter to Benjamin Franklin Bridge	Study	1	\$135k	AU		AU	ongoing	environmental. assess for permit applications for dev.
51	Camden Waterfront Promenade Ext'n- Phases 1 & 2: Market to Point	DRPA/Cooper's Ferry	1	2	Cooper/Grant - BF Bridge to Market St.	CAP	3 and 4	\$8.5 million	AU	02	DRPA		
53	Camden Waterfront Visitor Center & Children's Garden	Camden City Garden Club, Inc.	MUSEUM	2	Central Waterfront	EN	4	\$535K	LA		FED	Complete	amenities
54	Carl Miller & Various Streets : resurfacing	CI	1	2	see last page	INF	4	\$568K	LA	97	FED		repair streets
55	Cooper Hospital Helipad	PR	HELIPAD	2	Lanning Square	CAP (emergency services)	3	\$5.4M	TP: con/1.5; LA	03	FED/ST		hospital access
56	Delaware Ave. (Vine- Erie) & Erie St. (Delaware-2nd) - street extension and connector	CI	1	2	Cooper's Point	CAP	4	\$2.123 M	TP		ST	Complete	connect main Waterfront to Erie St.
57	Del. River Tram: new aerial tram river crossing	Auth - DRPA	2	1	Cooper/Grant	CAP	3	\$40M	TP: con/8.0	03	FED/LA		tourism/commutation
58	I-295/I-76/Rt. 42 Direct Connection: direct route connector of I-295 through interchange with I-76	ST	1	1	Adjacent South Camden	OPS/CAP	2	\$90M to \$120M	TP: fa/2.8m	03/04	FED	envl-spr03; des- FY06; con- FY08	improve interchange ops and capacity
59	I-676 Martin Luther King Blvd.. Blvd to Newton Ave.: adding second lane to ramp	ST	1	1	MP 3.09-3.27	CAP/OPS	2	\$6.1M	TP: ROW/15M; con/5.96M	03, 05	FED	cons/fal06	correct hairpin U-turn at Haddon Ave.
60	I-676 Ramp FE, Brdg Deck Rehab-WW bridge: from I-676 south on to DRPA bridge ramp BE ramp that connects to Route 130 and Route 168	Auth - DRPA/ST	1	1	Adjacent Camden	INF	3	\$1.12M	TP: con/1.12M	3	ST		improve to/from south Camden

**APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY
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	CODES:	STATE=ST; COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT			MILESTONES/ DATES	INTENT/OBJECTIVES OF THE PROJECT
	PROJECT: NAME, ROUTE #, ETC												
61	Interlocking Rehabilitation: signal upgrades	Auth - DRPA	2	1		INF	2	\$11M	TP: "ERC"-1.5M, 2.5M, 3M, 4M	03, 04,05, outyears	FED/ AUTH		replace/repair
62	Intersection Improvements - 6 locations - see below	CI	1	2	see last page	OPS	4	\$555k	LA				
63	Johnson Park Station Stop Streetscape	Cooper's Ferry	2	2	Cooper/Grant	EN	2	\$500 k	TP (01); LA	1	FED	des=01	enhance area
65	Louis Street & Others: resurfacings		1	2	see last page	INF	2	\$754K	LA		FED		repair streets
66	Morton St & Others: resurfacing	CI	1	2	see last page	INF	4	\$806K	LA		FED		
67	New Curbs-Sidewalk; Mt Ephraim, Ferry & So 10th	CI	1	2	Morgan Village, Centerville	INF	4	\$120K			CI-CDBG	des-fall 02	improve ped safety- schools, disabled, elderly
68	N. 30th St. & Others: resurfacings	CI	1	2	see last page	INF	4	\$680K +?	LA	99	ST		repair streets
69	Park Blvd Improvements (Haddon Ave-Baird Blvd): resurfacing	CI	1	2	Parkside	INF	3	\$205K	LA	00, 01			resurface street, add curb & sidewalk as necessary
70	Parkside Pedestrian Lighting	CI	1	2	Parkside	INF		\$500k			CI	des-spr 02	ped safety & security, enhance streetscape
71/73	PATCO Extension Study/PATCO Waterfront Connection Study: investigation of service to Gloucester County and shuttles to Waterfront	Auth - DRPA	STUDY-2	1	Downtown/ Waterfront/ South Camden	Study -CAP	1	\$480k to \$1M for study	AU				looking at potential to extend service to Center City, Gloucester & Cumberland counties/shuttle services to Waterfront
72	PATCO Station Improvements: includes Ferry Avenue Station	Auth - DRPA	2	1	Ferry Ave. Station	INF	ongoing	\$26.24 m (entire prog)	AU				ongoing rehab. Program
74	Baseball Stadium Vicinity Rd Reconstruction.: see below	CI	1	2	Cooper's Point *****below	CAP/INF	3	\$1.5M	LA	2002	ST		improved access to stadium
75	Pier #7 Inspection & Rehab Study	Auth - DRPA	STUDY	2	Cooper's Point - immediately. N. of BF Bridge	INF	1	TBD		ongoing	AU		pier would be upriver barrier to planned
76	Rail Exhibits at Camden Children's Garden	Camden City Garden Club, Inc.	MUSEUM	2	Central Waterfront	EN	2	\$175K	LA		FED	des-01	
77	Randolph St. & Various Streets: resurfacings	CI	1	2	various	INF	2	\$575k	LA		ST		repair streets

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CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

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		STATE=ST; COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY 2 PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT				
78	Region South Drainage - I-676/Atlantic Avenue storm water drainage improvement	ST	1	1	various	INF	2	\$2.5M					correct drainage
79	Rt 130/Westfield Drainage: storm water management	ST	1	2	MP 33.70-34.00	INF/OPS	3	6	TP: cons/5.94	3	FED		drainage improvement
80	Rt 30 Cooper River Drainage: cooper river flooding mitigation	ST	1	1	MP 1.5-3.15	INF/OPS	2	15	TP: FSD/.45M	03	FED	under review by Army Corps of Engineers,	prevent future flooding and closing of US 30
81	Rt 30 Corridor Study - 7th St - Taunton Rd	County	STUDY	?	MP 1.0-18.28		1				FED		
82	Rt 30/130 Collingswood Camden-Pennsauken B: adding third lane each direction	ST	1	1	MP 3.5-4.1	OPS	2	\$14M	FSD/1M	03	FED	des-sum03?	improve safety, operations and pedestrian movement
83	Rt 30/130 Collingswood Circle A: circle elimination	ST	1	1	Adjacent Camden	OPS	2 / 3?	\$10.27M	TP: des/2.2M; ROW/1M; CON/3.8M; CON/4.27M	03, 05, outyears		des-spr03; cons/fal04	improve safety, operations and pedestrian movement
85	Section 5310 - Camden: vehicles purchase for paratransit services - urban/suburban	CO	2	1		CAP		1	TP: purchase - .158, .166, .174, .183, .191	03,04,05,06, 07	CO		paratransit vehicle replacements/additions for elderly & disabled
86	17th & Various: resurfacings	CI	1	2	****below	INF	4	\$619K	LA	0			
87	Section 5311 - Camden: vehicles purchase for rural paratransit services	CO	2	1		CAP		\$.286M	TP: purchase - .054, .056, .059, .062, 065	03,04,05,06, 07	FED		rural paratransit vehicles
88	Southern New Jersey LRT: construction of new line and stations	ST - NJ TRANSIT	2	1		CAP	4	\$313M (total \$800-900)	TP: cons - 48M, 48M, 48M; 169M	03, 04, 05, outyears - payments thru 2017)	ST/FED???	under construction	new rail service Trenton to Camden, Camden loop
89	State Street Bridge Rehab Study	ST/CO	1	2			2	\$25 K	LA				
90	State St. Corridor Beautification	N. Camden Land Trust	1	2		EN	2	\$324K	LA		FED/ST		enhance corridor
91	Jefferson Streetscape (2nd-Locust)	CI	1	2		EN	4	\$137 k					
92	Broadway Streetscape (Mickle-Benson)	CI	1	2		EN	4	250					

APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

#	ATTRIBUTE: CODES: PROJECT: NAME, ROUTE #, ETC	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM, IF INCLUDED/PROGRAMME D IN:	YEAR	FUNDING SOURCE	SCHEDULE	PURPOSE	
		STATE=ST; COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY-CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT			MILESTONES/ DATES	INTENT/OBJECTIVES OF THE PROJECT	
94	Haddon Avenue Phase II - Streetscape, from Kaighns to Mechanic	CI	1	2	Parkside	INF/EN	3	300K	CI			con 03	pedestrian amenities	
95	Haddon Avenue Phase III - Streetscape, from Mechanic to Lansdowne	CI	1	2	Parkside	INF/EN	3	300K	CI			con 03	pedestrian amenities	
96	Collings Ave. extension (Gloucester City)	CI	1	2	Fairview, Waterfront South	OPS	2		TP				address City's freight conflicts and take pressure off need for new Broadway bridge	
(#9) Camden City Resurfacing - Phase 1					Camden City Signal Upgrade			(#66) Morton Street & Others		(#86) 17th Street and Various Streets				
Road Name		From	To	(#11) Group 1		(#12) Group 2		Road Name	From	To	Berkley Street	4th Street	West Street	
Chestnut Street		Third Street	Mount Ephraim Ave.	7th St. & Elm St.		9th Street & Kaighns Ave.		Chestnut Street		Front Street	Second Street	Federal Street	Admiral Wilson Blvd.	
Sheridan Street		Mt. Ephraim Ave.	Hallowell Street	East State St. (CR601) & Wayne		8th Street & Atlantic Ave.		Pfeiffer Street		Baird Boulevard	City Line	Sycamore St	3rd Street	4th Street
Davis Street		Hallowell Street	Copewood Street	South 8th St. & Carl Miller (Van		9th Street & Atlantic Ave.		S. 30th Street		Federal Street	Mickle Street	Cherry Street	3rd Street	5th Street
Tenth Street		Mickle Blvd.	Memorial Avenue	South 9th St. & Carl Miller		9th Street & Fairview St.		Morton Street		Mt. Ephraim Ave.	E. of Norris St.	Spruce Street	4th Street	Broadway
Eleventh Street		Mickle Blvd.	Memorial Avenue	South 10th St. & Carl Miller		7th Street & Kaighns Ave.		Sayers Street		Mt. Ephraim Ave.	Hallowell Lane	Clinton Street	3rd Street	West Street
Flanders Street		Memorial Ave.	Admiral Wilson Blvd.	South 3rd St. & Berkeley St.		9th Street & Linden St.		Sherman Avenue		N. 24th Street	N. 27th Street	Garfield Avenue	27th Street	29th Street
Memorial Avenue		Tenth Street	Admiral Wilson	North 36th St. & River Ave./Rive		11th Street & Linden St.		Everett Street		Mt. Ephraim Ave.	Thorn Street	Washington St	4th Street	West Street
Morgan Street		Route I-676	Fairview Street	North 21st St. & River Ave./Rive		Mt. Ephraim Ave. & Ferry Ave.						Royden Street	3rd Street	Broadway
Fairview Street		Morgan Street	Mount Ephraim Ave.	Broadway (CR551) & Stevens S		Federal Street & Terrace Ave.		(#65) Louis Street & Others				Arthur Street	27th Street	29th Street
Bank Street		Marlton Avenue	Admiral Wilson Blvd.	Broadway & Benson St.		18th Street & Federal St.		S. 8 th Street		Morgan Street	500' S. of Olive			
				Broadway & Washington St.		Mt. Ephraim Ave. & Chase St.		Boyd Street		Baird Blvd.	City Line	(#10) Camden City Resurfacing - Phase 2		
				Broadway & Berkeley St.		Mt. Ephraim Ave. & Carl Miller Blvd.		Clinton Street		3 rd Street	5 th Street	Road Name	From	To
				Broadway & Chestnut St.		Mt. Ephraim Ave. & Chestnut St.		Beideman Ave		Cleveland Ave.	Harrison Ave.	Morgan Blvd	Morgan St.	Congress Rd.
				Haddon Ave. & Lansdowne Ave		Mt. Ephraim Ave. & Kaighns Ave.		Monitor Road		Kearsarge Rd	Tuckahoe Rd	Vesper Blvd	Haddon Ave.	Park Blvd.
				Marlton Ave. & Thorndyke Ave./		Mt. Ephraim Ave. & Atlantic Ave.		Louis Street		Sheridan St.	Sycamore St.	Chelton Ave.	4th Street	9th St.
						Mt. Ephraim Ave. & Everett St.		Spruce Street		4 th Street	Broadway	Mechanic St.	8th Street	Haddon Ave.
						27th Street & Berkley St.						Mechanic St.	2nd St.	7th St.
						10th Street & Penn St.		(#77) Randolph Street & Others				Spruce Street	2nd St.	7th St.
						27th Street & High St.		Randolph Street		S. 20th Street	Bank Street	S. 4th St.	Kaighns Ave.	Webster St.
						Haddon Ave. & Walnut St.		Niagara Road		Sumter Road	Octagon Road	S. 4th St.	Mickle Blvd	Line St.
								Cooper Street		Market Street	N. 11th Street	Cleveland Ave.	30th St.	34th St.
								Tulip Street		7th Street	East of 9th St.	Euclid Ave.	Haddon Ave.	Kaighns Ave.
								Macarthur Drive		Morgan Street	Denfield Street	Erie St.	Point St.	9th St.
								Pine Street		Broadway	S. 7th Street	N. 21st St.	Harrison Ave.	River Rd.
								N. 33rd Street		River Road	Farragut Avenue	Cambridge St.	Harrison Ave.	River Rd.
								Watson Street		Randolph Street	Boyd Street	N. 3rd St.	Birch St.	State St.
								S. 20th Street		Randolph Street	Watson Street	N. 4th St.	Elm St.	State St.

APPENDIX B-2: CAMDEN TRANSPORTATION PROJECT INVENTORY CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

ATTRIBUTE:	JURISDICTION/ OWNER	MODE	SYSTEM/ SCALE	LOCATION	TYPE	PHASE	COST	CAPITAL PROGRAM, IF INCLUDED/PROGRAMME D IN:	YEAR	FUNDING SOURCE	SCHEDULE	PURPOSE
CODES:	STATE=ST; COUNTY= CO, CITY=CI, AUTHORITY=AUTH, PRIVATE=PR	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD	INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY-CAP, EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	(KNOWN COST ESTIMATES, BY 2 PHASE IF AVAILABLE)	DVRPC TIP/=TP, LOCAL AID=LA, COUNTY=CO, CITY=CI, AUTHORITY CAPITAL PROG.=AU, PRIVATE=PR, OTHER=O (EXPLAIN): PHASE/AMOUNT			MILESTONES/ DATES	INTENT/OBJECTIVES OF THE PROJECT
PROJECT: NAME, ROUTE #, ETC												

#

(#3) 28th Street & Various Streets		
Road Name	From	To
Berkley St.	27th St.	30th St.
Tulip St.	7th St.	Master St.
Mickle St.	29th St.	31st St.
28th St.	Federal St.	Washington St.
Carman St.	27th St.	Dudley St.
29th St.	Federal St.	Clinton St.
Benson St.	27th St.	Dudley St.

(#62) Intersection Improvements
Haddon Ave. & Benson St.
Broadway & Atlantic Ave.
Broadway & Kaighns Ave.
Haddon Ave. & Kaighns Ave.
Kenwood Ave. & Kaighns Ave.
Westfield Ave. & 36th St.

(#68) North 30th & Others		
Road Name	From	To
Pierce Ave.	17th St.	24th St.
S. 3rd St.	Mechanic	Mt. Vernon
N. 24th St.	Marlton Pike	Federal St.
West St.	Line St.	Martin Luther Kind Blvd.
No. 30th St.	Pierce Rd.	River Rd.

(#54) Carl Miller Blvd. & Others		
Road Name	From	To
Carl Miller Blvd.	Mt. Ephraim Ave.	Hallowell Lane
Browning St.	Mt. Ephraim Ave.	Pershing St.
Chase St.	Mt. Ephraim Ave.	Pershing St.
Dayton St.	Mt. Ephraim Ave.	Hallowell Lane
Decatur St.	Mt. Ephraim Ave.	Pershing St.
Denfield St.	Fairview St.	Lakeshore Dr.
Lakeshore Dr.	Morgan St.	Fairview St.
Liberty St.	Broadway	S. 6th St.
Stevens St.	S. 27th St.	31st St.
Washington St.	Broadway	S. 6th St.
Watson St.	Morse St.	29th St.

**APPENDIX B-3: FACILITY INVENTORY SUMMARY
SOUTH JERSEY PORT CORPORATION
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Beckett Street Terminal

Description	Size	Notes
Shed #1	44,800 sq. ft.	Transit Shed
Shed #2	40,320 sq. ft.	Transit Shed
Shed #3	75,050 sq. ft.	Transit Shed
Shed #4	84,350 sq. ft.	Transit Shed
"A" Building	44,800 sq. ft.	Admin. Offices / Warehouse
"B" Building	44,800 sq. ft.	Admin. Offices / Warehouse
"C" Building	63,375 sq. ft.	Warehouse
"D" Building	90,160 sq. ft.	Warehouse
"E" Building	106,875 sq. ft.	Warehouse
Maintenance Garage		Maintenance shop
Dry Kiln Shed		Equipment Storage
Warehouse Building		Admin. Offices
Overall Terminal Area	125 acres	
4 Shipping Berths/Piers	2,600 linear feet	
Rail	Direct vessel access	

Broadway Terminal

Building A	33,500 sq. ft.	Leased Warehouse / SJPC
Building A-1	34,000 sq. ft.	Leased Warehouse
Building A-2	16,000 sq. ft. / 2 story	Warehouse
Building A-4	19,280 sq. ft.	Warehouse
Building B	87,000 sq. ft. / Balconies	
Building B-1	7,215 sq. ft.	Garage
Building B-2	12,000 sq. ft.	Warehouse
Building B-3	2,200 sq. ft.	
Building B-4	1,600 sq. ft.	
Building C	53,900 sq. ft.	
Building C-1		
Building D	133,290 sq. ft. / 2 story	
Building D-1	1,200 sq. ft.	
Building DD-4	960 sq. ft.	
Building DD-5	1,512 sq. ft.	
Building E	136,800 sq. ft. – 1 st floor	
	60,980 sq. ft. – lower balconies	
	7,600 sq. ft. – upper balconies	
Building E-1	29,600 sq. ft.	Shop area

**APPENDIX B-3: FACILITY INVENTORY SUMMARY
SOUTH JERSEY PORT CORPORATION
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Building F	16,200 sq. ft.	
Building G	To be razed	
Building I	3,300 sq. ft. – 1 st floor	
	3,300 sq. ft. – 2 nd floor	
Building N	55,470 sq. ft.	
Building ND-9	1,961 sq. ft.	
Building P	9,300 sq. ft. – 1 st floor	
	9,300 sq. ft. – 2 nd floor	
	9,300 sq. ft. – 3 rd floor	
Building P-1	5,000 sq. ft. – 1 st floor	
	5,000 sq. ft. – 2 nd floor	
Building P-2	2,800 sq. ft. – 1 st floor	
Building P-2 continued	2,800 sq. ft. – 2 nd floor	
Building P-3	4,420 sq. ft.	
Building P-4	3,040 sq. ft. – 1 st floor	
	3,040 sq. ft. – 2 nd floor	
	2,815 sq. ft. – 3 rd floor	
Building P-5	775 sq. ft.	
Building P-6	8,540 sq. ft. – 1 st floor	
	5,480 sq. ft. – 2 nd floor	
Building Q	21,950 sq. ft. – 1 st floor	
	1,000 sq. ft. – balconies	
Building R	116,500 sq. ft. – 1 st floor	
	62,500 sq. ft. – loft	
Building S	68,997 sq. ft.	
Building S-1	3,800 sq. ft.	
Building S-3	4,000 sq. ft.	
Building SA	5,600 sq. ft.	
Building SB	4,900 sq. ft.	
Building T-1	60,300 sq. ft.	Temp. Controlled – Del Monte
Building T-2	75,500 sq. ft.	Temp. Controlled – Del Monte
Building T3-9	2,900 sq. ft.	
Building T-4	2,090 sq. ft.	
Building T-5	1,965 sq. ft.	
Building W	26,900 sq. ft. – 1 st floor	
	26,200 sq. ft. – 2 nd floor	
Building WA	17,300 sq. ft. – 1 st floor	
	17,300 sq. ft. – 2 nd floor	
Building WB	10,260 sq. ft.	
Building X-1	6,755 sq. ft.	
Building X-2	2,880 sq. ft.	

**APPENDIX B-3: FACILITY INVENTORY SUMMARY
SOUTH JERSEY PORT CORPORATION
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Building Y-2	38,600 sq. ft. – 1 st floor	
	38,600 sq. ft. – 2 nd floor	
	38,600 sq. ft. – 3 rd floor	
Overall Terminal Area	180 acres	
2 Shipping Berths/Piers	750 linear feet / 1,135 linear feet	
Rail	Direct vessel access	

Hinterland Facilities

"F" Building	30,000 sq. ft.	
"H-1" & "H-2" Building	194,000 sq. ft.	
Fanelle Building	16,000 sq. ft.	
"I" Building	56,481 sq. ft.	
"J" Building Warehouse	27,500 sq. ft. – Partion A	
	68,210 sq. ft. – Partion B	
"J" Building Office	5,000 sq. ft.	
"K" Building	38,000 sq. ft.	
Liedtka Property	7.9 acres	
Gallagher Property	10.2 acres	
"L" Building	28,000 sq. ft.	
"L" Building Office	5,000 sq. ft.	
2 nd , Line, Pine & Division Street	2.0 acres	

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT

Infrastructure Renewal (resurface, reconstruct, rehabilitate)

1	Resurface & repair local streets - E. State, Erie, Elm	1	2	North Camden		INF	1MP	streets are local traffic collectors
13	Resurface & repair Atlantic Ave. @ I-676	1	2	Gateway		INF	1MP	
14	Reconstruct Cleveland Ave. (Lois - 34th St.)	1	2	Cramer Hill		INF	1MP	
15	Reconstruct Farragut Ave. (32nd-35th)	1	2	Cramer Hill		INF	1MP	improve access to residential properties
16	Reconstruct 30th St. (Cleveland-Von Neida Park)	1	2	Cramer Hill			1MP	improve access to recreational facilities
38	Atlantic Ave Upgrade (Ferry Ave.-I-676)					INF	1MP	access to proposed mixed-use development
44	Atlantic Ave Upgrade (I-676-Mt. Ephraim Ave)	1		Gateway?		INF	1MP	
54	Collings Rd. reconstruction (I-676-Mt. Ephraim Ave.)	1	2	Fairview		INF	1MP	
58	Resurface Atlantic Ave (Mt. Ephraim-Haddon)	1	2	Whitman Park		INF	1MP	
67	Upgrade 3rd St. connection (Main St. Improve. Project-Cooper St/Rutgers)					INF	1MP	

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
84	Resurface streets in Baldwin run area: Dudley-36th; Westfield-Lemuel	1	2	Beideman, Rosedale-Dudley		INF	1 - SJCS	infrastructure renewal
86	Resurface streets in Baird Blvd. area: Bank-Baird; Marlton to Admiral Wilson	1	2	Marlton		INF	1 - SJCS	infrastructure renewal
87	Resurface 27th St, Marlton-Pleasant			Marlton, Rosedale-Dudley		INF/EN?	1 = SJCS	infrastructure renewal

Streetscapes/Bike/Pedestrian

46	Camden Interior Gateway Projects - Neighborhood Commercial Streetscape Devel.	1	2	Cooper/Grant, CBD		EN - streetscapes	2	
41	Camden Interior Gateway Projects - Façade Improvements	1	2	Cooper/Grant, CBD		EN - streetscapes	new	
2	Main St. Streetscape (2nd-4th)	1	2	North Camden		EN	1MP	supports Main St. redevelopment program
4	Bike/ped path within greenway to Delaware Ave./connect to 7th St.	1	2	North Camden		CAP	1MP	better access to activity centers, shopping, employment

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE	
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#	PROJECT: NAME, ROUTE #, ETC							
5	Streetscape - 3rd St. Connection to Cooper St.	1	2	Cooper's Point		EN	1MP	proposed Main St. commercial center
8	7th Ave. median Streetscape (Benson-Pine)	1	2	Lanning Square		EN	1MP	
10	Bike routes - 3rd to new port access roadway & 7th-8th	1	2			EN	1MP	links activity centers & employment areas
21	bike/ped routes	1	2	Cramer Hill		EN	1MP	
23	Westfield Ave Streetscape (33rd-36th)// Federal St to Pennsauken	1	2	Rosedale/Dudley// Cramer Hill		EN	1MP//St. Joseph's Carpenter Society (SJCS)	support compact retail centers// general community improvement
25	BF Bridge toll plaza-Cooper St. - reconstruct CBD gateway entrance	1	2	CBD		INF/EN?	1MP	
26	Broadway streetscape Mickle Blvd-Kaighn Ave	1	2	Lanning Square		EN	1MP	
28	Bike/ped route Dudley Grange Park-27th St. bike route	1	1	Rosedale/Dudley		CAP	1MP	

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

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29	Federal Street streetscapes (27th-30th & 33rd-38th)//Downtown to Pennsauken	1	2	Stockton//Cramer Hill, Marlton, Rosedale-Dudley		EN	1MP//SJCS	support compact retail centers// general community improvement
31	27th St. bike route ext.	1	2	Stockton		CAP	1MP	access to activity centers & greenway
35	Marlton Pike streetscape (Bank-Benson)	1	2	Marlton		EN	1MP	
36	Upgrade Baird Blvd landscape median	1	2	Marlton		EN	1MP	gateway entrance to Marlton & East Camden
37	Connect bike/ped route to 27th St.	1	2	Marlton		CAP	1MP	
40	Broadway Streetscape (Atlantic-Jefferson)	1		Waterfront South		EN	1MP	
43	Designate Ferry Ave & Broadway as bike routes	1	2	Waterfront South		EN	1MP	connect activity centers with residential
50	Designate 8th & Morgan as bike routes	1	2	Morgan Village		EN	1MP	interconnect activity centers, jobs, parks
52	Mt. Ephraim Ave streetscape (Morgan-Olympia)	1	2	Fairview		EN	1MP	
55	Collings Rd. streetscape (New Hampshire-Tennessee)	1	2	Fairview		EN	1MP	support compact retail center

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
56	Yorkship Road Landscape median upgrade	1	2	Fairview		EN	1MP	gateway entrance to Fairview
57	Designate Yorkship Rd as bike route	1	2	Fairview		EN	1MP	connect prop. Newton Creek greenway to
61	Designate Ferry Ave. as bike route	1		Whitman Park		EN	1MP	support station dev., connect to greenway
65	extend greenway with interconnections	1	3	Parkside		EN	1MP	connect educational facs., other bike routes
45	Haddon Ave streetscape (Everett & Van Hook)	1	2	Liberty Park		EN	1MP	support compact retail center
46	Designate Kaighn Ave as bike route	1	2	Centerville		EN	1MP	interconnect retail, neighborhoods, greenway
70	River Ave & 36th St - lighting & sidewalks	1	2	Cramer Hill		EN	Cramer Hill Tomorrow	better pedestrian
73	Waterfront walkway (Yorkship Square-Reverend Evers Park (Morgan Blvd, Morgan St, Mt. Ephraim Ave)			Fairview		EN	Fairview Neighborhood Redevelopment Plan	connect residents with recreational activities (45-acre park)
75	Collings Road streetscape			Fairview		EN	Fairview Neighborhood Redevelopment Plan	reinforce gateway function
83	Linear park along rail line	1	2	East Camden		EN	1 - SJCS	greenway system
85	Extend greenway system			Federal industrial park		EN	1 - SJCS	greenway system

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF , OPERATIONS/ SAFETY= OPS , INTELLIGENT TRANSP.= IT , CAPACITY= CAP , ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3 =CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
#	PROJECT: NAME, ROUTE #, ETC						

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT

Public Transit

3	Bus route connections to Rutgers & Broadway LRT stations	2	2	North Camden			1MP	
6	City Hall PATCO station upgrade	1	2	CBD		INF	1MP	
7	Broadway PATCO station upgrade	1	2	CBD		INF	1MP	
27	New LRT station n. of Federal St.	2	2	Marlton		CAP	1MP	serve existing industries & proposed industrial-office center @ 17th & Federal
39	add bus route to LRT station from neighborhoods	2	2	Cramer Hill		CAP	1MP	
49	bus route - Mr. Ephraim Ave-Enterprise Bus. Park (Fairview & 10th)	1	2	Morgan Village		CAP	1MP	connect employees with jobs
41	add bus service	2	2	Waterfront South		CAP	1MP	connect from Broadway to port employment areas
42	extend LRT service with stops at Morgan Blvd, Atlantic Ave, Spruce St., Kaighns Ave., Jackson St.	2	2	Waterfront South		CAP	1MP	connect to employment areas as port & industrial areas grow

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE	
CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF , OPERATIONS/ SAFETY= OPS , INTELLIGENT TRANSP.= IT , CAPACITY= CAP , ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3 =CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT	
#	PROJECT: NAME, ROUTE #, ETC							
71	PATCO Extension Study	STUDY-2	1			CAP	new	looking at potential to extend service to Center City, Gluoc. & Cumberland counties
73	PATCO Waterfront Connection - Study	2	?	Central Waterfront		Study	new	feasibility of connecting PATCO to Camden & Phila. Waterfronts
66	bus service - extend hours and routes						1MP	improve access to employment
71	LRT station at State & River/elim. grade cross	2	2	Cramer Hill		CAP	Cramer Hill Tomorrow	
76	Non-restricted shuttle service							supplement fixed-route services, esp. new LRT

Roadway Capacity/Operations

9	Broadway & Newton Ave. intersection improvement	1	2	Lanning Square		INF	1MP	
11	Federal Street Bridge reconstruction	1	2	Gateway		INF	1MP	
12	Ramp widening - Federal St. & Flanders Ave. exit to AWBlvd	1		Gateway		CAP	1MP	

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
17	Realign truck access rd to Petty's Island at 36th St. (bypass rd)-thru traffic	1	2	Cramer Hill		CAP	1MP/Cramer Hill Tomorrow	divert truck traffic from River Ave. thru industrial area
18	Industrial collector access rd (River Ave. under E. State St. to w. of 24th St.)	1	2	Cramer Hill		CAP	1MP	
19	Bypass rd along Conrail lines-local traffic	1	2	Cramer Hill		CAP	Cramer Hill Tomorrow/Econ. Dev. Strategy for Cramer Hill	direct route to local industry avoiding commercial & residential
22	Saunders St. extension to Rosedale Ave.	1	2	Rosedale/Dudley		CAP	1MP	integrate McGuire Gardens Hope VI redevl. prog with neighborhood
24	New industrial access route along 2nd from Morgan & I-676 to Beckett Terminal	1	2	Central & South Waterfront		CAP	1MP	divert truck traffic from CBD and to port
30	Intersection Improvements - Federal St, Baird Blvd, 27th St, Westfield// resurfacing of triangle	1	2	Stockton// Marlton, Cramer		INF	1MP// SJCS	Traffic flow and roadway condition improvements

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
33	Cooper River bridge reconstruction (Federal St. & AW Blvd)	1	2	Marlton		INF	1MP	
34	Sewell St. extension to 23rd at Federal St.	1	2	Marlton		CAP	1MP	
47	Traffic calming near schools (esp. 10th St. & JA Nimmo Square)	1	2	Centerville		OPS	1MP	
48	Industrial collector road (10th-prop. Ind. collector rd west of I-676)	1	2	Morgan Village		CAP	1MP	serve proposed Enterprise Business Park
51	Morgan Blvd bridge over Newton Creek-reconstruct	1	2	Fairview		INF	1MP	
53	Rt. 130 flyover	1	1	Fairview		CAP	1MP	direct access to proposed regional retail center
59	Realign Station Dr. & upgrade Ferry Ave	1	2	Whitman Park		INF/OPS	1MP	support transit village dev. at PATCO station
60	improve access to Copewood St. (Haddon-Davis)	1	2	Whitman Park		OPS	1MP	support proposed medical services district
63	Baird Blvd bridge reconstruction	1	2	Parkside		INF	1MP	
68	Signalize intersection - 10th St. @ Newton	1	2	Gateway		OPS	DVRPC Rt. 30 report	

**APPENDIX B-4: CAMDEN TRANSPORTATION PROPOSALS INVENTORY
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT: NAME, ROUTE #, ETC	MODE	SYSTEM/ SCALE	LOCATION	PHASE	TYPE	PHASE	PURPOSE
	CODES:	1 = ROADWAY, PARKING, BIKE, PEDESTRIAN & ENHANCEMENT; 2 = LRT, PATCO, BUS, FERRY, PARATRANSIT; 3 = RAIL FREIGHT, MARINE/PORT, INTERMODAL	1 = REGIONAL SYSTEM/ NETWORK OR SIGNIFICANCE; 2 = LOCAL SYSTEM/ SIGNIFICANCE OR SITE RELATED	CITY NEIGHBORHOOD		INFRASTRUCTURE= INF, OPERATIONS/ SAFETY=OPS, INTELLIGENT TRANSP.=IT, CAPACITY=CAP, ENHANCEMENT= EN (EXPLAIN)	1 = NEW IDEA, NEED, PLAN & CONCEPT; 1MP = Master Plan 2 = PROPOSAL/ ENVIRONMENTAL DESIGN; 3=CONSTRUCTION 4 = BUILT	INTENT/OBJECTIVES OF THE PROJECT
69	Operations Improvements - Cooper (Broadway-8th)			CBD		OPS	DVRPC Rt. 30 report	lane & median striping, traffic signal, pedestrian phasing, signage - near school
72	Waterfront access study, incl. feas of Rt. 30 flyover	1	2	Cramer Hill			Cramer Hill Regional Access Project Proposal	open up waterfront for development
50	Camden Waterfront Development Assessment/Site Inv	STUDY	2	Waterfront - One Port Center to BFB		Study	new	env. assess for permit applications for dev.
13	Camden Infrastructure Improvement Plan	STUDY	?			Study	1	
47	Camden Transit Street Improvements	1	2	TBD		INF/CAP	3	street improvements to enable LRT
48	Camden Waterfront Access improvement Study	STUDY	?				1	
75	Pier #7 Inspection & Rehab Study	STUDY	2	Cooper's Point - immed. N. of BF Bridge		INF	1	pier would be upriver barrier to planned marina
81	Rt 30 Corridor Study - 7th St - Taunton Rd	STUDY	?	MP 1.0-18.28			1	
82	New street connections	1	2	Marlton		EN	1	improve neighborhood circulation

Source: Various -- City of Camden, Camden non-profit groups, Delaware River Port Authority, Delaware Valley Regional Planning Commission, New Jersey Department of Transportation, NJ Transit.

**APPENDIX B-5: CAMDEN NEW PROJECT PROPOSALS: DEFINITIONS/CRITERIA ASSESSMENT/PRIORITIES
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

INVENTORY NUMBER	PROPOSAL	TYPE	LOCATION	TERMINI	CRITERIA ASSESSMENT						OVERALL PRIORITIES				
					Support Economic or Neighborhood Development	Improve Travel	Independent Utility	No Fatal flaws	Implmtation Agency	Criteria Score	Estimated Cost		Fundability Factor	Priority	
											Construction	Total	(1 to 5)	Fundability X Score	1 = High
17	Realigned truck access to/from Petty's - new by-pass	new alignment	Pennsauken, east of 36th Street, through industrial property	36th Street at foot of Pettys Island bridge to River Road	3	2	2	2	2	11	714,250	1,299,925	3	33	3
18 - 19	Industrial collector/local by-pass	new alignment	Cramer Hill	vicinity of E. State and River Road to 1/4 past 27th Street	3	2	2	2	2	11	15,000,000	25,080,000	3	33	3
22	Saunders Street Extension	new alignment	Rosedale/Dudley	from 30th Street to Rosedale Avenue	2	1	3	2	2	10	112,850	205,387	4	40	3
24	Industrial/port access road	new alignment	Waterfront South	Morgan Blvd./I-676 interchange to Clinton Street	3	3	3	2	3	14	9,366,600	15,732,171	4	56	2
34	Sewell Street Extension	new alignment	Rosedale/Dudley	Marlton Pike to 23rd at Federal	1	1	2	2	3	9	103,822	188,956	4	36	3
48	industrial/port access road	new alignment	Morgan Village	10th Street at Bulson to Bulson at I-676	3	2	2	1	3	11	1,616,160	2,745,856	3	33	3
53	flyover access to industrial property from Rt. 130,	new alignment, access only	Fairview	From Rt.130 near Grant to northwest into property east of Mount Ephraim Avenue	3	1	1	2	1	8	180,560	328,619	3	24	4
59	Realign Station Drive and Upgrade Ferry Avenue	realignment / new alignment for Station and addition of turning lanes and resurfacing	Whitman Park	Station Drive, PATCO station loop to Ferry Avenue, and Ferry Avenue, White horse Pike to Station Drive	3	3	2	2	2	12	544,975	991,855	3	36	3
13/38/44/ 58	Atlantic Avenue	reconstruction with turning lanes as appropriate	Bergen Square, Central Waterfront, South Waterfront/Liberty Park/Whitman Park	Ferry avenue to Haddon Avenue	3	3	3	3	3	15	2,026,635	2,240,935	3	45	2
32	17th Street reconstruction	reconstruction	Cramer Hill/Pavonia	Federal Street to River Road	3	1	2	2	3	11	248,270	451,851	4	44	3
15	Farragut	reconstruction	Beideman	32nd street to 36Th Street	3	2	3	2	3	13	338,550	616,161	3	39	3

**APPENDIX B-5: CAMDEN NEW PROJECT PROPOSALS: DEFINITIONS/CRITERIA ASSESSMENT/PRIORITIES
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

INVENTORY NUMBER	PROPOSAL	TYPE	LOCATION	TERMINI	CRITERIA ASSESSMENT						OVERALL PRIORITIES				
					Support Economic or Neighborhood Development	Improve Travel	Independent Utility	No Fatal flaws	Implmtation Agency	Criteria Score	Estimated Cost		Fundability Factor	Priority	
											Construction	Total	(1 to 5)	Fundability X Score	1 = High
51	Morgan Blvd over Newton Creek	bridge reconstruction/replacement	Fairview/Morgan village	over Newton Creek	2	1	3	1	3	10	10,065	18,318	4	40	3
63	Baird Avenue Bridge over Cooper river	bridge resurfacing	Parkside	over cooper river	3	2	3	1	3	12	12,810	23,313	3	36	3
68	Newton Avenue at 10th Street	signalize intersection	Gateway		2	2	3	3	3	13	150,000	273,000	5	65	1
9	Newton at Broadway	intersection upgrade	Bergen Square		2	2	3	2	3	12	350,000	689,500	4	48	2
30	3 Intersections among Baird Blvd., 27th Street, Westfield Ave. and Federal Street	intersection reconfiguration	Cramer Hill/Pavonia, Rosedale/Dudley,		2	3	3	2	3	13	350,000	689,500	4	52	2
12	Federal St./Flanders Ave, at Admiral Wilson Blvd.	Ramp widening	Gateway/Pine Point		2	3	3	2	3	13	468,140	898,829	4	52	2
69	Operations/safety improvements on Cooper	operations	Downtown	Broadway to 8th Street	3	2	3	3	3	14	150,000	295,500	3	42	3
42	SNJLRTS Extension to Morgan Blvd. With 4 Stations	new transit capacity	Central and south Waterfront	Tweeter Center to Morgan Blvd	3	3	1	1	3	11	12,121,000	20,266,312	2	22	4
27	New LRT station north of Federal St., near 17th Street	new LRT station	Cramer Hill	n/a	3	2	1	1	3	10	831,000	1,637,070	4	40	3
72	Waterfront access study, incl. Feasibility of Rt. 30 flyover/connector to Market Street	new road	Gateway/Downtown	Admiral Wilson Blvd to Market Street	3	3	3	1	3	13	5,100,000	8,953,500	3	39	3
6	City Hall Station Upgrade, Cooper & 5th Street	PATCO Station upgrade	Downtown		2	2	2	3	3	12	2,500,000	4,247,500	5	60	1
7	Broadway Station Upgrade, north of Mickle	PATCO Station upgrade	Downtown		2	2	2	3	3	12	2,500,000	4,247,500	5	60	1

**APPENDIX B-6: TRANSPORTATION INFRASTRUCTURE CAPITAL IMPROVEMENT PROGRAM
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

PROJECT/PROPOSAL: NAME, ROUTE #, ETC	2004		2005		2006		2007-2008		PROJECT TOTALS	CANDIDATE FUNDING
	PHASE*	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT		
CAMDEN CITY SYSTEM										
PLANNING TOOL DEVELOPMENT										
Camden Circulation: current and future conditions and treatments	PLANNING	400,000							400,000	DVRPC
Camden Street Management Systems: inventory, maintenance and implementation elements; Phase I Current, Phase II Future	PLANNING	200,000	PLANNING	300,000					500,000	DVRPC
SUBTOTALS		600,000		300,000			0	0	900,000	
DESIGN PHASE PROJECTS										
Camden Signage & Wayfinding Prig - Phase 2: Pedestrian signage	CONS	560,000							560,000	CDBG, FED TEA 21
Camden Waterfront Dev. Access Roads: new block of city streets at Waterfront, Cooper to Arch, Aquarium to Riverside	CONS	1,500,000	CONS	1,500,000					3,000,000	STATE LOCAL AID - Discretionary
Louis Street & Others: resurfacing of various streets throughout the City	CONS	754,000							754,000	STATE LOCAL AID - MUN AID
Randolph St. & Various Streets: resurfacing various streets throughout the city	CONS	575,000							575,000	STATE LOCAL AID - MUN AID
State Street Bridge Rehab Study			DES	1,500,000	CONS	8,500,000			10,000,000	STATE, FED (very rough cost estimate)
Camden City Resurfacing-Phase 2: various streets			CONS	2,500,000					2,500,000	FED, STATE LOCAL AID
Camden Interior Gateway Projects - Neighborhood Commercial Streetscape - 5 projects			DES	700,000	CONS	5,000,000			5,700,000	DRPA/FED/ STATE LOCAL AID/
SUBTOTALS		3,389,000		6,200,000		13,500,000		0	23,089,000	
SPECIALTY PROJECTS (NON-TRANSPORTATION)										
Camden Interior Gateway Projects - Johnson Park Restoration	DES	100,000	CONS	1,000,000					1,100,000	CDBG/ TEA 3
Camden Interior Gateway Projects - Façade Improvements - locations to be determined	PROJ DEV	2,000,000	CONS	2,000,000					4,000,000	DRPA/CDBG/ERB NO TRANSPORTATI
Battleship USS NJ Historic Museum (Construction)			CONS	5,500,000	CONS	5,500,000			11,000,000	SPECIAL STATE/ FEDERAL FUNDING
SUBTOTALS		2,100,000		8,500,000		5,500,000		0	16,100,000	
PRIORITY TRANSPORTATION PROPOSALS										
Newton Avenue at 10th Street: signalization	DES	25,000	CONS	275,000					300,000	FED, STATE LOCAL AID

**APPENDIX B-6: TRANSPORTATION INFRASTRUCTURE CAPITAL IMPROVEMENT PROGRAM
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

PROJECT/PROPOSAL: NAME, ROUTE #, ETC	2004		2005		2006		2007-2008		PROJECT TOTALS	CANDIDATE FUNDING
	PHASE*	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT		
Newton at Broadway: intersection improvements			DES	70,000	CONS	690,000			760,000	FED, STATE LOCAL AID
Industrial/port access road & Port buffer/Streetscape: Morgan Blvd. To Beckett Terminal	FEAS ASSESS/PROJECT	2,250,000	DES	3,000,000			CONS	10,000,000	15,250,000	DRPA/FED/ STATE LOCAL AID/
Atlantic Avenue: reconstruction/resurfacing	PROJ DEV/DES	400,000			CONS	1,800,000			2,200,000	FED, STATE LOCAL AID
3 Intersections @ Baird/ 27th Street/ Westfield/ Federal: traffic analysis, intersection upgrade	PROJ DEV/DES	140,000			CONS	530,000			670,000	FED, STATE LOCAL AID
Federal St./Flanders Ave, at Admiral /Wilson: widen ramp	PROJ DEV/DES	180,000			CONS	710,000			890,000	FED, STATE LOCAL AID
Streetscape Program (locations to be determined)		2,000,000		2,000,000		2,000,000		4,000,000	10,000,000	DRPA/FED/ STATE LOCAL AID/
Bicycle/ Pedestrian Program (locations to be determined)		1,500,000		1,500,000		1,500,000		3,000,000	7,500,000	DRPA/FED/ STATE LOCAL AID/
Local Street Resurfacing/ Reconstruction/ Intersection/ Signals Program (locations to be determined)		3,000,000		3,000,000		3,000,000		6,000,000	15,000,000	DRPA/FED/ STATE LOCAL AID/
SUBTOTALS		9,495,000		9,845,000		10,230,000		23,000,000	52,570,000	
CITY SYSTEM TOTAL		14,984,000		24,545,000		29,230,000		23,000,000	91,759,000	
REGIONAL SYSTEM										
PATCO Station Improvements - Ferry Avenue	CONS	3,000,000	CONS	3,000,000					6,000,000	
Del. River Tram: Camden Waterfront to Penns Landing in Philadelphia			CONS	10,000,000	CONS	15,000,000	CONS	15,000,000	40,000,000	DRPA/FED/ STATE or
Rt 30/130 Collingswood Camden-Pennsauken B: roadway improvement	PROJ DEV	50,000			CONS	6,000,000	CONS	8,000,000	14,050,000	FED/STATE
I-295/I-76/Rt. 42: I-295 Direct Connection through interchange	FEAS ASSESS	2,000,000	PROJ DEV	4,000,000			CONS	100,000,000	106,000,000	FED/STATE FOR \$100 MILLION
Rt 30 Cooper River Drainage: flood relief					CONS	15,000,000			15,000,000	FED/STATE
City Hall Station Upgrade, Cooper & 5th Street	PROJ DEV/DES	800,000			CONS	3,400,000			4,200,000	DRPA/PATCO/ FED
Broadway Station Upgrade, north of Mickle	PROJ DEV/DES	800,000			CONS	3,400,000			4,200,000	DRPA/PATCO/ FED
REGIONAL SYSTEM TOTAL		5,050,000		17,000,000		21,000,000		123,000,000	166,050,000	

NOTE: Bold shaded entries represent projects and proposals with only partial or no committed funding.

*PHASE OF WORK CODES: FEAS ASSESS = Needs assessment , location studies, feasibility as a response to the need.

PROJ DEV = project development steps to define scope/footprint, address environmental requirements and preliminary engineering

DES = development of final design construction plans

CONS = award and/or start and completion of project implementation

APPENDIX C: Parks and Public Open Space Subplan Tables

**APPENDIX C-1: PARKS AND PUBLIC OPEN SPACE SUBPLAN - PROJECTS AND PROPOSALS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT/PROPOSAL: NAME, LOCATION	2004		2005		2006		2007-2008		ESTIMATED COST	CANDIDATE FUNDING
		PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT		
44	814 N. 5th St.,North Camden,Area 0.02acres										
45	325-337 Vine St.,North Camden,Area 0.08 acres										
46	Bradley and Ormond,South Camden,Area 0.04acres										
47	Rev. Evers Park,South Camden,Area 45.2 acres,Planning Stage									\$125,000	Applied for funding - CDBG
48	Rutgers Community Park,North Camden,Area 4.11 acres										
49	Grant Street Park / Von Neida,North Camden,Area1.5 acres									\$200,000	New Facility Design in Process
50	Camden Waterfront,North Camden, Area 1.8 acres,										
51	Whitman Poetry Place Park,Renovation,	-								\$500,000	Applied for funding- CDBG Engg. Design 80% done.
52	6th and Washington Street Park,Exisitng Facility Expansion	-									Applied for funding-CDBG
53	7th and Spruce	-									
54	Wesley Village Park,Supports on-going initiative	-								\$75,000	
New Park Facilities											
55	New Pool complex at Centerville										
56	Pleasant Ave. Community Park										
57	Randolph Street Playground										
58	Playground at 10th and Linden										
59	Playground at State and Harrison Ave.										
60	Playground at 9th and Elm										
61	Multi Park Safety Upagrade; 9th and Ferry Park, South Camden Park										
New Park Studies											
A	City Landscape Ordinance Studies and Guidelines,New Study									\$20,000	Applied for funding-CDBG
Existing Greenways											
1	CBD Waterfront,Built										
2	Cooper River, North Camden,Under Construction									\$168,000	Funded
3	Parkside Trail,Built										
4	Parkside Trail II,Under Construction (dedication 04/2003)									\$220,000	Funded
5	Farnham Cooper Bikeway,Under Desigr									\$352,000	
New Greenways											
6	Citywide Trail System										

Source: Bureau of Parks and Open Spaces, City of Camden

APPENDIX D: Public Facilities Subplan Tables

**APPENDIX D-1: PUBLIC FACILITIES SUBPLAN - PROJECTS AND PROPOSALS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT/PROPOSAL: NAME, LOCATION	2004		2005		2006		2007-2008		ESTIMATED COST	CANDIDATE FUNDING
		PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT		
LIBRARIES											
Public Libraries											
1	Main Library,418 Federal Street,Retain and renovate with multi-media center as part of CBD revitalization program										
2	Cooper Library,6th and Erie Street										
3	Fairview Library,1503 Collins Road										
4	Isabel Miller Library,8th and Van Hook Streets,Close and Reolcate to a new faciltiy at State and River Ave.										
5	Martin Luther King Center Library,1151 Haddon Avenue										
6	New Facility,State Street and River Avenue										County Funded
7	New Facility,9th Street and Ferry Avenue										County Funded
8	New Facility,Westfield and Dudley,Either part of Perez Community Center or a separate faciltiy										County Funded
Private Libraries											
9	Camden County Historical Society Library,Park Blvd and Euclid Street										
10	Paul Robeson Library / Rutgers Law Library,300 North 4th Street										
11	Reuben L. Sharp Health Science Library,1 Cooper Plaza										
12	Coriell Research Library,410 Haddon Avenue										
COMMUNITY CENTERS											
Community Centers (Estimated cost include only exterior renovations)											
1	North Camden Center,6th and Erie Streets,Renovate									\$250,000	
2	Broadway Center,Broadway and Line Streets,Renovate or relocate upgraded facility proposd in the vicinity of 5th and Spruce Streets									\$250,000	
3	Martin Luther King Center,Haddon Avenue and Sycamore Streets,Renovate									\$50,000	
4	Cramer Hill Center,Reeves Avenue,Expand and renovate or build new faciltiy in Von Neida Park									\$85,000	
5	Angel Perez Center,Westfield Avenue-Dudley Grange Park,Expand and renovate									\$75,000	
6	East Camden Center,East State Street and Sewell Street,Renovate									\$90,000	
7	Proposed Facility,Broadway and Jackson Street,New Facility									-	
8	Isabel Miller Center,8th and Van Hook Streets,Renovate									\$115,000	
9	Proposed Facility,Euclid Street and Park BoulevardConversion of former Hatch School or renovation of Pamona hall,									-	
10	Morgan Village Center,Morgan Boulevard and 9th Street,Renovate									\$100,000	
11	Malandra Hall,New Jersey Road and Merrimac Street,Renovate									\$225,000	
12	Parkside,									\$125,000	
13	Kaighn Ave. Community Center (Fire Hall),3rd and Kaighn Ave.									\$95,000	

**APPENDIX D-1: PUBLIC FACILITIES SUBPLAN - PROJECTS AND PROPOSALS
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

#	PROJECT/PROPOSAL: NAME, LOCATION	2004		2005		2006		2007-2008		ESTIMATED COST	CANDIDATE FUNDING
		PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT	PHASE	AMOUNT		
SCHOOLS											
Existing Public Schools											
1	Coopers Poynt Elementary School,3rd and State St.,Renovation,Requires 5 year Plan amendment									\$12,539,640	
2	Bonsall Elementary School,34th and High St.,Renovation,Requires 5 year Plan amendment									\$16,286,040	
3	Brimm Medical Arts High School,1626 Copewood St.Renovation						\$22,443,200				State Funded
4	Broadway Elementary School,Broadway and Clinton,New Building								\$17,588,000		State Funded
5	Camden High School,Baird and Park Blvd.,Renovation									\$38,135,840	
6	Catto Elementary School,30th and Saunders,New Building				\$17,588,000						State Funded
7	Challenge Square Academy (High School),Rose St. and Kaighns Ave.,New District Technology Center									\$3,588,000	
8	Cramer Elementary School,29th and Mickel St.,Renovation				\$26,756,448						State Funded
9	Davis Elementary School,34th and Cramer,Renovation				\$24,472,868						State Funded
10	Dudley Elementary School,23rd and High St.,New Building				\$17,588,000						State Funded
11	East Camden Middle School,31st and Stevens St.,Renovation,Feasibility Study Required						\$14,002,920				State Funded
12	Fetters High School,3rd and Walnut St.,To be determined,Requires 5 year Plan amendment									\$16,669,380	
13	Forest Hill Elementary School,Park Blvd. Wilwood,Renovation,Requires 5 year Plan amendment									\$19,700,450	
14	H.B.Wilson Elementary School,9th and Florences St.,New Building				\$26,339,400						State Funded
15	Cooper B. Hatch Middle School,Park ,Blvd.,Renovation,Requires 5 year Plan amendment									\$13,319,640	
16	Lanning Square Elementary School,5th and Berkley St.,Renovation,Requires 5 year Plan amendment									\$20,635,485	
17	McGraw Elementary School,Dudley and Fremont St.,Renovation, Feasibility Study Required									\$22,577,490	
18	Mickle Elementary School,Carl Miller Blvd.,New Creative and Performing Arts HS						\$28,686,378				State Funded
19	Morgan Village Middle School,Fairfield and Morgan,				\$15,271,920						State Funded
20	Parkside Elementary School,Wildwood and Princess St.,New Building				\$12,621,800						State Funded
21	Powell Elementary School,10th and Linden St.,New Building				\$18,319,400						State Funded
22	Pyne Point Middle School ,77th and Fire,Renovation				\$15,557,640						State Funded
23	R.C.Molina Elementary School,7th and Vine St.,Renovation				\$20,251,280						State Funded
24	R.T.Cream Elementary School,Molford and Budd St.,Renovation,Requires 5 year Plan amendment									\$15,296,605	
25	Sharp Elementary School,32nd and Hayes Ave.,Renovation,Requires 5 year Plan amendment									\$19,720,230	
26	South Camden Alternate Middle School,555 Mt. Vernon,To be determined,Requires 5 year Plan amendment									\$15,546,400	
27	Sumner Elementary School,8th and Carl Miller St.,Renovation						\$22,399,560				State Funded
28	Ulysses Wiggins Elementary School,5th and Mt. Vernon St.,Renovation,Requires 5 year Plan amendment									\$22,568,980	
29	Veterans Memorial Middle School,77th and Fire,Renovation,Requires 5 year Plan amendment									\$23,161,735	

APPENDIX E: Capital Improvement and Infrastructure Master Plan Documents

APPENDIX E-1: DATA SOURCE MATRIX CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

Data Source	Utilities					Transportation & Traffic**	Open Space & Public Facilities**	Funding Sources	Additional Comments
	Sewer	Water	Drainage & Flooding	Telecommunications	Gas & Electric				
City of Camden Master Plan (Lenaz, Mueller & Associates, 2002)	* Upgrade the existing sewer network * Recommendations for specific sewer improvements/repair	* Overall water system recommendations * Recommendations for specific neighborhood improvements	* Improve existing flooding conditions in identified problem areas * Improve citywide stormwater management	* Promote Camden as a technology hub		* Overall transportation systems recommendations * Recommendations for specific neighborhood improvements	X		* Streetscape recommendations
Sewage Infrastructure Improvement Act Planning Study - Final Report (CH2MHill, 2001)	* Recommendations for sewer system upgrades for EPA compliance								
Environmental Assessment for Interim and Long-Term Solids/Floatables Control Plan - Final Report (CH2MHill, 2000)	* Recommendations for sewer system upgrades for EPA compliance								
Camden City Capital Improvement Plan for the Water System and Wastewater Collection System (US Water, LLC, 2000)	* Recommendations for sewer main improvements/repair * Recommendations for WPCF and PS improvements	* Recommendations for neighborhood improvements * Recommendations for WTP and system upgrades							* Some repairs/improvements performed as per meeting with Camden Water on 9 January 2003
Sewer Inventory and Assessment/Facilities Inventory and Assessment Analysis - Final Report (CH2MHill, 1999)	* Summary of existing sewer network conditions								
Interim and Long-Term Solids/Floatables Control Plan - Final Report (CH2MHill, 1999)	* Recommendations for sewer system upgrades for EPA compliance								
Combined Sewer Overflow Service Area and Land Use Report - Final Report (CH2MHill, 1999)	* Summary of existing sewer network conditions								
Brick Sewer Evaluation (WRc inc., 1997)	* Recommendations for specific sewer improvements/repair								* Updated yearly
City of Camden Department of Utilities Capital Improvement Projects Report (Sept. & Dec. 2002)	* Upgrade the existing sewer network * Recommendations for specific sewer improvements/repair	* Overall water system recommendations * Recommendations for specific neighborhood improvements				* Overall transportation system recommendations * Recommendations for specific neighborhood improvements		* Some projects currently funded or partially funded	* Streetscape Improvements
Preliminary Engineering Analysis for Stormwater Study for EDA Funding, Baldwin's Run Drainage Basin, City of Camden, Camden County, New Jersey (Adler Engineers, 2001)			* Flooding mitigation recommendations in Baldwin's Run						* EDA application included
Flooding Mitigation Alternatives Study, Von Neida Park/Cramer Hill, City of Camden Camden County, NJ (TRC Engineers, 2001)			* Flooding mitigation recommendations in Baldwin's Run					* Potential responsible organizations identified with estimated project cost	
Camden Water memo to Dept. of Utilities (dated 30 May 2001)	* Pump station rehabilitation recommendations								* Does not include Baldwin's Run PS (CCMUA) or Arch St. Ps and Baird Blvd. PS (information missing)
Waterfront South (2000)	* Recommendations for repair/replacement of neighborhood sewers * Recommendations for sewer clean out	* Recommendations for fire hydrant maintenance/repair/replacement * Recommendations for neighborhood water main improvements	* Improve drainage to reduce flooding throughout neighborhood			X	X		* Streetscape Recommendations
The North Camden Plan (1993)	* Recommendations for neighborhood sewer main improvements/repair	* Recommendations for neighborhood improvements				X	X		* Streetscape Recommendations
Main Street A Study to Determine the Need for Redevelopment (Camden Redevelopment Agency, 1995)	* Upgrade the existing neighborhood sewer network	* Upgrade the existing neighborhood network				* Recommendations for specific neighborhood improvements	X		* Streetscape Recommendations * Recommendation for private developer to partly incur cost of utility improvement for large-scale developments
A Path Forward for Camden (Annie E. Casey Foundation, 2001)				* Promote Camden as a technology hub					
Camden Greenways (The Delta Group)			* Improve existing flooding conditions in identified problem areas				X		
NJDOT Project Briefing Papers			* Summary of City roadway flooding issues			* NJDOT-funded transportation improvements		* Funded through NJDOT	* Flooding
City of Camden Lead Water Service Line Replacement Project Sheet		* Recommendations for lead water lines to be replaced							* Includes list of lead water lines already replaced as of 17 December 2002
Infiltration/Inflow Analysis for Service Area 7 Camden City - Baldwin Run District II - Delaware Basin (Weston,Speitel, Watermaton, 1980)	* Recommendation for further investigation in Baldwin Run area * Concluded possible inflow and/or infiltration problems in subject area								
CCMUA Wastewater Treatment Plant Upgrade Program Planning Document (CCMUA, 2002)	* Recommendations for WPCF upgrades							* Desired to be funded through NJ EIT	
Proposed Sewers for Rehabilitation Phase I project sheet inventory (furnished by Camden Dept. of Utilities)	* Summary of sewer upgrades							* Includes cost of improvements/repairs	* To be completed by September 2003
Proposed Sewers for Rehabilitation Phase II project sheet inventory (furnished by Camden Dept. of Utilities)	* Summary of proposed sewer upgrades								* To be started by September 2003 (following completion of Phase I)

APPENDIX E-1: DATA SOURCE MATRIX CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

Data Source	Utilities					Transportation & Traffic**	Open Space & Public Facilities**	Funding Sources	Additional Comments
	Sewer	Water	Drainage & Flooding	Telecommunications	Gas & Electric				
Housing Needs Assessment for the Gateway Track of Camden, NJ (Senator Walter Rand Institute for Public Affairs, 2002)						X	X		* Streetscape Recommendations
Camden Interior Gateway (Killingler-Alberto/The Delta Group, 2000)						* Projects proposed for Waterfront/CBD * Specific neighborhood plans			
Fairview Neighborhood Development Plan (Roberts & Greenspan, 2001)						X	X		* Streetscape Recommendations
Cramer Hill Tomorrow (Kaufman Consulting, 2000)						* Specific neighborhood plans	X		
Economic Development Strategy (Urban Partners, 2001)						X	X		* Streetscape Recommendations
City of Camden Multi-Year Recovery Plan (2000)	* Upgrade the existing sewer network * Recommendations for specific sewer improvements/repair	* Overall water system improvement recommendations * Recommendations for specific neighborhood improvements						* Potential funding sources identified	
A Winning Investment for the City of Camden (Higher Education & Healthcare Task Force)							X	* Proposes matching funds with State for development	
Streetscape Improvement Guidelines (The Delta Group/Hillier, 2000)									* Streetscape Recommendations
Northern Edge Area in Need of Redevelopment Study (Killingler, Alberto Architects & Planners, 1999)	* Upgrade the existing sewer network	* Overall water system improvement recommendations				X	X		* Streetscape Recommendations
Evaluation of Corrosion Control Alternatives (Malcolm Pirnie, 1995)		* Overall water system improvement recommendations * Recommendations for WTP and system upgrades							
Preliminary Evaluation of Corrosion Control Measures (Malcolm Pirnie, 1995)		* See Evaluation of Corrosion Control Alternatives for recommendations							
Comprehensive Economic Development Strategy for Camden County (TRIAD Associates, 2002)	* Upgrade the existing sewer network	* Upgrade the existing water distribution network		* Promote Camden as a technology hub		X	X	* Potential funding sources identified	
Proposed Priority System, Intended Use Plan and Project Priority List for Federal Fiscal Year 2003 (NJDEP, 2002)	* Sewer system upgrades * WPCF improvements							* Estimated project cost included	* Includes estimated State certification dates * City projects identified as part of Statewide list of projects
Final Priority System, Intended Use Plan, Project Priority List and Response Document - Federal Fiscal Year 2003 (NJDEP, 2002)		* Overall water system improvement recommendations * Recommendations for specific neighborhood improvements						* Estimated project cost included * Funded through NJDEP Drinking Water State Revolving Fund	* Includes estimated State certification dates * City projects identified as part of Statewide list of projects
DRPA Camden City Projects inventory						* DRPA-funded projects	X		* Identifies past, current, and planned development
Camden County Improvement Authority Project Financings inventory (2002)							X	* Estimated project cost included	* Indicates already funded development
City of Camden Cyber-District Feasibility Study (Damiano Long)				* Cyber-District recommendations					
City of Camden Department of Utilities Project Information Report (Sept. 2002)						* Information about specific projects			
City of Camden NJDOT Initiatives - Proposed FY 2003-2007 Capital Plan, FY 2002-2003 Study & Development Program - Local Aid Initiatives						* City of Camden projects funded through local aid from NJDOT			
US 30 Corridor Study, Delaware Valley Regional Planning Commission						* Proposed projects in Camden and regional			
Greater Camden Partnership (2003)									

** Transportation & Traffic and Open Space & Public Facilities will be addressed by DMJM+HARRIS and Wallace Roberts & Todd, respectively.

APPENDIX E-2: LIST OF INTERVIEWEES
CAMDEN CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN

Adkins, Gregory
Executive Director, NJ Urban Enterprise Zone Program

Aguilar, Yolanda
Community Activist

Ahiarakwe, Uzo
Division Head, Camden Department of Utilities

Aut, Chris
Executive Director, Heart of Camden

Ayorinde, Ayo
Director of Parks City of Camden

Balzano, Joseph
Executive Director and CEO South Jersey Port Corporation

Bartrojlo, John
Vice President, Camden Iron & Metal

Betz, Steve
NJDEP

Brennan, Sue
Executive Director, Fairview Main Street

Bryant, Wayne
Senator - Assistant Democratic Leader

Byrd, Arnold

Executive Director, Camden OEO

Carbone, Michael
Commerce Bank

Cardone, Bud
President "Largemoor Film Service, Inc."

Castillo, Alfonso
Executive Director, Latin American Economic Development
Association

Catapano, Tom
Senior Project Officer, New Jersey Economic Development Authority

Chebra, Gene
Bureau Chief, NJDEP

Clements, Carol Ann
President, Jen-Cyn Enterprises, Inc.

Closkey, Sean
Executive Director (TAC), New Jersey Housing & Mortgage Finance
Agency

Cole, Michael, "PE,PP,CPG, AICP CME"
Remington & Vernick

Colella, Lisa
Operations Manager, D & M Transportation Services

Collins, Mike
Senior Project Officer, New Jersey Economic Development Authority

Colon, Eddie
Chief Information Officer, Camden Dept. of Admin.

Corcoran, Thomas
President/COO, Cooper's Ferry Development Association

Cornell, Frederick
President, Innovative Recovery Products

Cruz-Perez, Nilsa
Assemblywoman, Assistant Majority Leader of New Jersey
Legislature

Darji, Vijesh
Project Engineer, New Jersey Department of Transportation

Davis, Michael
General Manager, St. Lawrence Cement Corporation

De, Arijit
Executive Director (TAC), Camden Redevelopment Agency

Dellavecchia, Marge
Chief of Staff (TAC), NJDCA

Dennis, Roger
Provost, Rutgers Campus at Camden

DiFavio Sr, Ralph
CEO, Champion Service Inc.

Doyle, Father
Rector, Sacred Heart Church

Dragos, Stephen
Executive Director, Greater Camden Partnership

Emiec, Lisa
CCMUA

Engelbert, Herman
CCMUA

Faison, Gwendolyn
Mayor, City of Camden

Fallon, John
Design Engineer, South PSE&G

Fawdry, Michael
Project Manager, Damiano Long

Fleming, Joseph
Executive Director, Concerned Churches Organized for People

Fooder, Eric
Assistant Superintendent, Camden Water

Francini, Caren
Director, New Jersey Economic Development Authority

Francois, Michael
Managing Director, New Jersey Economic Development Authority

Franklin, Richard
Area Development Manager, PSE&G

Galli, Gina
Senior Project Officer, New Jersey Economic Development Authority

Gillette, Howard
Professor of History, Rutgers Campus at Camden

Hamil, Barker
NJDEP

Hargis, Edwards
Captain, Camden Police Department

Hassett, Maureen
Assistant Director, New Jersey Economic Development Authority

Higgins, Euletta
Partner/Literacy Trainer, "The Choice is Yours, Inc."

Holland, Juanita
President, "The Choice is Yours, Inc."

Holmes, S. Thomas
Development Director, "Camden County Council on Economic
Opportunity, Inc."

Hunter, Fred
Remington & Vernick

Jenkins, Charles
NJDEP

Jones, JA
Director of Communications and Administration, SJPC (South Jersey
Port Corporation)

Kaplan, Ron
President Operations, Joseph Oat Corporation

Kasabach, Peter
Chief of Policy and Community Development, New Jersey Housing &
Mortgage Finance Agency

Keck, Dennis
Assistant Commissioner, NJDOT

Keenan, Milton
Program Officer, LISC

Kinzig, Jim
Aegis

Kominsky, Karen
Deputy Commissioner, State of New Jersey

Kricun, Andy
Deputy Executive Director, CCMUA

Lambo, Allen
Program Officer, LISC

Lyons, R. Page
President, Tri-State Bulk Handling, Inc.

Machotka, William
Acting Section Chief, NJDEP Municipal Finance

Magid, Larry
Promoter, Tweeter Center

Maiman, Alan
New Jersey Transit

Martoglio, Ed
RPM Development Group

McDermott, Monsignor
St. Joseph's Carpenter Society

Mercado, Orlando
Director of Funding and Marketing, Latin American Economic
Development Association

Moy, Steve
Manager, New Jersey Department of Transportation

Murphy, David
Director, Delaware River Port Authority

Murphy, Greg
Chief, Fire Department

Nunez, Jose
Computer Instructor, "The Choice is Yours, Inc."
Parker, John
Pastor, Antioch Baptist Church

Pemo, Anthony
CFDA

Pfleiderer, Rick
Water & Sewer Manager, Camden Water

Pisarcik, Andrew
Operations Supervisor, NJAWC

Post, Ed
NJDEP

Primas, Randy
Office of Chief Operating Officer

Redd, Dana
City Councilwoman City of Camden

Redman, Paul
Director of Utilities, Camden Dept. of Utilities

Richmond, Chuck
Director of Housing, NJDCA

Rielly, Mike
"VP, Human Resources", L3 Communications

Rigler, James
System Planner, PSE&G

Roberts, Joseph
Assemblyman and Majority Leader, Brooklawn Shopping Plaza

Russell, Betsy
Executive Director, Camden Lutheran Housing Corporation

Ryan, Dan
Special Assistant to Commissioner, NJDEP

Scott, Charles
Computer Instructor, "The Choice is Yours, Inc."

Smallwood, James
President/CEO, "The Choice is Yours, Inc."

Smith, Barry
Project Development Assistant, "Camden County Council on
Economic Opportunity, Inc."

Smith, Rose
Director of Marketing and Policy, New Jersey Economic
Development Authority

Soder, Bob
PSE&G

Spearman, Bill
Parkside Business

Stargill, Britt
Pastor, Kaighn Avenue Baptist Church

Stephens, Michael
Water/Sewer Superintendent, Camden Water

Sullivan, Daniel
Executive Director, hireAbility

Sullivan, John
Assist Director, New Jersey Schools Construction Corporation

Schwartz, Jeffrey
Director of Economic Development, Camden County Improvement
Authority

Thompson, Arthur
Director, Health and Human Services

Townsend, Silas
Pastor, St. John Baptist Church

Upton, William
Project Officer, New Jersey Schools Construction Corporation

Voss, Curt
Executive Director, Tweeter Center

Whelan, William
Executive Director, St. Joseph's Carpenter Society

Williams, Edward
Planning Director City of Camden

**APPENDIX E-3: MEETING SUMMARY TABLE
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Meeting Date	Entity	Attendees				Issues Discussed
		Last Name	First Name	Affiliation	Title	
12/4/2002	Camden Dept. of Utils, Various	Redman	Paul	Camden Dept. of Utils	Director of Utilities	Water, Sewer, CSO, Flooding Other projects within City, Roadways
		Ahiarakwe	Uzo	Camden Dept. of Utils	Division Head	
		Machotka	Bill	NJDEP Muni. Finance	Acting Section Chief	
		Woodruff	David	Langan	Staff Engineer	
		Hager	Chris	Langan	Project Manager	
		Catapano	Tom	NJEDA		
		Ryan	Dan	NJDEP	Special Asst to Commiss	
		Moy	Steve	NJDOT	Mgr Dist 4, Local Govt Svcs	
		Hunter	Fred	Remington & Vernick		
		Chebra	Gene	NJDEP	Bureau Chief	
		Cole	Michael	Remington & Vernick	PE,PP,CPG, AICP CME	
		Kricun	Andy	CCMUA	Deputy Executive Director	
		Emiec	Lisa	CCMUA		
Engelbert	Herman	CCMUA				
12/17/2002	Camden Dept. of Utilites	Ahiarakwe	Uzo	Camden Dept. of Utils	Division Head	Ph 1 Water and Sewer Projects
		Hager	Chris	Langan	Project Manager	Ph 2 Water and Sewer Projects
						Water Quality
12/17/2002	CCMUA	Kricun	Andy	CCMUA	Deputy Executive Director	CSO Project
		Engelbert	Herman	CCMUA		Recent Treatment Plant Projects
		Hager	Chris	Langan	Project Manager	Proposed Tratment Plant Projects
						Odor Control
12/30/2002	Camden Dept. of Administration	Colon	Eddie	Camden Dept. of Admin.	Chief Information Officer	Fiber Optics within City
		Hager	Chris	Langan	Project Manager	
1/8/2003	Camden Dept. of Administration	Colon	Eddie	Camden Dept. of Admin.	Chief Information Officer	Fiber Optics within City
		Fawdry	Michael	Damiano Long	Project Manager	Fiber Purveyors and Line Locations
		Hager	Chris	Langan	Project Manager	
		Woodruff	David	Langan	Staff Engineer	
1/8/2003	Camden Water	Pfleiderer	Rick	Camden Water	Water & Sewer Manager	Review of US Water 2000 CI Plan
		Stephens	Michael	Camden Water	Water/Sewer Superintendent	On-going (Ph 1) Sewer/Water Improvements
		Fooder	Eric	Camden Water	Assistant Superintendent	Proposed (Ph 2) Sewer/Water Improvements
		Hager	Chris	Langan	Project Manager	Site Visit to various Pump Stations
		Woodruff	David	Langan	Staff Engineer	Site Visit to Fairview and MD WTP

**APPENDIX E-3: MEETING SUMMARY TABLE
CAPITAL IMPROVEMENT AND INFRASTRUCTURE MASTER PLAN**

Meeting Date	Entity	Attendees				Issues Discussed
		Last Name	First Name	Affiliation	Title	
1/10/2003	PSE&G	Franklin	Richard	PSE&G	Area Development Manager	Gas and electric system throughout City
		Fallon	John	PSE&G	Design Engineer - South	
		Rigler	James	PSE&G	System Planner	
		Soder	Bob	PSE&G		
		Hager	Chris	Langan	Project Manager	
1/10/2003	Camden Dept. of Utilities NJDOT Local Aid, District 4	Redman	Paul	Camden Dept. of Utils	Director of Utilities	Ongoing and planned transportation projects, department procedures & priority setting
		Darji	Vijesh	NJDOT	Project Engineer	
		Beetle	William	DMJM+HARRIS	Project Manager	
		Gimbel	Gail	DMJM+HARRIS	Transportation Planner	
1/13/2003	Cooper's Ferry Development Associat	Perno	Anthony	CFDA	Project Manager	Current and proposed Cooper's Ferry projects
		Gimbel	Gail	DMJM+HARRIS	Transportation Planner	
1/14/2003	CCMUA	Kricun	Andy	CCMUA	Deputy Executive Director	Tour of WWTP
		Hager	Chris	Langan	Project Manager	
1/16/2003	NJDEP	Collin	Mike	NJEDA		Completed, ongoing, and future water and sewer projects Future CSO project Water and sewer project funding
		Ryan	Dan	NJDEP	Special Asst to Commiss	
		Machotka	Bill	NJDEP Muni. Finance	Acting Section Chief	
		Jenkins	Charles	NJDEP		
		Betz	Steve	NJDEP		
		Chebra	Gene	NJDEP	Bureau Chief	
		Hamil	Barker	NJDEP		
		Post	Ed	NJDEP		
		Kelley	George	Langan	Principal	
Hager	Chris	Langan	Project Manager			
1/17/2003	NJAWC	Pisarcik	Andrew	NJAWC	Operations Supervisor	Overview of water system within East Camden operated by NJAWC
		Hager	Chris	Langan	Project Manager	
		Woodruff	David	Langan	Staff Engineer	
1/30/2003	CFDA	Perno	Anthony	CFDA		Development in the Cooper Point and Cooper Grant sections of Camden
		Hager	Chris	Langan	Project Manager	