Transportation Choices 2030

New Jersey's Long-Range Transportation Plan

For Public Discussion

September 2008

URBAN SUPPLEMENT REPORT

City of Jersey City

Prepared for

NEW JERSEY DEPARTMENT OF TRANSPORTATION and NJ TRANSIT

Prepared by

DMJM HARRIS | AECOM

The preparation of this report has been financed in part by the US Department of Transportation, Federal Highway Administration and Federal Transit Administration.
This document is disseminated under the sponsorship of the US Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

TABLE OF CONTENTS

INTRODUCTION 1

I. TRANSPORTATION AND DEMOGRAPHIC CONDITIONS 2
- A. EXISTING TRANSPORTATION NETWORK 2
  - 1. Roads 2
  - 2. Public Transit 4
  - 3. Ferry Service 7
  - 4. Bicycle and Pedestrian Facilities 7
  - 5. Goods Movement 8
- B. SYSTEM PERFORMANCE 8
  - 1. Congestion Management System 8
  - 2. Pavement Conditions 10
  - 3. Bridge Conditions 11
  - 4. Safety Conditions 11
- C. DEMOGRAPHIC PROFILE 12
  - 1. Population 12
  - 2. Age Distribution 12
  - 3. Racial and Ethnic Composition 13
  - 4. Income & Poverty 14
  - 5. Automobile Ownership 14
  - 6. Labor Force 14
  - 7. Unemployment 15
  - 8. Employed Residents by Industry 15
  - 9. Employed Residents by Occupation 16
  - 10. Journey to Work - Resident Labor Force 16
  - 11. Employment 17
  - 12. Journey to Work - Employees in the City 18
- D. FUTURE CONDITIONS 19
  - 1. Population and Employment Projections 19
  - 2. Transportation Conditions 24
- E. CURRENT AND FUTURE DEVELOPMENT 28
  - 1. City 28
  - 2. Region 32
- F. TRANSPORTATION SYSTEM ISSUES 33
  - 1. Roads 33
  - 2. Public Transit 35
  - 3. Bicycle and Pedestrian Facilities 37
  - 4. Goods Movement 38
- G. ASSESSMENT OF PROGRESS 39
  - 1. Roadways 39
  - 2. Public Transit 40

II. TRANSPORTATION PROJECTS 42
- A. ROADS 42
  - 1. Roadway Projects 42
  - 2. Other Strategies 43
  - 3. Local Streets 44
  - 4. Intersection/Circulation Improvements 44
  - 5. Streetscaping Projects 45
  - 6. Expand Local Street System 45
  - 7. Revise Truck Routes 46
  - 8. Parking 46

B. PUBLIC TRANSIT 46
1. Rail System Extensions 46
2. PATH Service Enhancements 46
3. Bus Service 47
4. Job Access / Reverse Commute 47
5. Improved Amenities and Information 47
6. New Service 47
7. Bus Circulation 48
8. Improve Ferry Service 48
C. BICYCLE AND PEDESTRIAN 48
1. Expand Trail/Greenway Network 48
2. Bicycle Routes 49
3. Pedestrian Access and Safety 49
D. GOODS MOVEMENT 49
1. Port Facilities 49
2. Rail Freight 50
III. RECOMMENDATIONS 51
A. ROADS 51
B. PUBLIC TRANSIT 53
1. Enhance Rail Service 53
2. Improve Local Bus Service 54
3. Maintain and Enhance Ferry Service 54
C. BICYCLE AND PEDESTRIAN FACILITIES 54
1. Expand Trail/Greenway Network 54
2. Implement Bike Route System 55
3. Improve Pedestrian Access and Safety 55
D. GOODS MOVEMENT 55
REFERENCES 56

INTRODUCTION

State law requires the New Jersey Department of Transportation (NJDOT), in conjunction with NJ TRANSIT, to prepare and submit to the legislature an Urban Transportation Supplement to the state's Long-Range Transportation Plan. The state requires that the Urban Supplement identify and address the transportation needs of the state's seven largest cities: Atlantic City, Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton. Because the State Development and Redevelopment Plan (State Plan) recognizes New Brunswick as an eighth urban center, an Urban Supplement has also been prepared for that city. The Urban Supplement must outline means of improving access to these major urban centers, emphasizing the transportation needs of city residents who are employed or seeking employment in suburban locations.

The State Plan recognizes the importance of cities to future development in the state, and it proposes to target infrastructure investments to urban areas to support urban development and redevelopment. In recent years, cities have begun to experience modest to substantial gains in new development, and projections and plans indicate that urban development is likely to continue.

The transportation needs of the major cities can be summarized follows:

- Diverse populations, including low-income, minority, and elderly citizens, many of whom depend on public transportation.
- A need to serve both increasing development and redevelopment.
- An aging infrastructure that must be maintained and rehabilitated.
- A mismatch between the locations of housing and jobs.

This Urban Supplement updates previous reports from 1993 and 2001. NJDOT intends for this document to be a user-friendly guide to inform its planning and capital programming processes, and those of the counties and municipalities involved, particularly to support local economic development and land use objectives.

This report provides background data on transportation and demographic conditions, and it assesses transportation system issues and needs, especially in terms of meeting existing demands and accommodating new development and redevelopment. The report also identifies current and proposed transportation investments and their status, and it proposes means of advancing key projects.

The study process involved interviews with representatives of several agencies including NJDOT Local Aid; NJ TRANSIT; the North Jersey Transportation Planning Authority (NJTPA); Meadowlink TMA; the city Department of Housing, Economic Development, and Commerce; the city Division of Traffic and Engineering; the Jersey City Economic Development Corporation; and the Jersey City Redevelopment Agency.

The process also involved reviewing reports, information, and data from several agencies, including the US Census, NJ Department of Labor, NJDOT, NJ TRANSIT, NJTPA, and the Port Authority of New York and New Jersey. Key local planning documents reviewed include the Hudson County Cross-acceptance Report, the Hudson County Comprehensive Economic Development Strategy (CEDS), the Hudson County Master Plan, the Urban Enterprise Zone Five Year Strategic Plan, the Bergen Arches study, and the Jersey City Liberty Access Study.

I. TRANSPORTATION AND DEMOGRAPHIC CONDITIONS

A. EXISTING TRANSPORTATION NETWORK

1. Roads

Regional/State Roads

The following is a summary of the key state roads (see Map 1) that serve Jersey City:

- The Hudson County Extension of the New Jersey Turnpike (I-78) runs east-west as it enters Jersey City near its southern border and then runs north-south through the city, eventually connecting with Route 139 near the Holland Tunnel.
- US Route 1&9 runs generally east-west, as the Pulaski Skyway, connecting Jersey City with Newark and points west and south. At the Tonnelle Circle, this road turns north and runs to North Bergen and other points north.
- US Route 1&9 Truck runs roughly east-west between the Hackensack River and the Pulaski Skyway.
- Route 139 runs east-west between US 1&9 at the Tonnelle Circle and the Holland Tunnel.
- Route 440 runs north-south through the west side of Jersey City, between Communipaw Avenue and the southern border of the city, leading to Bayonne and Staten Island.
- Route 7 runs for a short distance in the city between US 1&9 and the Hackensack River, from where it extends into Essex County.
- Route 185 is a short link extending along the Hudson waterfront from Linden Avenue to Route 440 in the southeast section of the city.

County Roads

Only a few county roads serve the city, including the following:

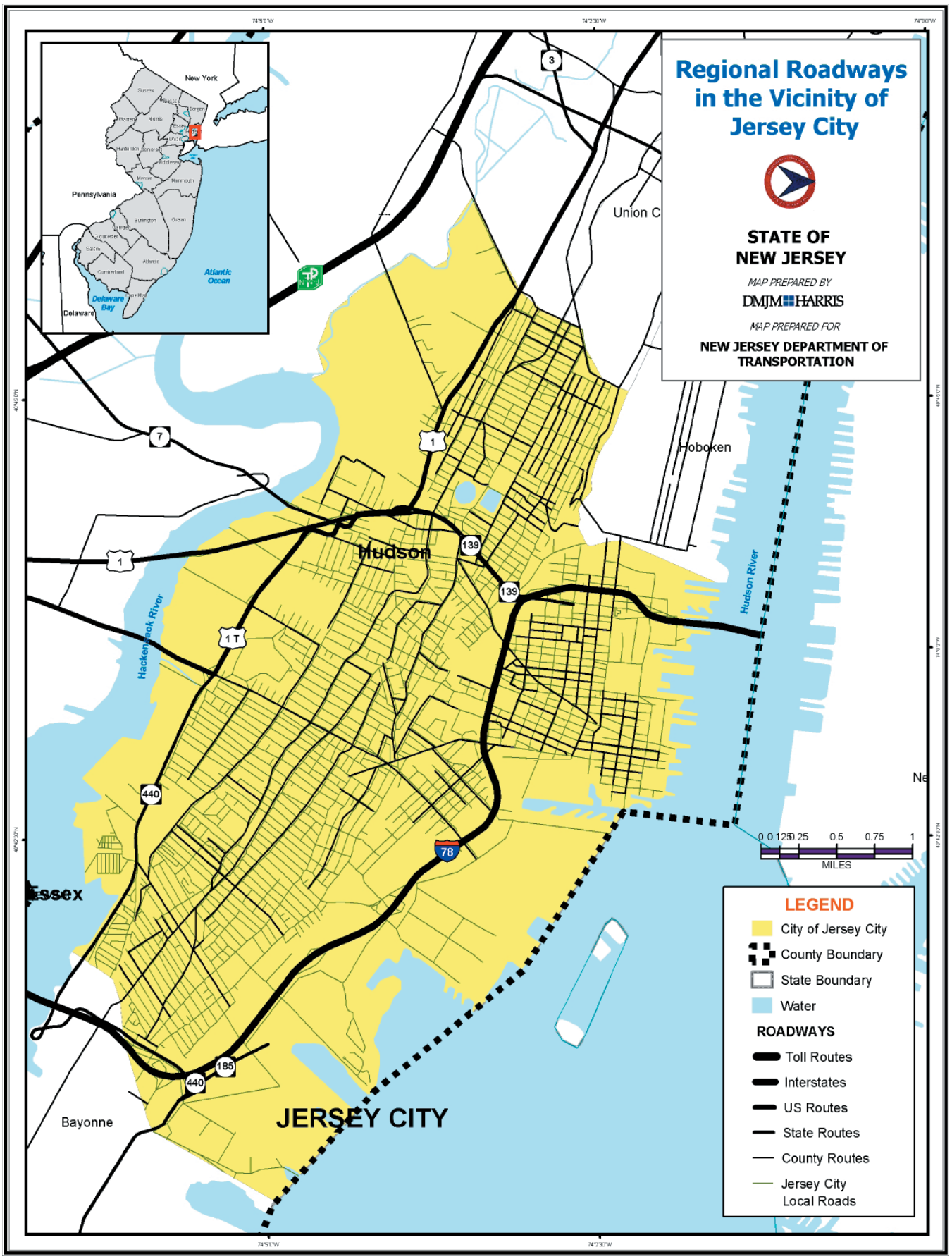
- Route 501 (JFK Boulevard and Hudson Boulevard) runs for about 5.5 miles north-south through the city. It spans the entire length of the city and is one of the most important and heavily traveled local roads.
- Route 678 (Secaucus Road) runs from Paterson Plank Road along the Jersey City – Union City border and into Secaucus.
- Route 681 starts in Hoboken as Observer Highway and then becomes Paterson Plank Road and runs through the northern portion of Jersey City leading into Union City, North Bergen and Secaucus.

Municipal Streets

Among the important municipal streets in the city are the following:

- Newark Avenue runs east-west between the Hackensack River and the waterfront.
- Montgomery Street runs east-west between West Side Avenue and the waterfront.
- Communipaw Avenue runs east-west between the intersection of US Route 1&9 Truck and Route 440 and Liberty State Park.
- Grand Street runs east-west between Communipaw Avenue and the waterfront.
- West Side Avenue runs north-south for about three miles between Broadway and Danforth Avenue.

Map 1: Roadway Network



- Bergen Avenue runs north-south for over two miles as a roughly parallel route to JFK Boulevard.
- Ocean Avenue extends from Grand Street to the south.
- Summit Avenue runs north-south from the Union City border in the north to the junction of Communipaw, Grand, and Garfield. From this point, Garfield Avenue runs south to Bayonne.
- Luis Munoz Marin Boulevard runs north-south in the waterfront area, running from the entrance to the Holland Tunnel past Newport Mall to Grand Street.
- County Road runs north-south serving the manufacturing district, including the large Regional Postal Facility, in west Jersey City.

Bridges

The major roadway bridges are the I-78 Newark Bay Bridge, the US 1&9 Truck Bridge, the Pulaski Skyway and the Route 7 bridge (Wittpenn Bridge). In addition, the city has various bridge and viaduct structures.

2. Public Transit

Rail Service

The Port Authority Trans-Hudson System (PATH) is a heavy rail system that links Newark, Jersey City and Hoboken with New York City. The system has four lines, three of which serve Jersey City: Newark – World Trade Center, Hoboken – World Trade Center, and Journal Square – 33rd Street. The following four PATH stations are located within the city:

- Journal Square Transportation Center - Two PATH lines serve this large multi-modal transfer station: Journal Square-33rd Street and Newark - World Trade Center. Average weekday ridership at this station is 11,500. The station includes several bus platforms for NJ TRANSIT and private bus lines that serve the Transportation Center.
- Grove Street - This station is located along Christopher Columbus Drive near City Hall. The Journal Square - 33rd Street line and the Newark - World Trade Center line stop at this station. Average weekday ridership is 10,000. Several local bus routes serve the station. A new entrance recently opened, linking riders to the eastern end of the platform; this entrance increases capacity and safety at the station.
- Exchange Place Station - This station is located at the terminus of Montgomery Street near the waterfront. The station serves the Hoboken - World Trade Center line and the Newark - World Trade Center line. Several bus lines serve the Exchange Place Transit Mall, and ferry service operates nearby from Harborside Financial Plaza and Colgate. The station is a major exchange point between PATH and HBLR commuters.
- Pavonia/Newport Station - This station is along Washington Boulevard near the Newport Office Tower. The station serves the Hoboken - World Trade Center line and the Journal Square - 33rd Street line. There are nearby connections with local bus routes on Washington Boulevard and ferry service from Newport Marina. The station is also a transfer point between the PATH system and the Hudson-Bergen Light Rail (HBLR) for commuters from northern Hudson County.

PATH ridership increased before 2001 due to inexpensive fares, 24-hour service, and frequent headways, as well as a strong economy, extensive development along the waterfront, and added weekend service. The events of September 11, 2001 caused a major disruption to PATH service by flooding the tunnel under the Hudson River and the Exchange Place station. A renovated and expanded station re-opened in June 2003. The new design enables the station to accommodate up to 10-car trains and to function as a terminal.

The other rail system serving the city is the Hudson-Bergen Light Rail (HBLR) system, which extends 20.5 miles between Bayonne and North Bergen, including 32 passenger stations and five regional park-and-ride lots with a total of 7,000 spaces. The first segment of the line, linking Exchange Place with 34th Street in Bayonne, opened in 2000. This segment also included a spur extending from near Liberty State Park to West Side Avenue. In 2002, the line was extended from Exchange Place to the Hoboken Terminal, completing the first phase of the project. The second phase of the system involved extending the line north to North Bergen and south to 22nd Street in Bayonne. The final segment of Phase II opened for service in February 2006, at which time NJ TRANSIT also added two-car trains on most peak period trips, reduced peak period headways on the core section, and implemented direct service from Lincoln Harbor in Weehawken to West Side Avenue.

Jersey City has thirteen HBLR stations. The busiest stations are Pavonia-Newport, which has about 3,000 weekday boardings, and Exchange Place with about 2,850 weekday boardings. The HBLR connects with PATH at both these stations. A 1,500-space park-and-ride lot is located at the Liberty State Park station, which has about 1,900 weekday boardings. In 2005, average weekday system ridership was over 21,000 per day.

Bus Service

An extensive web of bus routes, both public and private, serves Jersey City (see Map 2). Available routes serve both regional and local trips. The local bus system has three main hubs: Journal Square, Grove Street and Exchange Place. The following is a summary of the main bus services.

NJ TRANSIT

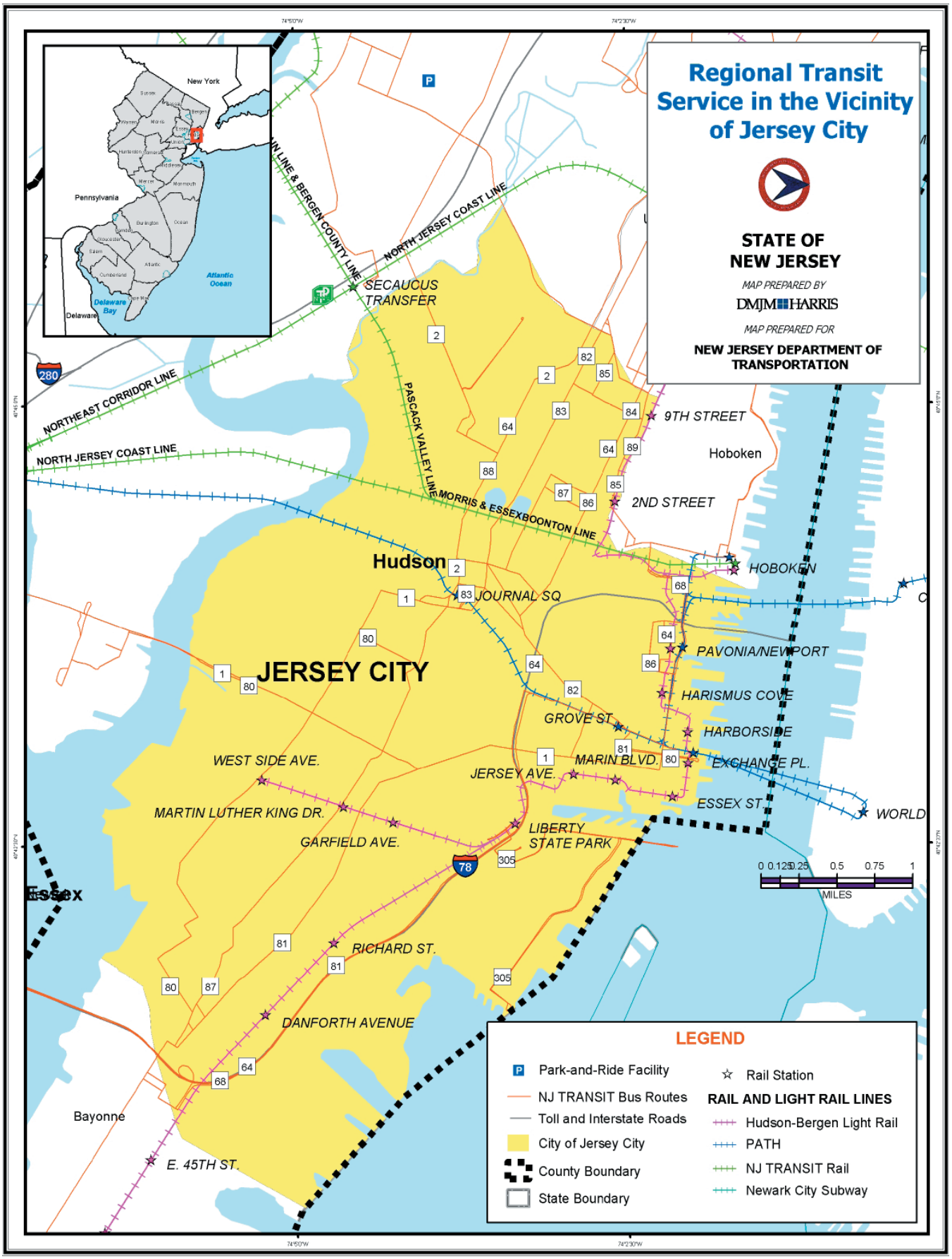
NJ TRANSIT operates 21 bus routes that serve some part of the City. The most traveled bus route is the #1, which runs through the city from Exchange Place to Journal Square and on to Newark. This route has a median weekday ridership of about 16,000. Other busy routes include #87, which runs between Jersey City and Hoboken, and #80 which runs entirely within the city between Exchange Place and Bergen Road. NJ TRANSIT contracts with private carriers to operate seven of its routes.

Private Carriers

The city also has over 20 routes operated by private bus carriers. These services include the following:

- Red and Tan Lines, a subsidiary of Coach USA, operates eight lines including four routes (3, 4, 5, and 16) of the former Lafayette-Greenville service, Route 10, Routes 99 and 99S, and Route 144 (Staten Island Express).
- The Bergen Avenue Independent Bus Owner's Association (IBOA) operates along Bergen Avenue from Journal Square to the end of Bergen Avenue with mainly NJT-owned buses.
- The Montgomery-Westside IBOA operates the same equipment as the Bergen Avenue line along Montgomery Street and Westside Avenue, with stops along Grove Street and other intermediate streets in Jersey City.
- The Broadway Line, which originates at the southern border of Jersey City, is the only line that travels to the Constable Hook industrial and commercial area in Bayonne. It travels along Broadway at 10-minute peak intervals and 12-15 minute off-peak intervals.
- Academy Bus operates the Parkway Express to Wall Street service, a limited peak hour route between Garden State Parkway Exit 109 at Lincroft and Wall Street via Jersey City, including stops at Grove Street station, Exchange Place, and Newport.

Map 2: Public Transit Service



Other/Shuttles/Paratransit

City residents have several other transit options, including the following:

- NJ TRANSIT's Access Link program provides paratransit service comparable to local bus service to persons with disabilities. The origin and destination of each trip must be within ¾ mile of a local bus route.
- Hudson County's Transcend service provides shuttle service to older persons and persons with disabilities.

Job Access/Reverse Commute Services

The city currently has two services that receive JARC funding:

- Enhanced services on NJ TRANSIT bus routes #2, #85, and #129 - The increased level of service, sponsored by the County, helps low-income workers to reach employment locations in the Harmon Cove section of Secaucus. Of these routes, the main one serving Jersey City is Route #2, which originates from Journal Square.
- Bergen – Hudson Shuttles - This service, sponsored by Meadowlink TMA, runs between Journal Square and the Federal Reserve Bank in East Rutherford and the Bank of New York in Lodi. This fixed-route service runs every 30 minutes during weekday peak periods.

3. Ferry Service

The city's transportation network includes commuter ferry service, connecting various locations in Jersey City with different locations in New York City. For many commuters, the ferries provide a relaxing and less costly alternative to PATH, subways, trains and buses.

NY Waterway and Billy Bey Ferry are the main service providers, operaton the following routes:

- Paulus Hook to West 39th Street
- Paulus Hook to World Financial Center
- Liberty Harbor/Paulus Hook to Pier 11
- Port Liberte to Pier 11
- Newport to Pier 79

Due to financial difficulties, the level of service has decreased in recent years. In late 2004, NY Waterway eliminated routes between Newport and Pier 11 and between Harborside and World Financial Center. In late 2005, the company eliminated routes between Newport and West 38th Street and between Harborside and West 38th Street.

In addition, the Liberty State Park Water Taxi operates service between Liberty Landing, and the World Financial Center.

4. Bicycle and Pedestrian Facilities

The city has some trails that provide potential travel paths for pedestrians and bicyclists. The Hudson River Waterfront Walkway currently provides about 11 miles of trails, out of a planned 18-mile course extending from North Bergen through Jersey City to Bayonne. This trail includes the 1.5-mile Liberty Walk waterfront promenade, which is part of Liberty State Park. The park also provides several more miles of paved trails.

The city's Lincoln Park includes the Hackensack River Greenway, which covers 34 acres. Also, the city has designated several walkways and paths through historic sites and connecting to the waterfront.

5. Goods Movement

Port

The Port Jersey Marine Complex comprises two facilities: the Auto Marine Terminal and Global Marine Terminal. The Port Authority of New York and New Jersey manages the Auto Marine Terminal which has two tenants: BMW of America and the Northeast Auto Marine Terminal (NEAT). The berthing area of the terminal is 1,800 linear feet, and it can accommodate vessels requiring up to 32 feet of water. The CSX and Norfolk Southern railroads offer direct service to the facility through its adjacent automobile rail terminal, which opened in 1992. The privately-owned Global Marine Terminal covers 100 acres its facilities include two berths and six cranes. This facility is the closest container terminal to the harbor entrance, saving vessels four hours of travel time compared to Port Newark/Elizabeth.

Rail

The city has several rail freight lines which are important components of the regional goods movement network. The Greenville Branch (former Lehigh Valley Line) enters the city from the west, across Newark Bay, and connects with Greenville Yard at the Hudson waterfront. This line connects with a railcar float system, operated by the New York Regional Railroad, between Greenville Yard and South Brooklyn. The Port Jersey Railroad Company (PJRR) is a 2.4 mile terminal railroad within the Port Jersey distribution center complex. The railroad serves several warehouse and distribution facilities; it connects with the National Docks Secondary.

The National Docks Secondary runs north-south between the Greenville Branch and Croxton Yard in the northern section of the city. The P&H (Passaic & Harsimus) Branch connects with Croxton Yard from the west. Croxton Yard, or the North Jersey Intermodal Terminal, is a Norfolk Southern terminal, which handles double-stack container trains. The facility has six tracks for intermodal service and seven tracks for trains with bulk shipments.

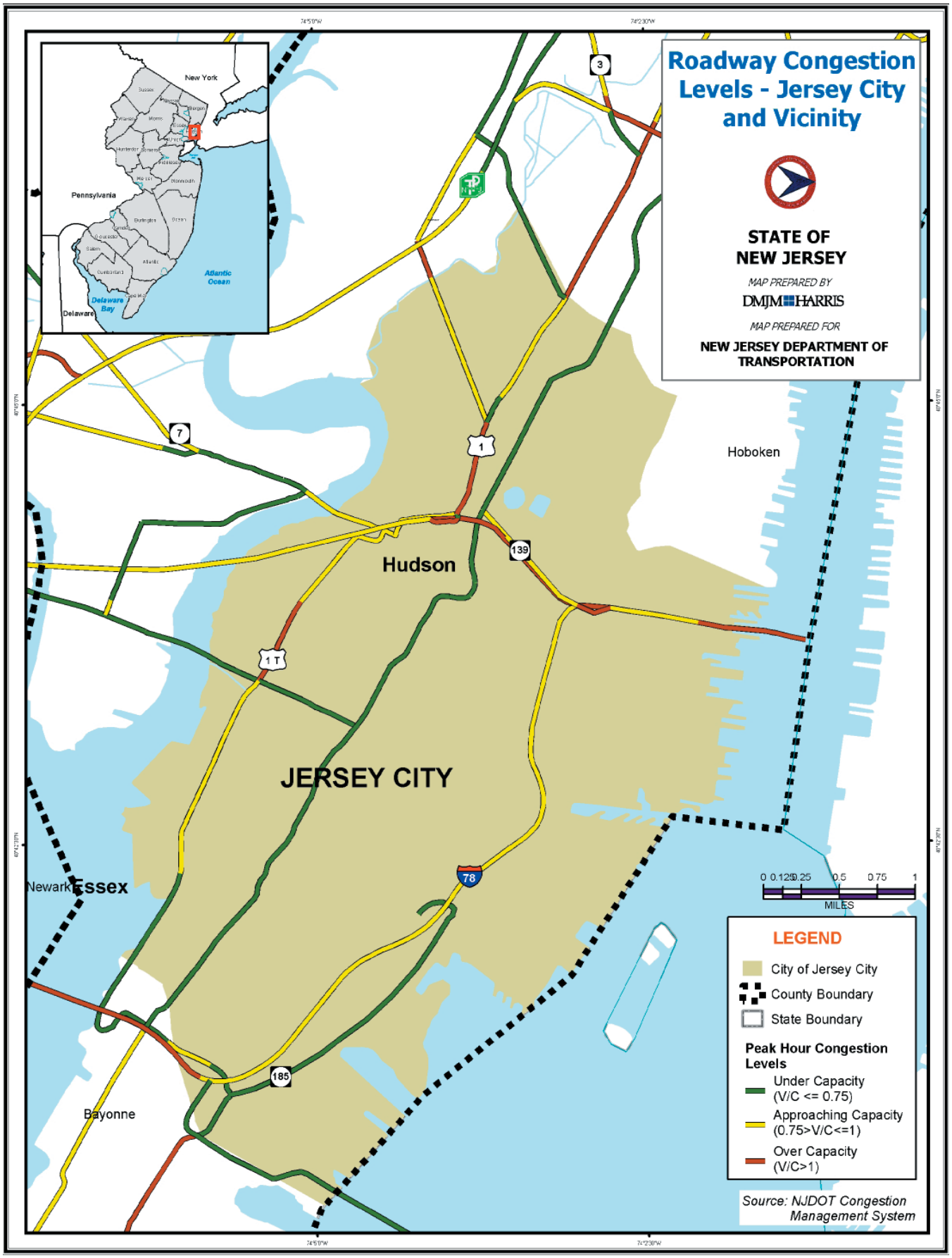
B. SYSTEM PERFORMANCE

This section provides information on transportation system performance, based upon management system data that NJDOT maintains.

1. Congestion Management System

NJDOT's Congestion Management System (CMS) is a primary source of information on roadway congestion. The CMS measures congestion based upon a volume-to-capacity (v/c) ratio. Roadways operating below a 0.75 v/c ratio operate well and have the capacity to accommodate growth. Roadways approaching a 1.0 v/c ratio have little ability to accept additional growth, and a v/c over 1.0 indicates that the roadway is operating at failing conditions and does not have the capacity for added traffic. Map 3 shows the 2005 congestion levels in Jersey City and the immediately surrounding area. The map shows that several important road segments are over capacity; these segments include I-78 across the Newark Bay Bridge, US 1&9 in the area near the Tonnelle Circle (and just north of the city), US 1&9 Truck north of Route 440, and Route 139 approaching the Hudson Tunnel.

Map 3: Roadway Congestion Levels



2. Pavement Conditions

NJDOT maintains a Pavement Management System (PMS) database with information on pavement conditions. The PMS includes all interstate, toll, state and U.S. highways, plus significant 500- and 600-level county roads, and some local routes of regional significance. The rating system for the roadways is based primarily on two criteria: ride quality and surface distress. The Ride Quality Index (RQI) describes the comfort level by measuring roughness, and the Surface Distress Index (SDI) compiles and measures the severity of surface distresses such as cracking, patching, shoulder condition, shoulder drop, faulting and joints. A final pavement rating is calculated from RQI and SDI to determine pavement quality. These ratings, in conjunction with roadway types, are used to determine priorities for resurfacing projects throughout the state.

Table 1 shows the pavement condition of state roads in Jersey City, rated by the SDI, for 2004. The data show that most roads have fair or better pavement conditions. Roads with poor or very poor conditions include sections of US 1&9 Truck, Route 185, Route 440 and US 1&9.

Table 1: Jersey City Pavement Condition Summary by SDI

Facility	Total Pavement Miles (Both Directions)	Very Good SDI > 4	Good 4> SDI >3	Fair 3> SDI >2	Poor 2> SDI > 1	Very Poor SDI <1
1&9	6.6	2.9	0.7	2.8	0.2	0.0
1&9T	4.8	0.6	0.6	1.4	2.2	0.0
139	3.0	2.3	0.5	0.2	0.0	0.0
185	1.4	0.1	0.1	0.1	0.7	0.4
440	6.6	2.7	1.6	1.5	0.8	0.0
Total	22.4	8.6	3.5	6.0	3.9	0.4
%	100%	38.4%	15.6%	26.8%	17.4%	1.8%

Source: NJDOT. Pavement Management System.

In terms of roughness or ride quality, the International Roughness Index (IRI) only reflects the amount of existing surface irregularities that cause a vehicle to loose contact with the surface (measured as the amount of suspension over distance). As a more single dimension measurement, deficiencies are more striking but treatment may be less costly in terms of overlays, with or without milling, rather than rehabilitation or reconstruction that may be the treatment for SDI indicated problems. Table 2 indicates that over 60 percent of the state roadways within Jersey City had deficient pavement conditions in 2004.

Table 2: Jersey City Pavement Condition Summary by IRI

Facility	Total Pavement Miles (Both Directions)	Good	Fair	Deficient
1&9	6.6	0.3	2.9	3.4
1&9T	4.8	0.1	0.3	4.4
139	3.0	0.7	0.7	1.6
185	1.4	0.0	0.1	1.3
440	6.6	1.1	2.7	2.8
Total	22.4	2.2	6.7	13.5
%	100%	9.8%	29.9%	60.3%

Source: NJDOT, Pavement Management System.

3. Bridge Conditions

NJDOT employs a Bridge Management System (BMS) to maintain an inventory of all bridges with a span over 20 feet, listing the physical characteristics, condition and ownership of each bridge. The bridges are rated for their structural condition as well as functional characteristics. Information on structural condition is also combined with bridge size and roadway type to help determine priorities for bridge improvement projects. Table 3 shows data on bridge conditions in Jersey City for 2005, indicating that the city has a somewhat higher percentage of substandard bridges than does the state overall.

Table 3: Bridges with Substandard Conditions

Location	Total Bridges in BMS	Structurally deficient	Functionally obsolete	Sub-standard total	Sub-standard percent
Jersey City	61	12	15	27	44%
State	6,415	779	1,459	2,239	35%

Source: NJDOT. Bridge Management System.

4. Safety Conditions

NJDOT's Bureau of Safety Program produces an annual report of motor vehicle crash rates (per one million vehicle miles traveled) for roads under NJDOT jurisdiction. Table 4 shows the state road segments in Jersey City with the highest crash rates in 2004. The locations with the highest crash rates include segments of Route 185, US 1&9 Truck, and Route 139.

Table 4: State Road Segments with Highest Crash Rates, Jersey City, 2004

Road	Location	Length	Crashes	Rate
Route 185	Intersection with Linden Avenue	.03	8	68.0
US 1&9 Truck	Intersection with Route 440	.04	36	57.6
Route 139 (lower)	Between Coles Street and Jersey Street	.10	68	30.5
Route 139 (upper)	Between Central Avenue and MP .83	.41	70	21.3

Source: NJDOT, Bureau of Safety Programs, Summary of Crash Rates on State and Interstate Highways in Route and Milepost Order for 2004.

C. DEMOGRAPHIC PROFILE

This section presents a summary of demographic characteristics for the city. It examines recent trends and compares trends for the city, county, and state.

1. Population

In 1990, the city reversed a trend of population decline, and population continued to grow during the 1990s, increasing by 5% (see Table 5).

Table 5: Total Population, Jersey City, Hudson County, New Jersey 1980 - 2000

	1980	1990	2000	Change 1990-2000	
				Number	Percent
Jersey City	223,532	228,537	240,055	11,518	5.0%
Hudson County	556,972	553,099	608,975	55,876	10.1%
New Jersey	7,365,011	7,730,188	8,414,350	684,162	8.9%

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980, 1990, 2000.

2. Age Distribution

The age distribution of the city's population is slightly different from that of the county and state (see Table 6). The city has a slightly higher percentage of population under the age of 20 and a somewhat lower percentage over the age of 65. Since 1980, the percentage of population in the city in the younger age groups has decreased, while the median age has increased, but the city's median age remains lower than that of the county and state.

Table 6: Age Profile of the Population 1980 - 2000

	1980	1990	2000
<5 Years			
Jersey City	7.7%	7.4%	6.9%
Hudson County	6.7%	6.7%	6.4%
New Jersey	6.3%	6.9%	6.7%
5-19 Years			
Jersey City	25.1%	20.1%	20.5%
Hudson County	22.8%	18.2%	18.7%
New Jersey	24.2%	19.1%	20.4%
20-64 Years			
Jersey City	55.4%	61.7%	62.9%
Hudson County	58.0%	62.4%	63.6%
New Jersey	57.8%	60.6%	59.7%
65+ Years			
Jersey City	11.8%	10.8%	9.8%
Hudson County	12.5%	12.7%	11.4%
New Jersey	11.7%	13.4%	13.2%
Median Age			
Jersey City	29.9	31.6	32.4
Hudson County	32.3	34.5	33.6
New Jersey	32.0	34.4	36.7

Source: U.S. Bureau of the Census, 1980, 1990, 2000.

3. Racial and Ethnic Composition

The racial and ethnic composition of the city shifted somewhat during the 1990's (see Tables 7 and 8). The percentage of non-white population increased from 52% to 66% in 2000, and the percentage of Hispanic population increased from 24% to 28% in 2000. Both the city and County had substantial increases in their percentages of "other" races.

Table 7: Racial Composition of Population 1990-2000

	1990	2000
White		
Jersey City	48%	34%
Hudson County	69%	56%
New Jersey	79%	73%
Black		
Jersey City	30%	28%
Hudson County	14%	14%
New Jersey	13%	14%
Other*		
Jersey City	21%	37%
Hudson County	17%	31%
New Jersey	7%	14%

Source: U.S. Bureau of the Census, 1990, 2000.

* "Other Races" include Asian, Pacific Islander, American Indian, & Alaska Native. It also includes persons who reported that they are "2 or more" races. Since the Census Bureau used this category for the first time for the 2000 Census, some of the shift in the racial composition between 1990 and 2000 may be attributable to persons selecting this category. Hispanic origin is not a race; therefore, persons of Hispanic origin may be included in any of the race categories

Table 8: Percentage of Hispanic Population 1990-2000

	1990	2000
Jersey City	24%	28%
Hudson County	33%	40%
New Jersey	10%	13%

Source: U.S. Bureau of the Census, 1990, 2000.

4. Income & Poverty

Median household income in the city increased by 30% in the 1990s, a similar rate of increase to that for the county and state, but the city's 2000 median income remains well below that of the county and state (see Table 9). Also, the percentage of persons below the poverty level remained constant during 1990s, and the city's poverty rate is higher than that of the county or state.

Table 9: Income and Poverty, Jersey City, Hudson County, New Jersey 1979-1999

	1979	1989	1999	Change 1989 – 1999 Number	Percent
Median Household Income					
Jersey City	$12,787	$29,054	$37,862	$8,808	30.3%
Hudson County	$24,103	$30,917	$40,293	$9,376	30.3%
New Jersey	$33,178	$40,927	$55,146	$14,219	34.7%
% Individuals Below Poverty Level					
Jersey City	21.2%	18.6%	18.6%		
Hudson County	16.9%	14.8%	15.5%		
New Jersey	9.5%	7.6%	8.7%		

Source: U.S. Department of Commerce, Bureau of Census, 1980, 1990, 2000.

5. Automobile Ownership

The rate of household vehicle ownership in the city decreased slightly between 1990 and 2000, and it remains below the rate for the county and state (see Table 10). For the city, 82% of households have one or no vehicles, compared to a statewide average of 48%.

Table 10: Percentage of Households with a Vehicle, Jersey City, Hudson County, New Jersey 1980-2000

	1980	1990	2000
Jersey City	55%	60%	59%
Hudson County	65%	66%	65%
New Jersey	85%	87%	87%

Source: U.S. Department of Commerce, Bureau of Census, 1980, 1990, 2000.

6. Labor Force

The number of employed residents in the city decreased slightly between 1990 and 2000 (see Table 11). Even though the city had an increase in the total number of persons aged 16 and over, the labor force participation rate decreased.

Table 11: Employed Residents 1980 – 2000

	1980	1990	2000	Change 1990-2000	
				Number	Percent
Jersey City	88,239	104,595	103,448	-1,147	-1.1%
Hudson County	239,761	268,816	271,770	-2,954	-1.1%
New Jersey	3,288,302	3,868,698	3,950,029	81,331	2.1%

Source: U.S. Department of Commerce, Bureau of Census, 1980, 1990, 2000.

7. Unemployment

The civilian resident unemployment rate for the city decreased slightly between 1990 and 2000, but it remains well above that for the county and state (see Table 12).

Table 12: Resident Unemployment Rate 1980-2000

	1980 (%)	1990 (%)	2000 (%)
Jersey City	9.8	10.8	10.0
Hudson County	8.2	8.8	8.7
New Jersey	7.2	5.7	5.8

Source: U.S. Department of Commerce, Bureau of Census, Population and Housing 1980, 1990 and 2000.

8. Employed Residents by Industry

Table 13 shows the number of employed city residents who work in different industrial sectors. The bulk of the labor force works in service industries; only 12% work in manufacturing or construction.

Table 13: Industrial Sector of Employment, Jersey City Residents 2000

Sector	Number Employed	% Employed
Agriculture, forestry, fishing and hunting, and mining	71	0.1
Construction	2,938	2.8
Manufacturing	9,892	9.6
Wholesale trade	5,053	4.9
Retail trade	11,120	10.7
Transportation and warehousing, and utilities	10,329	10
Information	4,823	4.7
Finance, insurance, real estate, and rental and leasing	12,600	12.2
Professional, scientific, management, administrative, and waste management services	11,834	11.4
Educational, health and social services	18,810	18.2
Arts, entertainment, recreation, accommodation and food services	7,401	7.2
Other services (except public administration)	4,252	4.1
Public administration	4,325	4.2

Source: U.S. Census Bureau, Census 2000

9. Employed Residents by Occupation

Table 14 shows the number of employed residents who hold different occupations. The percentage of city workers in "Management, Professional, and Related Occupations" (33%) is similar to that for the county (32%) and the state (38%).

Table 14: Occupation of Employment, Jersey City Residents 2000

Occupation	Number Employed	% Employed
Management, professional, and related occupations	34,111	33.0
Service occupations	16,436	15.9
Sales and office occupations	31,502	30.5
Farming, fishing, and forestry occupations	81	0.1
Construction, extraction, and maintenance occupations	5,313	5.1
Production, transportation, and material moving occupations	16,005	15.5

Source: U.S. Census Bureau, Census 2000

10. Journey to Work - Resident Labor Force

U.S. Census data show that of the 100,750 city residents who traveled to work in 2000, 32,601 (32%) of them worked in Jersey City (see Table 15). This rate is a decrease from a rate of 40% in 1990. After Hudson County, the leading county for commute destinations is New York, New York (Manhattan). Other New Jersey counties that attract large numbers of city residents are Essex and Bergen. The leading municipal employment locations are Manhattan (New York City), Secaucus, Newark, Bayonne, and Hoboken.

Table 15: Location of Employment. Jersey City Residents 2000

Location	Number	%	Number	%
Hudson County	49,551	49.2%		
Jersey City			32,601	32.4%
Secaucus			5,487	5.4%
Bayonne			2,202	2.2%
Hoboken			2,190	2.2%
Kearny			1,918	1.9%
North Bergen			1,867	1.9%
Union City			1,480	1.5%
New York, NY	24,558	24.4%		
Essex County	6,370	6.3%		
Newark			4,152	4.1%
Bergen County	6,316	6.3%		

Source: U.S. Census Bureau, Census 2000.

The city has a relatively low percentage of resident workers whose primary commute mode is the single-occupancy vehicle, and a relatively high percentage of workers whose primary mode is public transit. In 2000, 64% of resident workers used modes other than single-occupancy vehicles as their primary commute mode, compared to 58% in the County and 27% in the state. The share of commuters using public transit as their preferred mode was 40%, compared to 34% for the County and 10% for the state. The average commute time for all workers who do not work at home is 34 minutes.

11. Employment

Total covered employment in Jersey City (including private sector, federal government, and local government jobs) in 2003 was 96,694, which was a 10% increase from 1998. The major employment sectors in Jersey City are finance and insurance, local government, health care and social assistance, retail trade, and transportation and warehousing (see Table 16). The goods-producing industries of manufacturing and construction account for only 7% of private sector jobs.

Table 16: Covered Employment by Sector, Jersey City 2003

Sector	Number Employed
Construction	1,708
Manufacturing	3,438
Wholesale trade	2,775
Retail trade	7,802
Transportation and warehousing	6,022
Information	4,119
Finance and insurance	21,132
Real estate and rental and leasing	1,639
Professional and technical services	5,691
Management of companies and enterprises	1,419
Administrative and waste services	4,016
Educational services	1,324
Health care and social assistance	10,246
Arts, entertainment, and recreation	498
Accommodation and food services	3,863
Other services, except public administration	2,502
Unclassified entities	421
PRIVATE SECTOR TOTAL	78,926
FEDERAL GOVERNMENT TOTAL	3,474
LOCAL GOVERNMENT TOTAL	14,294

Source: NJ Department of Labor. New Jersey Employment and Wages: 2003 Annual Report. Municipalities by Industry, Hudson County. Data represent the annual average for 2003. Covered employment refers to all jobs covered by unemployment insurance. The private sector total does not match sum of individual industries because NJDOL suppresses data for industries with few units (businesses) or where one employer is a significant percentage of employment or wages of the industry.

These data do not include employees of state government or other agencies sometimes considered part of state government, including the Port Authority of New York and New Jersey and state colleges and universities.

According to NJTPA, as of 2000, the number of employees in Jersey City was 108,270, and this number was projected to increase to 118,150 in 2005.

12. Journey to Work - Employees in the City

The 2000 US Census found that about 35% of the city's employment base lives in the City; over 60,000 persons travel into the city to work. Other towns in the County provide 16% of employment, and other leading residential locations are Bergen, Essex, Middlesex, and Union Counties, as well as the five boroughs / counties of New York City (see Table 17).

Table 17: Location of Residence, Jersey City Employees 2000

Location	Number	%	Number	%
Hudson County	47,884	51.1%		
Jersey City			32,601	34.8%
Bayonne			5,583	6.0%
Union City			2,596	2.8%
North Bergen			1,738	1.9%
Bergen County	7,001	7.5%		
Essex County	5,380	5.7%		
Newark			1,533	1.6%
Middlesex County	4,373	4.7%		
Union County	3,799	4.1%		
New York (all)	13,684	14.6%		
Brooklyn			3,323	3.5%
Manhattan			2,743	2.9%
Queens			2,397	2.6%
Staten Island			1,688	1.8%
Bronx			1,009	1.1%

Source: US Census, 2000.

D. FUTURE CONDITIONS

1. Population and Employment Projections

NJTPA produces population and employment projections for its region, which includes Hudson County. These projections indicate that the city's population will continue its growth trend and increase by 28% between 2000 and 2030 (see Table 18). Maps 4 and 5 show the current (2000) and projected (2030) population density for the city. NJTPA projections indicate that the city's employment will increase between 2000 and 2030 at an even greater rate than that for population (see Table 19). Maps 6 and 7 show the current (2000) and projected (2030) employment density for the city.

Table 18: Population Projections, Jersey City, Hudson County 2000 - 2030

	2000	2005	2010	2015	2020	2025	2030	% Change 2000-2030
Jersey City	240,060	249,290	265,610	281,630	296,340	302,690	308,180	28%
Hudson County	609,000	633,400	667,000	694,000	720,800	740,600	760,700	25%

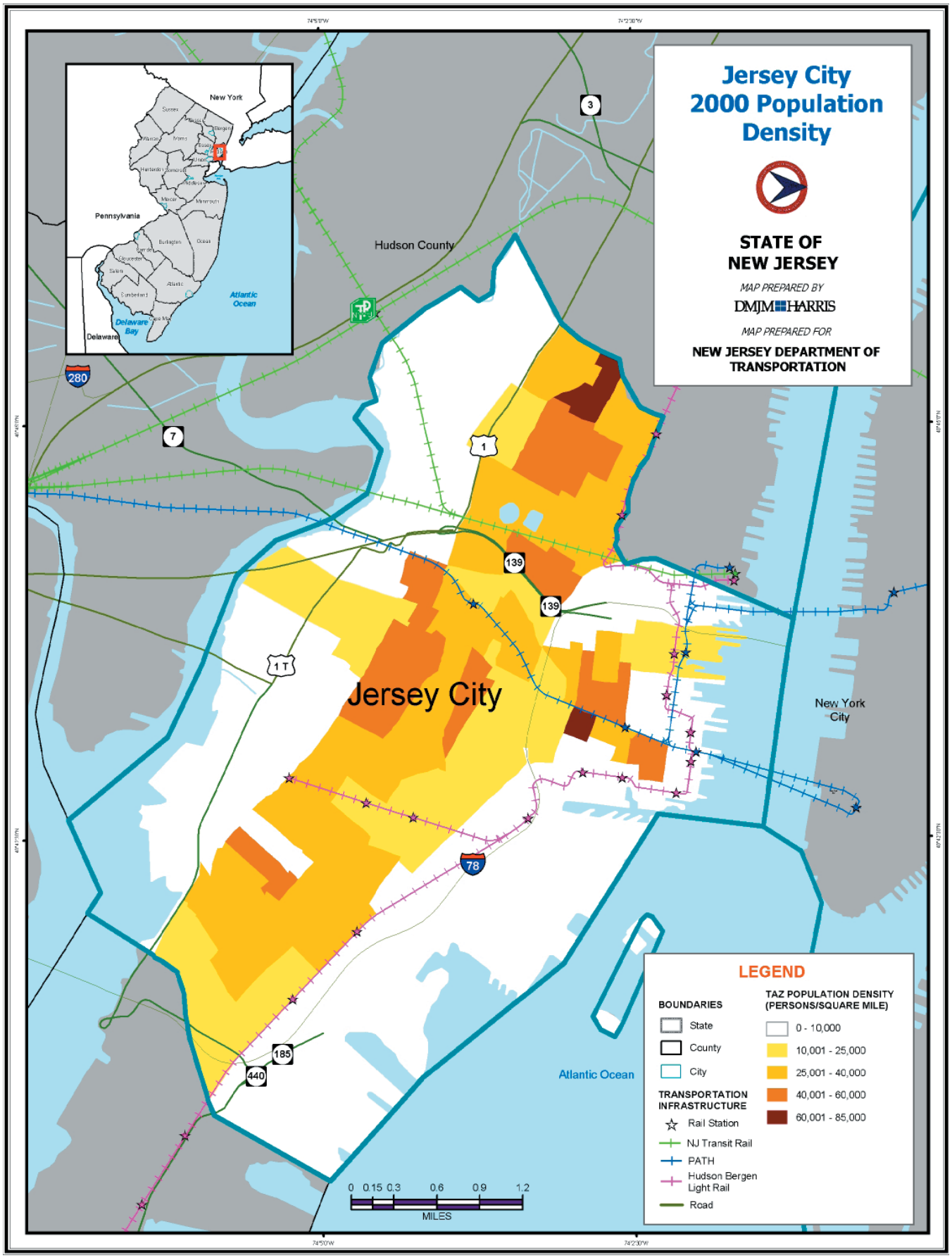
Source: NJTPA. Approved Demographic and Employment Forecasts, May 2005.

Table 19: Employment Projections, Jersey City, Hudson County 2000 - 2030

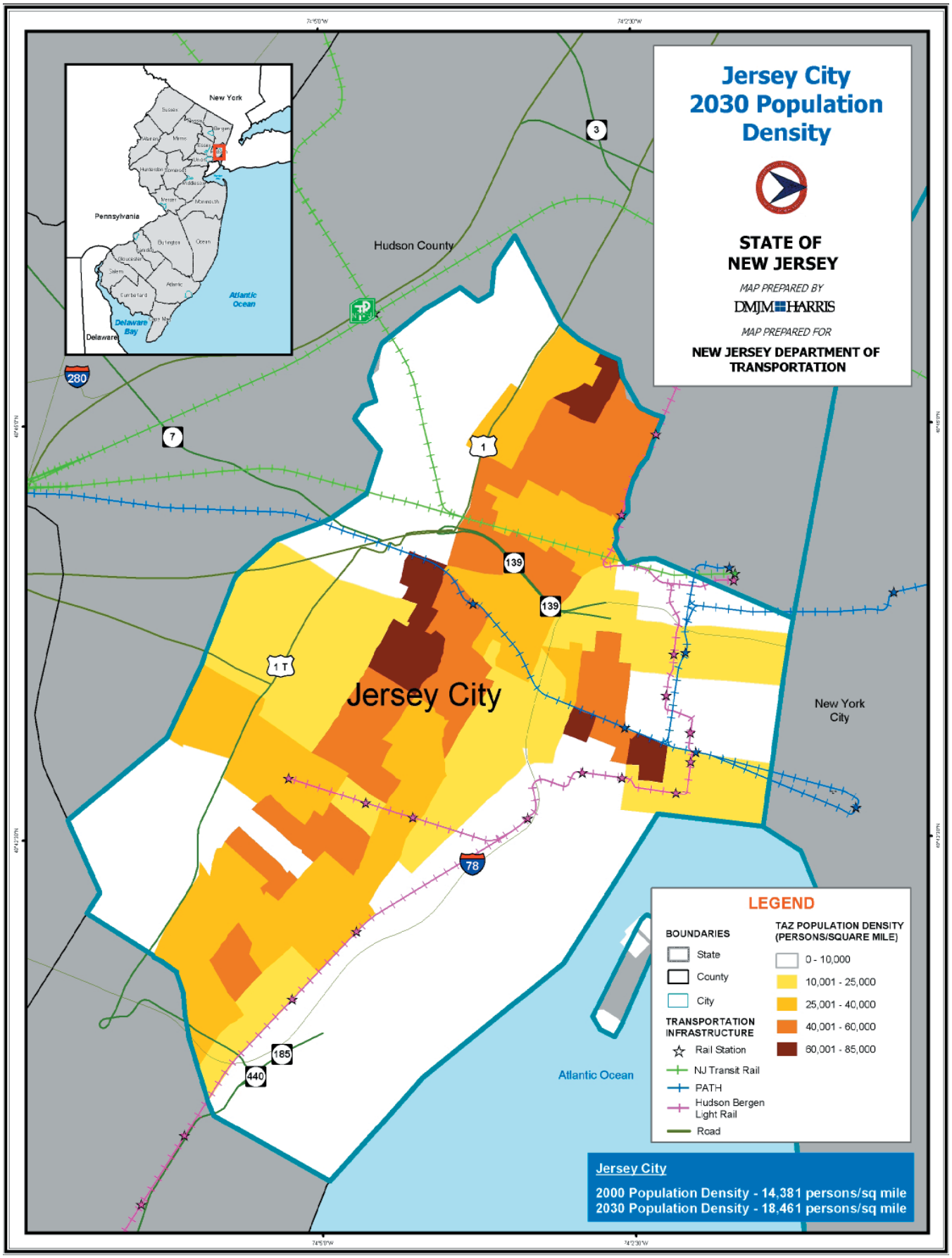
	2000	2005	2010	2015	2020	2025	2030	%Change 2000-2030
Jersey City	108,270	118,150	130,780	137,640	144,790	148,480	155,570	44%
Hudson County	257,200	273,800	297,000	311,200	328,300	339,900	361,600	41%

Source: NJTPA. Approved Demographic and Employment Forecasts, May 2005.

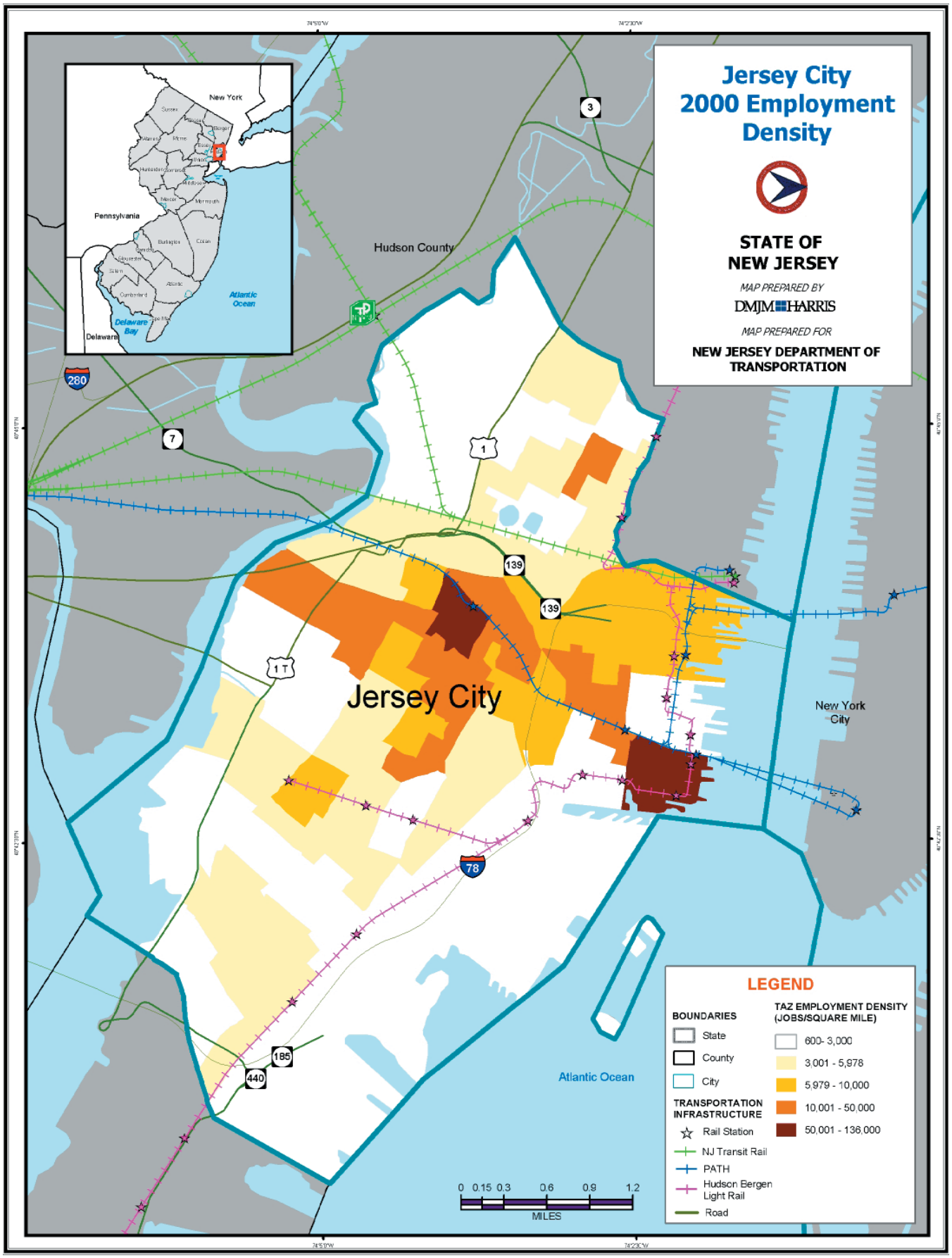
Map 4: 2000 Population Density



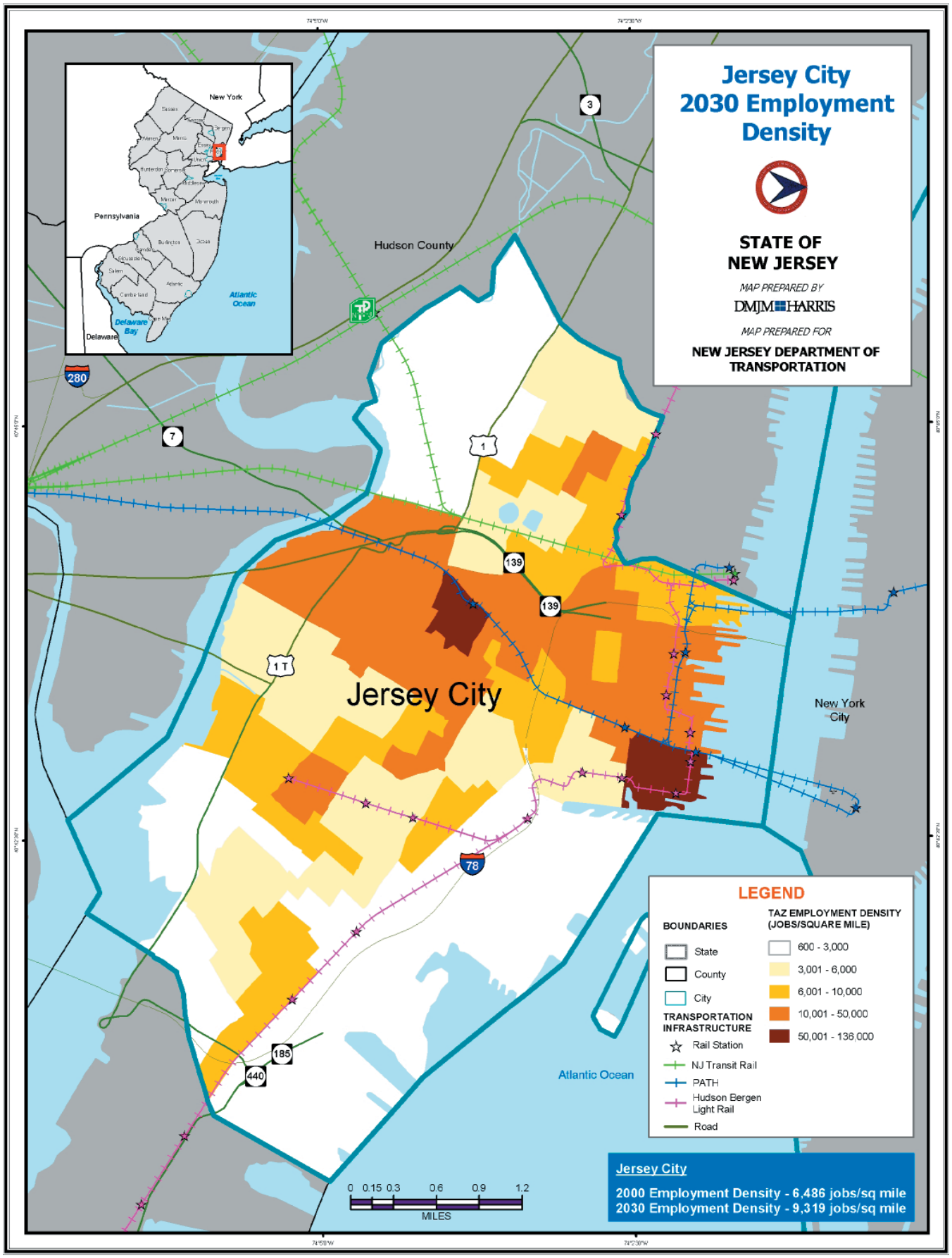
Map 5: 2030 Population Density



Map 6: 2000 Employment Density



Map 7: 2030 Employment Density



2. Transportation Conditions

Regional transportation models enable analysis of current and future travel conditions based upon various assumptions about land use and transportation system capacity. The model output can be used to prepare "travel time contour" maps, which show how far a motorist could travel between a specific point (e.g., the center of a city) and other points on the surrounding roadway system within given time frames. These maps reflect the impact of roadway congestion upon travel time.

The work on the New Jersey Long-Range Transportation Plan included analyzing and preparing travel time contour maps for existing conditions (2005) and the 2030 Plan. These maps cover the surrounding roadway network that lies within the NJTPA region. The calculations are based upon evening peak hour traffic volumes, and they are based upon traffic heading both to and from the central point.

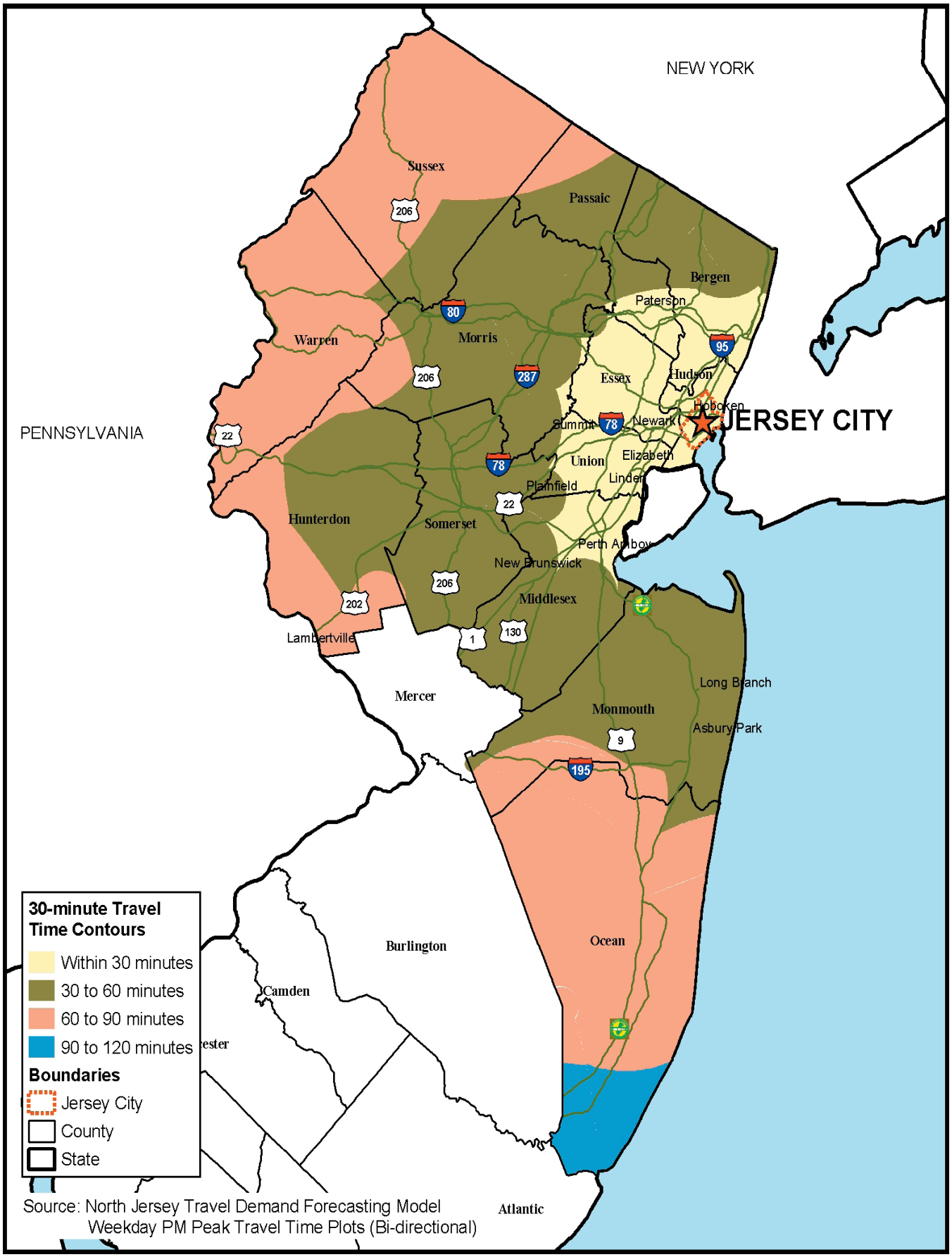
The 2005 existing condition map shows the current travel time limits (see Map 8).

The 2030 Plan map illustrates travel time with the package of transportation system investments contained in the 2030 Plan (see Map 9). The statewide long-range transportation plan, Transportation Choices 2030, contains specific information on these investments, and the plan is available on the internet at www.njchoices.com, the website for the statewide long-range transportation plan. The 2030 Plan recognizes the importance of completing key transit projects, and it envisions a significant infusion of additional funds for transit-related projects and bringing transportation infrastructure to a state of good repair. The 2030 Plan also assumes reducing some auto trips by more aggressive travel demand management measures and adopting smart growth measures for new development and redevelopment.

As a contrast, Map 10 shows anticipated travel time limits in 2030 without the level of investments that are contained in the 2030 Plan.

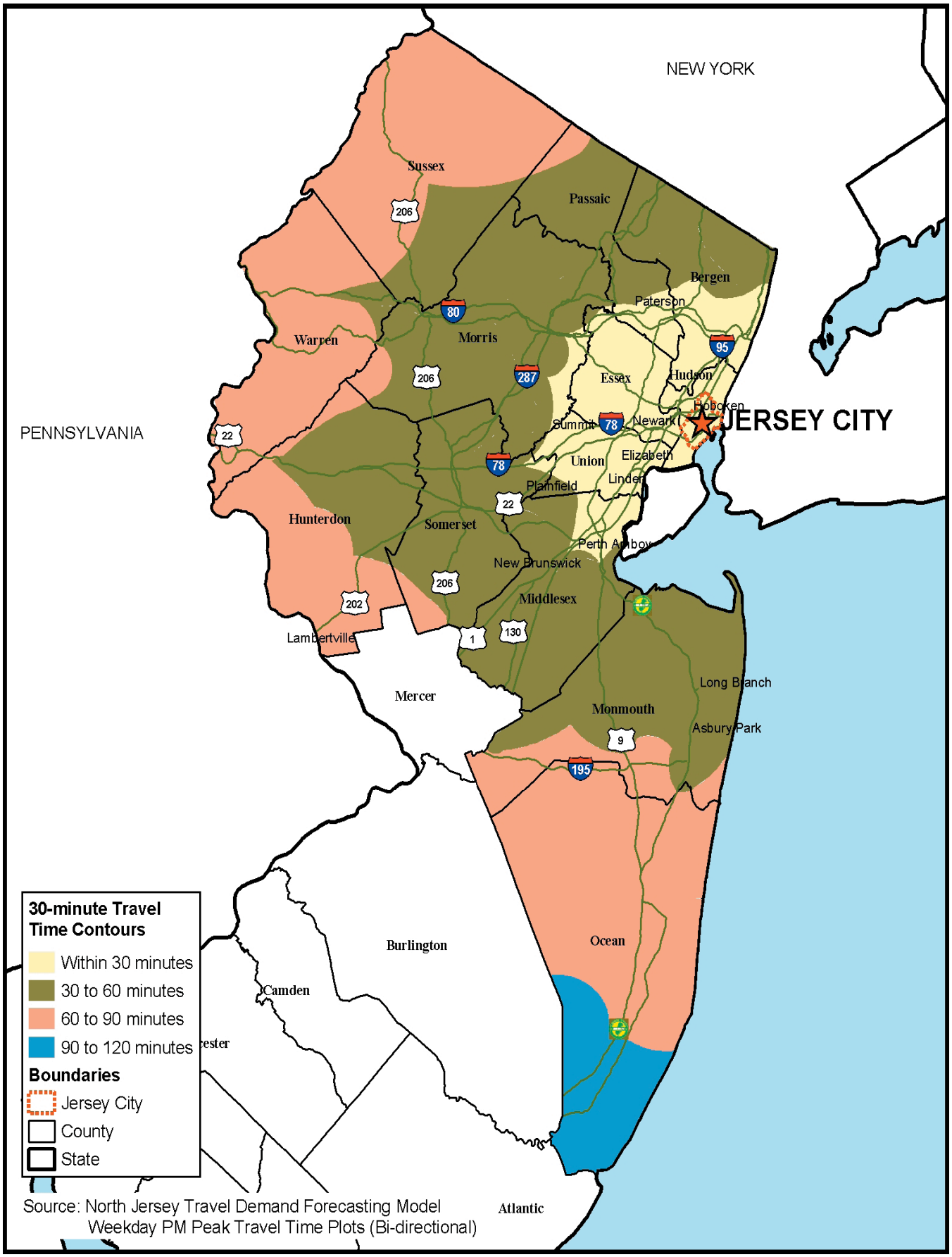
It is important to understand that these maps do not reflect public transit travel times. Public transit provides significant levels of access and mobility for the state's largest cities, and increases in transit service would be expected to increase these levels of access and mobility.

Map 8: Travel Time Contours, Jersey City, 2005



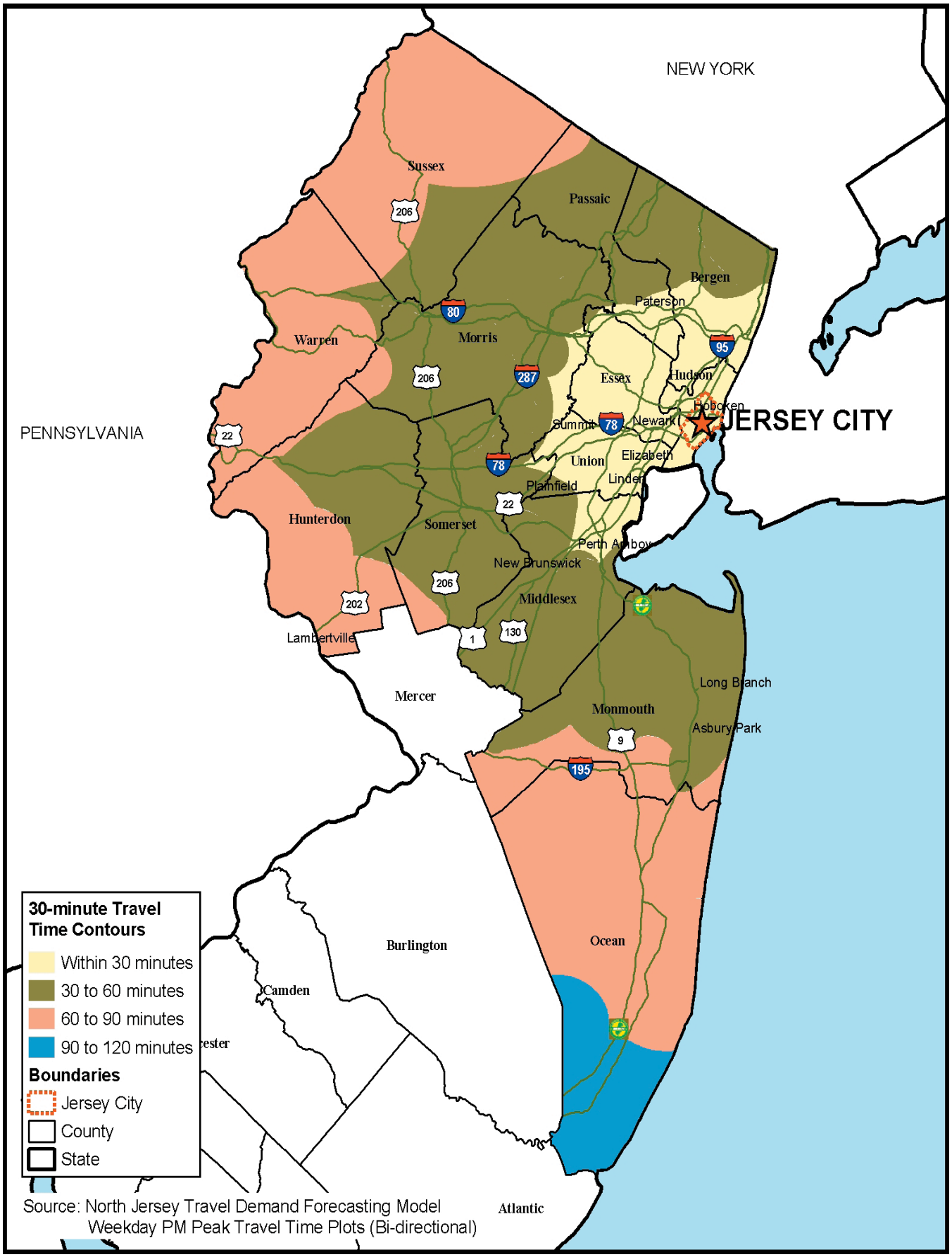
Source: North Jersey Travel Demand Forecasting Model
Weekday PM Peak Travel Time Plots (Bi-directional)

Map 9: Travel Time Contours, Jersey City, 2030 – Plan



Source: North Jersey Travel Demand Forecasting Model
Weekday PM Peak Travel Time Plots (Bi-directional)

Map 10: Travel Time Contours, Jersey City, 2030 – without Plan



Source: North Jersey Travel Demand Forecasting Model
Weekday PM Peak Travel Time Plots (Bi-directional)

E. CURRENT AND FUTURE DEVELOPMENT

This section provides a summary of current and future development potential in Jersey City and the surrounding area, focusing on employment.

1. City

Existing

Waterfront

The waterfront has a large concentration of office space, including the Newport, Harborside, Exchange Place, and Colgate Center areas. The waterfront has an estimated 18 million square feet of Class A office space. Major employers include such large corporations as Paine Webber, American Express, Merrill Lynch, Goldman Sachs, J.P. Morgan Chase, and Lord Abbett.

Newport is a master-planned, mixed-use community, including residential, office, retail and recreational uses. The World Business Center comprises seven office buildings, totaling five million square feet of office space. Major tenants include J.P. Morgan Chase and Knight Equity Markets. This area also includes the Newport Centre Mall, a regional shopping facility with 1.2 million square feet of retail space. Over 7,000 persons work in the Newport area.

The Harborside Financial Center comprises six Class A office buildings with a total of 3.6 million square feet of office space, along with a waterfront retail promenade and a Hyatt Regency hotel.

Exchange Place Centre (10 Exchange Place) is a 30-story building with 700,000 square feet of office space and connected directly to the Exchange Place PATH station. It has over 3,000 employees, including Fleet Bank and American Express.

Colgate Center is a mixed-use development with office space, rental units, a hotel and a marina. 70 and 90 Hudson Street are "twin" buildings, each with over 400,000 square feet of space. Lehman Brothers is the sole occupant of 70 Hudson, and Lord Abbett occupies 90 Hudson. 101 Hudson, the first major office building on the site, has 1.2 million square feet of space; major tenants include Merrill Lynch, AIG, and Lehman Brothers. The Goldman Sachs tower (30 Hudson), opened in 2004, is a 42-story office building, which is the tallest building in the state. The building has nearly 1.4 million square feet of space; current employment is about 3,000.

The downtown has several other large office buildings. For example, the Cali International Financial Tower is a 19-story building with 600,000 square feet of office space located along Columbus Boulevard at the Grove Street PATH station. Over 2,000 people work in the building.

Journal Square

Journal Square is the historic economic hub of the city. Today, it has a mix of commercial, retail, educational, and residential uses, along with the Journal Square Transportation Center. Major employers in the area are Provident Bank, North Fork Bank, and the Jersey Journal newspaper. Automatic Data Processing employs 700 persons at 2 Journal Square Plaza. Hudson County Community College's (HCCC) Journal Square Campus occupies several locations in the Square, including the college business offices and book store. The college has about 11,000 students at this campus, along with nearly 300 full-time employees. Journal Square also has about fifty retail stores. In addition, the new State Square building opened in 2005 on the site of the old State Theatre, This building has 130 rental units, along with ground floor retail and nearly 400 parking spaces. The Hudson County Courthouse and Administration Building are located just to the east of the square.

Industrial Development

The largest area for industrial activity in the city is in the northwest section, bounded by Tonnelle Avenue to the east and Secaucus Road to the north. The major employers in this area are the US Postal Service facility, which employs 3,500 persons, and the Croxton Yard rail facility (see Section A.5).

The city has a few other industrial centers including Liberty Industrial Park and Port Jersey/ Greenville Yards. The Liberty Industrial Park covers 135 acres adjacent to Liberty State Park. This complex provides 1.7 million square feet of building space; it is currently home to the New York Daily News Printing Plant, Sysco Food Services (1,800 employees), ADP Graphics (425 employees), and Snow Bird Corporation (130 employees). The Port Jersey/Greenville Yards complex includes a light industrial park with distribution centers for Eagle/Anheuser-Busch and Tropicana, along with the Port Jersey Marine Complex (see Section A.5).

Retail

The city has ten major shopping areas including Newport Mall and Journal Square. Other key retail districts include the following:

- The Route 440 corridor, which has two large shopping centers. The Hudson Mall has over 350,000 square feet of space, and the Jersey City Plaza has 200,000 square feet.
- The Central Avenue shopping district, which has more than two hundred stores.
- The Newark Avenue corridor and the Downtown area, which includes portions of Jersey Avenue and Grove Street.
- McGinley Square, which has about 140 stores and services.

Education

In addition to HCCC, the city has two other institutions of higher education: New Jersey City University and Saint Peter's College. NJCU has about 9,000 students and 1,000 employees. The campus has 10 major buildings with 900,000 square feet. Saint Peter's has about 3,000 students and 567 full and part-time employees.

Health Care

The city has the following three major hospitals:

- Jersey City Medical Center (operated by LibertyHealth), with 1,770 employees, is one of the city's largest employers. It recently moved to a new campus on Grand Street.
- Greenville Hospital (also operated by LibertyHealth) has about 300 employees.
- Christ Hospital has over 1,600 employees. Its facilities include a cancer treatment center.

Tourism

Liberty State Park covers over 1,200 acres on the Hudson River waterfront. The park serves as the launch point for boat tours to the Ellis Island and Liberty Island historic sites, and it also includes the Liberty Science Center (now closed for renovations), the historic Central Railroad of New Jersey Terminal, an Interpretive Center, and various recreational opportunities. The park is a major tourist attraction, having over 5 million visitors annually.

Future Development

The city has over 50 redevelopment plans; redevelopment areas cover a major portion of the city. Local officials have indicated that most recent and planned projects are for residential development. The following is a summary of current, planned, and proposed projects.

Waterfront

The waterfront area currently has a relatively high office space vacancy rate. This situation suggests that employment may increase in this area as employers occupy vacant space, regardless of the level of new building. In addition, the Harborside complex has five available building sites with the potential for over 5 million square feet of new office space. The city recently approved a 900-unit residential project at 77 Hudson Place, a location for which it had previously approved one million square feet of office space.

Adjacent to the waterfront area, the Powerhouse Arts District is a redevelopment area designated as an arts and entertainment district. The area has several large historic warehouse buildings that developers will convert to a mix of uses including galleries, theatres, restaurants, retail, artist work/live studios and other residential units.

Just north of the waterfront area, Home Depot plans to build a new store near the entrance to the Holland Tunnel. This store will have 286,000 square feet of floor space and 471 parking spaces, and construction will start in spring 2006.

Liberty Harbor North

Work has started on this large mixed use project near the downtown area. The total proposed project includes over 6,000 dwelling units, 4.6 million square feet of office space, one million square feet of retail space, a hotel, and schools. The first phase, comprising over 400 residential units, is currently under construction.

Journal Square

The Master Plan calls for the city to promote Journal Square as a new central business district, including a mix of uses and links to adjacent activity centers. The city recently designated a developer for the block between the old Hotel on the Square and the Transportation Center. The planned development comprises two high-rise towers with apartments, retail, and parking. Another proposed development, Journal Square Plaza III, would provide over 500,000 square feet of office space.

Also, HCCC is planning to add over 400,000 square feet of space over the next 10 years. The college has received funding to create a new Academic Center, job placement center, continuing education offices and financial aid office developed at 70 Sip Avenue, the former Independence Bank site. Also, it is constructing a Culinary Arts Institute and Conference Center, scheduled to open in 2006.

Bayside/Westside/Hackensack Waterfront

The City has approved a Bayside Development Plan covering 75 acres bounded by Newark Bay, Communipaw Avenue, Bergen Street, and Steven Avenue. The projected build-out under the plan is over 10 million square feet of commercial space along with 17,000 housing units, new schools, and 110 acres of parks and plazas. Within this area, New Jersey City University has prepared a West Campus Redevelopment Plan including residential and commercial development, and street and streetscaping improvements. Overall, the University is planning $75 million of projects over the next ten years. The expansion plan includes three new educational buildings, a performing arts center, retail, housing and parking. The university also is considering opportunities for mixed-use redevelopment, including student housing in the surrounding area. The City is preparing a transit village application for the West Side Avenue light rail station, and the West Campus Redevelopment Plan notes the possibility of extending the redevelopment area to link with this station.

Liberty State Park Area

Liberty Science Center is undergoing a major expansion; it is scheduled to re-open on July 4, 2007. NJ TRANSIT is preparing a feasibility study to examine alternatives for transit-oriented development around the HBLR park-and-ride facility. The Planning Board has approved a project for three condominium towers, with a total of 575 units, just outside the park, and another proposed project would generate 900 units. A new golf course, Liberty National Golf Course, is scheduled to open in July 2006, and new retail and entertainment uses are being considered for the area.

Port Jersey/Greenville Yard

As port activity continues to increase, this area, which is part of a Foreign Trade Zone, may expect increased opportunities for related economic development in distribution and warehousing activities.

McGinley Square

Several projects are planned or proposed for this area. One large project is redeveloping the former Jersey City Medical Center. The first phase of this project, under construction, will include over 300 condominium units and over 60,000 square feet of office and retail space. Subsequent phases will lead to a total of 1,200 residential units. The Saint Peter's College Master Plan calls for a new academic building, a new residence hall, a new student center and a new parking deck. Also, the Horizon Health Center is planning to renovate and expand its facilities along Bergen Avenue, and the County is considering purchasing the old Block Drug building and relocating offices to this location.

Schools

Jersey City has several current or planned public school construction projects. One current project is a new school complex on Grand Street between Jersey Avenue and Monmouth Street, which is expected to open in February 2006. Another current project is the Heights Middle School, located on Collard Street on the site of the former Reservoir No. 2. The updated state School Construction Corporation list of projects scheduled for completion includes five projects in Jersey City: three new early childhood schools and two renovated elementary schools. The school district has identified the need for 12 additional new schools, for which the funding prospects are now uncertain.

Residential Development

In addition to the residential component of projects described above, the city has many other housing projects under construction or in the planning stages. Most projects include high-rise condominiums or apartments with ground floor retail and parking. The most publicized project is Trump Plaza, which involves twin towers with 862 condominium units. Other upcoming projects include "A" Jersey City, 700 Grove Street, Grove Pointe, Hudson Lofts, Shore Club, Columbus Plaza, Liberty Terrace, Washington Commons, Montgomery Greene, Morgan Point and Zephyr Lofts. In addition, several proposed projects include the Van Leer Chocolate Factory site, the Koven Stove Works site and the St. Francis Medical Center site. Current and approved projects would generate over 7,500 new dwelling units in the downtown area.
In addition to these projects, several projects have been proposed for the Lafayette neighborhood. One major project, in the Morris Canal/Lafayette Park redevelopment area, involves demolishing the Lafayette Gardens public housing project (about 500 units) and providing 850 units of mixed-income houses, apartments and senior housing. Another project would provide about 330 units at the old Whitlock Cordage site, and a proposed joint private/public venture would produce about 200 units of mixed-income housing.

2. Region

Section C.10 provided information on the leading commute destinations for Jersey City residents. Outside the city, by far the largest commute destination is Manhattan, followed by Secaucus, Newark, Bayonne and Hoboken. The following is a summary of current employment and future employment prospects in these areas.

Jersey City is unlike other cities in the state because of its proximity to New York City, the major regional employment center. Although Jersey City-to-Manhattan commuting does not fit the typical definition of "reverse commuting," this travel pattern is important to examine because of its obvious impact upon the city's transportation system. Manhattan has over 350 million square feet of office space, including over 90 million in Lower Manhattan. Several major new projects will reinforce and expand New York's prominence as an employment center; the city is projected to gain over 500,000 jobs between 2000 and 2030 (see Table 20).

Secaucus is the most significant suburban employment location, providing a variety of existing and potential new warehousing, retail, hotel and office jobs. A major employment center in Secaucus is the Harmon Cove mixed-use community, which has 12 million square feet of office and warehouse space, retail outlets and hotels. The Harmon Meadow area includes the Plaza at Harmon Meadow (office, hotels, and retail) and the Mill Creek Mall (office and retail).

In addition, a major redevelopment project has been proposed for the area around the Secaucus Transfer rail station. This project could generate up to 750,000 square feet of office and entertainment space, a 500-room hotel and conference center, and 1,850 residential units.

A few other large development projects are currently under construction or in the planning phase within the Meadowlands area. The Xanadu project, near the existing Arena site, includes nearly 5 million square feet of entertainment and leisure, commercial, and retail activities, along with four 14-story office buildings and a hotel.

Another new project is the Meadowlands Golf Village, a large mixed-use project in Lyndhurst and North Arlington. Featuring two golf courses, it will include a first-class hotel and a luxury resort, 750,000 square feet of office space, 100,000 square feet of retail space and nearly 2,000 residential units. It is estimated to generate 2,400 full-time jobs.

Newark is another important job destination for Jersey City residents. Downtown Newark, Newark Liberty International Airport, Port Newark/Elizabeth, and University Heights are major employment centers, and new development is expected in all these areas. NJTPA projects that the city will gain over 20,000 jobs between 2000 and 2030.

Hoboken and Bayonne, among other Hudson County communities, provide substantial current and future employment opportunities for Jersey City residents. NJTPA projects that total employment in two cities will increase by 14,000 between 2000 and 2030. Major employers in Bayonne include the Bayonne Hospital and Maidenform. Bayonne has several redevelopment initiatives, including a plan to redevelop the Military Ocean Terminal at Bayonne as the "Peninsula at Bayonne Harbor." The overall project could generate up to 18 million square feet of mixed use space in six districts, with a total of 15,000 new jobs. The first phase of this project, Harbor Station, is scheduled for construction in spring, 2006.
Hoboken's leading employers include St. Mary Hospital, Wiley and Sons, NJ TRANSIT and Stevens Institute of Technology. A major new development project in Hoboken is a luxury hotel, near the waterfront, scheduled to open in 2007.

Table 20: Current and Projected Employment in Key Regional Employment Locations

Town	2000	2030	Employment Change	
			Number	Percent
Manhattan	2,682,200	3,189,400	507,200	19%
Secaucus	37,190	50,150	12,960	35%
Newark	160,010	180,420	20,410	13%
Bayonne	19,330	28,090	8,760	45%
Hoboken	12,420	17,660	5,240	42%
Totals	2,911,150	3,465,720	554,570	19%

Sources: NJTPA, NYMTC.

F. TRANSPORTATION SYSTEM ISSUES

This section assesses the operations and performance of existing transportation system facilities and services. The objective is to identify critical transportation system issues and needs to support the city's land use and development objectives.

1. Roads

Regional Roadway Access and Congestion

The city has concerns about access to the regional roadway network. One issue is difficulty in access between regional roads and local destinations, including the Hudson Waterfront, Journal Square, Liberty State Park and the West Side. Related concerns are that the regional roads, especially I-78 and US 1&9, serve as barriers to local circulation and that the regional road entrances to the city present a poor image of the city. Furthermore, as shown in Section B.1, peak hour congestion occurs on several major state roads serving the city. Traffic delays are likely to worsen in the short-term, as NJDOT begins some major roadway reconstruction projects (see Chapter II). Local officials fear that roadway congestion will have a negative impact upon future economic development prospects in the city.

One major problem area is Route 139, which serves as the eastbound approach to the Holland Tunnel leading to New York City. This roadway experiences significant congestion, especially due to a combination of regional and local traffic. NJDOT has begun a project to reconstruct the 12th and 14th Street Viaducts (see Chapter II), and this project is likely to exacerbate congestion in the area over the next five years.

The US 1&9 corridor is another area of concern. The Tonnelle Circle is a significant congestion point, which impacts traffic flows on both east-west and north-south roads. There is a need to improve connections between US 1&9, US 1&9 Truck, Route 7, Route 139 and local streets. North of Tonnelle Circle, congestion is also a problem, particularly due to heavy truck traffic and roadway design limitations.

Another congested corridor is the Turnpike Extension (I-78)/Newark Bay Bridge. This road experiences chronic delays on a daily basis, and it is a maintenance priority. In addition, the configuration of the ramps of Turnpike Interchange 14A and Route 440, near the city's southern border, constrain efficient traffic flow.

Further north along I-78, another issue involves the configuration of the ramps at Exit 14C (Grand Street). During the morning peak period, the exit ramp from eastbound I-78 is heavily congested due to congestion at the signalized intersections of Montgomery Street with Center and Merseles Streets.

One other issue with the state road system is a "missing link" of Route 185 between Linden Avenue and Caven Point Road. A proposed project to make this connection and thereby improve access to the waterfront, including Port Liberte and Liberty State Park, has been on hold due to concerns about chromium contamination in the area.

Pavement and Bridge Conditions

Section B.2 provides summary data on the extent of problems with poor pavement conditions and numerous substandard bridges. Jersey City has five major bridges with rehabilitation needs having an estimated cost of over $1 billion. These structures are the Pulaski Skyway, US 1&9 over St. Paul's Avenue, Route 7 (Wittpenn Bridge) over the Hackensack River, the Route 139 11th and 12th Street Viaducts, and Route 139 over the Erie Lackawanna Railroad and Hoboken Street. In addition, several segments of state roads serving the city have poor or very poor pavement conditions; these segments include portions of US 1&9 Truck, Route 185, Route 440, and US 1&9.

Safety Conditions

Previous studies also have identified high-accident locations on the regional road network, including locations along US 1&9, US 1&9 Truck, and Route 139. Section B.4 identified several state roadway segments with high crash rates; these segments are located along Route 185, US 1&9 Truck, and Route 139. Another safety concern is the condition and operations of the US 1&9 Truck lift bridge over the Hackensack River. An accident related to the need to repair the bridge's safety features resulted in the deaths of two city police officers in December 2005. Subsequent investigation found a chronic problem with the bridge's barrier gate system.

Local Road Circulation

The issues of access and congestion along the regional roadway network relate to circulation issues on the local street network. Previous studies have identified the need to improve access and reduce congestion along local streets, particularly in an east-west direction. For example, the Bergen Arches study found that in future years, the level of service on the local street network will decrease. The UEZ Plan identified concerns in the Waterfront area, including difficulty in access, local congestion and limited parking. The recent Liberty Access study identified several issues relating to access to and circulation within the Liberty State Park/ southern waterfront area. Also, NJTPA has identified concerns about access to and circulation within Journal Square.

Several key corridors suffer from congestion and substandard physical conditions. For example, Communipaw Avenue is a very congested east-west corridor. It connects the downtown area with Turnpike Exit 15 and thus serves as an important commuting route. Other corridors with potential improvement needs include Columbus Boulevard, Tonnelle Avenue, Grand Street and Garfield Avenue. In addition, several intersections may require upgrades; these include Grove Street & Columbus Drive, Grove Street & Newark Avenue, and Newark Avenue & Jersey Street.

Local Road and Bridge Conditions

As in other cities, aging infrastructure is a key challenge, and the city has various needs for need for street reconstruction and resurfacing. The city has received funding awards from the NJDOT Local Aid program for local street repairs, but the city has not yet completed all these projects.

It is estimated that the city has considerably more roadway improvement needs than the projects for which it has received funding.

Local Safety Issues

Some locations along the local roadway network present traffic safety issues. For example, recent analysis by NJTPA has identified safety issues along Montgomery Street and JFK Boulevard (CR 501).

Parking

Parking availability is an important concern in the city, particularly in the waterfront area. Other business districts (including Journal Square, Historic Downtown, McGinley Square and Central Avenue) suffer from a shortage of off-street parking; the city anticipates that parking demand and shortages likely will increase with continued development. Parking also is a concern in other areas including the Liberty State Park area, residential neighborhoods such as Greenville, and the college campuses and surrounding areas. One element in the problem is commuters parking in residential areas and/or short-term parking spaces. Another element is that the City has applied maximum parking standards to new development, with the objective of limiting vehicular traffic and promoting alternative travel modes.

Freight Movement Impacts/Needs

Another issue involving the local road network is the impacts of goods movement/truck traffic. The geography of regional economic activity and goods movement has created considerable truck traffic and congestion on the regional and local roadway network in Jersey City. As noted above, truck traffic contributes to congestion along Tonnelle Avenue. The recent Liberty Access study found that constrained access to the Liberty Industrial Area, Greenville Yards and the Lafayette Industrial Areas have forced heavy vehicles onto local and park roads. In addition, various factors contribute to truck traffic on Communipaw, Pacific and Johnston Avenues. This situation highlights the need to seek to separate through truck traffic from local traffic.

Proposed improvements to port facilities likely will increase the volume of goods movement and related economic activity. Also, the planned clean-up of chromium at the old Honeywell site would create increased truck and rail traffic in the city. Planned or proposed roadway or rail freight projects may help to accommodate existing or future goods flows, but increased port activity also could lead to even more truck traffic on local roads.

On the other hand, the demand for efficient goods movement and economic development suggest the need for local roadway improvements. Conditions such as substandard pavement and bridges, insufficient intersection geometry, and low clearances may impede efficient freight traffic, which could limit the extent of port activity and related economic development.

2. Public Transit

Hudson-Bergen Light Rail

The HBLR system provides a good opportunity to reduce vehicular travel and congestion, increase use of alternate travel modes and promote center-based development patterns. To this end, there is a need to ensure that stations and stops provide multi-modal transportation connections with bus or shuttle service, bicycle and pedestrian facilities, and parking decks. Exchange Place is the major multi-modal hub along the HBLR system.

Condition of PATH Facilities

As with the HBLR stations, there is a need for PATH stations to provide improved multi-modal access. The Journal Square Transportation Center is the major multi-modal hub along the PATH

system in Jersey City. Also, the PATH system requires substantial capital investment. The system currently has the oldest rolling stock of any heavy rail line in the country; the average fleet age is 33 years old, and some cars are 40 years old.

Local Bus Service

An important need for bus service for city residents to outlying job sites is late evening and weekend service. A review of the main services to the key regional employment locations shows that the time of the last weekday run to the city varies from 11:30 PM to 2:00 AM, and all routes provide both Saturday and Sunday service. The following is a summary of service to these locations:

- New York - The main bus service running between Jersey City and New York City is Route #125. This route provides weekday and weekend service, and the last weekday run leaves for Jersey City at 12:40 AM.
- Secaucus - One NJ TRANSIT route, #2, runs between Jersey City and Secaucus. This route provides weekday and weekend service; the last weekday run for the city is at 12:30 AM.
- Newark - The main route between Jersey City and Newark is Route #1. This route provides weekday and weekend service; the last weekday run for Jersey City leaves at 2:00 AM.
- Hoboken - The main route connecting Jersey City and Hoboken is Route #87. This route provides weekday and weekend service; the last weekday run for Jersey City leaves at 12:04 AM.
- Bayonne - The main route serving Jersey City and Bayonne is Route #81. This route provides weekday and weekend service; the last weekday run for Jersey City leaves at 11:30 PM.

Rail service provides an additional possible commute option for city residents who work in each of these locations. PATH is an option for residents who work in New York or Newark, the HBLR connects the city with Hoboken and Bayonne, and the Main Line/Bergen County Line runs between Hoboken and Secaucus. Residents may require, however, connecting bus or shuttle service between their neighborhood and the rail stations, as well as connecting service between their destination station and worksite.

Scope of Service

Recent studies have identified potential areas to expand local bus service. For example, the county master plan suggests the need to improve service to the waterfront area; it recommends enhancing feeder service to the light rail stations. Potential demand may exist for increased service to New Jersey City University and St. Peter's College, especially in the evening hours. Another potential area for increased service is direct service to residential neighborhoods and specific employment locations, e.g., the Port area. Also, the recent Liberty Access study identifies some needs for service improvements to the shuttle route that serves the park and downtown area.

Bus Circulation

The city has identified several corridors where physical improvements, such as bus turnouts and turning lanes, could improve bus flow and efficiency. These corridors include JFK Boulevard, Palisade Avenue, Bergen Avenue, and West Side Avenue.

Coordination of Services

The fact that many different operators provide different services (involving different schedules,

stops, and fare structures) makes it difficult for riders to efficiently utilize the system, particularly where connecting or transferring between different buses is required. This situation suggests the need to improve coordination among services and rationalize them to provide better service for transit users. Additional efforts may be necessary to coordinate the PATH, HBLR, NJ TRANSIT bus, private bus, and jitney service.

A related issue is competition between NJ TRANSIT buses and private operators and unlicensed jitneys. The 2001 Urban Supplement found that NJ TRANSIT had experienced a loss of ridership on some routes (#80, #81, #84/86, #88, and #126) due to a duplication of services provided by private bus carriers, jitney, and van operators. Local officials have identified the prevalence of unlicensed vans and jitneys as a major problem. These vehicles often pick up riders at scheduled bus stops; this activity increases congestion and safety hazards at the stops and cuts into the revenues of scheduled service. Another concern is that these vehicles make random stops, which interferes with traffic flow and pedestrian safety.

Facilities and Amenities

Another set of issues relating to local bus service is the need to improve facilities and amenities, including stops, shelters, schedules and information. One specific concern is the need to better demarcate bus stops, and another issue is the need to provide better system/route information, including information in Spanish. In addition, NJ TRANSIT does not allow bicycles on its buses in the city.

Ferries

Ferry ridership grew tremendously after September 11, 2001, but in recent years, the NY Waterway ferry has reduced service between Jersey City and New York City and fares have increased. The reduced frequency of service and increased fares may make the ferry a less attractive commute alternative, and the use of cars or other transit systems will increase.

3. Bicycle and Pedestrian Facilities

Need for Trails/Greenways

The city does not have a comprehensive integrated network of off-road trails or greenways. The city needs links to connect with two major regional trail initiatives, the East Coast Greenway and the Liberty-to-Water Gap Trail. The proposed East Coast Greenway route would run along the Hudson River waterfront trail, the Sixth Street Embankment, and the Bergen Arches toward the Meadowlands area. Many issues are unresolved concerning this path (see Chapter for more details). The proposed Liberty-to-Water Gap trail would run cross-town between Liberty State Park and the US 1&9 Truck bridge.

A continuous trail along the Hudson River, with links to this trail, is not yet complete. Currently, 11 miles are finished of a planned 18.5-mile trail. Due to different approaches to construction and maintenance, the trail does not have a consistent appearance or condition. The recent Hudson Waterfront Walkway planning study identified 18 "gaps" in the planned trail within Jersey City, the need to improve signage to identify the route and direct users along its path, and several issues relating to access to the waterfront. Key gaps include between Liberty State Park and the downtown area and at the Long Slip Canal, a 90-foot wide waterway near the Hoboken border. The lack of a crossing here prevents convenient access between the Newport area and the Hoboken Terminal. Also, a waterfront trail will not be possible in the port area, and an alternative route will be necessary.

Bicycle Access and Safety

Previous analysis has found bicycle safety issues on several local streets, such as JFK Boulevard. Contributing factors are inadequate roadway width and poor pavement conditions. The recent Liberty Access study identified several needs to improve bicycle access to and within Liberty State Park, including improved accommodations along Jersey, Johnston, and Bayview Avenues.

Pedestrian Access and Safety

Various studies have identified pedestrian access and safety concerns. For example, the Master Plan identified issues of isolation and lack of connectivity among various sections of the city, e.g., residential neighborhoods and the waterfront. Previous studies have identified the need to improve pedestrian and bicycle circulation and amenities in Journal Square and provide connections with adjacent areas.

The new NJTPA Local Safety program identified two locations in the city as priorities for improvements. Kennedy Boulevard provides for difficult pedestrian movements and crossings, especially for elderly persons, and Montgomery Street provides difficult pedestrian crossings in several areas, including near City Hall and the Turnpike.

Additional downtown corridors with possible pedestrian safety issues and improvement needs include Columbus Boulevard, Communipaw Avenue, Grand Street, Garfield Avenue and Grove Street.

4. Goods Movement

Deeper shipping channels and improved port facilities are necessary to increase port activity and related commerce. The current Port Jersey Channel has a depth of 41 feet, and the terminals have limitations with their mooring and berthing capacities. Also, the Comprehensive Port Improvement Program (CPIP) study has identified poor road/truck and rail access to Port Jersey. The container and automobile terminals do not have direct rail connections, and rail access is further limited by capacity constraints and track configuration. The rail float operation at Greenville Yards has very limited capacity and does not run regularly, making it difficult to move large volumes of freight in a timely manner. The repeated handling of railcars on and off of barges also adds to the cost of this route.

The existing rail freight network has limited capacity and related issues including routing, congestion, scheduling conflicts and operating speeds. For example, the National Docks Secondary is in poor condition; there is a safety concern with a grade crossing at Chapel Avenue. Also, the Waldo Tunnel is a constraint on capacity and operational flexibility; it is a single-track tunnel with low vertical clearance at the southern end. Limited track capacity is an issue at the approach to the Newark Bay Bridge.

G. ASSESSMENT OF PROGRESS

The 2001 Urban Supplement recommended transportation improvements in several categories. This section presents an assessment of the progress in implementing these recommendations.

1. Roadways

- Initiate studies and implement recommended improvements to relieve congestion on major roadways.
  - In 2005, the Turnpike Commission completed a project that added a new lane for 1.2 miles between the Exit 14C toll plaza and the off-ramp to Grand Street, along with a second lane along the off-ramp. In conjunction with planned improvements to the surrounding local street network, these improvements will improve the traffic flow to and from I-78 in this area.
  - The Port Authority of New York and New Jersey is working on a project to improve the 14th Street Exit Roadway westbound from the Holland Tunnel. This project includes improvements to the roadway, sidewalks, curbs, and lighting, as well as a new signal system.
  - NJDOT is planning the St. Paul's Viaduct project, which will replace the deteriorating US 1&9 Viaduct and improve the flow of traffic through the Tonnelle and Charlotte Circles, which it connects (see Chapter II).
- Improve east to west access.
  - The Bergen Arches feasibility study identified various alternatives for future use of this corridor; it proposed a mixed-mode transportation facility including a roadway, bus/HOV lane and light rail line.
- Provide adequate signage.
  - NJDOT's Local Aid for Centers of Place program has provided Jersey City with substantial funding for a "Destination Jersey City" wayfinding project. The City has completed Phase I of the project, involving 400 signs.
- Undertake bridge upgrades and replacements and improve pavement conditions.
  - NJDOT has initiated work to reconstruct the 12th and 14th Street viaducts. (see Chapter II for more details).
- Address and implement safety improvements at high-accident locations.
  - NJDOT's planned St. Paul's Viaduct project involves reconstructing the Tonnelle Circle and replacing the Charlotte Circle.
- Address growing circulation and parking needs.
  - The city has conducted studies of downtown circulation needs. The Goldman-Sachs study led to a Waterfront Access Corridor plan, which made several recommendations for improving traffic flow along Grand Street and Columbus Boulevard. The City will soon be starting a new waterfront access study.
  - The Liberty Access Study, completed in 2005, provides recommended improvements for the Liberty State Park area.

2. Public Transit

- Rationalize public transportation services in Hudson County. A full integration of the transportation system, including NJ TRANSIT bus and light rail, private bus, jitney, and van service, is needed. Comprehensive information about these services is also needed in the county through county-wide transit maps and other venues.
  - The Hudson TMA has published a 2002-03 Hudson County Transit Guide.
  - NJTPA has approved a Regional Bus Circulation and Infrastructure Study for the county.
- Preserve PATH as the major east-west transit link to New York City.
  - The Port Authority has completed or planned over $3 billion of investment in PATH since the events of September 11, 2001. The Exchange Place station re-opened in June 2003. Work began in September 2005 on a permanent station at the World Trade Center site.
  - The Port Authority completed an upgrade to the Pavonia/Newport Station in 2003. This project included a new side platform and improvements to the staircase, elevators, and lighting.
  - Upon re-opening the Exchange Place station in 2003, the Port Authority revised its service plan, providing 10% more weekday trains and a uniform seven days per week schedule. This plan reduced crowding at the Grove Street and Pavonia – Newport Station.
  - The Port Authority remodeled the Grove Street PATH station, including adding a new entrance, in 2005.
  - Journal Square received state Transit Village designation in 2005.
  - The Port Authority has allocated over $800 million to upgrade the system, including replacing all its cars/trains. The estimated cost for the latter is $500 million for 340 cars.
- Add late evening and/or early morning bus service to accommodate employees who work the second and third shifts.
  - Route #1, which runs between Jersey City and Newark, provides service nearly 24 hours per day. The last evening weekday run from Penn Station in Newark to Exchange Place leaves at 10:25 PM, and the last run to Journal Square leaves at 2:35 AM. The last evening run on Route #2, which runs between Jersey City and Secaucus, leaves the Secaucus Transfer station at 12:30 AM. In January 2005, NJ TRANSIT adjusted its schedules to provide more service on Routes #1 and #2.
- Add Saturday and Sunday service to some bus routes and increase the frequency of some.
  - As of 2006, of the 20 NJ TRANSIT bus routes that serve Jersey City, 15 provide Saturday service, and 14 provide Sunday service.
- Increase service in locations that are underserved. Consider adding bus service to new locations. Monitor bus routes to ensure that bus service meets the needs of employers in Jersey City and other locations as employment and employers grow.
  - NJ TRANSIT has purchased and leased additional buses in order to increase the frequency of service on 36 routes, and as of January 2006, it began to provide increased service on three routes that serve Jersey City. These routes are #64 (Lakewood – Jersey City – Weehawken), #83 (Jersey City – Hackensack) and #87 (Jersey City – Hoboken).

- Improve transit facilities and intermodal connections.
  - HBLR monthly passes are valid for one-zone free transportation on local bus routes operated by NJ TRANSIT and private local bus routes operated by carriers operating under an NJ TRANSIT Bus Monthly Pass Agreement. In addition, bus monthly passes printed with two zones or greater may be used for travel on the HBLR, and rail monthly passes printed with one zone or greater may be used for travel on HBLR. Also, customers using one-way tickets on bus or light rail may purchase a transfer to the other mode for only sixty cents. Joint monthly passes which combine HBLR and NY Waterway monthly passes are available from all NJ TRANSIT HBLR ticket vending machines.
  - The Port Authority has installed new fare turnstiles and ticket vending machines at PATH stations. Also, it is working on a SmartLink fare card, which would enable users to add value and to register the card against loss, as well as using the card on different transit systems. NJ TRANSIT also is working on a Smart Card for use on its services.

II. TRANSPORTATION PROJECTS

This section provides information on planned or proposed transportation improvement projects for Jersey City. Programming/funding sources include the NJDOT/NJ TRANSIT Transportation Capital Program, the NJDOT Local Aid program, the NJ Department of Commerce Urban Enterprise Zone program, the Port Authority of New York and New Jersey, the New Jersey Turnpike Authority, Hudson County, and the city.

A. ROADS

1. Roadway Projects

Projects on NJDOT's current Transportation Capital Program (see Table 21) include the following:

- 12th and 14th St. Viaducts (Route 139) - In 2005, NJDOT began a project to reconstruct the ramps leading to and from the Holland Tunnel, as well as to repair the covered roadway from Tonnelle Avenue and the Pulaski Skyway. This project will have significant impacts on tunnel traffic and on local streets, and it is estimated to last five years. The capital program also provides funding for traffic mitigation for this project, including increases in NJ TRANSIT services and a public awareness campaign.

In addition, the NJDOT transportation improvement program (TIP) includes a project to rehabilitate the Hoboken and Conrail viaducts. This project is in final design; NJDOT anticipates awarding a construction contract in the spring of 2007.

- St Paul's Avenue Viaduct - This project will replace the existing viaduct with a new structure, providing direct connections between US 1&9 Truck, Route 7 Wittpenn Bridge, Pulaski Skyway, Route 139, and local streets. The project is part of NJDOT's Portway initiative. NJDOT plans to finish acquiring right-of-way by the end of 2005 and to award the construction contract in April 2006 pending funding availability.
- Wittpenn Bridge - This project provides design funding for replacing the existing movable bridge, which carries Route 7 across the Hackensack River between Jersey City and Kearny, with a vertical lift bridge. This project is also part of the Portway plan.
- Bergen Arches - NJDOT completed a feasibility study regarding future uses of the corridor in September 2002; the report concluded that three improvement alternatives best met the evaluation criteria. These alternatives are a mixed-mode concept comprising both automobile and bus/HOV lanes, a light rail extension to the Meadowlands area, and a one-way roadway pair utilizing 11th and 18th Streets. The current NJDOT capital program provides funding for continued feasibility study. This study is evaluating approaches to maintaining the corridor and acquiring rights-of-way.

In addition, NJDOT plans to replace the broken steel barrier on the Route 1&9 Truck bridge by June and eventually will remove that type of barrier from the bridge and replace it with vertical barriers which swing down instead of out in front of traffic.

NJDOT's Study and Development Program includes a few other projects in Jersey City including a new road parallel to US 1&9 between St. Paul's Avenue to Secaucus Road. This road (part of the Portway plan) would connect with Croxton Yards and bypass congestion points such as Tonnelle Circle. Other proposed projects would improve the operation of US 1&9 in the area of Manhattan Avenue and County Road, and rehabilitate the decks and paint the structures of the Pulaski Skyway.

Table 21: Summary of Roadway Projects in NJDOT Pipeline

	Capital Program	TIP	Study and Development
Route 139, 12th and 14th Street Viaducts	x	x	
Route 139 Traffic Mitigation	x	x	
Bergen Arches	x	x	
St. Paul's Avenue Viaduct	x	x	
Route 7 Wittpenn Bridge	x	x	
Route 139, Hoboken and Conrail Viaducts		x	
New Road, St. Paul's Avenue to Secaucus Road.			x
US 1&9, County Road			x
Pulaski Skyway, Deck Rehabilitation			x
Pulaski Skyway, Bridge Painting			x

Source: NJDOT Capital Program documents, January 2006.

The Portway initiative includes a few other projects in the feasibility assessment phase. One set of projects would improve access between Turnpike Exit 15E and Jersey City. These projects include a new interchange at Exit 15E, a new interchange between US 1&9 Truck and Doremus Avenue in Newark, a new bridge across the Passaic River between Newark and Kearny, and a new interchange between US 1&9 Truck and Central Avenue in Kearny. The NJDOT Portway Extension study further proposes building a new Hackensack River Bridge, which would connect Central Avenue in Kearny with Route 440 in Jersey City.

The Portway Extension study also proposes widening or replacing the I-78 Newark Bay Bridge, reconstructing the Turnpike Extension Exit 14A interchange, and constructing dedicated truck lanes between Exit 14A and Port Jersey and MOTBY in Bayonne. NJTPA also has proposed improving the geometry of the Route 440 ramps near the Jersey City border with Bayonne.

Various studies have proposed different improvement concepts for the Route 440 corridor. One proposal is to strengthen the role of the road in the local truck network, and the Liberty Access study recommends signal timing optimization to improve through traffic flow. Another approach is to convert the road into an urban boulevard, as proposed by the Bayside Master Plan and the NJCU West Campus Redevelopment Plan.

Previous studies have proposed re-aligning Route 185. Most recently, the Liberty State Park access study proposed either to remove the jog in Linden Avenue between Route 185 and Caven Point or to extend Route 185 to Bayview Avenue/Morris Pesin Drive. Such improvements are anticipated to help with efficient truck movements.

One possible long-term project for improving access between the regional roadway network and the city is a tunnel between Exit 14B of I-78 and the waterfront area.

2. Other Strategies

In addition to traditional roadway construction projects, several other measures could help to reduce roadway congestion and improve traffic flow. One possibility is to reinstate single-occupant vehicle (SOV) restrictions on traffic using the Holland Tunnel. The SOV restrictions following September 11, 2001, reduced traffic volumes in the tunnel. Another potential measure for the Holland Tunnel area is to configure the roadway to separate through and local traffic.

Local officials have suggested constructing park-and-ride interceptor lots along major roads outside the city (e.g., in the Exit 14 area), which would link with public transit services to carry people to and from the city. In order for this strategy to be efficient and effective, it would require dedicated transit lines. One possible location for an interceptor lot is at the new Secaucus Transfer rail station, where commuters could park and ride the Main Line / Bergen County Line or Pascack Valley Line to Hoboken and transfer to HBLR or PATH to reach Jersey City. A private developer has submitted to the Meadowlands Commission a station area development plan that includes interim and long-term parking.

Another possible measure is using intelligent transportation systems (ITS) technology, which would provide real-time information on traffic conditions and assist in dealing with emergencies and other roadway incidents and delays. NJTPA's Strategy Refinement Study proposes implementing incident management/incident response strategies on the city's key east-west roadways, including the Pulaski Skyway, Route 139, and Communipaw Avenue.

One other type of possible improvement is creating attractive landscaped gateways along the key regional roadway entrances to the city, such as the Pulaski Skyway and I-78.

3. Local Streets

The city has many planned or proposed many improvement projects for local streets, using funding from federal, state, and local sources. The City has received considerable Local Aid funding from NJDOT over the last several years for street resurfacing, intersection improvements, streetscaping, and other projects. In addition, NJDOT will repave various local streets as part of the Route 139 project. Through the Local Aid program, the city also has received federal funding allocations for the following projects:

- Phase I project at the Junction - The intersection of Communipaw Avenue, Grand Street and Summit Avenue.
- Milling and resurfacing six streets - Communipaw Avenue, Garfield Avenue, Marin Boulevard, Mallory Avenue, Montgomery Street and West Side Avenue
- Bergen Avenue.

4. Intersection/Circulation Improvements

The City has been working on a project to improve the traffic flow along local streets near Turnpike Exit 14C in coordination with a new ramp from the Turnpike. The project will involve a system of jughandles, which will eliminate left turns and enable the one-way pair of Center and Merseles Streets to essentially function as a roundabout. In the long-term, the city is considering the possibility of depressing Merseles and Center Streets.

The Waterfront Access Corridor study included several other recommendations to improve traffic flow in the downtown area including the following:

- Make operational improvements along Columbus Boulevard and Grand Street.
- Optimize Hudson Street traffic signals.
- Convert Washington Street into one-way operations.
- Widen Greene Street and signalize intersections.

Also, the Liberty Access study proposes installing a signal at the intersection of Phillips Street & Audrey Zapp Drive.

5. Streetscaping Projects

Various sources have planned or proposed streetscaping/boulevard projects, including the following:

- The city will begin a streetscaping project along Monticello Avenue in spring 2006.
- The City is planning to convert Columbus Drive into a boulevard, in order to make it a gateway or "front door" into the city. The proposed improvements include underground utilities, streetscaping, and concrete pavement.
- The City's Master Plan suggests re-classifying JFK Boulevard from a principal arterial to a minor arterial and implementing modifications such as traffic calming and on-street parking. The FY 2007 NJTPA Local Safety Program includes funding for intersection upgrades and striping along JFK Boulevard, and it proposes additional streetscaping and safety improvements.
- NJTPA has conducted a study that recommends various roadway and pedestrian safety improvements along Montgomery Street.
- NJTPA proposes streetscaping improvements for Garfield Avenue and Grand Street, and the Liberty Access study proposes improving signals along these streets.
- The Urban Enterprise Zone Plan proposes boulevard/streetscaping projects for Tonnelle Avenue and Communipaw Avenue, among others.
- The proposed McGinley Square Streetscape project is part of a larger St. Peter's College Area improvements. The streetscaping project would include upgrading sidewalks, lighting, and trees along Montgomery Street.

6. Expand Local Street System

Several sources have suggested extending streets or creating new streets to improve local circulation. The proposals include the following:

- The circulation element of the County Master Plan recommends extending Morris Street between Jersey Avenue and Marin Boulevard and extending Dudley Street.
- The city's Waterfront Access Corridor plan recommends extending Greene Street from Columbus Boulevard to Washington Boulevard.
- The Liberty State Park study proposes a Liberty Harbor North Connector and extending Center and Merseles Streets beyond Pacific Avenue possibly to Johnston Avenue.
- The Liberty State Park study identifies future alternatives for improving and widening the Jersey Avenue Bridge. One option is to widen the bridge to create a one-lane road that could carry emergency vehicles and shuttle buses. Another option is to widen the bridge to create a 2-lane road that would accommodate general vehicular traffic. These options have involved substantial debate between those who would like to maintain the bridge only for pedestrian and bicycle access and those who see benefits in creating a roadway connection.

Also, the circulation element of the County Master Plan and the Liberty Access study have recommended improvements and re-alignments along Philip Avenue, Burma Avenue, and Caven Point Road, in order to improve waterfront access.

7. Revise Truck Routes

The Liberty Access study made several recommendations relating to truck routes in the city. These recommendations include the following:

- Restrict entry into areas east of Garfield Avenue, except for local delivery.
- Designate Garfield Avenue as a truck route.
- Ease truck restrictions along Communipaw Avenue.
- Improve intersection geometry / design at certain locations, in order to facilitate truck turning movements.

8. Parking

Other studies and plans have included proposals for new parking in the city. The St. Peter's College area improvement project includes a planned 767-space parking deck, although possible funding constraints may limit the project to a parking lot. The City is considering a new structure near the new Medical Center. The UEZ Plan suggests the possibility of a new parking deck on the west side the city. The Liberty State Park study proposed a new parking deck at the Park, as well as considering shared parking opportunities.

The City Council is considering other options for improving parking supply, such as underground parking.

B. PUBLIC TRANSIT

1. Rail System Extensions

A DEIS is underway for extending the HBLR system via diesel multiple unit (DMU) along the Northern Branch CSX rail line, north to Tenafly in Bergen County. Also, NJ TRANSIT is pursuing plans to extend the HBLR south to 8th Street in Bayonne. A greater focus, however, is on potentially extending the line northwest to Secaucus, the Meadowlands sports complex and beyond. The New Jersey Sports and Exposition Authority (NJSEA) has completed a study to examine the feasibility of extending the HBLR to the Meadowlands sports complex.

Another proposed light rail extension would utilize the Bergen Arches right-of-way. The Bergen Arches study's preferred alternative includes a light rail link between the HBLR and the Secaucus area. City officials support this line and believe that it would reduce traffic congestion in the downtown area. Another possible extension of the HBLR is from the current terminus at West Side Avenue to Route 440.

NJ TRANSIT has initiated planning efforts for two transit-oriented development (TOD) areas along the HBLR. These locations are at Liberty State Park and the West Side Avenue station.

2. PATH Service Enhancements

The Port Authority of New York and New Jersey has several planned or proposed enhancements to the PATH system, including the following:

- Replace the entire 340-car PATH fleet. The Port Authority has selected the design for the new cars and plans for the cars to enter service between 2008 and 2011.
- Complete permanent new station at old World Trade Center site in New York City. The Authority plans to finish the station by 2009.
- Expand capacity of Grove Street station to accommodate 10-car trains, which will serve

the new World Trade Center station.

- Improve egress from Exchange Place station.
- Implement "SmartLink" fare card. This card will allow users to add value, register the card against loss, and enable seamless transfers between PATH and other systems, including NJ TRANSIT. The Port Authority currently is testing the card and anticipates introducing it in summer 2006. This technology also will complement new vending machines and turnstiles.

In addition, the Port Authority will study the feasibility of extending PATH from Newark Penn Station to the Newark Liberty International Airport. This service would provide a "one-seat" ride between Jersey City and the Airport.

The Journal Square station received state Transit Village designation in 2005. With the corresponding funding award, the city plans to make streetscaping improvements to Bergen Avenue between Sip Avenue and McGinley Square.

3. Bus Service

As part of the Route 139 reconstruction project, NJ TRANSIT has been working with other agencies to enhance and promote public transit commuting options. NJ TRANSIT recently approved preliminary engineering for new communications systems at numerous stations, including Journal Square. The proposed systems will provide clear audio announcements and new or improved visual information.

4. Job Access / Reverse Commute

The 2006 JARC program includes continuing enhanced bus service along NJ TRANSIT Route #2 and the Bergen-Hudson shuttles.

5. Improved Amenities and Information

The new "Destination: Jersey City" website includes a link to the NJ TRANSIT website for route and schedule information. This website could be a source of enhanced information about available transit services.

The city has received grants from the state Department of Commerce UEZ program for streetscaping improvements, including painting bus stops.

6. New Service

The UEZ plan suggests the possibility of expanding evening bus service, particularly to serve the college campuses. NJ TRANSIT is working with a few colleges and universities under a new program that could lead to expanding transit service to complement initiatives by the institutions.

The Liberty Access study recommended various enhancements to the shuttle service between the park and the downtown area, including decreasing headways to five minutes, providing more flexible service and integrated service, and allowing transit vehicles to use the Jersey Avenue bridge. It also recommended extending transit service between outlying areas of Hudson County and the Liberty State Park area.

7. Bus Circulation

The upcoming Regional Bus Circulation study will assess and propose physical improvements to help the efficient and safe flow of buses along key corridors. These improvements may include bus turn-outs, turning lanes, and widened intersections. Also, the City and county have submitted a proposal to NJTPA for a study of issues related to jitney operation in the city.

8. Improve Ferry Service

The Port Authority is working on a new terminal near the World Financial Center in New York City. This terminal will provide twice the capacity of the existing temporary facility, along with a waiting room and rest rooms. It will provide connections to the new PATH station and Fulton transit hub.

One recent study has proposed adding new docks in Lower Manhattan as part of an expanded harbor-wide network of ferry and water taxi stations. One potential site for a new terminal, as the Regional Plan Association has proposed, is the Battery Marine Terminal on the southern tip of Manhattan. A previous study had proposed a harbor loop ferry system, which would serve Manhattan, Jersey City, Bayonne, Staten Island, and Brooklyn.

C. BICYCLE AND PEDESTRIAN

1. Expand Trail/Greenway Network

The proposed East Coast Greenway would provide a continuous trail between Maine and Florida. The proposed path through Jersey City would follow the Hudson River Waterfront Walkway, 6th Street Embankment and Bergen Arches/Erie Cut. The exact path beyond that point has not yet been determined, but one potential path follows Route 7. The planned improvements to the Route 7 Wittpenn Bridge include bicycle and pedestrian accommodations, and NJDOT's Study and Development program includes a project for sidewalks and bicycle lanes along Route 7 between the Pulaski Skyway and Kearny.

The county's Hudson Waterfront Walkway study provides a plan for completing a continuous waterfront trail covering nearly 18 miles in seven towns. The report recommends actions for filling each of the 18 gaps it identified in Jersey City. It also recommends updated signage and info, uniform approach to access, linkages to other trails and modes, and a program of maintenance and security. The Port Authority recently began construction on a 300-foot segment in the area of the Holland Tunnel, and it has committed funding for another section in the Exchange Place area. The recent federal transportation funding legislation includes funding to construct a footbridge across the Long Slip Canal.

Some local groups envision the 6th Street Embankment as providing a linchpin in a greenway network within the City and beyond. The Embankment could serve as a midpoint in a series of parks, including Hamilton Park, Van Vorst Park, and Liberty State Park. The recent federal transportation legislation includes funding for the "6th Street Viaduct Pedestrian-Bicycle Pathway Project." The City previously had indicated that it would acquire the six-block, six-acre embankment, but a private developer since has purchased it and proposed development.

The city has another proposed regional trail, the Liberty-to-Water Gap trail, which would run from Liberty State Park to the Delaware Water Gap. Within the city, the proposed trail would run north from Liberty State Park toward Journal Square and then south to Lincoln Park and across the US 1&9 Truck bridge. The NJDOT Study and Development Program includes proposed projects to provide bicycle and pedestrian improvements along US 1&9 Truck between Jersey City and Newark.

Another proposed trail is the Hackensack RiverWalk, an eight-mile trail running between Bayonne and North Bergen. This trail would link Lincoln Park in the city with Hudson County Park and other recreational uses. The trail eventually may include connections with Harmon Meadows Plaza and Mill Creek Mall in Secaucus.

2. Bicycle Routes

The city has received two NJDOT Local Aid grants in recent years for a bikeway system, including funding for bike route signs throughout the city. In January 2006, the city adopted a bikeway plan including designated on-road routes, route signs, and warning signs for motorists. The city plans to investigate possible designated bicycle lanes in the future. The various streetscaping/boulevard projects discussed in previous sections will provide the opportunity to incorporate bicycle accommodations into their design.

The Liberty Access study included many recommendations for bicycle and pedestrian improvements in the park and surrounding area, including better connections between the Jersey Avenue bridge, light rail station, Liberty Science Center, and Millennium Walkway; and improvements along Morris Pesin Drive, Jersey Avenue bridge, and Bayview Avenue.

3. Pedestrian Access and Safety

NJTPA has recommended a feasibility study for bicycle and pedestrian enhancements within and around Journal Square. A previous study noted the possibility of utilizing underused alleys to improve pedestrian circulation in the area. The city has prepared pedestrian improvement concept plans for the area.

The city received funding in FY '05 for "Destination: Jersey City" from the NJDOT Local Aid for Centers of Place program. This project, in its second phase, will focus on pedestrian signs. The third phase of the program will involve public information kiosks and web-based information. The recent funding award brings the total state funding for this project to over $3.6 million.

Over the past few years, the city has received considerable funding from the NJDOT Safe Streets to Schools program for projects to improve school zone safety, particularly by installing flashing warning signs and textured crosswalks at school crossings. The city has completed design work for about 15 locations, and it has funding available to implement three or four projects.

Also, the city has received NJDOT funding for a traffic calming project along Monticello Avenue. This project will include installing crosswalks and bump-outs at several intersections, and it will begin construction in spring 2006.

The UEZ Plan proposes studying the feasibility of an east-west "People Mover."

D. GOODS MOVEMENT

In addition to some roadway improvement projects previously described, various other planned or proposed projects will improve goods movement facilities, including rail freight and port facilities, in Jersey City.

1. Port Facilities

The Port Authority of New York and New Jersey is working on several projects intended to increase the volume of cargo moved through the ports. One major project is to dredge the

channels to 50 feet to allow larger ships with more cargo. This project would include deepening Port Jersey Channel from 41 to 50 feet. The Global Marine Terminal has improvement plans including berth expansion, acquisition of land, and an equipment modernization and replacement program. The Comprehensive Port Improvement Program (CPIP) proposes possibly eliminating the existing automobile terminal and replacing it with a new container terminal and warehouse space. In addition, new port activities have been proposed at the former MOTBY site in Bayonne.

2. Rail Freight

One major proposal is for a Cross Harbor Freight Tunnel which would link Greenville Yards with Brooklyn. A draft Environment Impact Statement (EIS), released in May 2004, recommended a tunnel as the preferred alternative for improving regional goods movement. This proposal has received much criticism, however, by the neighborhood, city and county. The concerns range from noise impacts, impacts on the existing rail system, and use of trains from Brooklyn for trash hauling. The concerns led to an environmental justice petition by the Greenville neighborhood. NJTPA has recommended closer study of revitalizing and modernizing the existing float operation with a train ferry system. Such an operation could meet goods movement objectives without the impacts of a tunnel. Federal review of EIS and comments is ongoing.

CPIP has recommended a new intermodal rail terminal at Port Jersey to handle containers and automobiles. The proposed project involves demolishing an existing warehouse and installing new track and switches.

At Croxton Yard, Norfolk Southern has capital programs to increase truck parking, security, and lighting. Also, the state has allocated funding for a new roadway to carry New County Road across the yard, eliminating the existing at-grade crossing. This project is currently scheduled to begin in spring 2006.

Also, CPIP proposes upgrading the northern section of the National Docks Secondary track leading to and from Croxton Yard.

III. RECOMMENDATIONS

Based upon the analysis and findings of this report, the following section presents recommendations for transportation improvements.

A. ROADS

Improve access between the city and the regional road network.

- The city should complete the planned operational improvements to the local roads surrounding Turnpike Exit 14C. The city should evaluate the feasibility of depressing Center and Merseles Streets and consider the preliminary feasibility of a tunnel between Exit 14B and the waterfront area.
- The NJ Turnpike Authority and NJDOT should continue to study improvement alternatives for the Turnpike Exit 14A/Route 440 ramp configurations and roadway approaches, including a possible dedicated truck lane between Exit 14A and the port areas.
- NJDOT should advance planning and designing for extending Route 185 between Linden Avenue and Caven Point Road.
- NJDOT should advance studying proposed concepts for enhancing access to and capacity of crossings of the Hackensack and Passaic Rivers between Jersey City and Newark.
- The city should work with NJDOT to plan and implement gateway treatments at main regional highway entrances to the city.

Reduce congestion along key regional roads.

- The NJ Turnpike Authority should advance studying long-term options for widening or replacing the Newark Bay Bridge. In the short-term, the Authority should consider implementing a reversible median to accommodate peak hour traffic flows.
- NJDOT should expedite ongoing work on the 12th and 14th Street Viaduct projects, and it should continue to work closely with different agencies to mitigate traffic impacts. NJDOT should discuss with the Port Authority of New York and New Jersey and local stakeholders the possibility of implementing restrictions on single-occupancy vehicles (SOV) using the Holland Tunnel.
- NJDOT should collaborate with the Port Authority and local agencies to conduct a comprehensive assessment of Route 139/Holland Tunnel traffic and other regional roadways on local street network and neighborhoods. This study should consider alternatives for separating through traffic from local traffic.
- NJDOT should advance the St. Paul's Viaduct project, including redesigning the Tonnelle Circle, and advance the project to improve the roadway and intersection design of US 1&9 (Tonnelle Avenue) north of the circle. NJDOT also should advance the proposed project to construct a new road west of US 1&9.
- NJDOT should continue with studying new transportation options for the Bergen Arches and move toward implementing the preferred alternative.
- The NJDOT, Turnpike Authority, and Port Authority should study and implement intelligent transportation system (ITS) technology, along key regional roads. These agencies should also develop a coordinated incident management response system.
- The city should work with NJDOT and NJ TRANSIT to study potential locations for park-and-ride interceptor lots outside the city, including the Secaucus Junction station. This

assessment must consider the availability of dedicated transit lines, such as those currently available between the city and Secaucus Junction.

- NJDOT and the city should conduct a joint comprehensive assessment of future travel conditions / needs along Route 440. This assessment should balance the desire for an urban boulevard complementing redevelopment efforts with continued goods movement / truck traffic needs.

Address sub-standard pavement and bridge conditions.

- In addition to the St. Paul's Viaduct, NJDOT should advance other major bridge rehabilitation projects, including the Hoboken and Conrail Viaducts, Pulaski Skyway, and Wittpenn Bridge. These projects should incorporate traffic management programs to mitigate the impacts of construction upon roadway congestion.

Provide safety improvements.

- NJDOT should pursue improvements at high-crash locations and incorporate safety measures into other planned improvement projects.
- NJDOT should install new vertical safety barriers on the US 1&9 Truck bridge.

Improve Circulation on the Local Street Network.

- The city should advance preferred alternatives from previous studies including the Waterfront Access Corridor plan. It should complete the new Waterfront Access study and prepare a plan for implementing the study's recommendations.
- The city should expand the local grid street network, as appropriate, to accommodate new development. The city and local stakeholders should carefully assess the possible need for a two-lane roadway across the Jersey Avenue bridge to connect downtown with the Liberty State Park area.

Expedite Local Street Improvements.

- The city should advance local street reconstruction and resurfacing projects, and it should prepare design and bid documents for projects for which it has received NJDOT Local Aid funding awards.
- The city should plan and implement boulevard/streetscaping projects including along Monticello Avenue, Columbus Boulevard, Tonnelle Avenue, Communipaw Avenue, Garfield Avenue, and Grand Street. In addition, the city should Implement operational and safety improvements along key corridors including Kennedy Boulevard and Montgomery Street.
- The city should advance planning and design for rehabilitating local street bridges over the Bergen Arches.

Address Parking Needs

- The city should evaluate the feasibility of current proposed new parking structures (near Medical Center, Liberty State Park and on the west side) and identify other potential locations for new structures, including possible underground parking structures.
- The city should identify and evaluate potential opportunities to increase parking supply in retail areas, and it should evaluate residential neighborhood parking needs and prepare strategies for addressing these needs.

Address Goods Movement Needs and Impacts

- The city should identify preferred truck routes and install appropriate signage and directions, and it should implement roadway and intersection improvements along designated routes to facilitate trucks.
- The Port Authority of New York and New Jersey and private operators should advance proposed rail freight system improvements, including upgrades to the National Docks Secondary. Public and private agencies should work together to eliminate all grade crossings, as possible, and improve remaining grade crossing safety as necessary.
- The Port Authority should advance planning for the proposed rail intermodal facility for the Port Jersey area.
- The Cross Harbor Freight Tunnel study process should evaluate and consider a train ferry alternative to the proposed tunnel.
- The Port Authority should work with the city and other local stakeholders to carefully evaluate all proposed port area improvements for their future impact on the local transportation network and surrounding community.

B. PUBLIC TRANSIT

NJ TRANSIT should collaborate with the Port Authority of New York and New Jersey, the city, county, and other local planning stakeholders to conduct a comprehensive public transit service assessment for Jersey City. Among the key issues to consider are strengthening the roles of the Journal Square Transportation Center and Exchange Place station as major multi-modal transfer hubs, improving the efficiency of local services that serve as feeders to PATH, and delineating the role of private carriers. This study should evaluate the feasibility of expanded or new service, which will enable transit agencies to determine whether to allocate funding for such service.

1. Enhance Rail Service

- The city, other local agencies, and transit service providers should work together to maintain and strengthen efforts to use rail stations to enhance residential and business opportunities in the areas surrounding the stations. These efforts should ensure that stations are integrated functionally and visually and serve as catalysts for economic development, and they should include plans for multi-modal connections with automobile, bus, pedestrian and bicycle users.
- NJ TRANSIT should review and consider alternatives for extending the HBLR, including west to the Meadowlands area. The proposed transit service study should assess options for the Bergen Arches right-of-way, as well as connections with the current terminus of HBLR at West Side Station.
- The Port Authority of New York and New Jersey should advance its planned and proposed improvements for the PATH system, including new rail cars and a new "SmartLink" fare card. The Port Authority also should complete its study of the feasibility of extending PATH from Newark Penn Station to the Newark Liberty International Airport.
- NJ TRANSIT should advance and implement its planned improvements to the communications system at the Journal Square Transportation Center.

2. Improve Local Bus Service

- NJ TRANSIT should maintain and expand, as feasible, local fixed-route bus service, especially late evening and weekend service. NJ TRANSIT should continue to develop its new partnership program with colleges and universities and work with the city's colleges and universities to identify means of collaborating to provide increased transit service and improve circulation in the city.
- The city and NJ TRANSIT should evaluate the proposals of the Liberty Access study and consider implementing changes to improve shuttle service between the park area and the downtown.
- NJ TRANSIT and private operators should work together to advance measures to coordinate public and private bus operations through scheduling, fares and transfers. NJ TRANSIT and local agencies should promote the NJ TRANSIT policy that allows holders of monthly rail passes to ride local buses for free.
- NJ TRANSIT, private operators, and the city should continue efforts to upgrade system facilities and amenities including bus stops, shelters, sidewalks, bicycle racks, schedules and fare information. These efforts should include providing bi-lingual route and schedule information and improving information availability through the "Destination: Jersey City" website.
- The county and city should conduct the new Regional Bus Circulation Study and prepare a plan for implementing recommendations to improve bus circulation along key corridors.
- The county, city, Meadowlink TMA, Hudson TMA, and private interests should collaborate to maintain and expand JARC service. This effort should explore other opportunities for increasing paratransit services including shuttles, vanpools and jitneys, and it should seek to obtain greater employer participation in and sponsorship of such services. Also, this effort should build upon existing efforts of the TMAs in ridematching and ridesharing activities.
- The city should evaluate the feasibility of a "People Mover" to connect the east and west sides of city, as the UEZ Five-Year Plan suggested.

3. Maintain and Enhance Ferry Service

- State and regional transportation agencies should evaluate the feasibility of restoring/adding ferry service between Jersey City and Manhattan. This analysis should consider innovative financial measures to keep fares competitive.
- New York City should study the feasibility of new ports in Manhattan including the Battery Marine Terminal, as the Regional Plan Association has proposed.
- NJDOT should consider the possibility of providing subsidies for ferry service between Elizabeth (once service starts from here) and Exchange Place, as part of the traffic mitigation strategies for the Route 139 construction project.

C. BICYCLE AND PEDESTRIAN FACILITIES

1. Expand Trail/Greenway Network

- The East Coast Greenway Alliance, in conjunction with state and local agencies, should complete planning to identify the Greenway's route through the city.
- The county should coordinate with other public agencies and private interests to complete the Hudson River Waterfront Walkway including improved access to the trail, appropriate signage, and enhanced maintenance and security.

- The city should advance efforts to preserve the 6th Street Embankment right-of-way for trail use.
- NJDOT's further study of a new multi-modal transportation facility for the Bergen Arches should include evaluating the feasibility of a greenway.
- NJDOT should expedite the proposed projects to provide bicycle and pedestrian accommodations along Route 7.
- The county should advance plans for the Hackensack RiverWalk.
- State and local agencies should consider the proposed improvements in the Liberty State Park area and prepare an implementation plan for preferred projects.

2. Implement Bike Route System

- NJDOT, the county, and city should coordinate to prepare necessary plans for the proposed Liberty-to-Water Gap trail through the city. NJDOT should advance its proposed project for bicycle and pedestrian improvements along US 1&9 Truck.
- The city should work to implement its recently-approved city bikeway system, including considering opportunities for designated bicycle lanes. This effort also should include providing adequate bicycle parking and other amenities at key destinations and improving public information and education, e.g., maps of routes and facilities.
- The city should work with NJ TRANSIT and private bus operators to ensure good pedestrian and bicycle connections with public transit services. All transit agencies should provide and promote "bikes on buses" capabilities, and provide bicycle parking and storage facilities at light rail stations and major bus hubs. The city should advance planning for bicycle and pedestrian circulation and safety improvements in Journal Square.

3. Improve Pedestrian Access and Safety

- The city should implement the second and third phases of the "Destination: Jersey City" project to provide pedestrian wayfinding and information.
- The city should continue work on planning and design for school zone safety projects, and it should seek funding from NJDOT or other sources for project implementation.
- The city should advance planned or proposed streetscaping projects and incorporate streetscaping improvements into redevelopment efforts along other corridors. These efforts should emphasize pedestrian enhancements to downtown streets including sidewalks, curb ramps, crosswalks and traffic calming measures. Also, the city should implement the recommendations of the Montgomery Street safety study.
- The city should require pedestrian and bicycle accommodations as part of all new development and redevelopment projects.

D. GOODS MOVEMENT

- The Port Authority of New York and New Jersey should advance projects to support goods movement and related economic development. These projects include channel dredging, port facility improvements, and rail network expansion and improvement.
- The Port Authority should work with the city and other local stakeholders to assess and address the impacts of expanded goods movement and related economic development upon the local transportation network and land use.

REFERENCES

Academy Bus website.

Alliance for Downtown New York. State of Lower Manhattan, 2004.

"Approval and Disapproval." Jersey City Reporter. May 28, 2005.

"As Light Rail Grows, Homes Rise." Jersey Journal. October 10, 2005.

"Big Bid for a Newark Tower." NJ BIZ, Real Estate Quarterly. November 7, 2005.

"The Big Orange is Coming." Hudson Reporter. January 28, 2006.

"Bike Trails Coming, Medical Facility on Hold." Hudson Reporter. January 21, 2006.

"Billy Bey Ferry: A New Face and Name in Ferry Transportation."

"Building Up – The Year in Development." Jersey City Reporter. December 26, 2004.

Charity Channel website. Request for Proposal for Destination Jersey City Tourism Website, Map, and Guides.

City of Jersey City. Goldman Sachs Traffic and Transportation Access Analysis. 2000.

_____. Jersey City Bayside Development Project.

_____. Division of City Planning. Request for Qualifications / Request for Proposals, Regional Waterfront Access and Downtown Circulation Study. October 2005.

_____. Division of City Planning Jersey City Liberty Access Study. Prepared by Urbitran Associates, et al., June 2005.

"Company is Slow Meeting Job Goals." Jersey Journal. June 27, 2005.

Cross-Harbor Freight Tunnel DEIS.

"Doria Cites Progress in Annual Speech." Jersey Journal. November 10, 2005.

East Coast Greenway website.

Encap Golf website.

"Former Hospital could become 1,200 Condos." Jersey City Reporter, April 3, 2005.

Friends of Liberty State Park brochure.

Gerald's Railroads of New Jersey website.

Global Marine Terminal website.

"A Good Deal, but Not a Big Savings." Jersey City Reporter. November 16, 2004.

Hartz Mountain website.

"How to Revitalize Journal Square?" Jersey City Reporter. December 21, 2003.

"Hudson-Bergen Light Rail Arriving at Weehawken's Port Imperial Station." NJ TRANSIT Press Release. October 24, 2005.

Hudson County. Comprehensive Economic Development Strategy, update, 2005.

_____. Hudson County Cross-Acceptance 2005 Final Report.

_____. Hudson County Master Plan. 2002.

_____. Hudson County Open Space Plan. 2004.

_____. Hudson River Waterfront Walkway Implementation Study. Heyer and Gruel. September 2004.

Hudson County Economic Development Corporation. Major Employer's List. August 2005.

"It's Coming Up – What's on Tap for Development in 2005." Jersey City Reporter. January 2, 2005.

Jersey City Economic Development Corporation website.

Jersey City Economic Development Corporation. Urban Enterprise Zone Five Year Strategic Plan, 2005.

Jersey City Housing Authority website.

Jersey City Online website.

"Jersey Tries Again to Link PATH Trains with Airport." Star-Ledger. May 7, 2000.

Journal Square SID website.

Liberty Landing Marina website.

Liberty National Golf Course website.

Mack-Cali website.

McGinley Square SID website.

MOTBY study.

National Park Service website.

"Nature Trail or 78 Homes?" Jersey City Reporter. August 5, 2005.

New Jersey City University. West Campus Redevelopment Plan. January 11, 2005.

NJ COST website.

NJ Department of Commerce. Press Releases about Urban Enterprise Zone grants.

NJDEP, Division of Parks and Forestry website.

Environmental Justice Petition. Cross-Harbor Freight Tunnel.

NJ Dept of Labor. NJ Employment and Wages: 2003 Annual Report, Municipalities by Industry, Hudson County.

NJDOT. Bergen Arches Study, Final Report. Prepared by Parsons-Brinckerhoff, et al. September, 2002.

_____. Bridge Management System.
_____. Capital Improvement Program
_____. Congestion Management System.
_____. High Cost, Critical Need Bridges, July 2004.
_____. 2002 Local Aid for Centers of Place press release
_____. "NJDOT Breaks Ground on Route 139 Construction Project." Press Release, October 24, 2005.
_____. Portway.
_____. Portway Extensions Concept Development Study.
_____. Straight Line Diagrams
_____. Transportation Improvement Program
_____. Transit Village Initiative
_____. Status of Major Projects
_____. St. Paul's Viaduct information
_____. Study and Development Program
_____. 2001 Urban Supplement for Jersey City.

NJ Schools Construction Corporation.

NJ TRANSIT. "Board Takes Action to Improve NJ TRANSIT PA Systems, Dynamic Signage." September 22, 2005.

_____. Bus Schedules.
_____. HBLR fare information
_____. "NJ TRANSIT Adding Capacity on 36 Bus Routes." January 12, 2006.
_____. Rail Schedules.

"NJ TRANSIT Revising Train Plan for Bergen." Star-Ledger. May 12, 2005.

New Jersey Sports and Exposition Authority.

Meadowlands Railroad and Roadway Improvement Project, Final Environmental Impact Statement.

New Jersey Sports and Exposition Authority website.

Newport Community website.

New York New Visions. Principles for the Rebuilding of Lower Manhattan. February 2002.

New York Water Taxi website.

NY Waterways website.

North Jersey Transportation Planning Authority (NJTPA), NJTPA Approved Demographic and Employment Forecasts. May 23, 2005.

_____. Access and Mobility 2030, Appendix G, Strategy Refinement Study.
_____. Freight Assessment study.
_____. Hudson County Regional Bus Circulation Study.
_____. Job Access and Reverse Commute Projects, 2006.
_____. FY 2007 Local Safety Program.
_____. Montgomery Street Safety Improvement Initiative.
_____. Other Regional Projects.
_____. Response to Cross-Harbor Freight Tunnel DEIS.
_____. Subregional Issues. NJTPA.
_____. Subregional Study Program, FY 2006 – FY 2007. NJTPA.
_____. Transportation Improvement Program.
_____. Waterfront Access study description.

"Parking Reform Needed." Jersey City Reporter. November 6, 2005.

"A PATH More Traveled?" Star-Ledger. April 26, 2001.

Pennsylvania Real Estate Investment Trust website.

Port Authority of New York and New Jersey, Comprehensive Port Improvement Program.

_____. PATH Parking Guide, Timetable, and Map.
_____. "Port Authority Unveils Design for New PATH Cars." Press Release, October 27, 2005.
_____. Port Authority Strategic Plan.
_____. Press release November 1, 2005.
_____. Regional Rail Terminals.

"Port Authority to Replace PATH Fleet for $499 Million." New York Times, April 1, 2005.

Port Jersey RR website.

Pro Arts website.

Real Deal website.

"A Prescription for Flexibility." Jersey City Reporter. October 22, 2005.

Princeton University. Journal Square study.

SAFETEA-LU

Sixth Street Embankment website.

Society for Environmental Graphic Design newsletter.

"Square Stores to Shut, Demolition Unclear." Jersey Journal. October 26, 2005.

"Stop & Shop Stopped." Jersey City Reporter. July 29, 2005.

U.S. Census.

Vornado Realty Trust website.

"Waterfront Walkway by Tunnel Vents." Jersey City Reporter, October 8, 2005.

"West Side Growth Spurt is Envisioned." Jersey Journal, January 26, 2005.

Wired New York website.

INTERVIEWS

May 10, 2005 meeting with local planning officials: Robert Cotter, Director, Division of City Planning; Douglas Greenfeld, Supervising Planner, Department of Housing, Economic Development, and Commerce; Naomi Hsu, Transportation Planner; Hamou Meghdir and Ron Tindall, NJTPA.

July 19, 2005 interview with NJ TRANSIT staff: Steve Lax, Bus Service Director; Jim Gilligan, Bus Service Director; Richard Kerr, JARC director; Jim Flynn, JARC program; and Jerry Lutin.

August 3, 2005 interview with Krishna Murthy, Meadowlink TMA.

August 3, 2005 interview with Richard Lovelace, Eileen Schack. NJDOT Local Aid, District 2.

August 3, 2005 interview with NJTPA staff: Liz DeRuchie, David Dawson, Kevin Twine.

October 13, 2005 interview with Bob Nigro, Hudson TMA.

November 3, 2005 field visit and meeting with local officials: Doug Greenfeld; Naomi Hsu; Roberta Farber, Jersey City Economic Development Corporation; Chris Fiore, Jersey City Redevelopment Agency; Bill Goble, City Engineer; Stanley Huang, Engineering Department; Joao D'Souza, Director, Division of Traffic and Transportation Maintenance.

DEPARTMENT OF TRANSPORTATION
THE STATE OF NEW JERSEY

NJTRANSIT
The Way To Go.®