

SJTPO

2025 Regional Transportation Plan



June 2004

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I. GOALS AND POLICIES

INTRODUCTION

The South Jersey Transportation Planning Organization (SJTPO) is the Metropolitan Planning Organization (MPO) that covers the southern New Jersey counties of Atlantic, Cape May, Cumberland and Salem. Figure I-1 illustrates the SJTPO region. The SJTPO works to provide a regional approach to solving transportation problems. Federal regulations require that transportation planning and decision-making for urbanized areas be carried out through MPOs. As the federally recognized MPO, the SJTPO is required by the Transportation Efficiency Act of the 21st Century (TEA21) to develop a long-range Regional Transportation Plan (RTP). Traditionally, MPOs synchronize the planning actions of participating agencies in the region and provide a "forum" for decision-making among officials, operators, and the public.

Under TEA21, the federal government requires that the metropolitan transportation planning process include the development of a transportation plan with at least a twenty-year horizon, and that the plan include both short and long-range strategies and actions that "lead to the systematic development of an integrated intermodal transportation system that facilitates the safe and efficient movement of people and goods in addressing current and future transportation demand."¹

Federal rules under TEA21 require that the plan be consistent with the following:

1. It shall identify the projected transportation demand of persons and goods in the metropolitan planning area over the period of the plan.
2. It shall identify adopted management and operations strategies that address the need for improved system performance and the delivery of transportation services to customers under varying conditions.
3. It shall identify pedestrian walkway and bicycle transportation facilities.
4. It shall reflect considerations given to the results of the congestion management system to include the identification of Single Occupancy Vehicle (SOV) projects that result from the congestion management system.
5. It shall assess capital investments and other measures needed to preserve the transportation system and make most efficient use of the existing facilities to relieve vehicular congestion and enhance the mobility of people and goods.
6. It shall include design concept and scope descriptions of all existing and proposed transportation facilities in sufficient detail to permit conformity determinations to satisfy Clean Air Act requirements.
7. It shall reflect a multimodal evaluation of the effects of the overall plan, including transportation, socioeconomic, environmental, and financial impacts.
8. It shall reflect consideration of comprehensive, long-range land use plans and development objectives; housing goals and strategies; community development and employment plans and strategies; environmental resource plans; linking low income households with employment opportunities as reflected in work force training and labor mobility plans and strategies; energy conservation goals; and the region's overall social, economic, and environmental goals and objectives.
9. It shall indicate the proposed transportation enhancement activities.
10. It shall include a financial plan that will compare proposed transportation investments to available and projected sources of revenue. Also, it shall estimate costs of constructing, maintaining, and operating the total (that is, both existing and planned) transportation system over the period of the plan.

¹ National Archives and Records Administration, *Federal Register*, Vol. 65, No. 102, May 25, 2000, Part III, United States Department of Transportation, Federal Highway Administration & Federal Transit Administration, 23 CFR Parts 450 and 1410; 49 CFR Parts 613 and 621, Statewide Transportation Planning; Metropolitan Transportation Planning; Proposed Rule.

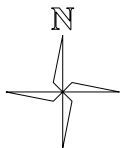
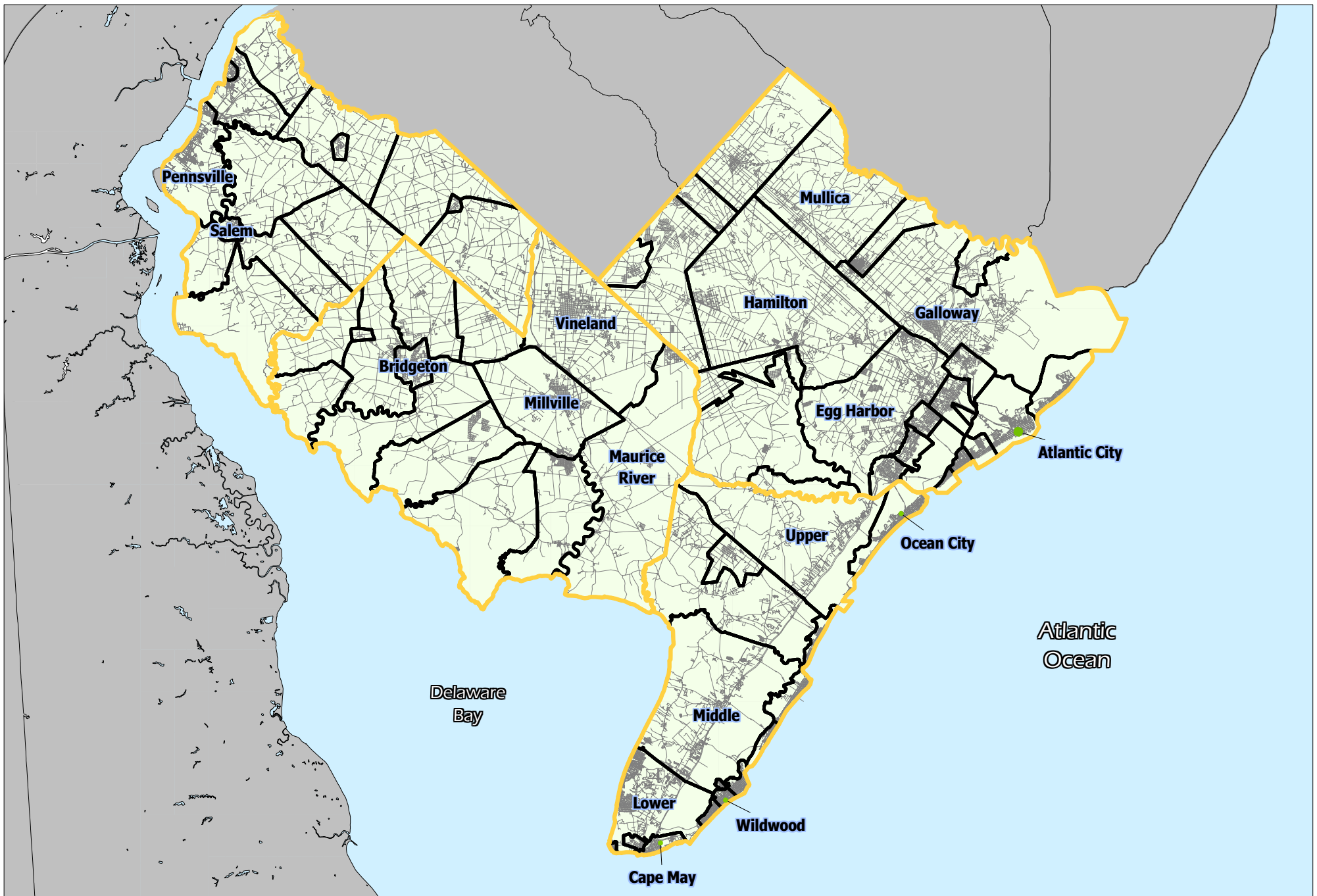


Figure I-1
SJTPO Region



11. It shall include a strategy for Intelligent Transportation Systems (ITS) integration for the purposes of guiding and coordinating the management and funding of ITS investments to achieve an integrated regional system.

Federal rules also require that there be adequate opportunity for public official and citizen involvement in the development of the transportation plan before it is approved by the MPO. For the SJTPO, oversight in developing the RTP was successfully produced through the board and committee structure of the SJTPO as well as public involvement activities. The board and committee structure of the SJTPO is briefly described below:

- *The SJTPO Policy Board* - The governing board of the SJTPO, which encompasses eleven voting members. Members include one selected official from each county, one municipal official elected from each county (including the mayors of Atlantic City & Vineland), and one delegate from the New Jersey Department of Transportation, NJ TRANSIT, and the South Jersey Transportation Authority. The Policy Board approves planning processes and adopts all goals, policy statements, and action steps.
- *The Technical Advisory Committee (TAC)* - Nominated by the Policy Board, the TAC consists of fifteen members and provides input to the Policy Board. Work includes overseeing and developing the RTP, and reviewing technical products and policy issues. It consists of staff of each Policy Board member, as well as representatives of the New Jersey Turnpike, the New Jersey Highway Authority, the Delaware River and Bay Authority, and the Chairperson of the Citizens Advisory Committee.
- *The Citizens Advisory Committee (CAC)* - The CAC was created to provide guidance in the public involvement process conducted by the SJTPO and to emphasize the importance of public involvement to the organization. This committee represents an extensive assortment of interests including: environmental issues, tourism concerns, civic and business issues, and private transportation provider and user issues. Other interested individuals and associations may also participate and be added to the mailing list upon request.

These groups have direct involvement in developing the SJTPO RTP. Additionally, through stakeholder outreach meetings, public meetings, and the SJTPO website and mailings, a broad base of outreach activities provided input to the plan development process. The outreach activities are defined in greater detail in Chapter 2 of this document, *Overview of the Public Participation Program*.

REGIONAL TRANSPORTATION PLAN

The RTP serves as the official plan for the SJTPO region and guides the transportation decision-making for a projected twenty-five year horizon. As a long-range planning document, the plan sets the course for the future of the region, and must lead to the development and operation of an integrated, intermodal transportation system that facilitates efficient, economical movement of people and goods. It includes both short-range and long-range strategies and actions.

The RTP provides a foundation for coordinated regional transportation planning, and identifies future needs so that more detailed technical studies may take place. Accordingly, project features and funding requirements are identified in technical planning studies. These more detailed studies provide the technical and environmental analysis needed to enter projects into the federal and state funding pipeline.

The first RTP for the SJTPO region was adopted in August 1995. A reexamination and confirmation of the 1995 RTP's goals, forecasts and capital investments was adopted by the SJTPO in March 1998. The Plan was updated again in 2001. The current 2004 RTP Update examines current and future year conditions (the plan horizon year is 2025) in the SJTPO region.

The technical work to develop the RTP Update consisted of several tasks as follows: revisit RTP goals and policies, update existing conditions; upgrade of the regional travel model to support analysis of future transportation investments, strategies and actions, developing a financing plan, determining air quality conformity, developing an implementation plan, and producing a final plan document. Specific emphasis is placed on safety, emergency evacuation, and the regional SJTPO Congestion management System. The technical activities interact with the public participation and coordination activities throughout the RTP development process and coordination program to define the plan's overall work effort.

REGIONAL TRANSPORTATION PLAN GOALS AND POLICIES

A questionnaire was used to solicit input from members of the SJTPO Policy Board and TAC on the 2001 RTP Goals and Policies. The questionnaire and input process are described in more detail in Chapter Two: Public Involvement Program. Comments relevant to the RTP goals and policies include the following:

- Maintenance of the existing transportation system is paramount.
- The vision for the region can be supported by wise investments and prioritization of the most important and cost effective system improvements. This requires both fiscal responsibilities and recognition that worthwhile improvements to the system require substantial capital investment as well as continued system maintenance investments.
- The plan should result in an integrated multi-modal transportation network.
- The plan should work to accomplish a wise expenditure of transportation dollars. Transportation improvements need to keep pace with development.
- While existing goals remain relevant, increased transportation system capacity and efficiency should also be included in the goals. Increased system capacity is needed to accommodate mandated growth and increased efficiency is needed to maximize the capital investments in highway and transportation infrastructure.
- The plan update process should consider a policy statement about facilitating modal changes and the recreational aspects of walking and biking (when the purpose is purely recreational)
- The plan update process should consider a policy statement that increased capacity should be specifically included due to the region's growth. Policy statements should include systematic improvements of important corridors within the region (for example Route 9, 40/322, 47, etc.) so that selective capacity enhancements will be targeted to where they will have the greatest impact on level of service, air quality and safety.
- The plan update process should consider a policy statement that also includes the security of the system, not just users. The plan update process should consider for the policy statement on safety the inclusion of *bicycle* safety.
- The plan update process should consider a goal and policy statement for supporting areas targeted for growth.

Based on the responses, the following goals and policies are proposed to guide the regional transportation decision making process; the proposed revisions must be adopted by the board before becoming the official goals and policies of the SJTPO.

GOALS	POLICIES
Improve safety.	Ensure the safety and security of users of highway, transit, bicycle, pedestrian and freight systems Ensure the security of all transportation facilities in the region. Fully integrate emergency evacuation issues into all regional planning, as well as corridor planning and project development as appropriate. Continue and enhance support of the South Jersey Traffic Safety Alliance and integrate traffic, bicycle and pedestrian safety considerations in SJTPO’s programs.
Support the regional economy.	Advance projects to interconnect the transportation system. Improve access to areas of major employment and tourism. Improve the movement of people and goods in the region. Advance projects that support tourism in the region.
Reduce congestion.	Optimize the efficiency and use of the existing transportation system. Develop and use innovative technologies. Using the SJTPO CMS, invest in new highway capacity only if it can be shown that other measures are not able to address existing and projected need.
Promote transportation choices for the movement of people and goods.	Expand and improve other (non-auto) transportation systems as needed: aviation, passenger rail, marine, rail freight, bicycle, pedestrian and public transit. Advance projects that enhance mobility for bicyclists, pedestrians and transit riders. Provide for affordable mobility options to all segments of the transportation disadvantaged (young, elderly, handicapped and poor) and support welfare to work transportation initiatives.
Protect and improve the environment.	Encourage the use of alternative transportation modes that have a lesser impact on environmental resources than SOVs. Minimize negative environmental and social impacts of transportation improvements and augment the positive. Ensure that transportation improvements preserve historic character, culture or sense of place.
Restore, preserve and maintain the existing transportation system.	Ensure the key elements of the transportation system are restored, preserved and maintained.
Secure dependable, reliable sources of funds.	Pursue all avenues for transportation funding. Support transit-operating subsidies to ensure affordable mobility options. Advance projects that are cost-effective solutions for the region.
Recognize interrelationships between transportation and land use plans.	Concentrate development in existing or planned centers or corridors that are consistent with the State Development and Redevelopment Plan. Plan and design transportation investments that are consistent with the goals, strategies and policies of the State Development and Redevelopment Plan. Provide increased transportation system capacity to accommodate areas targeted and planned for growth.

Note: proposed changes are indicated in bold font

PLANNING FACTORS

Metropolitan (or Regional) Transportation Plans must also consider seven planning factors. These seven factors ensure that MPO long-range plans attempt to achieve common objectives across the nation. The factors are required to be considered and reflected in the Plan and are established in the TEA21 authorizing legislation. The table below compares the seven planning factors to the RTP Goals and Policies for the SJTPO described in the previous section.

TEA 21 PLANNING FACTORS	RELATED SJTPO GOALS AND POLICIES
1. Support economic vitality and global competitiveness	<i>Related Goal:</i> Support the regional economy. <i>Related Policies:</i> Advance projects to interconnect the transportation system. Improve access to areas of major employment and tourism. Optimize the efficiency and use of the existing transportation system. Provide increased transportation system capacity to accommodate areas targeted and planned for growth.
2. Increase the safety and security for all users.	<i>Related Goal:</i> Improve safety. <i>Related Policies:</i> Ensure the safety and security of users of highway, transit, bicycle, pedestrian and freight systems. Fully integrate emergency evacuation issues into all regional planning, as well as corridor planning and project development as appropriate. Continue and enhance support of the South Jersey Traffic Safety Alliance and integrate traffic, bicycle and pedestrian safety considerations in SJTPO's programs. Ensure the security of all transportation facilities in the region.
3. Increase accessibility and mobility options for all users	<i>Related Goal:</i> Promote transportation choices for the movement of people and goods. <i>Related Policies:</i> Expand and improve other (non-auto) transportation systems as needed: aviation, passenger rail, marine, rail freight, bicycle, pedestrian and public transit. Provide for affordable mobility options to all segments of the transportation disadvantaged (young, elderly, handicapped and poor) and support welfare to work transportation initiatives.
4. Protect and enhance the environment, promote energy conservation, and improve quality of life	<i>Related Goal:</i> Protect and improve the environment. <i>Related Policies:</i> Encourage the use of alternative transportation modes that have a lesser impact on environmental resources than SOVs. Minimize negative environmental and social impacts of transportation improvements and augment the positive.
5. Enhance the integration and connectivity between travel modes	<i>Related Policy:</i> Advance projects to interconnect the transportation system.
6. Promote efficient management and operation.	<i>Related Policies:</i> Optimize the efficiency and use of the existing transportation system. Develop and use innovative technologies. Fully integrate emergency evacuation issues into all regional planning, as well as corridor planning and project development as appropriate.
7. Emphasize preservation of the existing transportation system.	<i>Related Goal:</i> Restore, preserve and maintain the existing transportation system. <i>Related Policy:</i> Ensure the key elements of the transportation system are restored, preserved and maintained.

II. PUBLIC INVOLVEMENT PROGRAM

INTRODUCTION

The public involvement program ensures that the RTP Update furthers the Plan's established goals and policies and is consistent with the Federal planning factors by incorporating input from both the public and key regional decision makers and transportation service providers. The RTP Update incorporated public involvement at critical milestones and was designed to accommodate a wide range of participant access and input. The public involvement program included two issues groups and two questionnaires. Separate issue groups meetings were held to discuss safety and freight. The first questionnaire was distributed to the South Jersey Traffic Safety Alliance (SJTSA); the second was distributed to the Policy Board and TAC.

The previous RTP update in 2001 included focus groups that considered freight and tourism issues. With only three year between the plan updates, the issues and concerns raised by these groups are still considered relevant, and have been used to supplement the ongoing public involvement process for the 2004 RTP Update.

SAFETY ISSUE GROUP

The safety issue group outreach was held as part of the February, 2004, Delaware River and Bay Authority (DRBA) meeting of the South Jersey Traffic Safety Alliance. A group of approximately 50 persons involved with the SJTSA, representing various police, fire, safety, emergency, community and planning agencies and groups, attended the meeting. Issues and concerns raised included the following:

Black Horse Pike

- Reduce speed for the cut- throughs
- Develop deceleration lane or eliminate cut- throughs

Cumberland County

- City of Vineland has high incidence of accidents
- Safety audit candidate

Salem (City)

- A lot of trucks coming through city cause congestion
- Pennsville in to Salem there is a bridge, which was a two way street, but now has been changed to one way, resulting in added travel around the area to go through the city

Atlantic City

- Pedestrians cross anywhere on Atlantic & Pacific Avenues: safety issue for pedestrians crossing those Avenues; and ped/cyclists using Atlantic Avenue (SJTPO has study underway)

Atlantic County

- County roads in Atlantic County need to be widened to handle increasing traffic going to Atlantic City. Black Horse Pike is very congested.
- Municipal feeder roads in Egg Harbor Township are very congested. There have been a lot of new homes and development.
- Fire House on Black Horse Pike is having access problems getting to emergencies. Route 55 & 49 access roads to Tuckahoe & Petersburg area have increased accidents due to more congestion.

- Galloway Township – Jimmy Lee Road between Pitney (westbound) to Stockton College, a lot of accidents due to congestion (malls)

Vineland Industrial Park

- Trucks going through Pittsgrove Township - ordinance to reduce speed limits and to direct trucks to a designated route. Officers will assist in enforcing the appropriate route.
- Trucks are tearing up roads (also no shoulders)

Hammonton

- Route 206 - from Burlington County - from mile marker 6 to 0 there are fatalities due to cars passing without safe passing zone area
- Need a passing zone (3rd lane)

Route 30 Mullica & Winslow

- Township - goes to 40 mph area from 50 mph
- Need to educate bi-lingual migrant workers, safe driving skills
- People leave vehicles involved in accidents on roadsides.
- Route 522 to Winslow/Camden County line is a problem

Summer Avenue & Forest Grove Road (Route 40)

- Need to have a consistent speed along that road

Cape May - Dennisville/Stone Harbor Road - Route 9

- Acme Shopping Center - 2 lanes going to Stone Harbor - no signs, paint worn off - congestion around hospital - confusing traffic pattern for vehicles weaving without proper striping

Traffic Circles

- Confusion as to who has the Right of Way. – We need to direct and educate public: yield signs, yellow flashing lights

9th Street Bridge

- Bridge was stuck 2 times last year - tolls weren't foregone - they should have been - caused a lot of congestion.
- Accidents on toll way in Atlantic City. Tolls aren't waived when motorists are forced to use the roadway. This causes congestion. Need to collaborate with agencies for possible changes to regulations during emergency direction or evacuation.

Atlantic City (westbound exit 7 south)

- Cars have difficulty merging to take exit and the cars fly out onto Garden State Parkway

Garden State Parkway - Exit 36

- Backs up onto Parkway – congested and safety issue

Physical Security

- Identify and analyze transportation structures, bridges, and tunnels with regard to both personal safety and homeland security

Other Issues / Action Items

- Rail crossing safety
- Evacuation routes – concern for congestion
- Trucking: provide education to truckers and to motorists regarding safety for passing distance and safe driving distance
- Senior Safety/Pedestrian Access concerns

- Busing, School Buses, and Transit Buses: investigate bus stops needs or re-design needs for efficiency and safety
- Education of Speed Limits and driving skills especially in the summer employment season – migrant workers, student drivers, and elderly
- Signage - examine signs to correct interference where there is the blocking of road signs by other signs or sight distance limitations
- Weaving, striping needs: examine Cape May area turning lanes toward Stone Harbor, identify other areas
- With the use of circles or roundabouts, develop warning signs to direct public to yield according to the vehicle with right-of-way.

FREIGHT ISSUE GROUP

County representatives of SJTPO's Technical Advisory Committee met in February 2004 to discuss issues related to the movement of freight in the region. This meeting was held in conjunction with the Statewide Freight Plan effort. Significant issues and concerns raised at the meeting are summarized below:

Cumberland County

- Double-stacked container freight on rail is increasing in an effort to accommodate the significant rise in the amount of freight that must be moved. Because of height restrictions, however, it cannot travel in southern New Jersey.
- The Delair Bridge is a major chokepoint for freight entering from Pennsylvania. An engineering analysis is needed to determine the modifications necessary to correct this problem.
- All major freight corridors in the SJTPO region should be analyzed to identify any other chokepoints (e.g., Hunter Street Bridge in Woodbury) that preclude double-stacked containers.
- Priority should be given to repairing the rail bridge to the Winslow Junction line.
- Rail service should be reinstated from Woodmansie to Winslow. This would significantly reduce the rail miles between southern New Jersey and the Newark/New York ports.
- A feasibility study should be conducted to determine if rail freight service should be extended to Millville Airport, which will be primarily for freight.
- Other needed safety improvements (like grade crossings) should be identified.
- Cumberland is currently studying designating truck routes.

Atlantic County

- Trucks are causing capacity problems in the Route 322 and 40 corridors (especially during the summer) and are very hard on pavement surfaces. This is also true to a lesser extent in the Route 30 corridor (Egg Harbor is a chokepoint).
- The intersection of Routes 40 and 50 has severe capacity problems because of truck traffic.
- A number of intersections and roadway segments are substandard.
- Although Atlantic County has no major manufacturing or industrial facilities, it would like to see some rail freight improvements, since that would help take some trucks off the roads.
- Freight movement in Atlantic City is not a major problem since the casinos have established their own distribution centers off island; however, trucks bringing product in do compete with the tour buses and have difficulty navigating in city streets because of their size. Unlike the buses, trucks do not have designated routes in the city.

Salem County

- Salem County would like to be able to redirect truck traffic on Route 40 that is headed for Atlantic City.
- Most of its truck traffic carries bulk commodities in and glassware out.
- Salem County has two rail lines. One serves DuPont. The second is an 18-mile county-owned shortline that runs from Woodbury south to within 50 feet of the port. It is vital to Anchor Glass, Mannington Mills, and other small industries in the area. This line is about 100 years old, moves

at 5 mph, and seriously needs upgrading. This line has gone from carrying 300 car loads/yr. six years ago to carrying about 2,000 car loads/yr. now. In the next five years that number could go up to 2,500 car loads. Each car load represents trucks that would be using Routes 49, 40, and 45. The County has planned, but not programmed, \$9.7 million for the rail line to the port.

- The one bridge in Salem is over a rail line, preventing the use of double-stack containers.
- Salem County needs multimodal solutions because its port is shallow – it is being dredged to 26 feet.
- Salem is beginning to feel the effects of sprawl. It is concerned that its wide ROW could end up being used for commuter rail rather than rail freight. This would significantly affect the viability of some of its low-margin businesses like Anchor Glass, which provides about 350 jobs.
- The Oldman's Creek Bridge needs to be replaced (two months ago a trestle failed, but it has been repaired). It is on a calendar to be replaced in seven years.
- Maintenance of rail facilities is crucial. Once freight rail capacity is lost, it won't come back.

Vineland

- The movement of trucks in Vineland is a problem. Many of its intersections do not accommodate the turning radii of the big tractor trailer units. Trucks frequently knock down traffic signals and seriously impede auto traffic. If these large trucks are going to be permitted, the corresponding roadway improvements must be made.
- There are many trucking operations in Cumberland County, including National Freight.
- If the proposed ethanol plant is built, the number of trucks will increase significantly.

General Issues

- Intermodal connectors are needed to the Millville Airport (an Empowerment and Federal Trade Zone) and Pleasantville (an Urban Enterprise Zone). Pleasantville is currently paying for a new freight connection into Egg Harbor Township's industrial area and is interested in passenger rail.
- Woodstown and Elmer are currently chokepoints.
- Movement out of the region is primarily raw materials – agricultural products and sand. Producers would like to ship via the Woodbury line.
- Multimodal/intermodal solutions are required.
- Public access is needed to some rail sidings to support smaller businesses and provide an alternative to truck. Pleasantville is trying to establish one now.
- Rather than banning trucks, other routes should be improved to make them more attractive to truck drivers.
- A rail path is needed to relieve I-95 congestion. The cost of having to move most freight by truck is putting southern New Jersey at a competitive disadvantage.

QUESTIONNAIRES

Questionnaires were distributed to support the review and update of the regional goals and policies of the plan and to understand regional issues of concern. Members of the SJTSA were asked a series of questions, including:

1. Whether safety issues are sufficiently addressed in the plan's goals and policies,
2. How to integrate safety concerns into the regional transportation planning process, and
3. Identify some of the most pressing safety issues in the region today and in the future.

Comments from the SJTSA included:

- More effort and emphasis needs to be put into bicycle and pedestrian safety. Specifically the focus should be on developing specially designed bike routes to foster increased use of bicycles for travel.
- Easing traffic congestion in shore areas would help a great deal in increasing safety for bicyclists and pedestrians.
- An effective mass transit system might help reduce congestion and increase pedestrian safety.
- The focus should be on child safety programs, educational programs, and enforcement programs.

- Educating the public about traffic safety issues is a critical need.
- There is a need to improve the traffic flow through Pittsgrove Township's main roadways. One way to improve this flow would be by developing an on and off ramp off of Route 55 on the west side to flow onto Almond Road and Route 540.
- Child safety is the most pressing safety concern presently and in the future pedestrian safety will be the most pressing concern.
- Rapid land development and the added volume of traffic that it brings is something that has to be addressed. The SJTPO is the perfect organization to consider possible solutions to congestion, if there are any.
- A pressing concern is to widen roadways for the accommodation of pedestrians, bicyclists and to aid traffic flow.
- More traffic control and additional lighting is needed in areas where traffic has increased over the years.

A second questionnaire was distributed to members of the SJTPO Policy Board and TAC. The questionnaire addressed the following issues:

1. The vision for the region's future and how the RTP Update can achieve that vision,
2. The relevance of the 2001 SJTPO RTP goals, and
3. The relevance of the 2001 SJTPO RTP policies, in particular with respect to safety, emergency evacuation and economic vitality.

Comments from the Policy Board and TAC members included:

- Our region is becoming more and more attractive to developers. Increased residential construction will result in longer commute times and overburdened roadways.
- Our region will face increasing development pressures.
- The future transportation system for the region must accommodate the population growth dictated by State policies. Specifically this includes the Pinelands Regional Growth Zone mandates and the establishment of gambling in Atlantic City. The transportation system must be improved to provide increased capacity to meet the needs of the growing population in the region. This capacity enhancement should include intersection improvements, highway improvements and increased transit service.
- The existing transportation system can not support the anticipated development expected for the region. We need to get past only doing maintenance activities on the transportation system and addressing existing problems. We need to plan in advance for transportation system upgrades that will be needed.
- Maintenance of the existing transportation system is paramount. Then the region must recognize that some capacity enhancements may be needed.
- The vision for the region can be supported by wise investments and prioritization of the most important and cost effective system improvements. This requires both fiscal responsibilities and recognition that worthwhile improvements to the system require substantial capital investment as well as continued system maintenance investments.
- The plan should result in an integrated multi-modal transportation network.
- The plan should work to accomplish a wise expenditure of transportation dollars. Transportation improvements need to keep pace with development.
- The regional transportation plan should clearly define the most important areas for capital investment and continue to assert the need for continued highway infrastructure maintenance in the region.
- While existing goals remain relevant, increased transportation system capacity and efficiency should also be included in the goals. Increased system capacity is needed to accommodate mandated growth and increased efficiency is needed to maximize the capital investments in highway and transportation infrastructure.

- The plan update process should consider a policy statement about facilitating modal changes and the recreational aspects of walking and biking (when the purpose is purely recreational)
- The plan update process should consider a policy statement that increased capacity should be specifically included due to the region's growth. Policy statements should include systematic improvements of important corridors within the region (for example Route 9, 40/322, 47, etc.) so that selective capacity enhancements will be targeted to where they will have the greatest impact on level of service, air quality and safety.
- The plan update process should consider a policy statement that also includes the security of the system, not just users. The plan update process should consider for the policy statement on safety the inclusion of *bicycle* safety.
- The plan update process should consider a goal and policy statement for supporting areas targeted for growth.

PLAN OUTREACH DISTRIBUTION ACTIVITIES

The draft plan was presented for review and comment at a series of meetings involving the TAC, SJTPO Board, and SJTSA meetings.

Copies of the Draft Plan were distributed to the Policy Board, the Traffic Safety Alliance Committee, the Shore Connector Committee, the TAC, the CAC, area chambers of commerce, and county clerks.

To allow public review, draft copies of the Plan were deposited with the four counties' libraries and planning offices, as well as the South Jersey Transportation Authority and SJTPO offices. The draft was also available for examination through SJTPO's website.

Legal ads were placed in the major newspapers in the region to announce the public meeting and comment period; a press release was also issued. No members of the public attended.

PUBLIC COMMENT

A draft version of the plan, excluding the conformity chapter, was presented to the public for review and comment on April 8, 2004. Comments received during the mandatory public comment period will be considered and, where applicable, incorporated into the final version of the RTP Update. A public meeting will be conducted during the comment period.

III. CONTEXT FOR TRANSPORTATION IN SOUTH JERSEY

INTRODUCTION

Demographic characteristics of an area influence the amount of travel demand. Long-range transportation planning requires understanding those demographic characteristics that combine to create travel demand. Increases or decreases in the number of people living in an area together with increases or decreases in the number of jobs in that area or region can affect the number, length, and distribution of trips that must be made and consequently the need for transportation facilities and services.

However, the demand for travel in southern New Jersey differs from the rest of the state in several key ways. Southern New Jersey is more rural, its population and jobs are more widely dispersed, the greatest concentration of employment is in one location – Atlantic City – and tourism is an important industry. The southern four counties that comprise the planning area for the SJTPO offer a wide range of land uses, and particular care must be taken to protect the natural resources that characterize the region.

This diversity is illustrated by the types of employment found in the region. Employment in Atlantic County and Cape May County is predominantly in retail trade and services (70.1% and 59.8%, respectively), demonstrating the importance of the gaming and tourist industries to their economies. While Cumberland and Salem counties can boast their manufacturing industry (19.8% and 17.2%, respectively), this is less than 20% of the jobs in those locations, and retail and services still account for about 40% of the jobs in both counties. Table III-1 below shows this data in greater detail.

Table III-1 Estimated Employment by Industry - 2000

Industry Category	Atlantic		Cape May		Cumberland		Salem	
	Total	%	Total	%	Total	%	Total	%
	146,900	100.0%	40,700	100.0%	60,350	100.0%	22,050	100.0%
Mining	0	0.0%	50	0.1%	250	0.4%	0	0.0%
Construction	5,500	3.7%	2,100	5.2%	2,150	3.6%	900	4.1%
Manufacturing	4,900	3.3%	900	2.2%	11,950	19.8%	3,800	17.2%
Transportation, Communications, Public Utilities	5,450	3.7%	1,450	3.6%	3,050	5.1%	3,150	14.3%
Wholesale Trade	4,000	2.7%	650	1.6%	2,750	4.6%	350	1.6%
Retail Trade	23,100	15.7%	12,500	30.7%	10,150	16.8%	3,450	15.6%
Finance, Insurance, Real Estate	3,550	2.4%	1,850	4.5%	2,350	3.9%	700	3.2%
Services	79,950	54.4%	11,850	29.1%	13,400	22.2%	5,800	26.3%
Public Sector, with Public Education	20,450	13.9%	9,350	23.0%	14,300	23.7%	3,900	17.7%

Source: New Jersey Department of Labor, May 2003

DEMOGRAPHIC PROJECTIONS METHODOLOGY

The SJTPO Population and Employment Forecasts were endorsed by SJTPO TAC on December 16, 2003. Population and employment data were projected by county and municipal level in five-year intervals through the year 2025. The forecasts were developed in close cooperation with the county planning and economic development departments and, where available, SJTPO relied on projections prepared by the counties.

Atlantic and Cape May counties provided population projections to SJTPO through the year 2020. A relatively simple regression method was used to project these forecasts to 2025. For Cumberland County, the original RTP projections ¹for 2000 through 2025 were added to the actual 2000 Census figures to prepare the updated projections. Salem County experienced a population decline from 1990 and 2000. For this county, a 5 % overall increase was projected for the 25 year period, with separate growth/decline factors applied to the grouping of growing and declining municipalities (based on 1990 to 2000 trends) to achieve the targeted 5 % population increase.

Atlantic County provided employment projections to SJTPO through 2020. A relatively simple regression method was used to project these employment forecasts to 2025. For Cumberland and Cape May Counties, the NJ Department of Labor provided the year 2000 countywide employment estimates, which SJTPO then distributed among the municipalities based on trend estimates included in the 2001 RTP employment projections. Having established a 2000 base figure, the 2001 RTP projected increase for 2000 to 2025 were added to update the employment figures. For Salem County, the same subjective methodology used to forecast the population increase was used to project employment, with a targeted employment increase of 10 % for the 25 year period.

SJTPO DEMOGRAPHICS

As Table III-2 indicates, Atlantic County continues to have the largest population in the area and the greatest number of jobs. By 2025, it is forecast to experience the greatest increase in both people and employment, bringing another almost 64,000 jobs into the region. Salem County, on the other hand, will grow at a much lower rate, only 5%, but the rate of increase in jobs will be higher, at 10%. (These figures are discussed in more detail below in terms of the individual counties.)

Table III-2 SJTPO Region Population and Employment Forecasts

County	POPULATION				EMPLOYMENT			
	Total		Change		Total		Change	
	2000	2025	Net	%	2000	2025	Net	%
Atlantic	252,552	330,367	77,815	30.8%	125,739	189,516	63,777	50.7%
Cape May	102,326	123,066	20,740	20.3%	40,012	49,375	9,363	23.4%
Cumberland	146,438	181,481	35,043	23.9%	60,400	86,470	26,070	43.2%
Salem	64,285	67,500	3,215	5.0%	22,600	24,860	2,260	10.0%
Total	565,601	702,414	136,813	24.2%	248,751	350,221	101,470	40.8%

Source: SJTPO and Census 2000

Table III-3 shows the age distribution in the region. The percentages by age cohorts are fairly evenly spread by county, with the exception of Cape May County, which has an older overall average and a 65+ population of 20.2 %, reflecting the higher number of retirees residing within that county. Not surprisingly, the number of people in the region aged 44 – 64 has increased from 19.7% in 1990 to 23%

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¹ The June 2001 projections did not include the 2000 Census figures (they were unavailable at the time the projections were developed).

in 2000 as the Baby Boomers age. Figure III-1 compares the general population distribution of municipalities with more than 7,000 people from 1990 to 2000

Table III-3 Population Age - 2000

County	1 - 17 Years Old		18 - 44 Years Old		45 - 64 Years Old		65 Years Old+	
	Number	%	Number	%	Number	%	Number	%
Atlantic	63,855	25.3	97,699	38.7	56,561	22.4	34,437	13.6
Cape May	22,859	22.3	32,640	31.9	26,146	25.6	20,681	20.2
Cumberland	37,203	25.4	58,128	39.7	32,020	21.9	19,087	13.0
Salem	16,450	25.6	22,978	35.7	15,546	24.2	9,311	14.5
Total	140,367	24.8	211,445	37.4	130,273	23.0	83,516	14.8

Source: SJTPO and Census 2000

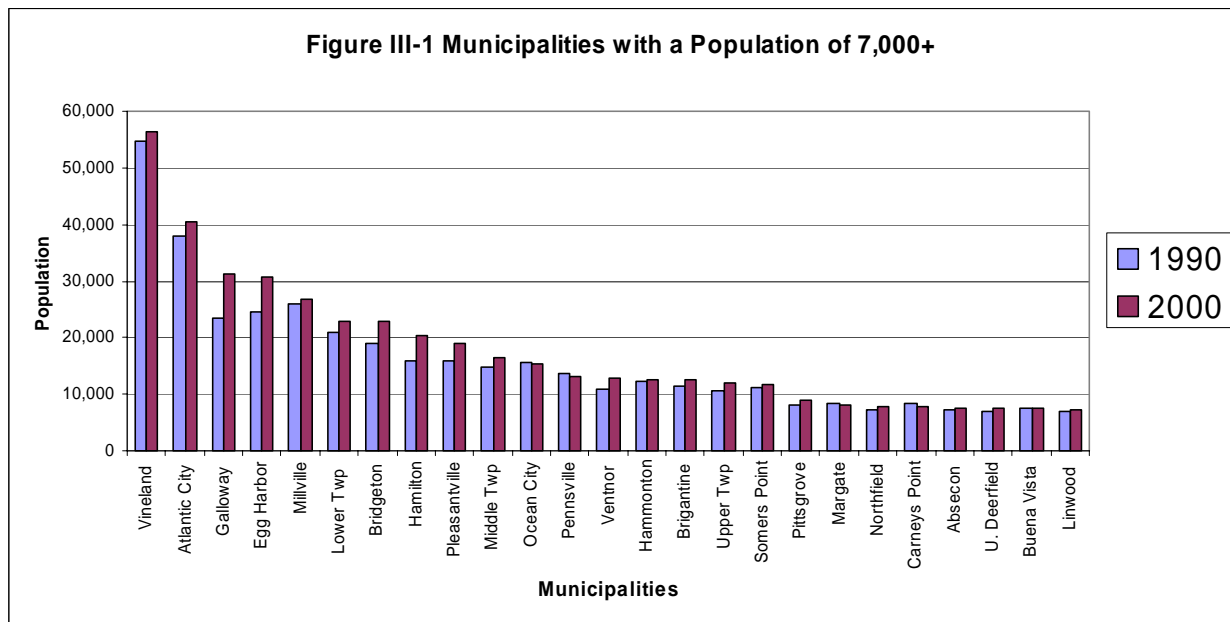


Figure III-1 Municipalities with Population of 7,000+

Atlantic County continues to have the most residents of any county in the SJTPO region, with a 2000 population of 252,552. Its largest municipalities in terms of population are Atlantic City and Galloway, Egg Harbor, and Hamilton townships. As noted, Atlantic City is the single biggest employment center by far in the county, and in the region, with 61,697 jobs (see Table 4). In comparison, the second biggest employment center, Egg Harbor Township, employs only 9,546 people.

Projections for 2025 show significant differences, however. Overall, Atlantic County’s population will grow by almost 31%. Both Egg Harbor and Galloway townships will outstrip Atlantic City in total population, growing by 81.6% and 71.6%, respectively, and Hamilton Township will increase by 67.1%. During the same time period, Atlantic City will grow by only 2.2%. However, the number of available jobs will continue to be focused in Atlantic City, with an increase by 2025 of 71.9%, compared to the overall county increase in employment of 50.7%. Egg Harbor Township’s increase in employment, a

healthy 32.6%, will not keep pace with its rapid population expansion, and Galloway's jobs will increase by only 31.3% (compared to an almost 72% population growth). As a result, even more people will commute to Atlantic City, increasing the number of travelers using the roadways and available public transportation.

Cape May County is expected to grow at a much slower rate. Cape May County's 2000 population of 103,326 will increase 20.3% by 2025, and the number of jobs available will rise at a similar rate, 23.4%. The population of Middle Township is projected to increase the fastest, 30%, while in Avalon the number of people will grow by only 14.1%, the slowest rate in the county. Employment forecasts for 2025 indicate an enormous increase (108.8%) in the rate of job creation in Lower Township, although the number of actual jobs will grow by only 2,832. Middle Township will continue to be the biggest employment center, followed by Ocean City, Cape May City, and Wildwood.

Cumberland County's population in 2000 was 146,438, the second largest in the region. The number of residents is expected to increase at about the same rate by municipality (24%) across the county by 2025. Vineland, Millville, and Bridgeton will continue to be its most populated municipalities. Employment is expected to increase at a much faster rate, however. An overall 43% increase in jobs in the county includes a 41% rise in Vineland, 39% in Millville, and 61% in Bridgeton.

Salem County had a population of 64,285 in 2000, which is expected to increase by 5% by 2025. Although Pennsville Township will continue to be the county's most populated municipality, it is expected to see a 4% decrease in the number of residents. Other locations expecting a 4% decrease are Carneys Point Township, Elmer, Mannington Township, Penns Grove Borough, and Salem City. These declines will be offset by 20% increases in Oldmans, Pittsgrove, Quinton, and Upper Pittsgrove townships and a 30.5% increase in Pilesgrove Township. Employment is forecasted to grow by 10% overall in Salem County, with a 40.7% increase in Carneys Point and a 28.4% rise in Pittsgrove.

Tables III-4 through III-7 present more detailed information about population and employment forecasts for each of the four counties. Figures III-2 and III-3, which follow the tables, depict these changes graphically.

SEASONAL VARIATIONS

The SJTPO's shore communities, in particular, experience significant seasonal fluctuations in population and employment. The roadway network must accommodate an enormous influx of seasonal and recreational visitors, most of whom travel by car or bus. During the tourist season, the population of Cape May County alone grows to more than five times its size, and this season has expanded to include 9-10 months of the year. Atlantic City is a year-round destination for millions of tourists. For example, in 2003, it attracted an average of 2.7 million tourists a month. Of this number, 76% and 22.5% traveled through the region in automobiles and buses, respectively.

The increased demand on the transportation system is tremendous and must be addressed. Tourism, the largest industry in the region, cannot thrive if visitors are unable to travel comfortably and reliably, and the quality of life of the region's residents is greatly affected by worsening congestion and delay. The challenge is to create a transportation system with the flexibility to accommodate the large volumes of traffic generated by the non-residents who are critical to the regional economy.

Table III-4 Atlantic County Forecasts

MUNICIPALITY	POPULATION				EMPLOYMENT			
	2000	2025	Net	%	2000	2025	Net	%
Absecon	7,638	8,697	1,059	13.9%	3,150	4,256	1,106	35.1%
Atlantic City	40,517	41,425	908	2.2%	61,697	106,070	44,373	71.9%
Brigantine	12,594	13,681	1,087	8.6%	1,199	1,550	351	29.3%
Buena	3,873	3,966	93	2.4%	1,377	1,546	169	12.3%
Buena Vista	7,436	8,581	1,145	15.4%	1,310	1,380	70	5.3%
Corbin City	468	814	346	73.9%	28	34	6	21.4%
Egg Harbor Twp.	30,726	55,804	25,078	81.6%	9,546	12,660	3,114	32.6%
Egg Harbor City	4,545	4,592	47	1.0%	2,330	3,005	675	29.0%
Estell Manor	1,585	2,057	472	29.8%	142	139	-3	-2.1%
Folsom	1,972	2,145	173	8.8%	711	844	133	18.7%
Galloway	31,209	53,561	22,352	71.6%	6,665	8,750	2,085	31.3%
Hamilton	20,499	34,245	13,746	67.1%	7,811	9,740	1,929	24.7%
Hammonton	12,604	15,343	2,739	21.7%	7,210	8,922	1,712	23.7%
Linwood	7,172	8,728	1,556	21.7%	2,490	3,536	1,046	42.0%
Longport	1,054	1,117	63	6.0%	150	197	47	31.3%
Margate City	8,193	9,427	1,234	15.1%	1,173	1,496	323	27.5%
Mullica	5,912	6,856	944	16.0%	451	431	-20	-4.4%
Northfield	7,725	9,391	1,666	21.6%	3,458	4,898	1,440	41.6%
Pleasantville	19,012	20,520	1,508	7.9%	7,843	10,459	2,616	33.4%
Port Republic	1,037	1,274	237	22.9%	28	40	12	42.9%
Somers Point	11,614	12,009	395	3.4%	5,588	7,759	2,171	38.9%
Ventnor City	12,910	13,374	464	3.6%	1,305	1,709	404	31.0%
Weymouth	2,257	2,760	503	22.3%	77	95	18	23.4%
Atlantic County	252,552	330,367	77,815	30.8%	125,739	189,516	63,777	50.7%

Endorsed by SJTPO Technical Advisory Committee, December 16, 2003

Table III-5 Cape May County Forecasts

MUNICIPALITY	POPULATION				EMPLOYMENT			
	2000	2025	Net	%	2000	2025	Net	%
Avalon	2,143	2,445	302	14.1%	1,458	1,625	167	11.5%
Cape May City	4,034	4,852	818	20.3%	4,525	5,875	1,350	29.8%
Cape May Point	241	289	48	19.9%	63	52	-11	-17.5%
Dennis	6,492	8,058	1,566	24.1%	1,168	1,668	500	42.8%
Lower	22,945	27,005	4,060	17.7%	2,603	5,435	2,832	108.8%
Middle	16,405	21,322	4,917	30.0%	8,766	10,667	1,901	21.7%
North Wildwood	4,935	5,687	752	15.2%	1,980	2,070	90	4.5%
Ocean City	15,378	17,617	2,239	14.6%	5,695	5,748	53	0.9%
Sea Isle City	2,835	3,409	574	20.2%	1,152	1,342	190	16.5%
Stone Harbor	1,128	1,357	229	20.3%	1,251	1,704	453	36.2%
Upper	12,115	14,835	2,720	22.5%	2,636	3,855	1,219	46.2%
West Cape May	1,095	1,417	322	29.4%	152	231	79	52.0%
West Wildwood	448	538	90	20.1%	55	95	40	72.7%
Wildwood	5,436	6,290	854	15.7%	4,575	4,681	106	2.3%
Wildwood Crest	3,980	4,734	754	18.9%	2,093	2,571	478	22.8%
Woodbine	2,716	3,211	495	18.2%	1,840	1,756	-84	-4.6%
Cape May County	102,326	123,066	20,740	20.3%	40,012	49,375	9,363	23.4%

Endorsed by SJTPO Technical Advisory Committee, December 16, 2003

Table III-6 Cumberland County Forecasts

MUNICIPALITY	POPULATION				EMPLOYMENT			
	2000	2025	Net	%	2000	2025	Net	%
Bridgeton	22,771	27,579	4,808	21%	9,176	14,732	5,556	61%
Commercial	5,259	6,535	1,276	24%	651	872	221	34%
Deerfield	2,927	3,672	745	25%	1,033	1,298	265	26%
Downe	1,631	2,063	432	26%	236	330	94	40%
Fairfield	6,283	7,730	1,447	23%	802	930	128	16%
Greenwich	847	1,078	231	27%	106	121	15	14%
Hopewell	4,434	5,503	1,069	24%	230	459	229	100%
Lawrence	2,721	3,339	618	23%	708	926	218	31%
Maurice River	6,928	8,616	1,688	24%	2,019	3,204	1,185	59%
Millville	26,847	33,445	6,598	25%	12,582	17,440	4,858	39%
Shiloh	534	638	104	19%	142	189	47	33%
Stow Creek	1,429	1,793	364	25%	129	215	86	67%
Upper Deerfield	7,556	9,314	1,758	23%	1,793	2,265	472	26%
Vineland	56,271	70,176	13,905	25%	30,793	43,489	12,696	41%
Cumberland County	146,438	181,481	35,043	24%	60,400	86,470	26,070	43%

Endorsed by SJTPO Technical Advisory Committee, December 16, 2003

Table III-7 Salem County Forecasts

MUNICIPALITY	POPULATION				EMPLOYMENT			
	2000	2025	Net	%	2000	2025	Net	%
Alloway	2,774	2,777	3	0.1%	463	509	46	9.9%
Carneys Point	7,684	7,377	-307	-4.0%	1,446	2,034	588	40.7%
Elmer	1,384	1,329	-55	-4.0%	1,276	1,321	45	3.5%
Elsinboro	1,092	1,092	0	0.0%	155	177	22	14.2%
LAC	1,851	1,853	2	0.1%	3,732	3,845	113	3.0%
Mannington	1,559	1,497	-62	-4.0%	2,518	3,060	542	21.5%
Oldmans	1,798	2,158	360	20.0%	808	966	158	19.6%
Penns Grove	4,886	4,691	-195	-4.0%	1,192	1,237	45	3.8%
Pennsville	13,194	12,666	-528	-4.0%	4,757	4,983	226	4.8%
Pilesgrove	3,923	5,121	1,198	30.5%	320	365	45	14.1%
Pittsgrove	8,893	10,672	1,779	20.0%	795	1,021	226	28.4%
Quinton	2,786	3,343	557	20.0%	150	173	23	15.3%
Salem City	5,857	5,623	-234	-4.0%	2,571	2,639	68	2.6%
Upper Pittsgrove	3,468	4,162	694	20.0%	588	656	68	11.6%
Woodstown	3,136	3,139	3	0.1%	1,829	1,874	45	2.5%
Salem County	64,285	67,500	3,215	5.0%	22,600	24,860	2,260	10.0%

Endorsed by SJTPO Technical Advisory Committee, December 16, 2003

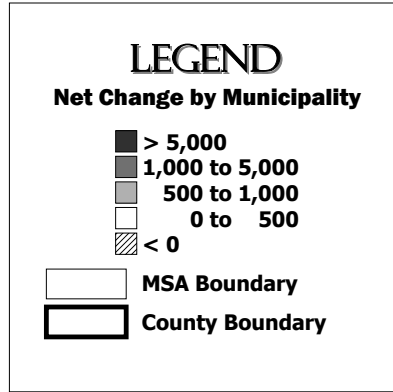
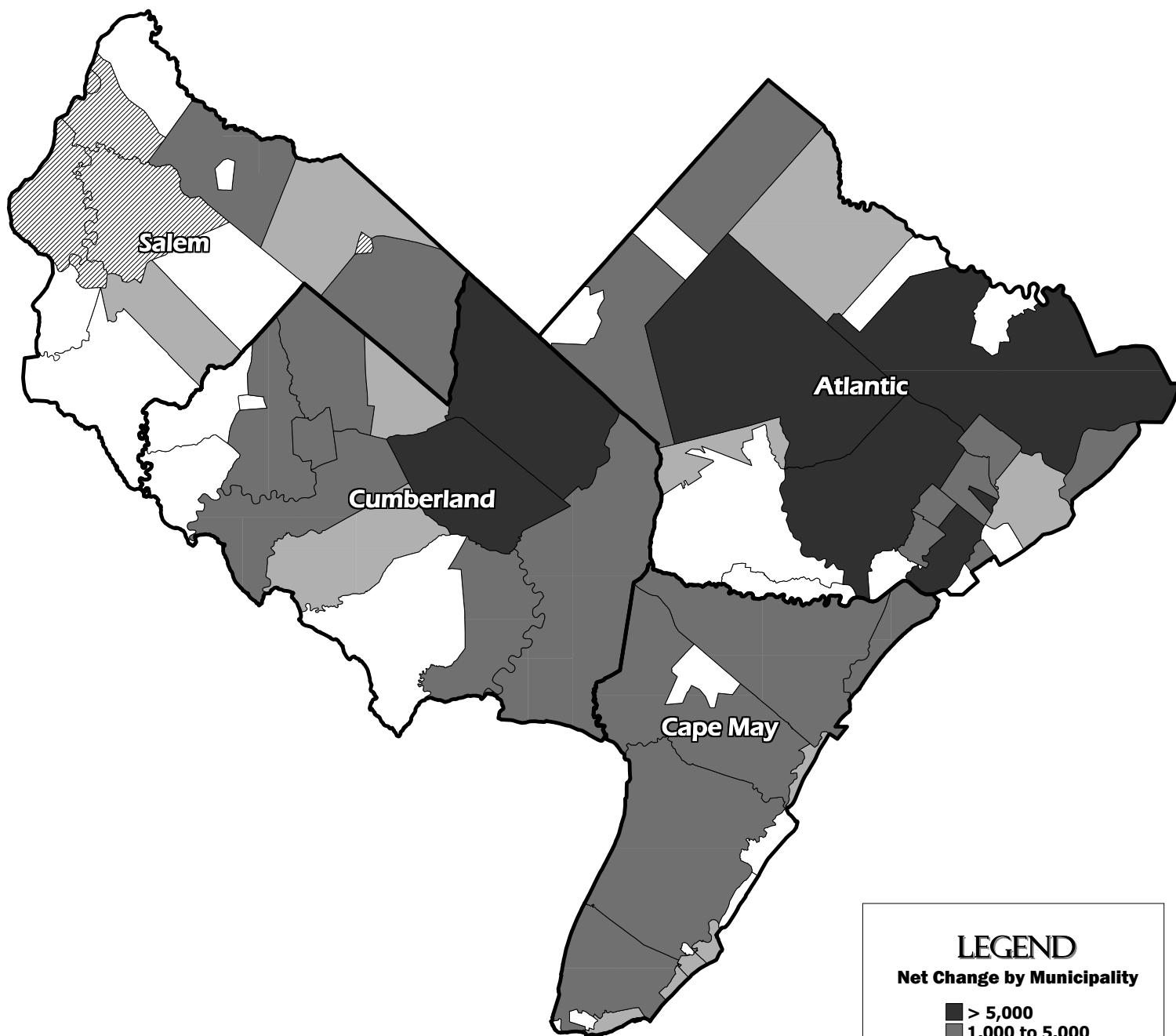
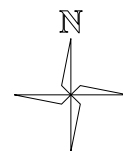


Figure III-2
Projected Net Change in Population, 2000 to 2025
SJTPO Region



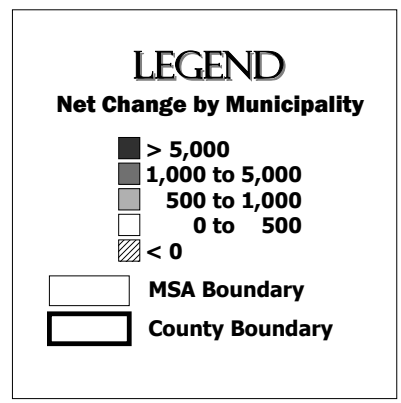
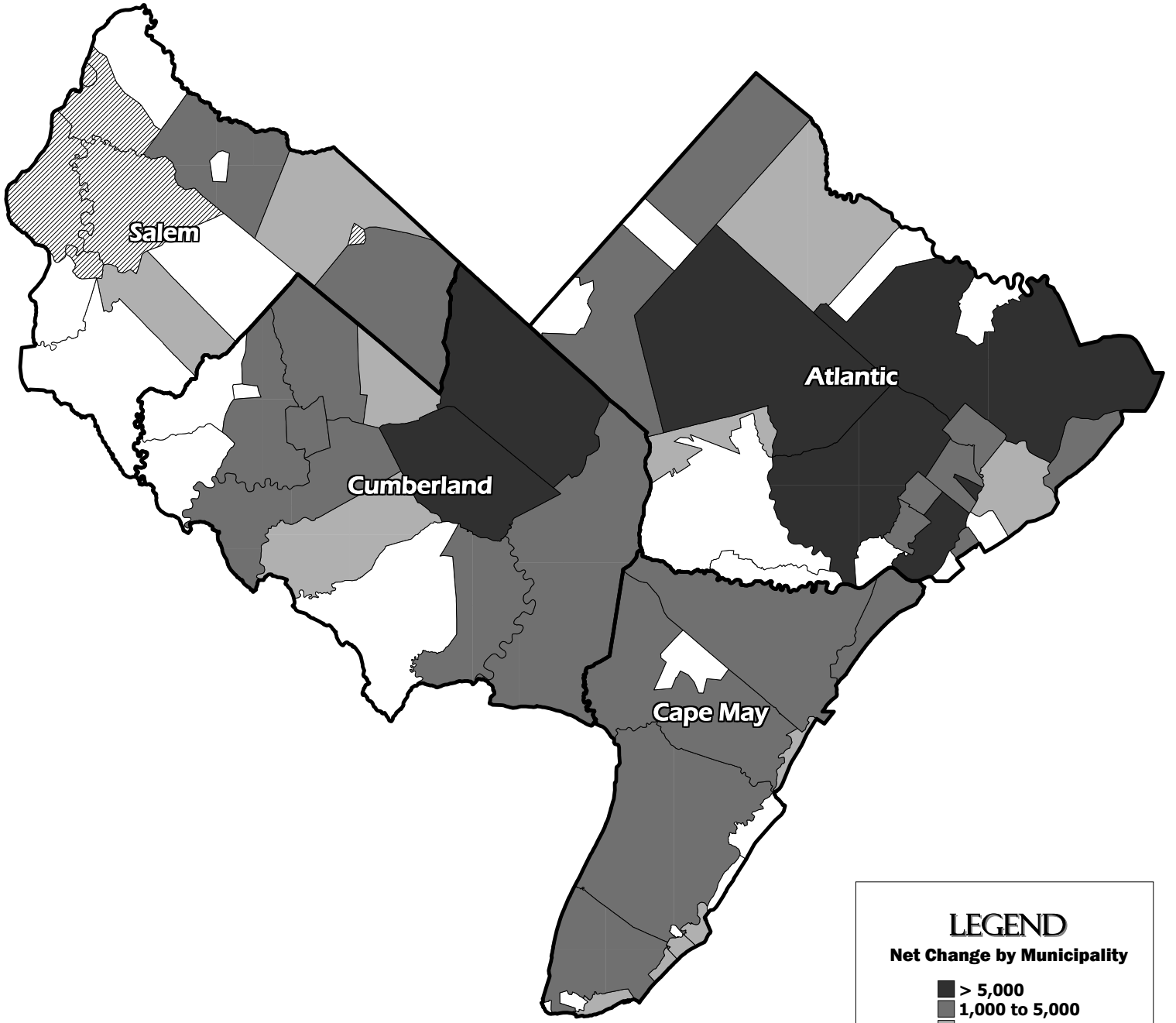
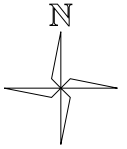


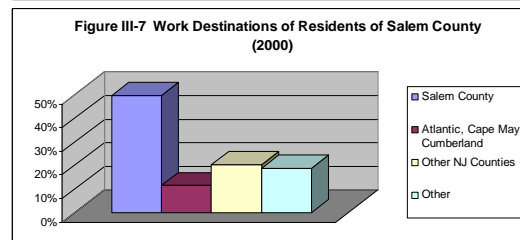
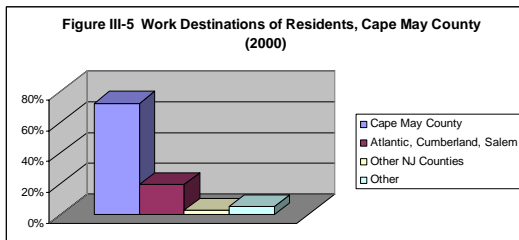
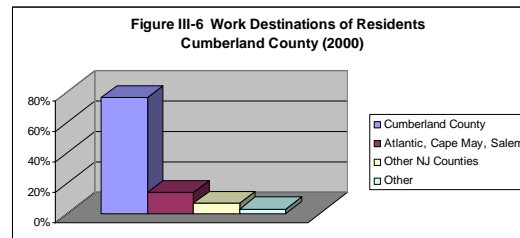
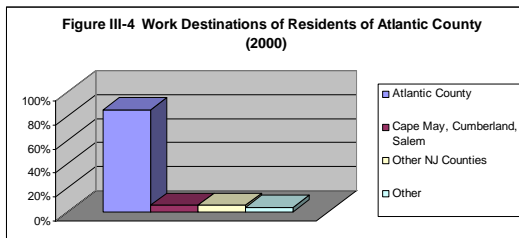
Figure III-3
Projected Net Change in Employment, 2000 to 2025
SJTPO Region



TRAVEL TO WORK

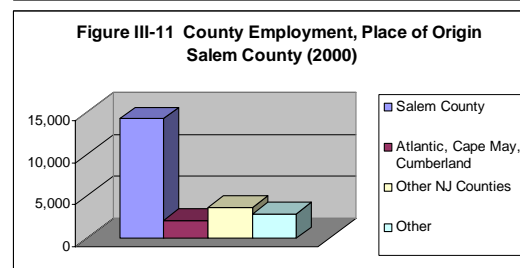
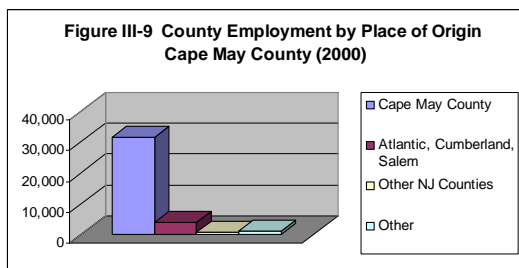
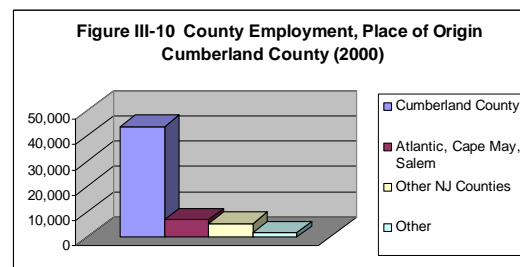
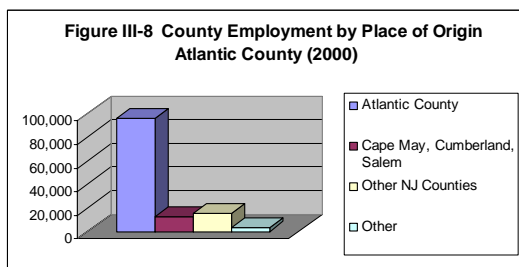
Figures III-4 through III-7 illustrate the traveling patterns to work of residents in the SJTPO region. While most of the work trips are to locations within the county of residence, a significant number of people who live in Cape May (16.9%) and Cumberland (8.6%) counties travel to Atlantic County (Atlantic City) to work. With the great increase in jobs projected for Atlantic City, this pattern can be expected to continue and grow.

Travel to work by the residents of Salem County differs, however. Although about half the trips are within Salem County, travel to other counties in New Jersey outside the SJTPO area (Gloucester, Camden, Burlington, and Ocean) and to Pennsylvania, Delaware, and other destinations comprises 20.3% and 18.8%, respectively.



Source: STPO and Census 2000

Similarly, Figures III-8 through III-11 show where employment is concentrated, and where workers who work there live (commuter from).



Source: STPO and Census 2000

Travel time to work in 2000 reflects the need to travel to jobs in the region. Slightly more than 25% of the workers in Atlantic County have a 20- to 29-minute commute to work, indicating that people need to travel from other locations. The greatest percentage of workers who are less than 5 minutes from their jobs live in Cape May. Statistics for all four counties appear in Table III-8.

Table III-8 Travel Time to Work - 2000

County	Atlantic		Cape May		Cumberland		Salem	
	Total	%	Total	%	Total	%	Total	%
Workers who did not work at home	110,469	100.0%	42,765	100.0%	56,151	100.0%	28,108	100.0%
Less than 5 min.	3,792	3.4%	2,654	6.2%	2,447	4.4%	1,402	5.0%
5 to 9 min.	11,822	10.7%	6,381	14.9%	8,371	14.9%	3,287	11.7%
10 to 14 min.	17,227	15.6%	7,541	17.6%	11,417	20.3%	4,004	14.2%
15 to 19 min.	19,824	17.9%	6,978	16.3%	9,315	16.6%	4,203	15.0%
20 to 29 min.	27,734	25.1%	7,833	18.3%	9,485	16.9%	6,197	22.0%
30 to 44 min.	17,649	16.0%	5,641	13.2%	7,127	12.7%	5,111	18.2%
45 min. or more	12,421	11.2%	5,737	13.4%	7,989	14.2%	3,904	13.9%

Source: Census Transportation Planning Package 2000

The CTPP also indicates mean travel time for each county increased by at least three minutes, or at least 15%, between 1990 and 2000. The mean travel time increase from 19.9 to 23.7 minutes in Atlantic County; from 20.0 to 23.2 minutes in Cape May County; from 19.6 to 23.1 minutes in Cumberland County; and from 21.0 to 24.6 minutes in Salem County.

The dominant mode of travel to work in 2000 in this region was the automobile (see Table III-9). The overwhelming majority of people drove alone, with the percentage of those carpooling ranging from 9.4% to 13.7%. With the exception of only Atlantic County, more people walked or bicycled than took public transit.

Table III-9 Means of Transportation to Work – 2000

Means of Travel	Atlantic		Cape May		Cumberland		Salem	
	Total	%	Total	%	Total	%	Total	%
Workers 16 years & older	112,659	100.0%	44,022	100.0%	57,387	100.0%	28,748	100.0%
Drove alone	82,379	73.1%	35,252	80.1%	44,954	78.3%	24,089	83.8%
Carpooled	12,955	11.5%	4,142	9.4%	7,843	13.7%	2,712	9.4%
Used public transit	8,668	7.7%	810	1.8%	1,281	2.2%	346	1.2%
Bicycled or walked	5,378	4.8%	2,241	5.1%	1,424	2.5%	669	2.3%
Motorcycle/other means	1,089	1.0%	320	0.7%	649	1.1%	292	1.0%
Worked at home	2,190	1.9%	1,257	2.9%	1,236	2.2%	640	2.2%

Source: Census Transportation Planning Package 2000

A comparison of the means of transportation used in 2000 and 1990 in the SJTPO region (see Table III-10) indicates that the percentage of people driving alone has risen, while the percentage carpooling has decreased and the percentage of those using public transit has held steady.

Table III-10 Comparison of Means of Travel (2000 and 1990)

Means of Travel	Atlantic		Cape May		Cumberland		Salem		SJTPO Region	
	2000	1990	2000	1990	2000	1990	2000	1990	2000	1990
Workers 16 years & older										
Drove alone	73.1%	70.3%	80.1%	75.8%	78.3%	75.2%	83.8%	78.2%	78.8%	74.9%
Carpooled	11.5%	12.6%	9.4%	12.7%	13.7%	15.9%	9.4%	14.3%	11.0%	13.9%
Used public transit	7.7%	7.4%	1.8%	1.7%	2.2%	2.3%	1.2%	1.3%	3.2%	3.2%
Bicycled or walked	4.8%	6.5%	5.1%	6.3%	2.5%	3.7%	2.3%	3.2%	3.7%	4.9%
Motorcycle/other means	1.0%	1.0%	0.7%	0.9%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%
Worked at home	1.9%	2.1%	2.9%	2.7%	2.2%	1.9%	2.2%	2.1%	2.3%	2.2%

ENVIRONMENTAL JUSTICE

Metropolitan Planning Organization (MPO's) are required to focus increased attention on “Environmental Justice” and Title VI of the Civil Rights Act. Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. Meaningful involvement means that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected. ²

The SJTPO’s Environmental Justice report was issued in June, 2002. The report includes a discussion of the findings from an outreach program directed toward community-based organizations, social service agencies and others who work with, or advocate on behalf of, low-income and/or minority populations.

This report also examines racial composition and economic data to identify minority populations and concentrations of poverty and low income and evaluates if access to jobs and services is equitably distributed to populations of concern, especially minorities and those of low income. The analysis uses the South Jersey Travel Demand Model and other means to compare travel times available to areas with concentrations of target populations to those for other areas and to determine the impact of Regional Transportation Plan investments on these travel times.

TIP projects were reviewed to verify an equitable distribution of projects and funding among the region's Minorities and Low-income residents. The SJTPO concluded that local safety, enhancement, and preservation projects are being equitably distributed in the 2004 – 2006 TIP.

Evaluation Findings

Approximately one-third of SJTPO TIP projects are deemed to benefit minority and low-income communities.

6/4/2004_____

² <http://www.epa.gov/compliance/environmentaljustice/>, accessed April 7, 2004

Minority Communities

- Nearly one-fourth of the roadway/intersection preservation and enhancement projects and one-half of the pedestrian/bicycle facility improvements are still deemed to benefit minority communities.
- Nearly one-third of the funds continue to be allocated to roadway/intersection preservation and enhancement projects and over one-half of the funds allocated to pedestrian/bicycle facility improvements are still deemed to benefit minority communities.

Low-Income Communities

- Nearly one-third of the roadway/intersection preservation and enhancement projects and one-half of the pedestrian/bicycle facility improvements are still deemed to benefit low-income communities
- One-third of the funds allocated to roadway/intersection preservation and enhancement projects and over one-half of the funds allocated to pedestrian/bicycle facility improvements are still deemed to benefit low-income communities.

Conclusion

Minorities and Low-income residents still constituted nearly one-third and one-tenth of the region's population in 1990 and 2000 (31% and 9.9% respectively). Since the percentage of projects in each category and funds associated with them are similar to or greater than the percentage of minorities and persons in poverty throughout the region, it is reasonable to conclude that local safety, enhancement, and preservation projects are being equitably distributed in the 2004 – 2006 TIP.

The SJTPO recognizes that achieving environmental justice is not a desktop exercise, but active and continuing process that can be highly creative and challenging. At its core, environmental justice requires a commitment from its partners and stakeholders to be at once more inclusive----to fully recognize and explore the needs of all its citizens when making transportation decisions----as well as more comprehensive in the assessment of how existing and prospective priorities and prospective priorities and processes distribute the benefits and burdens across all socioeconomic groups including race and income.

IV. MULTIMODAL TRANSPORTATION SYSTEM ASSESSMENT

INTRODUCTION

This chapter presents a review of transportation resources in the SJTPO region, by travel mode. It begins with highway and continues with transit, bicycle/pedestrian, and intermodal travel, which includes freight, goods movement and aviation. For each travel mode, a comprehensive review is presented, beginning with an overview of facilities and services, demand for travel, condition and state of repair of infrastructure, an assessment of needs and problems, concerns and influencing factors that represent the unique circumstances of the regions, and opportunities and strategies for improvement.

This chapter builds upon the discussion of context presented in Chapter 3, which described the makeup and diversity of the region and how these contribute to the unique characteristics of travel in the SJTPO region. In some cases the relationship is directly evident, as is the case of population and employment creating demand for travel. In other cases, the link is more indirect where, for example, the types of employment and recreational activities available in the region create patterns and levels of demand which are far different from those in much of the rest of the state.

1. HIGHWAY SYSTEM

INTRODUCTION

This section presents a comprehensive review of highway travel and needs in the SJTPO region. This review is structured in such a way as to demonstrate the need for improvement projects and present these needs for agency review and public comment and, ultimately, to form the basis for the required air conformity analysis. The process begins with an overview of the highway system that describes some of the unique characteristics and principal highway facilities in region. A conditions assessment follows, derived from data from NJDOT's management systems (, Bridge, Pavement, and Congestion), as well as a safety assessment which draws upon data from both NJDOT and the South Jersey Traffic Safety Alliance. A description of the SJTPO Congestion Management System is presented, and the analysis concludes with a description of the regional Study Corridors. The Study Corridors represent the major travel movements of the SJTPO planning area, and serve to focus planning and analysis efforts where needs and problems are greatest. Figure IV-1 depicts the regional highway network.

REGIONAL HIGHWAY SYSTEM OVERVIEW

Atlantic County

Home to world famous beaches and the center of the Gaming Industry on the East Coast, Atlantic County receives a significant amount of traffic on its toll, state, and county roadways. Two limited access roadways play a major role in traffic movement in Atlantic County. The Garden State Parkway, which is four lanes in this area, runs north-south and provides beach and Atlantic City access from North Jersey and New York. The Atlantic City Expressway, also a four lane highway, provides similar access from western New Jersey and Pennsylvania. These two roadways also provide access to AC International Airport, which serves an ever growing passenger demand along with cargo and New Jersey Air National Guard functions.

Parallel to the Garden State Parkway, US 9 provides alternate north-south access to the shore communities of Margate, Atlantic City, and Brigantine. In the center of the county, NJ 50, which becomes CR 563 north of US 30, provides north-south movement through Mays Landing and Egg Harbor City, as well as access to the Atlantic City Expressway, US 322, US 40, and US 30. In the western portion of the county, NJ 54 passes through Buena and Hammonton, and provides similar highway connections before connecting to US 206 and Burlington County.

US 322 and US 30 run parallel to the Atlantic City Expressway and provide alternate movement from western New Jersey and Pennsylvania to Atlantic City and the shore communities, passing through Hammonton at the western edge of the county. US 40 continues east from the Delaware Memorial Bridge through Buena in the southwest corner of the county until it merges with US 322 near Atlantic City.

The Atlantic City-Brigantine Connector opened to the public in 2001. The 2.3 mile connector is a limited access roadway linking the Atlantic City Expressway with U.S. Route 30 and Atlantic City's Marina District and Brigantine City. The project includes a covered tunnel section as it passes through the city's Westside section.

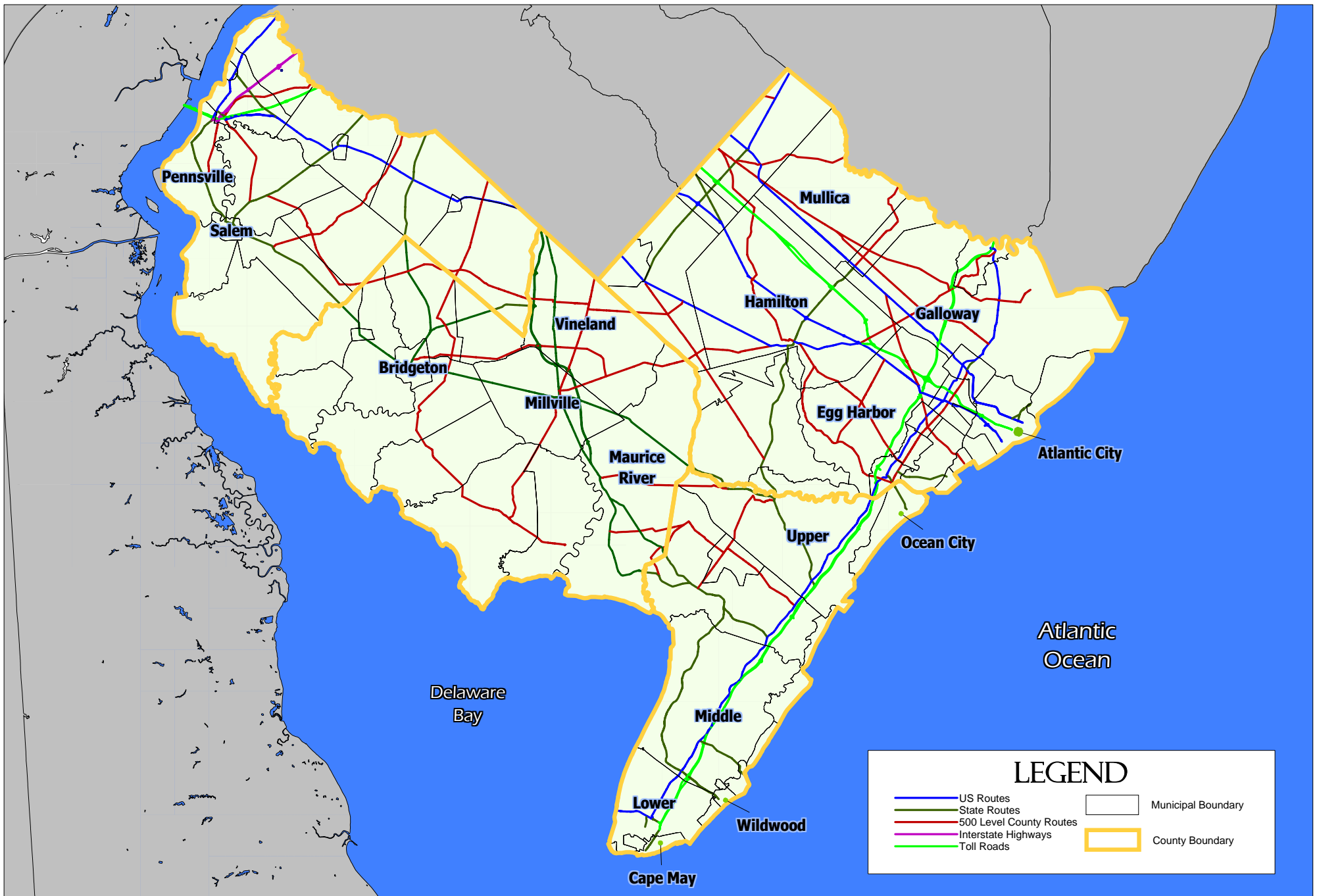


Figure IV-1
Major Roadways - SJTPO Region



Cape May County

Because of its recreational and tourist attractions such as miles of beaches and the Cape May Lighthouse, Cape May County encounters significant seasonal recreational travel. The major traffic movement in Cape May County is north-south travel along the Garden State Parkway and US 9. The Garden State Parkway is a four-lane divided limited access highway that services the shore communities such as Ocean City, Sea Isle City, Avalon, Stone Harbor, Wildwood, and Cape May. US 9 runs parallel to the Garden State Parkway, and serves as an alternate north-south route in different sections of the county. These two roadways serve both inter- and intra- county travel. NJ 47 provides north-south access from areas such as Cumberland and Salem Counties to the western Cape May County shore. At its southernmost end, it turns east to carry motorists directly into Wildwood, one of the county's busiest towns.

The majority of east-west traffic travels along a series of county roads which connect Ocean Drive and the seaside communities to the Garden State Parkway and US 9. West of US 9 and the Garden State Parkway, several county roads connect US 9 to NJ 47. Coupled with NJ 83, which also runs west from US 9, and CR 550 from US 9 to Woodbine, a limited network is formed across the county.

The current termination of the NJ 55 expressway in Cumberland County complicates travel to and from Cape May County from points west, creating a missing travel. This condition contributes to congestion along the supplementary routes which are forced to serve conflicting local access and regional mobility needs.

Cumberland County

One four-lane limited access freeway, NJ 55, is available for north-south travel in Cumberland County, passing through Millville and Vineland, the largest cities in Cumberland County. The NJ 55 expressway terminates at NJ 47 south of Millville. NJ 47 runs mostly parallel to NJ 55 as a two to four lane principal arterial until the two run coincident and then split into NJ 47 and NJ 347. From there, NJ 47 continues into Cape May County, providing access to the shore communities. NJ 77 continues south from Salem County to Bridgeton in Cumberland County. Smaller county roads such as 555, which runs through Millville and Vineland, and 553, which runs through Bridgeton, also service north-south traffic.

East-west travel in Cumberland County is serviced by NJ 49, a two to four lane minor arterial that connects eastern New Jersey with the Delaware Memorial Bridge via Cumberland County.

Salem County

In Salem County the Delaware Memorial Bridge provides a major regional connection between New Jersey and Delaware. Several major highways provide access to this bridge, including I-295, New Jersey Turnpike, and US 130 from the north, US 40 from the east, and NJ 49 from the southeast. US 40 is a four lane principal arterial that stretches from the vicinity of the Delaware Memorial Bridge to Atlantic City. US 130 provides access to and from the bridge to Gloucester County and areas to the north such as Camden and Mercer County.

Roadway Ownership

Total linear roadway mileage in the SJTPO region is over 5,000 miles. State ownership includes 399 miles owned by NJDOT, 91 by the independent authorities and commissions¹, and 45 miles by various other State agencies.² Almost all of the balance, more than 4,400 miles, is owned by various counties and local governments.

Electronic Tolls

Significant congestion occurs at many of toll New Jersey's collection facilities in both AM and PM peak travel hours and during many holidays and weekends. Electronic toll collection is designed to reduce

¹ Includes sections of the Atlantic City Expressway, Garden State Parkway, and New Jersey Turnpike located within SJTPO region

² Data compiled by NJDOT

traffic congestion and improve air quality and traveler convenience by eliminating bottlenecks that occur at toll booths and plazas.

The E-ZPass electronics toll system is in wide use in the eastern United States, including facilities in New Jersey, New York, Massachusetts, Pennsylvania, Delaware, Maryland, and West Virginia.³ The E-ZPass electronic toll collection is operational on all of New Jersey toll roadways (Garden State Parkway, New Jersey Turnpike, and Atlantic City Expressway). In the SJTPO region, the Atlantic City Expressway (ACE) offers a discount on patrons who utilize E-Z Pass rather than paying with cash, and additional discounts to frequent patrons who sign up for the E-Z Pass Frequent User Plan.⁴

TRAFFIC SAFETY

South Jersey Traffic Safety Alliance

Teaming with the New Jersey Division of Highway Traffic Safety, the South Jersey Transportation Planning Organization (SJTPO) spearheaded the creation of the South Jersey Traffic Safety Alliance in 1998. Based on its record of regional cooperation, the SJTPO Policy Board supported forming a similar four-county organization to help SJTPO carry out federally-funded regional planning and project development in the region. Heading the Alliance is an Executive Board made up of twelve members, three from each county. The New Jersey Division of Highway Traffic Safety appoints one from each county and each County Representative of the SJTPO Policy Board appoints two. The main purpose of the Executive Board is to make recommendations to the General Membership. These recommendations address legislative issues, committee appointments, safety programs, and training.⁵

The SJTSA is a unique traffic safety organization spanning the four SJTPO counties. Its goal is to integrate traffic safety into the metropolitan and state planning process by creating an alliance of traffic safety professionals from law enforcement, community education, fire, rescue, engineering, and planning to work closely with the SJTPO to decrease deaths and injuries resulting from traffic crashes. Its objectives are to:

- develop region-wide traffic safety programs;
- share successful practices;
- exchange information; and
- support capital projects geared toward traffic and pedestrian safety.

Alliance activities have included member surveys, organized safety activities and programs, and developed a resource library. Since 1998, the Alliance has helped SJTPO select locations for sidewalks, acquire speed trailers, and identify specific problem locations for the Regional Transportation Plan. In a reciprocating relationship, SJTPO acted on behalf the Alliance, by reaching out to members of the County Planning Departments, county engineers, and the NJ Department of Transportation, to address specific safety concerns identified by Alliance members.⁶

The Alliance developed a number of community projects that reflect community needs including:

- Child Passenger Seat (CPS) Inspection Campaign
- Saved By The Seat Belt Club
- Bicycle Safety Bowl
- Aggressive Driver Campaign
- Buckle Up Stencil Program

Since 1998, the Alliance helped SJTPO select locations for sidewalks, acquire speed trailers, and identify specific problem locations for the Regional Transportation Plan. In a reciprocating relationship, SJTPO acted on behalf the Alliance, by reaching out to members of the County Planning Departments,

³ <http://www.ezpass.com/static/faq/index.shtml>, accessed March 26, 2004

⁴ <http://www.ezpass.com/static/info/discount.shtml>, accessed March 26, 2004

⁵ <http://www.sjtsa.org/>, accessed April 8, 2004

⁶ http://www.nhtsa.dot.gov/people/outreach/safedige/summer2002/su01_w11_NJ.htm, accessed April 8, 2004

county engineers, and the NJ Department of Transportation, to address specific safety concerns identified by Alliance members.

The following recommendations are proposed for the RTP implementation Plan:

- Participate in initial public outreach/ member surveys regarding opportunities for new safety-related projects or incorporating safety projects into those already in the TIP
- Identify specific problem locations for the RTP
- Identify funding sources for capital projects geared toward traffic and pedestrian safety
- Assist in identification of highway segments to be analyzed in SJTPO's Road Safety Audit Program

NJDOT Traffic Safety Data

Traffic safety data compiled by NJDOT is used to track and rank locations with severe traffic and pedestrian accident problems. These data are used to identify needs and establish improvement priorities and include right angle crash frequency, high frequency and severity crash vehicle locations, and multiple pedestrian crash locations, and are based on statewide accident data for 1998-9 and in some cases include year 2000 data as well. The following document SJTPO area intersections that are included on each list.⁷

Excessive right angle crash frequency intersections in New Jersey, 1998 thru 2000

- CR 563 (TILTON RD) @ CR 646 (DELILAH RD)-SAMIR BLVD (CIRCLE)
ATLANTIC / EGG HARBOR CITY, Rank = 10 (Tied)
- CR 563 (TILTON ROAD) @ CR 651 (FIRE ROAD), ATLANTIC / EGG HARBOR TWP
Rank = 20 (tied)

Top 115 high frequency and severity intersection crash locations, 1998-1999 (Amended 2000)

- CR 563 (TILTON RD) @ CR 646 (DELILAH RD), ATLANTIC / EGG HARBOR TWP
Rank = 38 (Tied)
- PACIFIC AVE @ PENNSYLVANIA AVE, ATLANTIC / ATLANTIC CITY, Rank = 43 (Tied)

Multiple Pedestrian crash intersections in New Jersey by total severity, 1998 - 2000

- ATLANTIC AVE @ MICHIGAN AVE, ATLANTIC / ATLANTIC CITY, Rank = 5 (Tied)
- ATLANTIC AVE @ KENTUCKY AVE, ATLANTIC / ATLANTIC CITY, Rank = 11 (Tied)
- PACIFIC AVE @ PENNSYLVANIA AVE, ATLANTIC / ATLANTIC CITY, Rank = 11 (Tied)
- ATLANTIC AVE @ MISSISSIPPI AVE, ATLANTIC / ATLANTIC CITY, Rank = 13 (Tied)
- PACIFIC AVE @ BOSTON AVE, ATLANTIC / ATLANTIC CITY, Rank = 14 (Tied)
- ATLANTIC AVE @ NEW YORK AVE, ATLANTIC / ATLANTIC CITY, Rank = 14 (Tied)

⁷ Excessive right angle crash frequency intersections in New Jersey by total (Minimum of 5 per year) for 1998 thru 2000, Local Intersections Sub-List, November 6, 2003;
Top 115 high frequency and severity intersection crash Locations in New Jersey by average annual total severity for 1998-1999 (Includes 16 year 2000 database amendments), November 25, 2003;
Multiple Pedestrian CRASH intersections in New Jersey by total severity (Minimum of *7) for 1998 THRU 2000, SJTPO Local Intersections Sub-List, November 6, 2003

NJDOT MANAGEMENT SYSTEMS

A significant source of data that is available to evaluate conditions in the SJTPO region is the NJDOT management systems. Data from the NJDOT Bridge, Pavement and Congestion Management Systems are described and summarized below. Also included is a discussion of the SJPTO Congestion Management System which is being has been developed to provide a more accurate evaluation of congestion in the four county region.

Bridge Management System

NJDOT employs a Bridge Management System (BMS) to maintain an inventory of all bridges with a span over 20 feet in New Jersey with information on their physical characteristics, condition, and ownership. Bridges are inspected periodically and the various characteristics are rated on numerical scale. The scale ranges from zero to nine, with a zero representing a failed condition and a nine representing an excellent condition. A bridge can be defined as *Structurally Deficient*, *Functionally Obsolete*, or both. A bridge is deemed *Structurally Deficient* if its deck, superstructure, substructure or culvert are rated 4 (poor) or less or if the overall structure evaluation for load capacity or waterway adequacy is rated 2 (critical) or less. *Structural deficiency* does not necessarily mean that a bridge is unsafe. It could mean that the bridge is unable to handle the vehicle loads or speeds that would normally be expected on the roadway where the bridge is located and is posted to indicate these limitations. This assessment is based on BMS data through December 2003.

A bridge is classified as *Functionally Obsolete* if the deck geometry, underclearances (vertical and horizontal), approach roadway alignment, overall structural evaluation for load capacity or waterway adequacy are rated as 3 (serious) or less. *Functional obsolescence* could mean the width or vertical clearance of the bridge is inadequate. Bridges become functionally obsolete due to highway improvements, such as lane additions on the approaches to the bridge, or due to changes in freight movement technology or practice.

The overall rating given to each bridge is called the sufficiency rating which indicates a bridge's ability to remain in service. The rating may range from 100%, which represents a bridge meeting state-of-the-art standards, to 0%, which represents a bridge in need of immediate repair or replacement. The physical condition of the structure is monitored by NJDOT at a minimum of once every two years to ensure that each bridge can safely carry vehicles at the posted truck load.

The primary use of the sufficiency rating is to allocate federal funds to address bridge needs. A structure is eligible for federal funds if its sufficiency rating is less than 80 and is designated as *Structurally Deficient* or *Functionally Obsolete*. In the SJTPO region, 11% are *Structurally Deficient* and 12% are *Functionally Obsolete*. The ratings for the SJTPO region are listed below in Table IV-1.

Table IV-1 Bridge Ratings in the SJTPO Region

Bridge	SJTPO	
	Number	% of Total
Structurally Deficient	64	10.9%
Functionally Obsolete	70	11.9%
Neither Structurally Deficient / Functionally Obsolete	452	77.1%
TOTAL	586	100.0%

Source: NJDOT Bridge Management System Database – December 2003

The primary use of the sufficiency rating is to allocate federal funds to address bridge needs. A structure is eligible for federal funds if its sufficiency rating is less than 80 and is designated as *Structurally Deficient* or *Functionally Obsolete*. If the sufficiency rating is between 50 and 80, the federal funds are

applied for rehabilitation purposes only, while a sufficiency rating of less than 50 allows federal funds to be used for rehabilitation and replacement.

Table IV-2 presents a detailed breakdown of the number of bridges within each sufficiency rating category for both *Structurally Deficient* and *Functionally Obsolete* bridges.

Table IV-2 Detailed Bridge Conditions for the SJTPO Region

Bridge Condition	SJTPO	
	Number	% of Total
Structurally Deficient		
< 50	47	73.4
> 80	16	25
50-80	1	1.6
Subtotal	64	100%
Functionally Obsolete		
< 50	7	10
> 80	39	55.7
50-80	24	34.3
Subtotal	70	100%
Neither Structurally Deficient/Functionally Obsolete	452	100%
Total	533	100%

Source: NJDOT Bridge Management System, December 2003

Pavement Management System

The NJDOT maintains a database with information on the current condition of pavement throughout the state of New Jersey, which is updated every two years. The 2001 database was used for this report. The rating system used to rank the roadways is primarily based on two criteria. The Ride Quality Index (RQI) describes the comfort level by measuring roughness. The Surface Distress Index (SDI) compiles and measures the severity of surfaces distresses such as cracking, patching, shoulder condition, shoulder drop, faulting, and joints. If any of these criteria is less than the specified value, then a resurfacing project longer than 6/10 of a mile may be initiated. The average rut depth (RD) is also taken into account, but any projects based solely on rut depth are given lowest priority.

A final pavement rating from zero to five is calculated from RQI and SDI to determine the quality of pavement. The scale is:

- 0.00 – 1.0 = *Very Poor*
- 1.01 – 2.0 = *Poor*
- 2.01 – 3.0 = *Fair*
- 3.01 – 4.0 = *Good*
- 4.01 – 5.0 = *Very Good*

In the 2001 PMS database, 794 miles of roadways in the SJTPO region are rated, an increase from the 410.4 miles of roadways rated in the SJTPO region in the 1997 database. In the SJTPO region, over 80% of the roadways are in *Good* or *Very Good* condition, and approximately 2% are in *Very Poor* condition. Table IV-3 summarizes the pavement conditions data.

Table IV-3 Pavement Conditions in the SJTPO Region

Pavement Rating	SJTPO	
	Miles	% of Total
Very Poor*	15.7	2.0%
Poor	55.4	7.0%
Fair	76.2	9.6%
Good/Very Good	646.7	81.4%
TOTAL	794.0	100.0%

Source: 2001 Pavement Management System, NJDOT

Note: * = includes pavement with rating =0.0

Congestion Management System

The Congestion Management System (CMS) was established by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to aid decision-makers in gauging system performance and needs, and selecting cost-efficient strategies and actions to improve and protect the investment in the nation's infrastructure. The purpose and role of the CMS is defined in the federal regulations [*Title 23, Code of Regulations (CFR) Part 500 Subpart E – Traffic Congestion Management System*] as a “systematic process that provides information on transportation system performance and alternative strategies to alleviate congestion and enhance the mobility of persons and goods.”

Both ISTEA and the federal Management and Monitoring Systems Regulations [*Title 23, Code of Federal Regulations (CFR) Part 500*] require SJTPO to prepare a fully operational CMS, which included new requirements to structure the transportation planning process. These included requirements for fiscally constrained Long Range Plan and a Transportation Improvement Program (TIP) which lists programmed projects for a five-year period.

A multi-agency task force was formed to develop and guide the implementation of the New Jersey Congestion Management System (NJCMS). The task force included SJTPO, the North Jersey Transportation Planning Organization (NJTPA), the Delaware Valley Regional Planning Commission (DVRPC), the New Jersey Transit Corporation (NJT), the Federal Highway Administration (FHWA), and the New Jersey Department of Transportation (NJDOT) are all members of the team. With the help of consultant resources, the team members reached a general consensus on most issues, and the NJCMS was completed and distributed on CD-ROM.

The NJCMS is a computer program that analyzes highway and rail network files encompassing the entire state. NJCMS focuses primarily on highway congestion and the roadway network. For the SJTPO region, the roads on the NJCMS network are interstate highways, principal arterials, and minor arterials which carry long distance traffic and through trips. This analysis tool has the capability to evaluate multimodal performance, identify the location and causes of congestion, and identify and evaluate the performance of both traditional and non-traditional measures.

Through the use of GIS, the data in the NJCMS can be geographically displayed to determine areas of high congestion, significant truck usage, and peak vs. non-peak volumes. The NJCMS can produce corridor-level performance measures, such as vehicle miles traveled (VMT) by Level of Service, lane miles by Level of Service, VMT by Volume/Capacity ratio, and recurring vehicle delay. Roadway-level performance measures are also available, including measures that can be used to determine which roadway links meet the definition of “congestion”, defined as exceeding a threshold Volume/Capacity ratio (V/C ratio).

Because of its design to represent overall average travel conditions, the NJCMS has severe limitation when applied to the unique travel conditions, time periods, and unusual peaking characteristics of the

SJTPO region. As such, the NJCMS represents only one of a great variety of data sources used to identify highway travel problem area in the region. These limitations are discussed in greater detail in the following section on Seasonality of Travel.

Seasonality of Travel Patterns and Limitations of the NJCMS for the SJTPO Region

The SJTPO region differs greatly from what is typical for the rest of the state. While New Jersey is the most densely populated state in the nation, the four South Jersey counties have a population density that is about one-third of the statewide average, and much more similar to that of neighboring Delaware. Most of the region's population is found in the developed areas surrounding the City of Vineland and the shore communities, including Atlantic City. Nearly two-thirds of the population resides in Cape May and Atlantic counties. Much of the region is rural and undeveloped. Large sections of the Pine Barrens are found in South Jersey, as well as significant tracts of farmland, wetlands, Wildlife Refuge and Wildlife Management Areas, State Parks, and State Forests.

Tourism and recreation are among the region's chief industries, and while Atlantic City is a significant employment destination, the region lacks other large regional employment destinations that characterize much of the rest of state. Travel patterns for tourism, recreation, and gaming industry purposes vary greatly from those of the typical daily commute and its predictable patterns of AM and PM peaks. Recreation travel destined to the Jersey shore is highest in the warm summer months and concentrated around the weekends. Travel to Atlantic City is also highest on the weekends and often highest at night.

Consequently, seasonal variation is a significant factor in assessing South Jersey travel demand, and in using and understanding South Jersey travel data. Statewide averages illustrate that traffic volumes are typically higher during the warmer months, as people tend to travel more in summer and less in the winter. This trend is even more pronounced in many shore communities and along the principal routes that provide access to the shore.

Data from the Route 47/55 Corridor Study indicate several key trends: (1) travel is highest on weekends, (2) travel has a directional component, and (3) late summer travel is higher than the early summer. The summer season, especially on weekends, is traditionally the heaviest travel demand within the Route 55 study area. Generally, average summer weekend peak period volumes were found to be 60-80% higher than average summer weekday peak period volumes. The predominant peak flows were southbound and towards the shore on Fridays and Saturdays, and the highest northbound peaks were generally observed on Sundays. The data also indicate an increase in both volumes and duration of late summer travel compared to early summer. Volumes on some routes were found to be about 10% higher and sustained over longer periods of time than the early summer.

Because of these trends and observations, care must be exercised in the use of NJCMS travel data for South Jersey. In particular, NJCMS travel and performance-related data such as level-of-service and volume-to-capacity ratio are typically reported for the average weekday while many of the most severe problems in South Jersey occur in the summer during Friday PM peaks and weekends. Although the NJCMS can still be useful when used as a guide it must be supplemented by data from other sources and more relevant time periods.

Extent of Congestion as Reported by the NJCMS

The NJCMS version 3.1 was run for the year 2001 resulting in calculated data such as volume-to-capacity ratio, average weekday daily traffic, daily truck volumes, etc. These data were then mapped to the NJDOT half-mile Geographic Information Systems base map and evaluated to determine the extent of congestion. As noted in the discussion of seasonality, the CMS data which forms the basis of the following discussion of regional highway conditions represents average conditions for a typical (non-summer) weekday, rather than the summer Friday PM peak which is considered the most heavily traveled day in the SJTPO region.

The extent of congestion can be measured based upon the maximum volume-to-capacity ratio (v/c). The v/c ratio is a measure of operational performance and indicates how well a given roadway segment is

able to accommodate demand. A v/c ratio below 0.75 (*Below Capacity*) suggests that a roadway is operating well and has capacity available to accommodate growth. A v/c ratio approaching 1.0 (*Approaching Capacity*) suggests that a roadway is operating poorly with little capacity available for growth. A v/c ratio over 1.0 (*Beyond Capacity*) suggests that a roadway is operating at failing conditions with no available capacity for growth.

As indicated in Table IV-4, on a typical non-summer weekday the SJTPO region experiences a low level of duration of congestion - only 3% of the region’s roadways are congested for one or more hours per day, based on the NJCMS average day methodology. This data should be considered to be more reflective of “off-peak” conditions in the SJTPO region, rather than peak conditions as reported by the CMS.

**Table IV-4 Extent of Non-Summer Congestion in the SJTPO
(as reported by the NJCMS)**

Number of Congested Hours	SJTPO	
	Miles	% of Total
0 to 1	500.77	97%
1 to 2	4.00	1%
>2	11.00	2%
Total	515.77	100%

Source: 2001 NJDOT Congestion Management System, Version 3.1

SJTPO CONGESTION MANAGEMENT SYSTEM

As described in the previous section, the statewide Congestion Management System (NJ CMS) was developed to assist in identifying and evaluating traffic congestion across the state. Although it has been useful in other part of New Jersey, the NJ CMS and proven to be less beneficial for the SJTPO. The NJ CMS was designed to report on average, weekday, peak period congestion, typically found during the AM and PM commuting hours. Because of this design, the statewide tool has severe limitations when applied to the unique travel conditions, time periods, and unusual peaking characteristics of the SJTPO region, where congestion is most severe on summer weekends for recreational and shore-oriented travel, and weekend evening travel related to the Atlantic City Gaming industry.

To address these deficiencies, the SJTPO Congestion Management System (SJ CMS) was conceived as a long-term, multi-phased effort to develop the data resources, tools, and procedures relevant to transportation planning efforts in the SJTPO region. Phase I of SJ CMS development was completed in 2002; Phase II was completed in 2003. To date, the SJ CMS development effort has completed the following milestones:

1. established the critical parameters and performance measures for identifying and evaluating congestion and applicable in the SJTPO region
2. defined analysis areas and applicable volume to capacity ratio (v/c) ranges for measuring congestion using the South Jersey Travel Demand Model (SJTDM)
3. packaged and applied these data resources, measures, and tools into a database tool called the *SJ CMS Tracker* used to identify, track, and evaluate congested intersections, interchanges, and corridors in the four-county region
4. defined these congested locations as *CMS Needs*
5. developed a traffic monitoring program to coordinate ongoing data collection efforts with the need to monitor congestion at identified *CMS Need* locations
6. proposed future enhancements

The SJ CMS is envisioned as critical tool to support the SJTPO regional transportation planning process.

Use of the SJ CMS and Tracker has so far identified more than 100 existing and 125 future CMS Needs. These products have also proven useful to the process of identifying the SJTPO Study Corridors, which are described in the next section.

Identification of SJ CMS Priority Corridors

After the completion of the CMS Need identification process, those locations with identified transportation deficiencies (these are called CMS Needs in the SJ CMS documentation) will be grouped together into study corridors based on the various performance measures and standards set forth. These CMS Need locations include deficient roadway segments and intersections that have been identified and analyzed individually, but because strategies that are appropriate for one need location may affect other need locations, it becomes necessary to examine the inter-relationships among these locations and to group together adjacent and/or contiguous locations into study corridors. In general, if a CMS Need intersection is located within or in close proximity to a CMS Need segment, it will be considered of the CMS Need segment from an analysis point of view.

One of the important applications of SJ CMS is to prioritize the study corridors and provide data and justification for future program activities, including more detailed technical studies. For the SJTPO region, the CMS has identified a series of deficient segments/corridors for each of the four counties, in order to evaluate priority among these corridors; four criteria have been developed to support the prioritization process. These four criteria are:

- Area of Impact – based on the four area types developed for CMS analysis. The order of significance is: Urban, Seasonal, Rural/Rural Center

- Degree of Need – based on whether the segment is an existing and/or future CMS Need
- Performance Index – v/c based measure based on data from the SJ CMS Tool. The three categories of performance index are
 - “Over capacity” (v/c greater than 1.00 for urban and seasonal areas and v/c greater than 0.90 for rural and rural center areas;
 - “Approaching capacity” (v/c between 0.80 and 1.00 for urban and seasonal areas and between 0.75 and 1.00 for rural and rural center areas;
 - Links that are referred by other sources as needs but not from the SJ Model.
- Segmentation – segments/corridors can either be broken down into sub-segments or analyzed as a whole.

A Total Score for each corridor was calculated and an overall ranking was prepared with the highest scores representing the high priority Study Corridors. From the ranking of these segments, the project team drafted a candidate list of potential corridor studies for SJTPO region by county; special consideration was reserved for corridors that are significant for seasonal travel (see Table IV-5).

Table IV-5 Potential SJTPO Corridor Studies

County	High	Medium	Special Consideration
Atlantic	A24 (US 9) A34 (CR 585) A42 (CR 563)	A5 (Garden State Parkway) A18 (US 30 - White Horse Pike) A36 (SR 152) and A46 (CR 559) A44 (CR 604/CR 563) A47 (CR 670)	A24 + A34 + A42 as one study
Cape May	CM13 (US 9 - SR109 to Cape May Ferry)	CM1 (Garden State Parkway) CM41 (Garden State Parkway) CM12 (US 9 - SR 47 to CR 657) CM42 (US 9 - Nummytown Rd to SR 47) CM43 (US 9 - CR 657 to Atlantic County line) CM31 (SR 109) and CM46 (SR 162) CM29 (CR 623) and CM44 (CR 631)	CM41 + northern portion of CM43 CM1 + southern portion of CM43
Cumberland	CU11 (SR 47) CU23 (CR 615 - East & West Blvd.)	CU21 (CR 552 - Sherman Avenue) CU30 (CR 540/SR 56)	Southern portion of CU4 (SR 55) + CU10 (SR47) + CU12 (SR 347 - Summer months)
Salem		S8 (Main St) + S6 (US 130) + S12 (SR 140)	

FUTURE OUTLOOK

The comprehensive process of multiple sources was again used to identify future problem areas within the SJTPO region for the Year 2025. These sources include problem areas identified for the baseline year analysis; system performance of future condition based on data from the SJTDM, available technical sources such as the NJCMS, previous studies conducted within the subject region, and a review of the SJTPO's adopted Transportation Improvement Program (TIP) for Fiscal Years 2004-2006.

Future conditions of the "no build" network were estimated by SJTDM in terms of volume to capacity (v/c) relationship. The "no build" network consists of the existing network plus all known committed projects. The degree of congestion was grouped into two categories: "moderate" for facilities with v/c ratio of 0.80 to 1.00; and "heavy" for facilities with v/c ratio higher than 1.00. Future problem locations were identified based on these v/c criteria.

Analysis of v/c data for existing year problems verified that all identified locations exhibited consistently deficient or worse capacity in the future. For intersection problems, v/c link data of the future network was analyzed at those locations instead to verify that intersection approaches exhibited consistently deficient or worse capacity in the future years.

Furthermore, analytical results from other studies were evaluated and incorporated into the future problem location list if appropriate. These studies include many also reviewed for the baseline analysis, among them the Shore Connection Committee Report.

Finally, a completeness check included a review of projects on the TIP. Development of the regional TIP is in itself a rigorous and comprehensive process based on both technical analysis and input from local and county planning agencies, NJDOT's Capital Investment Plan, and the general public.

It should be noted that the SJTDM was run for a Friday summer 3-7 pm peak period to identify problem locations. The peaking characteristics of facilities in the SJTPO region, with heavy recreational demands, are very different than typical commuting corridors. Many problems occur on Saturdays, Sundays, or during the week, and these problems may not have been identified through the model. Where possible, these problems were identified by other sources and included as part of the assessment.

Future Year Travel Characteristics and Performance Indicators

The South Jersey Travel Demand Model was used to forecast future year 2025 traffic conditions in the SJTPO area. The basis for the forecasts is the future year population and employment data detailed in Chapter 3, Context for Transportation in South Jersey. For comparative purposes, the model is first run with year 2005 base year demographic inputs and then run with 2025 demographic inputs. The model outputs are compared to indicate where and to what magnitude travel conditions change.

Driving the changing traffic conditions is the growth forecast in population and employment. In the SJTPO region, population is expected to rise from a 2005 baseline figure of 589,555 to 702,409 in 2025, a 19% increase over 20 years, or about 1% per year. Employment is forecast to grow from 266,221 in 2000 to 350,169 in 2025, an increase of about 32 percent.

In order to gauge the impact of this growth, highway system performance measures are used. The SJTDM generates several performance measures that indicate how well vehicles flow through the highway network and how the system will operate in the future. Indicators used throughout the RTP include the total number of trips made, vehicle miles of travel (VMT), and vehicle hours of travel (VHT); definitions of these performance measures are as follows:

- Vehicle miles of travel (VMT) represents an estimate of the total miles driven by all motorists on the system in a defined time period (a year or a day, for example). It is generally considered the key statistical measure of motor vehicle travel.

- Vehicle hours traveled (VHT) represents the total number of hours spent driving by motorists within that same time period.

The population and employment growth is forecast to result in a 19% rise in the number of trips taken during a typical Friday summer day in the year 2025 compared to the year 2005 totals. Total vehicle miles traveled will increase about 15%, while total vehicle hours traveled will increase 31% (see Table IV-6). This indicates more trips, overall longer trips, and significantly more time spent traveling on the regional highway system.

Table IV-6 Regional Travel Indicators, 2005-2005

Daily	2000	2025	% change
Trips	13,885,331	16,533,491	19%
VMT	24,956,628	28,593,338	15%
VHT	767,188	1,005,422	31%

Results from the SJTDM and Future Outlook task were applied to several critical components of the long-term RTP analysis, including the air quality conformity analysis, SJ CMS, and development of the SJTPO Study Corridors. In the case of the SJ CMS and the SJTPO Study Corridors, model data was used to project the future travel needs and projected traffic congestion on the regional highway system. These indicators will figure into the planning process and figure into studies of key intersections, interchanges and corridors.

SJTPO STUDY CORRIDORS

A series of fourteen Study Corridors was developed to assist in the MPO planning process. The Study Corridors represent the major travel movements of the SJTPO planning area, and serve to focus planning and analysis efforts where needs and problems are greatest. They are derived from a variety of sources, and together they create a comprehensive understanding of transportation needs and concerns within and across the region, addressing a variety of issues confronting the region's travelers. Selected high priority study corridors are discussed in the Chapter Five of the RTP Update, the Implementation Plan.

Source Data and Methods

The Study Corridors are based on a composite of data sources and screening methods: NJDOT CMS problem areas, NJDOT Management Systems Data, SJTPO Congestion Management System (SJ CMS) Needs and Corridors, SJTDM model runs, and the results of the Future Outlook analysis task, as described in the previous section.

The NJ CMS was used to develop a list of SJTPO problem areas for the SJTPO 2001 RTP Update. This data dates to an early version of the Statewide CMS with data applicable to 1990 conditions. Because the NJ CMS traffic volumes represent the average weekday peak period conditions, the statewide CMS is generally considered an incomplete predictor of travel conditions in the SJTPO region, where the most severe congestion is typically related to summer weekend recreational travel and the Atlantic City gaming industry. The remaining NJDOT Management Systems (Bridge, Pavement, and Safety) supplement the traffic and congestion data sources with information on the physical condition, functionality, and safety of the region's roads and bridges.

The SJTPO recently completed Phase II of a long-term, multi-phased, development process for the SJ CMS. The SJ CMS method utilizes performance measures and tools for identifying and evaluating congestion in the SJTPO region, including use of the South Jersey Travel Demand Model (SJTDM) as the principal evaluation tool. These analysis tools and measures are used to identify congested intersections, interchanges, and corridors. Individual locations identified as congested through this process are referred to as "CMS Needs". Based on this methodology, the SJ CMS process has identified more than 100 individual CMS Needs in the four-county area based on both existing and projected future travel conditions and system performance. As part of the SJCMS Phase II Update, the individual CMS Needs were also grouped into a series of problem areas based on a ranking system that takes into account location, v/c measures, and the ability to combine adjacent CMS Needs into contiguous corridors.

Finally, SJTDM model runs have been used to support the analysis at several points in the process including the SJ CMS, which is reevaluated and revised with each update, as its source data elements are updated. The SJTDM is currently being updated and re-calibrated to reflect the recently revised SJTPO demographic data. This ongoing process ensures that the Study Corridors reflect the most recent and up-to-data source data and projections.

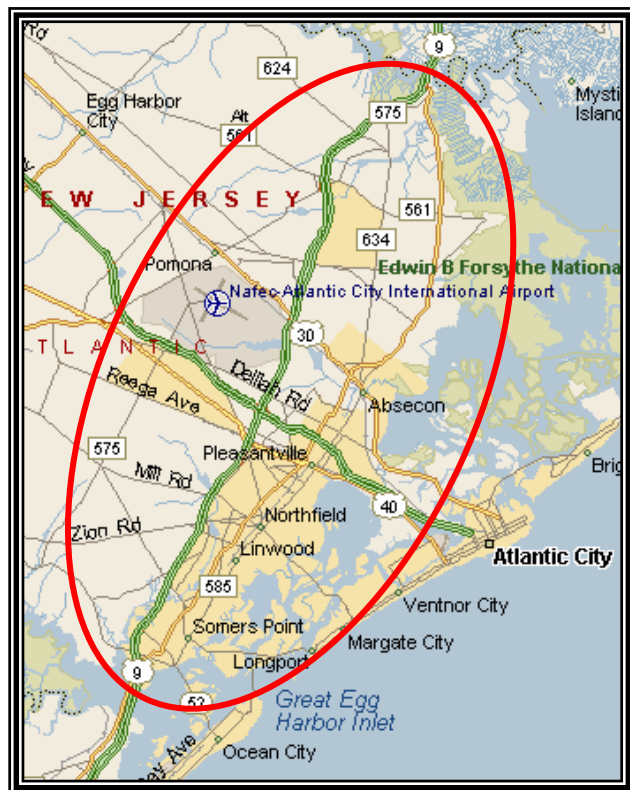
Applications

The Study Corridors enable the examination of local travel markets in the context of regional conditions and priorities. They provide a method for comparative analysis of critical and priority roadway segments in the region and can be used to prioritize investment of transportation resources that is consistent with established and demonstrated need.

Study Corridor Descriptions

A full description of each of the fourteen study corridors is presented on the following page in the form of a series of fact sheets. Each "fact sheet" includes a locator map with the corridor highlighted, the corridor limits, and a description that includes functional class, posted speed and number of lanes. Also included are lists of key destinations and trip generators, major connecting routes, and SJTPO CMS Needs locations that lie within the corridor limits.

Study Corridor 1: US 9, Atlantic County



Corridor Limits:

*NJ 52 (Ocean City) to Burlington County Line
Milepost 33.2 to Milepost 52.59*

Corridor Description:

A primary north-south corridor in eastern New Jersey, this section of US 9 is a 2-lane urban principal arterial from MP 33.2 to 42.8 with a speed limit that ranges from 40-50 MPH to 30-35 MPH in some populated areas. From MP 42.8 to 52.6, US 9 is a 2-lane urban minor arterial with the speed limit ranging from 35 to 50 MPH. There are 25 signals and numerous cross streets in the corridor.

The corridor experiences non-traditional congestion related to travel to shore attractions and the gaming industry in Atlantic City. The Garden State Parkway (GSP), a toll road, runs parallel to US 9 in this corridor.

Key Destinations/ Generators:

Atlantic City, Northeastern New Jersey, New York City, Ocean City, AC International Airport

Major Connecting Routes:

- o US 40 (east-west access to Atlantic City, western New Jersey, Delaware and Pennsylvania)
- o US 30 (east-west access to Absecon, western New Jersey, and Pennsylvania)
- o ACE (east-west access to Atlantic City, western New Jersey, and Pennsylvania)
- o GSP (parallel north-south toll road)

Associated Access Routes:

- o CR 563 (Tilton Road) (east-west access to AC International Airport, US 30)
- o NJ 52 (east-west access to Ocean City)
- o CR 559 (east-west access to Somers Point and Mays Landing)

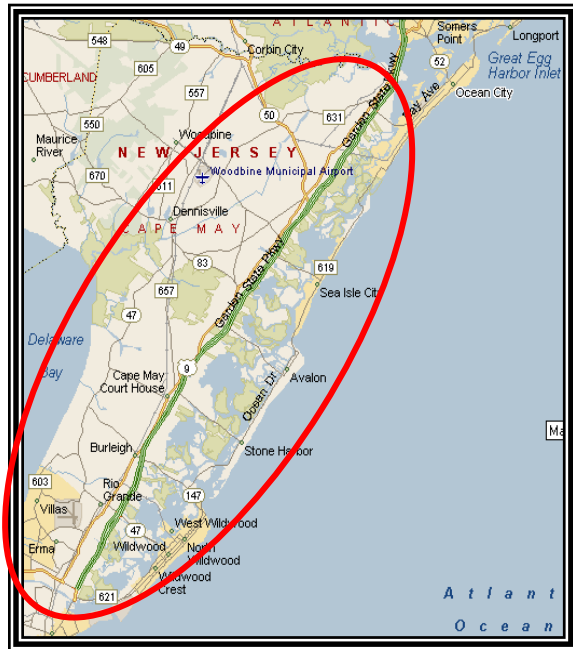
Additional Transportation Modes Serving Corridor:

AC International Airport, bicycle, pedestrian, buses

SJ CMS Need Locations:

- o A24: US 9 from US 30 to GSP at Somers Point
- o A25: US 9 at MP 38.2 – intersection with CR 563 (Tilton Road)
- o A26: US 9 at MP 42.8 – intersection with US 30 (White Horse Pike)
- o A46: CR 559 (Mays Landing Somers Point Road) from CR 651 (Stetmanville Road) to NJ 52 (Somers Point)

Study Corridor 2: US 9, Cape May County



Corridor Limits

*Cape May Ferry to NJ 52 (Ocean City)
Milepost 0.0 to Milepost 33.2*

Corridor Description:

US 9 begins as a rural principal arterial with four lanes until MP 2, when it narrows to two lanes for the rest of this corridor. After the intersection with NJ 109 (MP 3), US 9 becomes a rural minor arterial. At MP 16.8, after the intersection with CR 601 (Avalon Blvd), US 9 is again a rural principal arterial until MP 18.6 when it becomes a rural minor arterial. In Upper Township, at MP 46, US 9 is an urban minor arterial as it approaches Ocean City and Atlantic City. US 9 provides north/south access to the shore towns of Southern New Jersey, including Wildwood and Cape May. The Garden State Parkway (GSP), a toll road, runs parallel to US 9 in this corridor. Major problems include signalized intersections and bottle necks.

Major Connecting Routes:

- o NJ 50 (north/south access to US 322, US 40, US 30, ACE)
- o NJ 47 (southeast/northwest access to South Central New Jersey and Pennsylvania)
- o NJ 147 (east/west access to NJ 47 and Wildwood)
- o NJ 109 (north/south access to Cape May, GSP)

Major Destinations/ Generators:

DE/ MD, Cape May, Wildwood, smaller shore towns, NJ/ NY/ PA, Atlantic City, Ocean City.

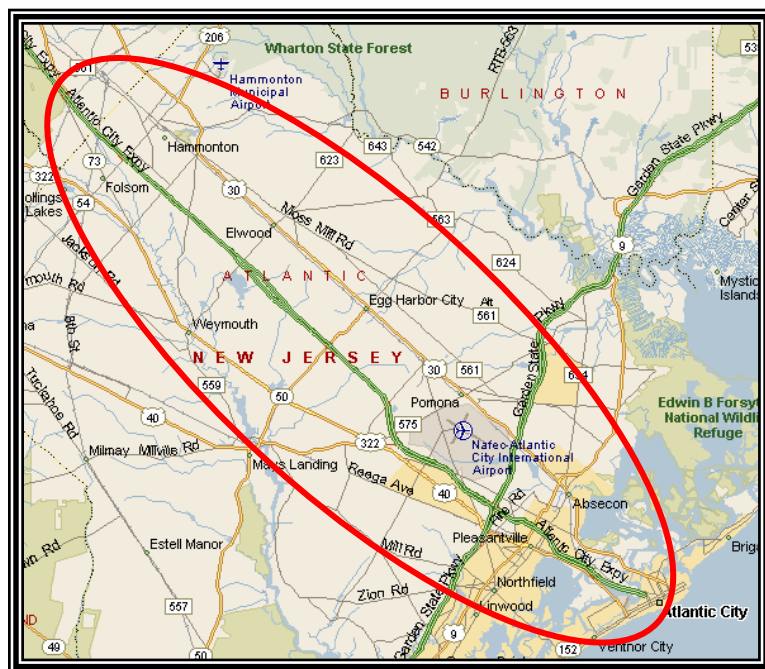
Additional Transportation Serving Corridor:

Cape May County Airport, buses, Woodbine Municipal Airport, bicycle, pedestrian, Cape May Ferry

CMS Need Locations:

- o CM13: US 9 from NJ 109 to Cape May Ferry
- o CM11: US 9 from NJ 109 to Nummytown Road/ Weeks Landing Road
- o CM42: US 9 from Nummytown Road/ Weeks Landing Road
- o CM12: US 9 from NJ 47 to Stone Harbor Blvd (CR 657)
- o CM43: US 9 from Stone Harbor Blvd (CR 657) to Atlantic County Line
- o CM14: US 9 and NJ 109
- o CM15: US 9 and NJ 47
- o CM16: US 9 and NJ 147
- o CM17: US 9 and CR 657 (Court House – South Dennis Road)
- o CM18: US 9 and CR 550 (Woodbine – Oceanview Road)
- o CM27: CR 550 (Woodbine – Oceanview Road) from Washington Ave (CR 557) to US 9
- o CM51: CR 618 (Indian Trail) from NJ 47 to US 9/ NJ 197
- o CM29: CR 623 (Roosevelt Blvd) from US 9 to CR 656 (Bay Ave)
- o CM44: CR 631 (Tuckahoe Road) from NJ 50 to US 9
- o CM31: NJ 109/ Lafayette Street from US 9 to Jefferson Street
- o CM46: NJ 162 (Seashore Road) from US 9 to Sunset Blvd (CR 606)
- o CM10: NJ 50 and US 9
- o CM28: NJ 52 from US 9 (Somers Point) to Bay Ave (Ocean City)
- o CM52: Ocean City – Longport Blvd (toll bridge)

Study Corridor 3: Atlantic City Expressway, Atlantic County



Corridor Limits:

Baltic Ave (Atlantic City) to Camden County Line; Milepost 0.0 to 29.5

Corridor Description:

The Atlantic City Expressway (ACE) is a toll road connecting Philadelphia and Atlantic City. ACE functions as a four-lane urban freeway expressway from MP 0.0 to 10.7, a four-lane rural principal arterial from PM 10.7 to 25.3, and an urban freeway/expressway again from MP 25.3 to 29.5 in Hammonton Town. Seasonal demand contributes to significant capacity challenges, especially from Pleasantville to Atlantic City. Moderate congestion is experienced from the Camden County line to the GSP.

Major Connecting Routes:

- o GSP (north/south primary east coast corridor, toll)
- o US 9 (north/south primary east coast corridor)
- o US 30 (east/west parallel route, no tolls)
- o US 40 (east/west parallel route with access to Delaware)
- o US 322 (local northwest/southeast route with access to Delaware through Glassboro, NJ)
- o NJ 50 (north/south access to US 322, US 40, US 30)

Major Destinations/ Generators:

Atlantic City, Atlantic City International Airport, Philadelphia, shore points north and south

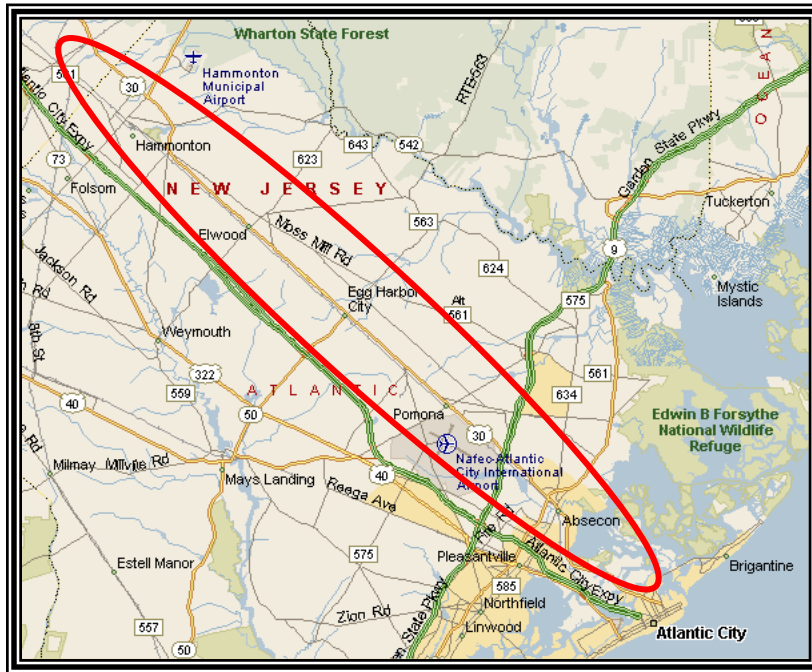
Additional Transportation Serving Corridor:

Buses, Hammonton Municipal Airport, NJ Transit rail, bicycle, pedestrian, boat (?)

CMS Need Locations:

- o A1: ACE from Exit 2 (NJ 40/ 322) to Atlantic Ave
- o A41: ACE from Camden County Line to Exit 7 (GSP), Westbound direction
- o A3: ACE and GSP (Interchange 7)
- o A4: ACE and Wrangleboro Road (Interchange 12)

Study Corridor 4: US 30 (White Horse Pike), Atlantic County



Corridor Limits:

Camden County Line to Atlantic City; Milepost 28.0 to 57.5

Corridor Description:

Connects Philadelphia to Atlantic City, running parallel to ACE (toll) and US 322 in Atlantic County. At MP 29, US 9 is a four-lane urban principal arterial. At MP 32.6, US 30 becomes a four-lane rural principal arterial. In Galloway Township, at MP 46, US 30 is again a four-lane urban principal arterial, widening to 6 lanes from MP 56.6 to the end of the corridor. The entire US 30 Corridor in Atlantic County is projected to experience light to moderate congestion by 2025. Most of the problem areas are associated with traffic signals and cross street accesses.

Major Connecting Routes:

- o GSP (north/south primary east coast corridor, toll)
- o US 9 (north/south primary east coast corridor)
- o NJ 50/ CR 563 (north/south access to US 322, US 40, ACE, GSP, US 9)
- o US 206 (north/south access to central New Jersey)

Major Destinations/ Generators:

Atlantic City, Atlantic City International Airport, Philadelphia, shore points north and south

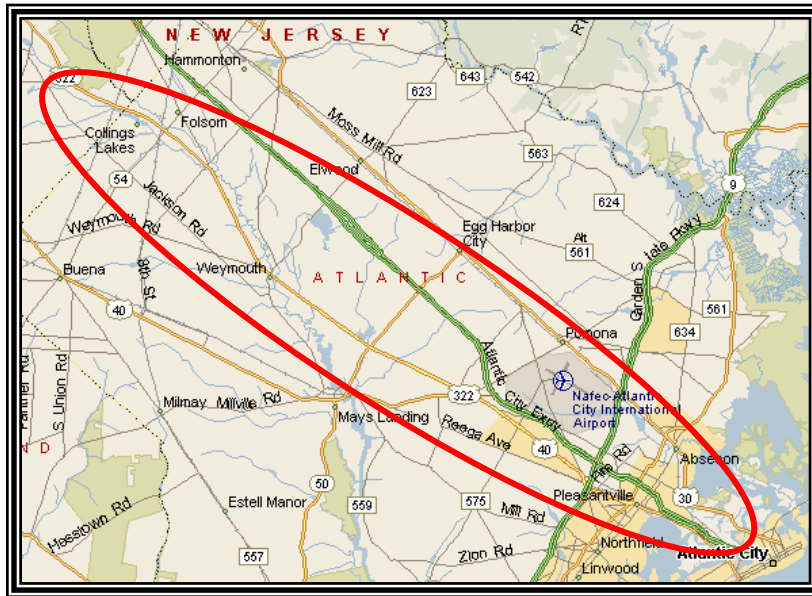
Additional Transportation Serving Corridor:

buses, Hammonton Municipal Airport, NJ Transit rail, bicycle, pedestrian, boat (?)

CMS Need Locations:

- o A18: US 30 from Camden County Line to Fairmont Ave (Atlantic City)
- o A19: US 30 and NJ 50 (Cape May Ave)/ CR 563 (Philadelphia Ave)
- o A20: US 30 and CR 614 (Cologne Ave)
- o A21: US 30 and CR 575 (Pomona Road)
- o A22: US 30 and CR 651 (Mill Road)
- o A23: US 30 and CR 585 (Main Street)/ NJ 157
- o A29: CR 563 (Tilton Road) and CR 575 (Wrangleboro Road)
- o A45: CR 575 (Pomona Road) from US 30 to CR 561 (Dueren Street)
- o A02: CR 575 (Pomona Road) from US 40/322 to US 30
- o A35: CR 585 (Shore Road) and US 30
- o A34: CR 585 (Shore Road) from US 30 to Maple Avenue (Linwood)
- o A44: CR 604 (English Creek Ave)/ CR 563 (Tilton Road) from US 40/322 to US 30
- o A33: NJ 52 (Somers Point) and CR 585 (Somers Point Circle)
- o A24: US 9 from US 30 to GSP at Somers Point
- o A26: US 9 and US 30

Study Corridor 5: US 322/ US 40, Atlantic County



Corridor Limits:

*Gloucester County Line to Atlantic City
US 322 Milepost 33.0 to 50.2
US 322/ US 40 Milepost 51.7 to 64.3*

Corridor Description:

Corridor runs east/west, connecting Atlantic City to Southeastern Pennsylvania and Delaware. From the Gloucester County Line to MP 34.5, US 322 is a two-lane urban minor arterial. The corridor has four lanes as an urban minor arterial from MP 34.5 to 37.2. In Hamilton Township, at MP 37.2, US 322 becomes a 4 lane rural minor arterial. At MP 50.2, US 322 and US 40 merge as a 4 lane rural principal arterial. At CR 575/ CR 603 in Egg Harbor Township (MP 53.3), US 322/

US 40 become 5 lanes and then a four-lane urban principle arterial from MP 54 to Atlantic City.

Key Destinations/ Generators:

Atlantic City, Atlantic City International Airport, Pennsylvania, Delaware, South-Central New Jersey shore points north and south

Major Connecting Routes:

- o GSP (north/south primary east coast corridor, toll)
- o US 9 (north/south primary east coast corridor)
- o NJ 50 (north/south access to US 40, US 30, ACE)
- o US 40 (parallel route north of merge, access to Delaware)

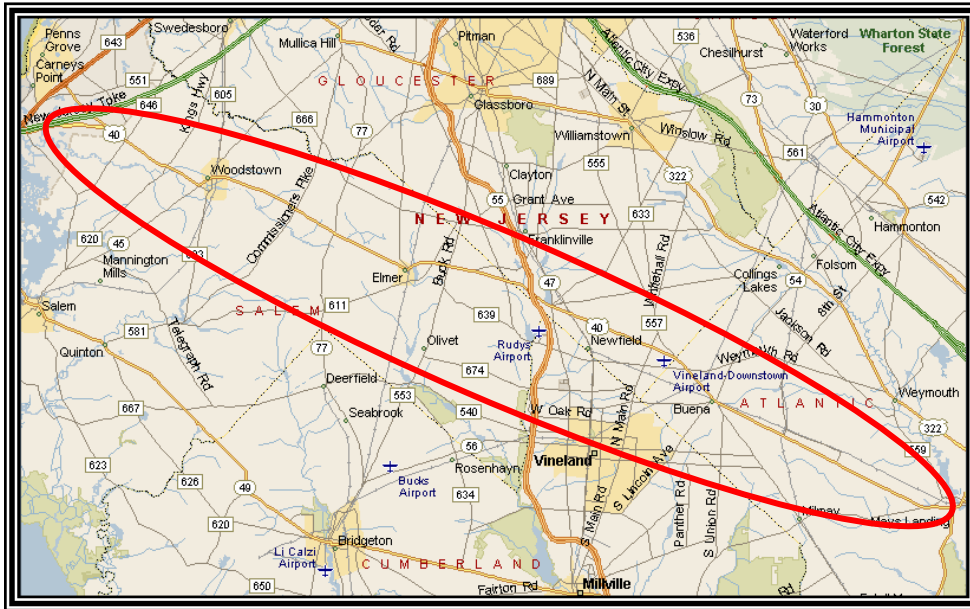
Additional Transportation Serving Corridor:

Buses, Hammonton Municipal Airport, Atlantic City International Airport, NJ Transit rail, bicycle, pedestrian, boat

CMS Need Locations:

- o A16: US 322 from Gloucester County Line to US 40/322 (McKee City)
- o A17: US 322 and NJ 50
- o A12: US 40/322 and Cardiff Circle (CR 563/CR 608)
- o A11: US 40/322 and CR 575 (Wrangleboro Road)
- o A10: US 40/322 and CR 575/ CR 603 (English Creek Ave)
- o A09: US 40/322 from GSP to CR 585 (Main Street)
- o A01: ACE from Exit 2 (NJ 40/ US 322) to Atlantic Ave
- o A42: CR 563 (Tilton Road) from US 40/322 to CR 585 (Main Street)
- o A02: CR 575 (Pomona Road) from US 40/322 to US 30
- o A44: CR 604 (English Creek Ave)/ CR 563 (Tilton Road) from US 40/322 to US 30
- o A48: CR 670 (Leipzig Ave) from US 322 to CR 686 (Aloe Street)
- o A36: NJ 152 from CR 635 (Bay Ave) to CR 629 (Ventnor Ave)
- o A28: NJ 54 from US 322 to CR 561 (Egg Harbor Road)
- o A14: US 40 from NJ 50 to US 322

Study Corridor 6: US 40, Salem and Atlantic Counties



Corridor Limits

*NJTP to US 322
Milepost 1.7 to Milepost
51.7*

Corridor Description:

US 40 connects Wilmington, DE to Atlantic City, passing through Salem, Gloucester, and Atlantic Counties in Southern New Jersey. In Salem County, US 40 begins at the New Jersey Turnpike as a four-lane urban principle arterial, changing to a rural principal arterial at MP 2.6. US 40 decreases to two lanes at MP 5.6. From MP 25.6 to 32.6, US 40 is in Gloucester County as a two-lane rural principal arterial. The Atlantic County portion of this corridor, which includes the congested locations, is a 2-lane rural principal arterial served by signalized intersections, unsignalized cross streets, and a railroad crossing. Extensive congestion and delays are anticipated between MP 46.4 and 47.0, where US 40 merges with NJ 50.

Major Connecting Routes:

- o US 322 (US 40 merges with US 322 east/west to connect to Atlantic City; Corridor 5)
- o NJ 50 (north/south access to US 30, ACE, US 322, GSP, US 9)
- o NJ 55 (north/south access to Vineland, Millville, Philadelphia via NJ 42)
- o New Jersey Turnpike (north/south toll access to NJ, DE, PA, NY)

Major Destinations/ Generators:

Atlantic City, Atlantic City International Airport, Wilmington, Philadelphia, Millville, Vineland

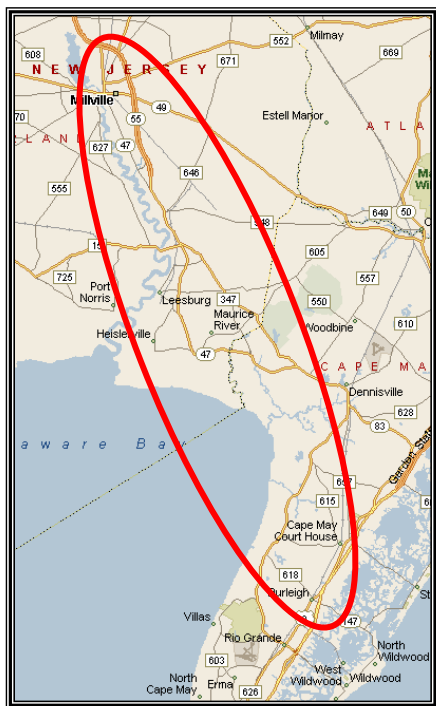
Additional Transportation Serving Corridor:

NJ Transit, buses, AC International Airport, bicycle, pedestrian, Vineland Downtown Airport

CMS Need Locations:

- o A43: CR 552 (Millville Road) from CR 557 (Tuckahoe Road) to US 40 (Harding Highway)
- o A13: US 40 from CR 552 (Millville Ave) to CR 559 (Somers Point Mays Landing Road)
- o A14: US 40 from NJ50 to US 322
- o A15: US 40 and CR 552 (Millville Ave)
- o S05: US 40 and CR 648 (Main Street – Elmer)
- o S04: US 40 and NJ 77 (Upper Pittsgrove)
- o S03: US 40 and NJ 45 (Main Street – Woodstown)
- o S02: US 40 and NJ 45/ CR 616 (Bailey Street)
- o S01: US 40 and NJ 48 (Harding Highway) to NJ 45 (Woodstown)
- o A47: CR 614 (Cologne Ave) from US 40 to CR 561 (Moss Mill Road)
- o A27: NJ 50/ CR 563 from US 40 to Burlington County Line

Study Corridor 7: NJ 47/ NJ 347, Cumberland and Cape May Counties



Corridor Limits:

*NJ 55 to Wildwood
Milepost 1.7 to Milepost 51.7*

Corridor Description:

Connects Gloucester County to Wildwood through Vineland and Millville. NJ 47 begins as a four-lane rural principal arterial in Wildwood City, narrowing to a two-lane rural minor arterial at MP 3.2. In Millville and Vineland, NJ 47 is a two and four-lane urban minor arterial from MP 36.1 to 51.7.

Major Connecting Routes:

- o US 130/ I-295/ NJ TP
- o NJ 55
- o US 40 (east/west access to Delaware and Atlantic City)
- o NJ 49 (east/west access to Salem and Cape May Counties)
- o US 9 (primary north/south east coast corridor)
- o GSP (primary north/south east coast corridor; toll)

Major Destinations/ Generators:

Gloucester County, Millville, Vineland, Wildwood

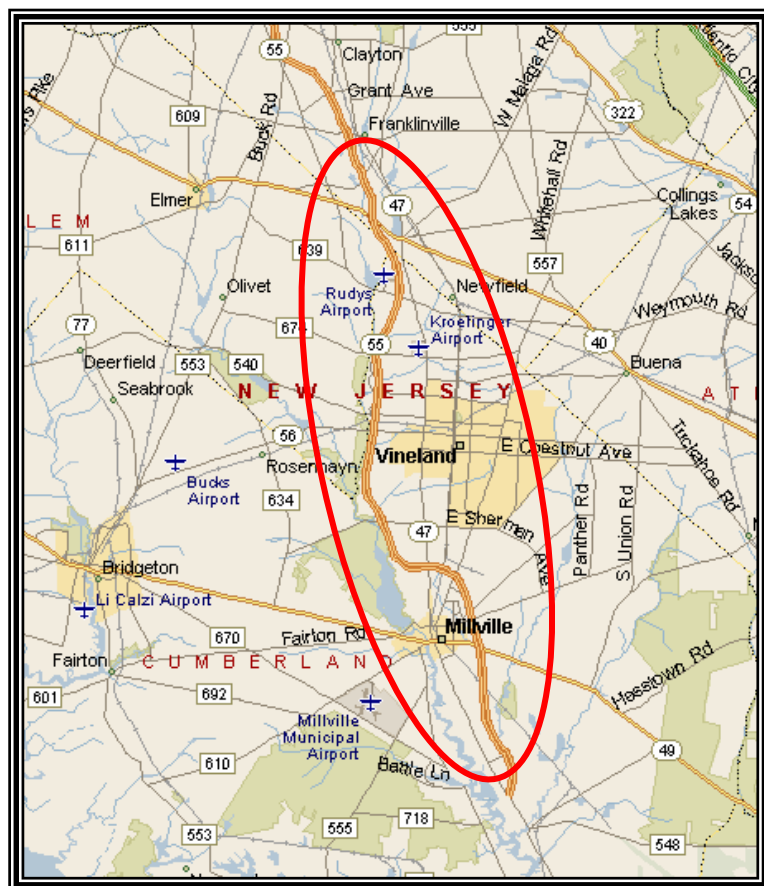
Additional Transportation Serving Corridor:

Millville Municipal Airport, bicycle, pedestrian, Vineland Downtown Airport

CMS Need Locations:

- o CM 19: NJ 47 from Wildwood to GSP
- o CM 20: NJ 47 from GSP to CR 654 (Fulling Mill Road)
- o CM 45: NJ 47 from CR 654 (Fulling Mill Road) to CR 657 (Courthouse – South Dennis Road)
- o CM 21: NJ 47 from CR 657 (Courthouse – South Dennis Road) to CR 557 (Washington Ave)
- o CM 22: NJ 47 from CR 557 (Washington Ave) to Cumberland County Line
- o CU 10: NJ 47 from Cape May County Line to NJ 49
- o CU 11: NJ 47 from NJ 49 to NJ 55
- o CM 23: NJ 47 and CR 610 (Dennisville – Petersburg Road)
- o CM 24: NJ 47 and CR 611 (Tyler Road)
- o CM 25: NJ 47 and NJ 347 (East Creek Mill Road)
- o CU 26: NJ 57 and CR 674 (Garden Road; Vineland City)
- o CU 12: NJ 347 from Hunters Mill Road to CR 670 (Mauricetown – Buckshutem Road)
- o CU 13: NJ 347 and NJ 47 (Delsea Drive)
- o CM 51: CR 618 (Indian Trail) from NJ 47 to US 9/ NJ 197
- o CM 50: CR 619 (Landis Ave/ Ocean Drive) and NJ 197 (North Wildwood)
- o CM 49: CR 619 (Landis Ave/ Ocean Drive) and CR 625 (Sea Isle Blvd)
- o CM 30: CR 657 (Courthouse – South Dennis Road) from NJ 47 to Second Ave (Stone Harbor)
- o CM 26: NJ 347 (East Creek Mill Road) from NJ 47 to Cumberland County Line
- o CM 48: NJ 83 from NJ 47 to Gravel Hole Road
- o CM 12: US 9 from NJ 47 to Stone Harbor Blvd (CR 657)
- o CM 15: US 9 and NJ 47
- o CM 16: US 9 and NJ 147
- o CM 42: US 9 from Nummytown Road/ Weeks Landing Road to NJ 47
- o CU 22: CR 607 (Sharp Street) from NJ 47 to NJ 49
- o CU 09: NJ 49 (Shiloh-Broad Street, Millville) and NJ 47
- o CU 05B: NJ 55 and NJ 47 (Delsea Drive, Millville)
- o CU 05A: NJ 55 and NJ 47 (Delsea Drive, Maurice River)
- o CU 04: NJ 55 from NJ 47 to Gloucester County Line (during Summer months)

Study Corridor 8: NJ 55/ CR 615, Cumberland and Salem Counties



Corridor Limits:

NJ 47 to Gloucester County
Milepost 20.0 to Milepost 38.5

Corridor Description:

This corridor connects Philadelphia (via I-76 and NJ 42) to Vineland, Millville, and Cape May County. NJ 55 begins as a two-lane rural principal arterial in Maurice River Township and then becomes a four-lane urban freeway/ expressway through Millville and Vineland.

Major Connecting Routes:

- o US 40 (east/west access to Delaware and Atlantic City)
- o NJ 49 (east/west access to Salem and Cape May Counties)
- o NJ 47 (north/south access to Gloucester County and Wildwood)
- o NJ 42 (north/south access to Philadelphia and Atlantic City)

Major Destinations/ Generators:

Philadelphia, Glassboro, Millville, Vineland, shore points in Cape May County

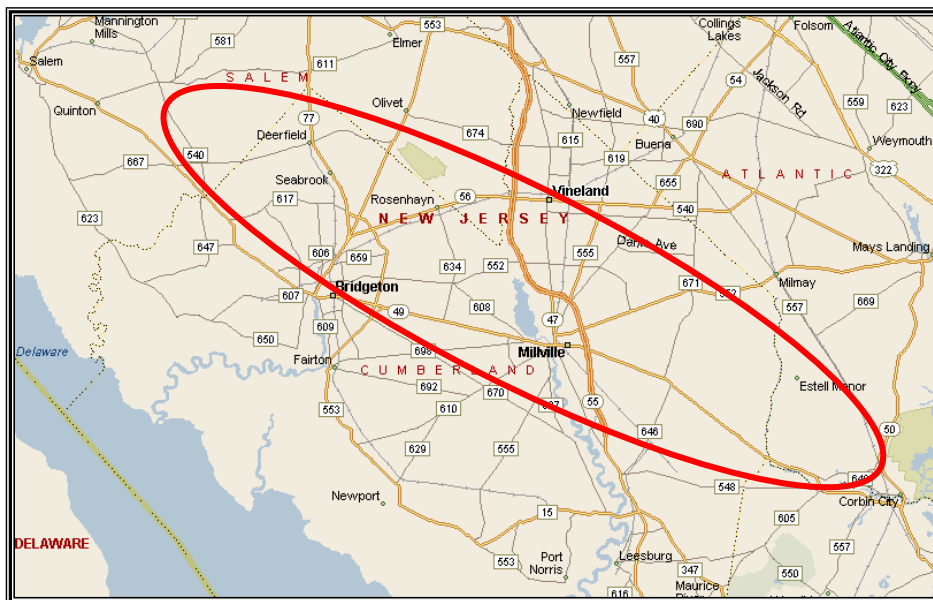
Additional Transportation Serving Corridor:

Millville Municipal Airport, bicycle, pedestrian, Vineland Downtown Airport

CMS Need Locations:

- o CU 04: NJ 55 from NJ 47 to Gloucester County Line (during Summer months)
- o CU 05A: NJ 55 and NJ 47 (Delsea Drive) in Maurice River
- o CU 05B: NJ 55 and NJ 47 (Delsea Drive) in Millville City
- o CU 06: NJ 55 and NJ 49 (Cumberland Road)
- o CU 30: CR 540 (Landis Ave)/ NJ 56 from Salem County/ NJ 55 to CR 555 (Main Road)
- o CU 29: CR 540 (Landis Ave) and CR 655 (Lincoln Ave)
- o CU 28: CR 552 (Millville – Mays Landing Road) from NJ 55 to CR 608 (Carmel Road)
- o CU 21: CR 552 (Sherman Ave) from CR 655 (S. Lincoln Ave) to CR 647 (Garden Road)
- o CU 14: CR 555 (Main Road, Vineland City) from NJ 55 to CR 540 (E. Landis Ave)
- o CU 23: CR 615 (East and West Blvd) from CR 552 (Sherman Ave) to CR 674 (Garden Road)
- o CU 11: NJ 47 from NJ 49 to NJ 55
- o CU 07: NJ 49 (Shiloh – Broad Street, Millville) from NJ 55 to CR 609 (Carmel Road)
- o S 15: NJ 56 from CR 717 to NJ 55

Study Corridor 9: NJ 49, Salem, Cumberland, Atlantic, and Cape May Counties



Corridor Limits:

*I-295 to NJ 50
Milepost 0.0 to Milepost 53.8*

Corridor Description:

This corridor connects Wilmington, DE to Cape May and Atlantic Counties through Salem City, Bridgeton City, and Millville City. NJ 49 is a two-lane urban or rural principal arterial from MP 0.0 to 37.9, with four-lane sections in Bridgeton and Millville. From MP 37.9 to 53.8 NJ 49 is a two-lane urban or rural minor arterial.

Major Connecting Routes:

- o I-295/ US 40 (northeast/ southwest access to Western New Jersey)
- o NJ 45 (north/south access to Woodstown, US 40)
- o NJ 77 (north/south access to US 40, US 322)
- o NJ 47 (north/south access to Gloucester County, Wildwood)
- o NJ 55 (north/south access to Vineland, Millville, Philadelphia via NJ 42)
- o NJ 50 (north/south access to GSP, US 9, US 30, ACE, US 322, US 40)

Major Destinations/ Generators:

Wilmington, Vineland, Millville, Cape May and Atlantic County shore points

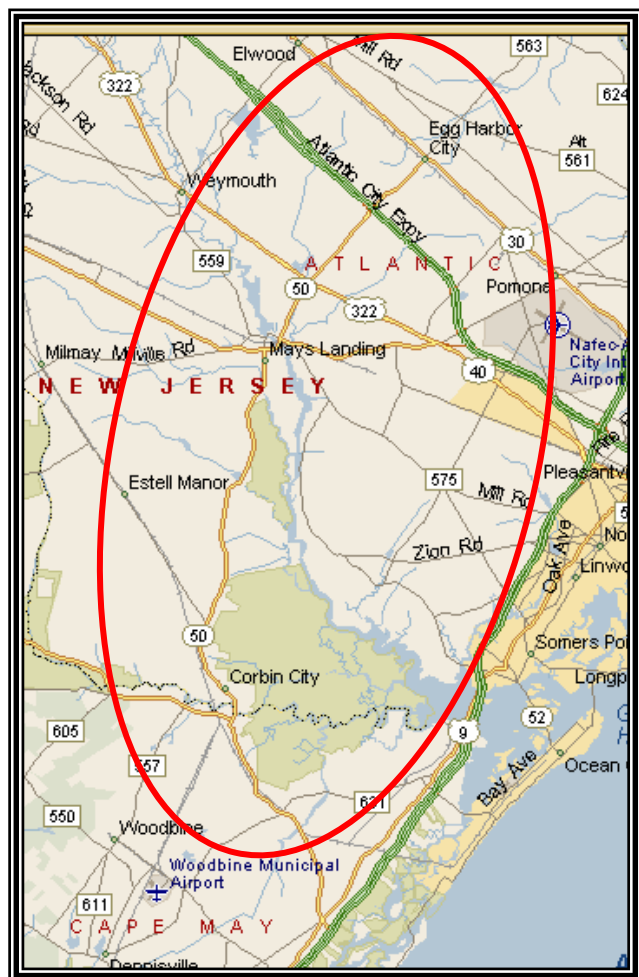
Additional Transportation Serving Corridor:

Millville Municipal Airport, bicycle, pedestrian

CMS Need Locations:

- o S 09: NJ 49 from I-295/ US 40 to NJ 45 (Salem City)
- o CU 07: NJ 49 (Shiloh – Broad Street, Millville) from NJ 55 to CR 608 (Carmel Road)
- o CU 09: NJ 49 (Shiloh – Broad Street, Millville) and NJ 47 (Delsea Drive)
- o CU 08: NJ 49 (Shiloh – Broad Street, Bridgeton) from CR 553 (Gouldtown – Woodruff Road) to CR 621 (West Park Road)
- o CU 25: NJ 49 (Millville – Bridgeton Pike, Millville) and CR 624 (Center Grove Road)
- o CM 08: NJ 50 from NJ 49 to GSP
- o CU 22: CR 607 (Sharp Street) from NJ 47 to NJ 49
- o CU 11: NJ 47 from NJ 49 to NJ 55
- o CU 10: NJ 47 from Cape May County Line to NJ 49
- o CU 06: NJ 55 and NJ 49 (Cumberland Road)
- o CU 01: NJ 77 from NJ 49 (Shiloh – Broad Street) to NJ 56 (Landis Ave)
- o CU 02: NJ 77 and NJ 49
- o S 14: CR 658 (Salem-Hancocks Bridge Road) from NJ 49 to CR 650 (Quinton – Hancocks Road)
- o S 13: NJ 45 from CR 540 (Pointers-Auburn Road) to NJ 49 (Broadway)

Study Corridor 10: NJ 50/ CR 563, Atlantic and Cape May Counties



Corridor Limits:

*US 9 to Burlington County Line
Milepost 0.0 to Milepost 26.1*

Corridor Description:

This corridor provides a north/south alternate inland/local route connecting US 30, the ACE, US 322, US 40, US 9, and the GSP. NJ 50 is a two-lane rural minor arterial except for four-lane sections near the interchanges with US 322 and the ACE. From MP 18.6 to 19.2 NJ 50 merges with US 40 in Hamilton Township.

Major Connecting Routes:

- o US 9 (primary north/south coast corridor)
- o GSP (primary north/south coast corridor; toll)
- o NJ 49 (east/west access to Salem and Cape May counties)
- o US 40 (east/west access to Atlantic City, western New Jersey, Delaware, and Pennsylvania)
- o US 322 (local northwest/southeast access to Delaware through Glassboro)
- o ACE (east/west access to Atlantic City, western New Jersey, and Pennsylvania; toll road)
- o US 30 (east/west access to Absecon, western New Jersey, and Pennsylvania)

Major Destinations/ Generators:

Atlantic City International Airport, Cape May and Atlantic County shore points, northern/western NJ, NY, PA, and DE

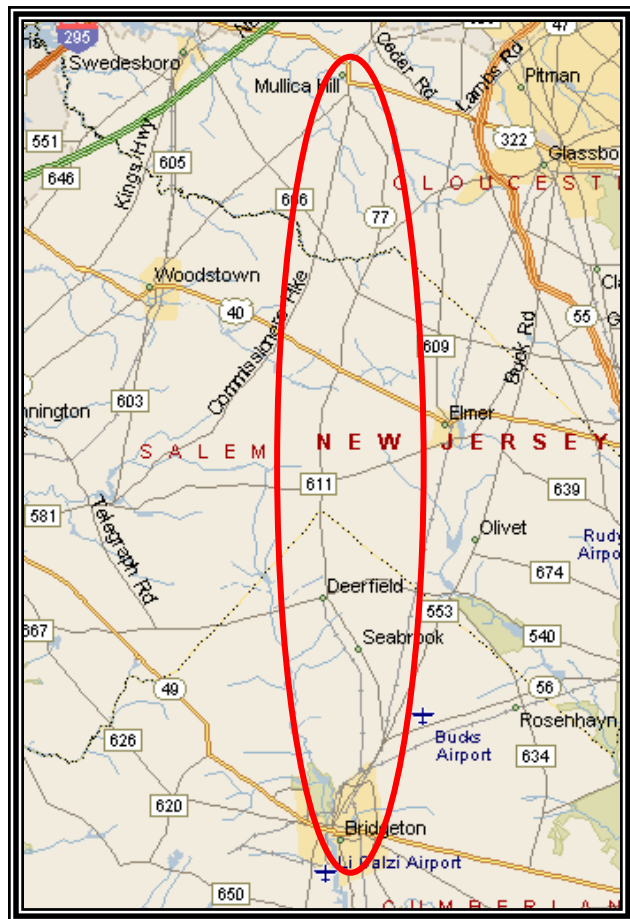
Additional Transportation Serving Corridor:

buses, pedestrian, bicycle, Atlantic City International Airport

CMS Need Locations:

- o A27: NJ 50/ CR 563 from US 40 to Burlington County Line
- o CM 09: NJ 50 and CR 610 (Dennisville – Petersburg Road)
- o CM 08: NJ 50 from NJ 49 to GSP
- o CM 10: NJ 50 and US 9
- o A31: CR 563 (Tilton Road) and CR 561 (Fire Road)
- o A32: CR 561 (Fire Road) and CR 608 (Washington Ave)
- o A30: CR 563 (Tilton Road) and CR 646 (Delilah Road – Airport Circle)
- o A29: CR 563 (Tilton Road) and CR 575 (Wrangleboro Road)
- o A19: US 30 (White Horse Pike) and NJ 50 (Cape May Ave)/ CR 563 (Philadelphia Ave)
- o A17: US 322 and NJ 50
- o A14: US 40 from NJ 50 to US 322
- o CM44: CR 631 (Tuckahoe Road) from NJ 50 to US 9

Study Corridor 11: NJ 77, Cumberland and Salem Counties



Corridor Limits:

*NJ 49 to Gloucester County Line
Milepost 0.0 to Milepost 17.5*

Corridor Description:

This north/south corridor connects US 322, US 40, and NJ 49. NJ 77 begins in Bridgeton City as a two-lane urban minor arterial with four-lanes near the intersection with NJ 56. After MP 3.9, NJ 77 is a two-lane rural minor arterial.

Major Connecting Routes:

- o US 40 (east/west access to Delaware and Atlantic City)
- o NJ 49 (east/west access to Salem and Cape May Counties)
- o US 322 (east/west access to Delaware and Atlantic City through Glassboro)
- o NJ 56 (east/west access to Millville)

Major Destinations/ Generators:

Bridgeton, Millville, Woodstown

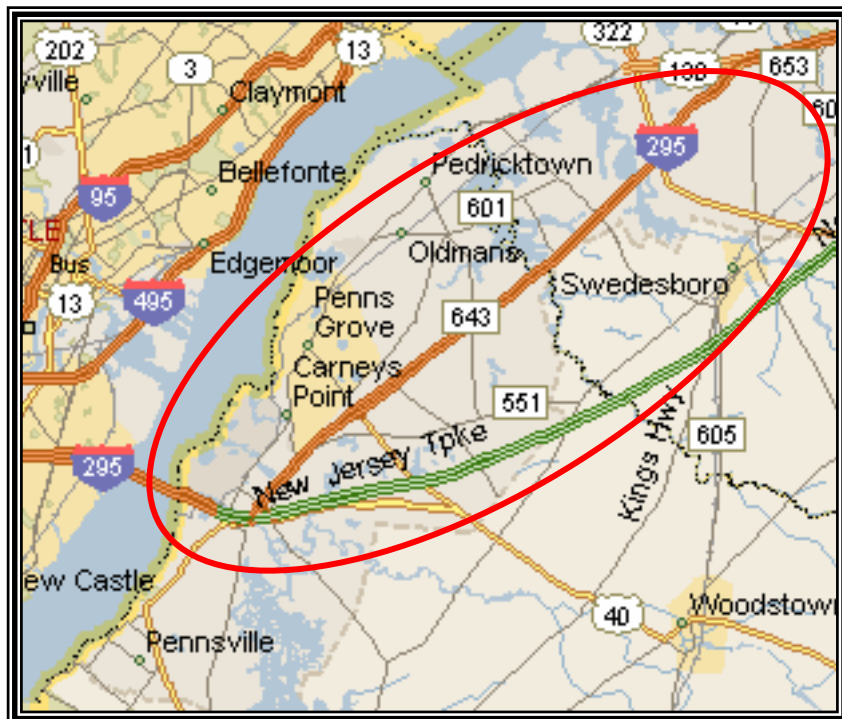
Additional Transportation Serving Corridor:

Bicycle, pedestrian

CMS Need Locations:

- o CU 24: NJ 56 (Landis Ave) from NJ 77 to CR 553 (Finley Road)
- o CU 27: NJ 56 (Landis Ave) from CR 553 (Finley Road) to Salem County Line
- o CU 01: NJ 77 from NJ 49 (Shiloh – Broad Street) to NJ 56 (Landis Ave)
- o CU 03: NJ 77 and NJ 55 (Landis Ave)
- o CU 02: NJ 77 and NJ 49 (Shiloh – Broad Street)
- o S 04: US 40 and NJ 77 (Upper Pittsgrove)

Study Corridor 12: I-295/ US 130/ New Jersey Turnpike, Salem County



Corridor Limits:

NJTP from US 40 to I-295; US 130 from NJ 48 to Delaware Memorial Bridge; I-295 from Gloucester County Line to Wilmington, DE

Corridor Description:

This interchange of several major routes serves weekday commuting traffic between New Jersey and Wilmington, DE, in addition to through traffic on I-295 and the New Jersey Turnpike/ I-95/ I-495.

Major Connecting Routes:

- o I-295 (north/south interstate access between Central New Jersey and Delaware)
- o New Jersey Turnpike (north/south toll freeway access between NJ, DE, PA, NY)
- o US 130 (southwest/northeast access between Salem/Camden Counties and New Brunswick)
- o US 40 (east/west access to Atlantic City, western New Jersey, DE, and PA)
- o NJ 49 (east/west access to Salem and Cape May Counties)
- o NJ 48 (east/west access from US 40 to I-295)

Major Destinations/ Generators:

NY, NJ, DE, PA

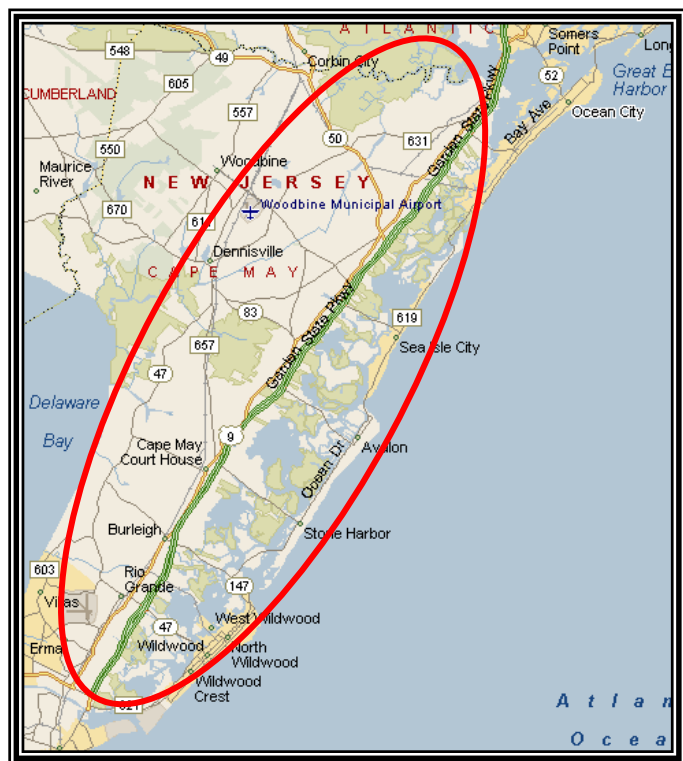
Additional Transportation Serving Corridor:

bicycle, pedestrian, AMTRAK rail

CMS Need Locations:

- o S 08: Main Street @ Penns Grove from US 130 to CR 607 (Broad Street)
- o S 11: New Jersey Turnpike at I-295/US 40/US 130
- o S 12: NJ 140 from US 130 to NJTP
- o S 07: US 130 and NJ 48
- o S 06: US 130 from NJ 48 to the Delaware Memorial Bridge

Study Corridor 13: Garden State Parkway, Cape May County



Corridor Limits

*US 9 Great Egg Harbor Bay
Milepost 0.0 to Milepost 27.2*

Corridor Description:

In this corridor, the Garden State Parkway (GSP), a toll road, connects Northern New Jersey and Delaware (via the Cape May Ferry) to short points in Cape May County. The GSP is primarily a four-lane rural principal arterial in Cape May County, except for the six-lane section from MP 8.0 1011.6 in Middle Township. In Upper Township the GSP becomes a four-lane urban freeway/expressway as it approaches Ocean City and Atlantic City. The GSP and US 9 are parallel through this corridor.

Major Connecting Routes:

- o NJ 50 (north/south access to US 322, US 40, US 30, ACE)
- o NJ 47 (southeast/northwest access to South Central New Jersey and Pennsylvania)
- o NJ 147 (east/west access to NJ 47 and Wildwood)
- o NJ 109 (north/south access to Cape May, US 9)

Major Destinations/ Generators:

DE/ MD, Cape May, Wildwood, smaller shore towns, NJ/ NY/ PA, Atlantic City, Ocean City.

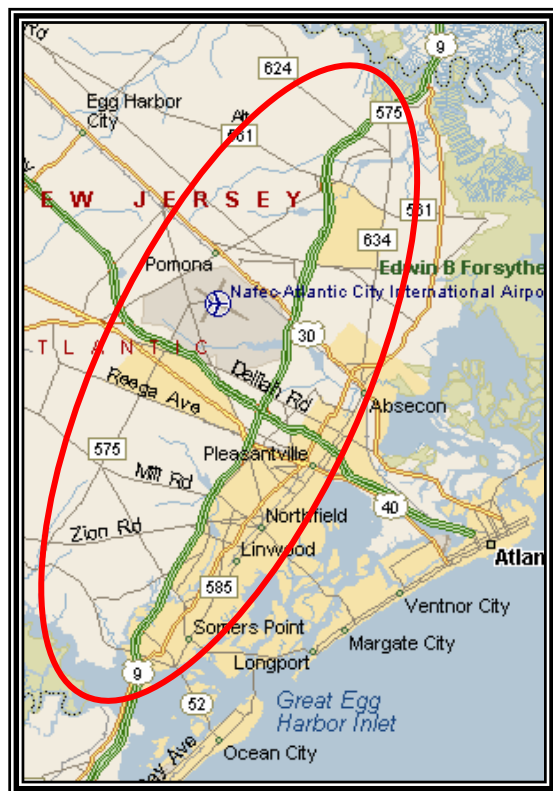
Additional Transportation Serving Corridor:

Cape May County Airport, buses, Woodbine Municipal Airport, bicycle, pedestrian, Cape May Ferry

CMS Need Locations:

- o CM 01: GSP from NJ 147 to Interchange 12S
- o CM 02: GSP and NJ 109
- o CM 03: GSP and Exit 6N – North Wildwood Road (NJ 147)
- o CM 04: GSP and Traffic Signal at Shell Bay Avenue
- o CM 05: GSP and Traffic Signal at CR 657 (Stone Harbor Blvd)
- o CM 06: GSP and Traffic Signal at Crest Haven Road (Exit 12)
- o CM 07: GSP and Exit 17N (CR 625, Old Sea Isle Blvd)
- o CM 41: GSP from Exit 17N to Atlantic County Line
- o CM 47: GSP and Exit 13 (CR 601, Avalon Blvd)
- o CM 20: NJ 47 from GSP to CR 654 (Fulling Mill Road)
- o CM 19: NJ 47 from Wildwood to GSP
- o CM 08: NJ 50 from NJ 49 to GSP

Study Corridor 14: Garden State Parkway, Atlantic County



Corridor Limits:

*NJ 52 (Ocean City) to Burlington County Line
Milepost 27.2 to Milepost 49.0*

Corridor Description:

The Garden State Parkway (GSP), a north/south toll road, is a four-lane urban freeway/expressway in Atlantic County from MP 27.2 to 41.7 when it becomes a four-lane principal arterial. This section of the GSP corridor connects Northern New Jersey and New York to Atlantic City and then to shore points in Atlantic and Cape May Counties.

Key Destinations/ Generators:

Atlantic City, Northeastern New Jersey, New York City, Ocean City, AC International Airport

Major Connecting Routes:

- o US 40 (east-west access to Atlantic City, western New Jersey, Delaware and Pennsylvania)
- o US 30 (east-west access to Absecon, western New Jersey, and Pennsylvania)
- o ACE (east-west access to Atlantic City, western New Jersey, and Pennsylvania)
- o GSP (parallel north-south toll road)

Additional Transportation Modes Serving Corridor:

AC International Airport, bicycle, pedestrian, buses

SJ CMS Need Locations:

- o A08: GSP and Exit 36 (CR 563, Tilton Road)
- o A05: GSP from ACE to Cape May County Line
- o A06: GSP and Exit 44 (CR 651 Alt., Moss Mill Road)
- o A07: GSP and Exit 37 (CR 608, Washington Ave)
- o A49: Jimmie Leeds Road at GSP Park and Ride Lot
- o A03: ACE and GSP (Interchange 7)
- o A41: ACE from Camden County Line to Exit 7 (GSP)
- o A46: CR 559 (Mays Landing Somers Point Road) from CR 651 (Stetmanville Road) to NJ 52 (Somers Point)
- o A09: US 40/322 from GSP to CR 585 (Main Street)

2. TRANSIT SERVICES

REGIONAL TRANSIT SERVICES OVERVIEW

Although transit service is available in every county of the SJTPO region, it is generally sparse due to the low population densities. Most of the region’s transit service is concentrated in Atlantic County, and more specifically in Atlantic City. This is a result of the tens of thousands of commuters and tourists who work and visit the city on a daily basis year round and thus provide the demand that is necessary for successful transit operations. For instance, according to the 2000 Census, the percentage of people who used transit to get to work in Atlantic City was 27.9% compared to just 3.2% for the SJTPO region as a whole. Table IV-7 shows mode share for journey-to-work trips on a county and statewide level in 2000.

Table IV-7 SJTPO Region Means of Travel to Work – 2000

Means of Travel	Atlantic		Cape May		Cumberland		Salem		SJTPO Region		New Jersey	
	Total	%	Total	%	Total	%	Total	%	Total	%	Total	%
Workers 16 years & older	112,659	100.0%	44,022	100.0%	57,387	100.0%	28,748	100.0%	242,816	100%	3,876,433	100.0%
Drove alone	82,379	73.1%	35,252	80.1%	44,954	78.3%	24,089	83.8%	191,339	78.8%	2,828,303	73.0%
Carpooled	12,955	11.5%	4,142	9.4%	7,843	13.7%	2,712	9.4%	26,710	11.0%	412,299	10.6%
Used public transit	8,668	7.7%	810	1.8%	1,281	2.2%	346	1.2%	7,770	3.2%	371,514	9.6%
Bicycled or walked	5,378	4.8%	2,241	5.1%	1,424	2.5%	669	2.3%	8,984	3.7%	130,447	3.4%
Motorcycle/other means	1,089	1.0%	320	0.7%	649	1.1%	292	1.0%	2,428	1.0%	27,314	0.7%
Worked at home	2,190	1.9%	1,257	2.9%	1,236	2.2%	640	2.2%	5,585	2.3%	106,556	2.7%

Source: 2000 Census Transportation Planning Package

As this table indicates, in 2000 the percentage of people who traveled to work on transit ranged from 1.2% in Salem County to 7.7% in Atlantic County. Across the region, the transit mode share was 3.2%, which is low compared to the overall state share of 9.6%.

Transit Services

The following paragraphs provide an overview of the principal transit services in the region. More detail on schedule, fares, and ridership can be obtained from the service providers.

Passenger Rail Service

Atlantic City Rail Line

NJ TRANSIT offers rail services between 30th Street Station in Philadelphia to the Atlantic City Rail Terminal seven days a week on the Atlantic City Rail Line (ACRL).

The Cape May Seashore Line

Through a lease agreement with NJ TRANSIT, the privately owned Cape May Seashore Line operates passenger rail service on segments of the 27-mile-long Cape May Branch rail line between Tuckahoe and Cape May City. Regularly scheduled weekend excursion service operates from May through December, with daily excursion service beginning at the end of June and ending at the end of August.

The Five Mile Beach Electric Railway Company

This trolley company operates year-round fixed-route service. It operates at its peak during the summer season, providing service daily in Wildwood Crest and Wildwood to attractions at the beach and boardwalk. Some service is available to Cape May, as well as between Wildwood and Rio Grande.

Passenger Bus Service

Local and Intrastate Bus Service

NJ TRANSIT provides a variety of local and intrastate bus routes within the SJTPO region (see Table IV-8).

Table IV-8 NJ TRANSIT’s Intrastate and Local Bus Service in the SJTPO Region

Route Number	Service Description
468*	Penns Grove-Woodstown
501	Atlantic City-Brigantine
502	Atlantic City-Hamilton Township
504	Bungalow Park-Chelsea Heights
505	Atlantic City-Longport
507	Atlantic City-Ocean City
508	Atlantic City-Galloway Township
509	Atlantic City-Somers Point
552	Atlantic City-Cape May
553	Atlantic City-Upper Deerfield
554	Atlantic City-Lindenwold
559	Atlantic City-Lakewood

* Operated by Salem County Transit under contract with NJ TRANSIT
 Source: NJ TRANSIT, October 2003

The Atlantic City Jitney Association provides service along four primary routes, two of which serve the marina area. Jitney service runs frequently 24 hours a day and 365 days per year. In a partnership with NJ TRANSIT, the Jitney Association provides free shuttle service to and from the Atlantic City Rail Station and all the casinos in Atlantic City.

The Delaware River and Bay Authority (DRBA) provides shuttle service from the Cape May Ferry Terminal to the Cape May Bus Terminal. The shuttle service is scheduled to coincide with the arrival and departure of the ferry. The shuttle operates daily in the summer season, from June to September, and on weekends from May to June and through October.

The Cape Area Transit (CAT) Shuttle System, a private operation, provides bus shuttle service in the City of Cape May.

Lion Trailways operates shuttles from Cape May, Wildwood, and Stone Harbor, as well as Avalon, Sea Isle City, and Ocean City.

Interstate Bus Service

NJ TRANSIT also provides interstate bus services in the region, linking the SJTPO region to cities like Philadelphia, Wilmington, and New York City (see Table IV-9)

Table IV-9 NJ TRANSIT Interstate Commuter Bus Routes

Route Number	Service Description
313	Philadelphia-Cape May
315	Philadelphia-Cape May
316	Philadelphia-Cape May (Seasonal)
319	New York City-Atlantic City Express
401	Philadelphia-Salem
402	Philadelphia-Pennsville
408	Philadelphia-Millville
410	Philadelphia-Bridgeton
423*	Wilmington-Penns Grove
551	Philadelphia-Marmora

* Operated by Salem County Transit under contract with NJ TRANSIT
 Source: NJ TRANSIT, October 2003

Casino and Franchise Bus

According to statistics for 2003 from the Atlantic City Convention and Visitors Authority, 6.8 million of Atlantic City’s 32.2 million visitors arrived on casino buses and an additional 504,000 arrived by franchise bus service. This high number of visitors arriving by bus inherently reduces the number of auto trips into the city each day, thus improving the overall operating characteristics of the region’s roadway system and reducing congestion on Atlantic City’s roads.

The South Jersey Transportation Authority (SJTA) oversees a bus management program to regulate all casino-related bus activities in Atlantic County, including bus parking, maintenance, permits, routes of travel, discharge and loading; site capacities, and traffic management. The SJTA also operates several casino bus parking facilities in Atlantic County, providing services that promote the use of transit.

Ferry Services

The Cape May-Lewes Ferry, owned and operated by the DRBA, provides bi-state ferry service between Cape May, NJ, and Lewes, DE. The ferry offers an 80-minute cruise across the Delaware Bay on a daily basis throughout the year.

Park-and-Ride Facilities

There are several park-and-ride facilities in the SJTPO region, including both state-owned and joint-use facilities (see Table IV-10). Some park-and-rides offer connections to transit services, while others are available for car and vanpools.

Table IV-10 Park-and-Ride Locations in the SJTPO Region

County	Municipality	Location
Atlantic	Atlantic City	Atlantic City Bus Terminal (Ohio and Arctic Avenues)
Atlantic	Absecon	Absecon Train Station
Atlantic	Atco	Atco Train Station
Atlantic	Egg Harbor City	Egg Harbor Train Station
Atlantic	Galloway Township	Atlantic City Service Area – Garden State Parkway – MP 41.4
Atlantic	Hammonton	Hammonton Train Station
Atlantic	Pleasantville	Atlantic City Expressway Intercept Lot (Area C-20) Casino Employee Lot
Atlantic	Pleasantville	Pleasantville Bus Terminal – Intersection of Routes 40 and 322 to Main Street
Cape May	Cape May City	Public Park/Ride – Elmira and Lafayette Streets, CR 663
Cape May	Dennis Township	Ocean View Service Area Park/Ride – Garden State Parkway – MP 18.3
Cape May	Middle Township	Garden Street Parkway Southbound, Exit 10A
Cape May	Ocean City	Ocean City Transportation Center – 10 th Street and Haven Avenue
Cape May	Upper Township	Garden State Parkway Southbound, Exit 25 Adjacent to Southbound Exit 25 ramp @ CR 623 Northbound, at Corner of Roosevelt Boulevard & Vernon Road
Cumberland	Vineland City	Urban Center Park/Ride – Landis Avenue and South West Boulevard

Source: to be supplied

Ridesharing/Alternative Commutation Services

The Cross County Connection Transportation Management Association provides limited rideshare matching in southern New Jersey. This TMA is available to assist residents, businesses, or local government agencies in southern New Jersey with their rideshare or other transportation needs. The

Cross County Connection, which operates primarily in Camden and Burlington counties, keeps potential carpool participants on file for possible matching.

Specialized Transit Services

A number of public and private organizations provide demand-responsive transportation services in the SJTPO region. Most of these entities provide these services for agency clients, typically senior citizens, persons with disabilities, and participants in Work First New Jersey, the state's welfare-to-work initiative.

Regional Service

Access Link is NJ TRANSIT's Paratransit service. Access Link is a curb-to-curb transportation service for eligible people with disabilities. Eligibility is determined by NJ TRANSIT after the applicants are assessed by local social service agencies, through interviews, to determine the severity of their disabilities and whether they are unable to use regular NJ TRANSIT buses.

Atlantic County

Atlantic County offers several services. Through the Office of Intergenerational Services, demand-responsive service is offered to any person over age 59, persons with disabilities (regardless of age), and rural residents residing in the county. Veterans are also eligible for medical transportation outside Atlantic County and to the veterans screening center in Ventnor.

The County of Atlantic Rural Transportation System (CARTS) provides Atlantic County rural residents (defined as those living west of the Garden State Parkway) with transportation to shopping areas, hospitals, and major food markets in Atlantic County and portions of Cumberland County. All rural residents are eligible, and there are no limits on trip purpose.

The Mid-County Connector offers two different transit services for TANF (Temporary Aid to Needy Families) and other low-income residents in the county to connect them to employment opportunities and existing NJ TRANSIT bus and rail routes. The Mid-County Connector Industrial Park shuttle runs between the Industrial Park and the downtown Egg Harbor City business district, including connections to the Egg Harbor City Rail Station and NJ TRANSIT bus routes along US 30 (Routes 502, 553, and 554). During off-peak hours, the Mid-County Connector makes several roundtrips between Egg Harbor City and Mays Landing, including a stop at Atlantic Cape Community College. The shuttle travels along Route 50, providing feeder connections to NJ TRANSIT fixed-route buses and trains.

Atlantic County's Community Shuttle provides a new service for transportation-dependent people to get to work. Transportation is currently provided in some of the under-served areas of the county, including Buena Vista Township, Buena Borough, Folsom, Collings Lakes, and Hammonton.

Other available services are the Western Connector, which provides shuttle bus service to access NJ TRANSIT bus routes 553 and 554, and the Eastern Connector, a demand-responsive curb-to-curb service to and from job sites in Atlantic City.

Also serving Atlantic County residents, in the public sector, on a demand-responsive basis is the Margate Senior Citizen Volunteer Bus Shuttle, Brigantine Senior Shuttle, City of Ventnor Shuttle, Buena Boro Senior Outreach Program, Galloway Township Senior Services Office, and Atlantic County Special Services School District.

The Atlantic City Department of Health and Human Services also provides fare-free fixed-route and demand-responsive service for city residents. The service is geared towards senior citizens, but is open to other segments of the community, including disabled persons, church organizations, youth groups, school trips, and after-school programs.

Several privately owned and operated demand-responsive services in Atlantic County provide services that are typically tailored to the specific needs of their clients and are limited in days and hours of

service and the geographic area served. Some of these private agencies provide service for medical trips and Medicaid transportation. These private carriers include ARC of Atlantic County, the Spanish Community Center, Community Programs Adult Medical Day Care, AtlantiCare Behavioral Health Division/Health System, Career Opportunity Development, Inc., Caring Inc., Family Service Association, Kessler Memorial Hospital, and the Uptown Family Center.

Cape May County

The Cape May County Department of Transportation operates a demand-responsive service known as Fare Free Transportation. Fare Free Transportation provides service primarily for senior citizens.

The Cape May County Board of Social Services also provides fare-free transportation for TANF participants and Medicaid clients. The Board of Social Services contracts with vendors, including Fare Free Transportation, the Five Mile Beach Electric Company, Spanish Community Center, and Belleplains Ambulance Corporation, to provide this transportation service using taxis and minibuses.

Other public demand-responsive service providers include the Cape May County Youth Services, the Cape May County Special Services School District, and the Wildwood Housing Authority.

The following agencies private organizations provide demand-responsive transportation services in Cape May County: the Puerto Rican Action Committee, Spanish Community Center, Cape Counseling Services, Disabilities Resource Center, Easter Seals Adult Training Center, and Magnolia Adult Medical Day Care.

Cumberland County

In Cumberland County, the primary provider of demand-responsive service is the Cumberland County Office on Aging, through a service known as CATS (Cumberland Area Transit Services). CATS provides transportation services for the elderly and disabled, as well as low-income and welfare-to-work participants.

The Cumberland County Office of Employment and Training sponsors three 20-person shuttle buses. The Vineland Shuttle transports students, trainees, and workers between downtown Vineland and the Vineland Industrial Park.

Some private organizations also provide demand responsive transportation services in Cumberland County, including Casa PRAC (Puerto Rican Action Committee) and CHAIR (supportive assistance for the disabled and elderly).

Salem County

The Salem County Senior Citizen & Disabled Resident Transportation Program offers services to Salem County residents 60 years of age and older and disabled residents of all ages. It can be used for medical appointments and transportation to congregate nutrition sites, social service appointments, as well as shopping trips. Service is available to all fifteen municipalities in Salem County.

Private service is provided through Salem Care, Inc., a private adult day care center that provides transportation to agency clients including the elderly, disabled, and low-income residents of Salem County. Other private operators include the Inter Agency Council and the Puerto Rican Action Center.

Job Access and Reverse Commute Plan

This plan was updated in 2002 to further identify regional transit needs and service strategies to improve the ability of Work First New Jersey participants to reach places of training, job placement, and employment. Various services for low-income, transportation-dependent people are described by county under specialized transit services. This section summarizes the service needs identified in the plan update and strategies proposed to address them.

Atlantic County

Issues

- A pocket of residential development south of Black Horse Pike in the vicinity of English Creek Avenue is without transit service.
- Some residents of Buena Vista Township do not have access to fixed-route transit.
- The route of the new Community Shuttle that would operate between Buena and Hammonton along Route 54 may be too long.

Recommendations

- Extend CARTS service hours to better serve work trips.
- Review alignment for Community Shuttle.

Cape May County

Issues

- Gaps in transit service exist along US 9, especially between Cape May Court House and Ocean View. Several nursing homes in the corridor need more transit service for their staff.
- North-south connections should be improved and more frequent transit connections to Rio Grande should be provided to give better access to the significantly increased employment opportunities associated with the new convention center in Wildwood.
- Passengers going to the Crest Haven complex must cross the Garden State Parkway; although the intersection is signalized, it is not pedestrian friendly.
- Extending the hours of Fare Free Transportation would help serve workers with non-traditional schedules.

Recommendations

- Increase bus service between Wildwood and Rio Grande.
- Establish community bus service between Wildwood and Cape May.
- Improve pedestrian access to Crest Haven complex.
- Improve transit connections to Ocean View.
- Extend service hours for Fare Free Transportation.

Cumberland County

Issues

- A transit connection is needed between Vineland and Bridgeton along Route 56.
- Employers along Route 56 outside Vineland are not well-served by fixed-route transit; perhaps the Vineland Shuttle's route should be modified to serve those locations.
- A transit connection is needed between Salem and Bridgeton via Route 49.

Recommendations

- Extend service hours for CATS.
- Consider providing connections between Vineland and Bridgeton.
- Consider providing connections between Salem and Bridgeton.

Salem County

Issues

- Service gaps have been identified around Elmer, Olivet, Norma, and Brotmanville, in the eastern part of the county, and near the Delaware River between Carneys Point, Penns Grove, and Woodstown.
- Additional transit services are needed to connect workers with the Pureland Industrial Complex in Gloucester County, as well as with those in Wilmington and Christiana, DE.
- Better transit connections are needed between Salem and Bridgeton.

Recommendations

- Extend service to Pureland.
- Improve transit connections to job opportunities in Delaware.
- Provide paratransit to serve job access transportation.
- Provide connections between Salem and Bridgeton.

On a regional basis, the Job Access and Reverse Commute Plan Update recommends developing transportation partnerships, introducing a regional or county-based mobility manager, promoting ridesharing programs, and developing an automobile ownership program.

South Jersey Regional Rail Study

Since the last Regional Transportation Plan, the South Jersey Regional Rail Study evaluated four existing rail corridors to determine the condition of their infrastructure, environmental constraints, and required improvement costs for possible reactivation of passenger rail service. They included:

- Corridor 1 – Atlantic City to Mays Landing
- Corridor 2 – Winslow Junction to Cape May Court House
- Corridor 3 – Winslow Junction to Vineland–Bridgeton
- Corridor 4 – Glassboro to Vineland–Millville

Corridor 1, which lies entirely within Atlantic County, could carry workers into Atlantic City and visitors to the casino resorts, beaches, and conventions, as well as shoppers to the Shore Mall area and western parts of the county. However, the right-of-way in the western half of the corridor has not been fully preserved, and reacquisition would be very expensive. The study did not recommend reactivation of this portion, but did state that passenger service could be reactivated between Shore Mall (McKee Avenue) in Egg Harbor Township and Atlantic City. The estimated cost for the necessary infrastructure improvements is \$58 million, which does not include the purchase and maintenance of new train cars, a new maintenance yard, operating costs, or additional right-of-way.

Of the four corridors studied, only Corridor 2 (Winslow Junction to Cape May Court House) is included in NJ TRANSIT's "2020 Transit Report: Possibilities for the Future." This corridor could link with the Atlantic City Line, providing service to Camden, Philadelphia, Trenton, and Atlantic City. It could also link with Corridor 3 via Winslow Junction. The estimated cost for infrastructure improvements is \$131 million. This includes new track, improved grade crossings, replaced or rehabilitated bridges, drainage improvements, six new stations, and four passing sidings.

Corridor 3 (Winslow Junction to Vineland–Bridgeton) could carry passengers from the Millville, Bridgeton, and Vineland areas to Atlantic City, Camden, Philadelphia, Trenton, and beyond via connections at Winslow Junction. However, extensive infrastructure improvements would be needed (at a cost of \$117 million), and the environmental permitting requirements would be stringent and involve considerable effort.

Corridor 4 (Glassboro to Vineland–Millville) is in the best physical condition of the four corridors studied, but it is also the only corridor that would not connect with passenger rail service operating today. Reactivating this line could be recommended only if NJ TRANSIT builds a proposed new transit line between Camden and Glassboro to serve the Route 55 corridor. If that line, which is included in NJ TRANSIT's "2020 Transit Report: Possibilities for the Future," were built, the Glassboro to Millville line would be the most logical of the four corridors studied to be reactivated. The estimated cost for infrastructure improvements is \$90 million.

3. BICYCLE AND PEDESTRIAN

INTRODUCTION

SJTPO makes bicycle and pedestrian mobility and safety a high priority by planning future initiatives and conducting safety campaigns. Each county has been active in planning efforts to further the development of bicycle and pedestrian facilities. Further, many municipalities in the SJTPO region require bicycle and pedestrian facilities in new development. Nearly every municipality in the four-county region has existing or planned bicycle and pedestrian facilities for both commuting and recreational purposes.

SJTPO Goals for 2025

Echoing the goals embodied in New Jersey's Statewide Bicycle and Pedestrian Master Plan, the following five goals embody the principle that bicycling and walking are a routine part of the transportation system and should be treated as such, rather than being treated as separate modes.

- One: Create a bicycle and pedestrian-friendly transportation infrastructure by planning, designing, constructing, and managing facilities that will accommodate and encourage use by bicyclists and pedestrians and be responsive to their needs.*
- Two: Make community destinations, transit facilities, and recreation facilities accessible and convenient to use by all types and levels of bicyclists and pedestrians.*
- Three: Continue to reform land use policies, ordinances, and procedures to maximize opportunities for walking and bicycling.*
- Four: Continue to develop education and enforcement programs that will result in reduction of crashes and a greater sense of security and confidence for bicyclists and pedestrians.*
- Five: Increase bicycling and walking by fostering a pro-bicycle and pro-walking ethic in individuals, private-sector organizations, and all levels of government.*

Performance Criteria

- Transportation facilities, at a minimum, shall be planned, designed, constructed and maintained to accommodate shared use by motor vehicles, bicycles, and pedestrians.
- Where appropriate, and especially when a roadway project is an integral element of a city, town, or village center development plan, transportation facilities shall be designed, constructed, and maintained to encourage pedestrian activity.
- Where appropriate, or when a roadway project is an integral element of a bicycle transportation plan or designated bicycle facility system, transportation facilities shall be designed, constructed, and maintained to encourage use by bicyclists.
- Pedestrian traffic shall be given primacy over motor vehicle traffic in the design of projects located within zones dedicated to pedestrian movement.
- Bicycle traffic shall be given primacy over motor vehicle traffic in the design of projects that encourage use by bicyclists.

Proposed Bicycle/Pedestrian Projects, 2004-2006

SJTPO and its counties are actively engaged in a great number of bicycle and pedestrian improvements to the region's transportation system. The Statewide Transportation Improvement Program (STIP) for fiscal years 2004-2006 details many of these proposed improvements. Table IV-11 outlines those projects in these fiscal years that have specifically targeted bicycle and pedestrian accommodation.

Table IV-11 Proposed Bicycle and Pedestrian Projects

County	Route	Program	Description
Atlantic	9	Northfield Sidewalk Replacement	Project includes the provision of new sidewalks, curbs, curb cuts and crosswalks.
Salem	40	Route 77 to Elmer Lake	Project includes provision of 8-foot shoulders for bicycle compatibility, construction of new sidewalks, enhanced pedestrian crossings and signage for pedestrians.
Salem/Cumberland	49	Salem/Cumberland, Salem River to Route 55 Bicycle Improvements	This project provides improvements to gaps on a primarily bicycle-compatible route. It may further include the installation of crosswalks, bicycle lane striping and signage, and regrading and improved access to bridges.
Cape May/Atlantic	52	Causeway Replacement and Somers Point Elimination	Project will provide a wide sidewalk for both pedestrian and bicycle use, and recreational pull-off areas for pedestrian access.
Salem	130	Penns Grove Sidewalk Replacement	Project includes the provision of new sidewalks and crosswalks at various locations along the corridor.
Cape May	CR 609	Crest Haven Road	Project includes pedestrian access improvements.
Cumberland		Buckshutem Road Bridge at Laurel Lake	Project includes the provision of two 8-foot shoulders and a sidewalk on one side of the bridge.

Further, nearly all projects in the TIP relating to roadway and bridge improvements are being designed to be bicycle and pedestrian compatible where feasible. Some examples of these projects include:

- Improvements to Route 30 and Pomona Road in Atlantic County
- Tuckahoe River Bridge replacement and roadway improvements in Cape May/Atlantic counties
- Operational and safety improvements to Route 47 in Cumberland County
- Maurice River Bridge replacement in Cumberland/Salem counties
- Salem River Bridge replacement in Salem County
- Dennis Creek Bridge replacement in Cape May County.

Journey to Work

Bicycling and walking continue to capture relatively small percentages of regional work trips compared to other modes. However, the number of these trips is increasing and is projected to continue to increase over the next 25 years. The percentage that bicycle or walk to work in the SJTPO region is higher than the overall state share, with the highest percentages found in Atlantic and Cape May counties (see Table IV-12).

Table IV-12 Bicycling and Walking to Work, 2000

	Atlantic		Cape May		Cumberland		Salem		Statewide	
Workers 16 years and over	112,659		44,022		57,387		28,748		3,876,433	
Bicycled or walked	5,378	4.8%	2,241	5.1%	1,424	2.5%	669	2.3%	121,305	3.1%

Source: 2000 Census

Contributing factors to the high percentage of people who walk or bicycle to work in Atlantic and Cape May counties are high population and employment densities, as well as mixed land uses and a resort environment. By comparison, the National Household Travel Survey for 2001 reveals that 1% of work-related trips were by walking and only .02% of trips were made by bicycle.

Statewide Development and Redevelopment Plan

New Jersey’s communities are being increasingly designed to accommodate pedestrians and bicyclists. Centers are the focus of community activity and their core areas should be the domain of pedestrians. As such, the *State Development and Redevelopment Plan* seeks to change future development patterns in New Jersey by creating Centers of various kinds (Urban, Regional, Village, Town, and Hamlet) and encouraging growth and redevelopment in existing Centers. This includes providing sidewalks on both sides of all roadways in Centers, in all residential and commercial development plans in Centers, and in almost all development plans in Planning Areas 1 (Metropolitan) and 2 (Suburban). The *SDRP* also recommends the provision of shoulders to accommodate pedestrians and bicyclists where sidewalks are not to be provided.

Counties and municipalities nominate an identified or planned Center for consideration and inclusion in the State Plan. The State Planning Commission designates the Centers. Designated Centers in the SJTPO region are listed in Table IV-13.

Table IV-13 Designated Centers by County, SJTPO Region, (as of July 16, 2003)

County	Designated Center	Type of Center	Date of Designation
Atlantic	Atlantic City	Urban	06/12/96
	Oceanville	Village	12/05/01
	Smithville	Town	12/05/01
	Wrangleboro Estates, Galloway Township	Town	12/05/01
Cape May	Avalon	Town	10/27/99
	Cape May City	Town	10/27/99
	Cape May Point	Village	04/23/97
	Stone Harbor	Town	10/27/99
	The Wildwoods	Regional	04/22/98
Cumberland	Bridgeton City	Regional	12/05/01
	Delmont	Village	02/02/00
	Dorchester-Leesburg	Village	02/02/00
	Heislerville	Village	02/02/00
	Laurel Lake	Village	06/19/02
	Mauricetown Station	Hamlet	02/02/00
	Mauricetown-Haleyville	Village	06/19/02
	Millville-Vineland	Regional	05/20/94
	Port Elizabeth-Bricksboro	Village	02/02/00
	Cedarville	Town	06/18/03
Port Norris	Village	06/19/02	
Salem	Elmer	Town	12/03/97
	Salem City	Regional	12/01/99
	Woodstown	Town	10/29/93

Source: Office of State Planning, 2003

Transit Services and Intermodal Connections

There exist several strategies in linking bicyclists and pedestrians with transit services. Providing bicycle-exclusive parking facilities at transit stops and stations is effective in connecting bicyclists with transit facilities.

NJ TRANSIT provides parking capacity for approximately 1,600 bicycles at its public facilities. Racks are located at 90% of the train stations in New Jersey, at several NJ TRANSIT-owned and operated park-and-ride facilities, and at several bus terminals.

NJ TRANSIT allows bicycles on transit vehicles, including trains and buses. Bicycles are permitted on all buses with bike racks or having an underfloor luggage compartment. This service is on a first come, first served basis. As of 2003, half of the NJ TRANSIT bus fleet was considered “bicycle friendly.” Further, bicycles can be accommodated on all NJ TRANSIT buses from Atlantic City to areas south; both standard frame and collapsible bicycles are allowed on the Atlantic City Rail Line, without restriction.

Impediments to Pedestrian and Bicycle Travel

To facilitate pedestrian and bicycle travel, the built environment must encourage walking and cycling. Planning and design decisions must take these users into consideration. Some common problems related to pedestrian travel include difficulty crossing streets and highways, inadequate pedestrian facilities and signal clearance time, high-speed traffic, high-volume traffic, sidewalk gaps or obstructions, inadequate lighting, lack of pedestrian advocacy groups, little consideration of pedestrians by drivers, and land use patterns that discourage pedestrian usage. Some common problems related to bicycle travel are lack of pavement width for shared roadways, pavement with debris or cracks, rumble strips and roadway reflectors, utility covers and drainage grates, lack of consideration from motor vehicles, lack of bicycle parking facilities at activity centers, barriers or restrictions to traveling on bus or rail with bicycles, and safety issues in areas with many driveways.

Existing Conditions

The region has a limited number of transportation-oriented designated bicycle facilities. The majority of bicycle facilities in the region are non-designated facilities consisting of paved shoulders and shared roadways. However, the existing roadways and streets in the region provide the greatest potential resource for bicyclists. In most cases, existing roadway width, space, and surface conditions may be sufficient to allow safe bicycle travel. Under certain conditions, such as low traffic volumes and low operating speeds or where paved shoulders of adequate widths are present, the existing street and highway network can represent a cost-effective means for developing a bicycle network.

Nevertheless, despite the importance of the existing roadway network, the identification of bicycle compatible streets and highways is a complex task. The factors that need to be examined include traffic volumes, lane widths, presence and width of shoulder, motor vehicle speeds, type of traffic, parking conditions, commercial driveways, grade, and sight distance. Therefore to determine bicycle compatibility of area roadways, it is advisable that each be examined individually.

It is also not uncommon to find a lack of pedestrian accommodations or missing links in sidewalks in developed areas of the region as well. Pedestrian facilities include sidewalks, crosswalks, signals, overpasses, underpasses, malls, trails and greenway paths. Sidewalks are common in urban areas but are far less common in suburban and rural areas. Sidewalks need to be continuous, accessible and well maintained in order to be useful. Many sidewalks in the region do not meet these criteria.

Like the rest of New Jersey, the impediments listed above for both bicycle and pedestrian travel are common and many are widespread in the region. Removing barriers, such as those listed above, to bicycle and pedestrian travel are needed in the region. If bicycling and walking are to become more widespread in the region, a more bicycle friendly and pedestrian friendly environment must be created. Creating these more friendly environments requires improvements in the engineering and operation of streets and highways and creating more compact land use forms.

As can be seen in the number of projects specifically targeted for bicycle and pedestrian accommodation in the region and the number of roadway and bridge improvements that are being designed to be bicycle and pedestrian compatible where feasible, the SJTPO is actively engaged in making improvements to address the needs of bicyclists and pedestrians.

4. INTERMODAL ISSUES

INTRODUCTION

This section of the plans presents information on additional elements of the transportation system. Data was gathered from a variety of sources, including direct interviews with industry officials through focus groups and meetings. Where data permits, a summary of existing and future condition and issues is presented.

FREIGHT AND GOODS MOVEMENT

Key Freight Issues Summary

County representatives of SJTPO's Technical Advisory Committee met in February 2004 to discuss issues related to the movement of freight in the region. This meeting was held in conjunction with the Statewide Freight Plan effort. Significant issues and concerns raised at the meeting are summarized below:

- Double-stacked container freight on rail is increasing in an effort to accommodate the significant rise in the amount of freight that must be moved. Because of height restrictions, however, it cannot travel in southern New Jersey.
- The Delair Bridge is a major chokepoint for freight entering from Pennsylvania. An engineering analysis is needed to determine the modifications necessary to correct this problem.
- All major freight corridors in the SJTPO region should be analyzed to identify any other chokepoints (e.g., Hunter Street Bridge in Woodbury) that preclude double-stacked containers.
- Significant trucking activity is causing capacity problems at many intersection and corridors across the region. Turning radius in the Route 322 and 40 corridors (especially during the summer) and are very hard on pavement surfaces. This is also true to a lesser extent in the Route 30 corridor (Egg Harbor is a chokepoint).
- Freight movement in Atlantic City is not a major problem since the casinos have established their own distribution centers off island; however, trucks bringing product in do compete with the tour buses and have difficulty navigating in city streets because of their size. Unlike the buses, trucks do not have designated routes in the city.
- Maintenance of rail facilities is crucial. Once rail freight capacity is lost, it won't come back.
- Freight movement in the SJTPO is inherently disadvantaged and inefficient, because of its peninsular shape. Rather than accommodating through-travel, freight routes operate as one-way spur movements, moving into and out of the region and often traveling empty on the reverse leg.

AVIATION

A number of airports are located within the SJTPO region, including one commercial air carrier airport, and primary and secondary general aviation airports.

Atlantic City International Airport

The South Jersey Transportation Authority, an agency of the State of New Jersey, operates the terminal, runways and related facilities at Atlantic City International Airport (ACY). The Federal Aviation Administration William J. Hughes Technical Center and New Jersey Air National Guard are located at the airport. ACY is located 10 miles from downtown Atlantic City, a gaming and resort community that attracts 34 million visitors annually. The airport is situated adjacent to the Atlantic City Expressway, which runs from Atlantic City to the Philadelphia metropolitan region, and two miles from the Garden State Parkway.

General Aviation Airports

In addition to ACY, the SJTPO region is home to several smaller publicly and privately owned and operated airports including Spitfire Aerodrome (formerly Oldman's Airport) and Millville Municipal

Airport. These general aviation airports serve private passenger, agricultural, and/or commercial charter and freight aircraft (see Table IV-14).

Table IV-14 General Aviation Airports

Airports	Location	County
Spitfire Aerodrome (formerly Oldman's)	Oldmans Twp	Salem
Buck's	Bridgeton	Cumberland
Bader Field	Atlantic City	Atlantic
Cape May	Wildwood	Cape May
Hammonton Municipal	Hammonton	Atlantic
Kroelinger	Vineland	Cumberland
Li Calzi	Bridgeton	Cumberland
Millville Municipal	Millville	Cumberland
Ocean City	Ocean City	Cape May
Piney Hollow	Hammonton	Atlantic
Rudy's	Vineland	Cumberland
Vineland-Downstown	Vineland	Cumberland
Woodbine Municipal	Woodbine	Cape May

Source: Economic Impact of New Jersey's General Aviation Airports Ports

The Millville Airport and Industrial Park Access Plan was completed in 2002. The study identified a phased plan of improvements designed to improve access to the airport and adjacent industrial park area and relieve congestion on existing local access roadways. The stud is described in more detail in Chapter Five – The Implementation Plan.

PORTS

Two small ports support goods movement in southern New Jersey at Salem and Bridgeton. The Port of Salem has 24 acres of private area and 3 acres of public area. It has a depth of 17 feet, and serves domestic and international vessels containing bulk cargoes. The private port ships various supplies to Bermuda at an average of 2 ships per week. The Southern Railroad of New Jersey serves the port and provides connections to CSX/Norfolk Southern. Route 49 provides truck access. This port is designated as a Foreign Trade Zone and is thus excluded from US Customs regulations, which greatly reduces shipping and importing costs.

The Port of Bridgeton has a depth of 17 feet and supports barge traffic containing bulk cargoes such as gravel, lumber, and oil. Truck access is provided by Route 49. Currently, this port is not in operation and South Jersey Port Commission (SJPC) hopes to find a new tenant. There are also ports in Paulsboro and Gloucester City. There is direct rail and highway access to each of these terminal facilities.

Salem Terminal (The Port of Salem), a port entry since 1682, is one of the oldest ports on the East Coast, and is the newest addition to SJPC. Leased and operated by Salem Terminals Limited, extensive renovations are planned for this facility.⁸

The Delaware River Port Authority (DRPA) is undertaking a planning effort to develop a comprehensive Master Plan to identify preferred land uses and commercial port activities for the southern New Jersey waterfront port district, a region extending along the Delaware River Waterfront from Petty's Island in Burlington County, New Jersey to the southern limit of Salem County, New Jersey.

MOTOR CARRIERS

Trucking is the major mover of goods in the region. Trucks are also the dominant mode of transport in the intermodal freight business – truck to rail, truck to ship, and truck to air. Major truck routes in the

⁸ <http://www.southjerseyport.com/facilities.asp?Type=1&SectionNumber=3&TextType=2&Is3D=0>, accessed March

region include I-295, US 130, US 40, and the New Jersey Turnpike through Salem County, NJ 47 through Cumberland and Cape May Counties, NJ 77 in Cumberland County, NJ 109 in Cape May County, and US 322, US 206, and NJ 54 in Atlantic County. A number of truck terminals are in the region with the majority of major truck terminals located in Vineland, Cumberland County.

On January 13, 2000 Governor Whitman signed legislation excluding all trucks 102" wide or wider that are not working deliveries in New Jersey from all roadways not included on the National Highway Network. The intent of this legislation is to remove regional through truck traffic from primarily local service highways. All federal and most state roadways in the counties can provide access for trucks up to 53' long and up to 102" wide. Double bottom trucks (two trailers and cab) are permitted only on I-295 and the New Jersey Turnpike. In addition, local ordinances may affect routings available for commercial carriers in some areas. Recent legal action may affect the status of the truck ban.

5. TOURISM

INTRODUCTION

Tourism is a significant industry in the SJTPO region, and not just in Atlantic City. While the casino resorts generate the greatest number of visitors to the region, ecotourism and cultural and heritage attractions are becoming increasingly important. The importance of a transportation network adequate to get these people to their destinations cannot be overstated. Competition for tourism is very strong among states on the East Coast, and people will choose to go elsewhere if the trip is too difficult.

ISSUES AND NEEDS IDENTIFICATION

Atlantic City leads the region in employment, with a labor force of almost 62,000 people; employment is expected to increase 72% by 2025. In 2003, some 32 million people visited the casinos; attended conventions, trade shows, and other special events; and enjoyed the beaches. An average of 2.7 million tourists a month traveled by automobile, casino and franchise bus, NJ TRANSIT, and chartered and regularly scheduled airplanes to this small city.

Similarly, the population of Cape May County increases to more than 600,000 during the summer season peak, about five times greater than the County's 2000 Census population of nearly 102,500. Tourism is the largest industry in Cape May County and generates more than \$3.6 billion annually. According to a study conducted by the State of New Jersey Office of Travel and Tourism, nearly \$429 million is generated in state taxes and over \$201 million in local taxes. During the summer peak, the tourism industry provides 121,000 jobs in Cape May County with a payroll of \$1.83 billion. More than 20 million trips were taken to Cape May County in 2000.

A new Visitor Center welcomes tourists to Salem County, where visitors can enjoy arts and music, natural areas, parks, and numerous historical sites, including Fort Mott State Park, which is served by the "Three Forts" ferry service offered by the Delaware River and Bay Authority. The Cowtown Rodeo in Pilesgrove is the oldest rodeo on the East Coast.

Cumberland County also features agri-tourism, lighthouses and nature trails, historic sites, Wheaton Village, the Maurice River (part of the National Wild and Scenic River System), and the many attractions offered by the Delaware Bay.

Transportation issues that must be addressed include the following:

- Congestion relief for Route 55 is critical to the long term success of the region; its completion would benefit its role as both a recreational access corridor, and as the region's primary emergency evacuation corridor. The issues and benefits are discussed in more detail in Chapter 5 – the RTP Implementation Plan
- Getting to and from the region – East-west connections are limited within the region, as are access to and from Maryland and Delaware. The connections that do exist carry both local and regional travel, and are heavily congested during the summer.
- Getting around within the region – While employment will grow significantly in Atlantic City, its population will not. More and more people will commute to that location, adding to the burden already present from tourists. More local and regional transit would be welcome, as well as increased parking and more and improved facilities for bicycling and walking.
- Signage – Wayfinding signs are important to reduce visitor confusion and make trips more positive experiences. Variable message signs to alert travelers to changing traffic conditions and the availability of alternative routes are important to keep traffic flowing in the region.

V. RTP IMPLEMENTATION PLAN

INTRODUCTION

The previous chapters of the RTP have identified the region's transportation goals and policies, the context within which transportation takes place in the region, including factors influencing travel demand, the existing and projected future condition of transportation resources, and the needs and problems of the region's multi-modal transportation system. This information and analysis led to the development of a series of issues, or concepts, that should be advanced to improve the transportation system, better serve the mobility needs of people and goods, and move toward fulfillment of the RTP's goals and objectives. This chapter defines action items in response to the identified needs and problems, and enhancements to the process used to evaluate and plan for the future health and function of the transportation system.

REGIONAL CORRIDOR IMPROVEMENTS

The SJTPO regions covers a relatively large land mass, yet the primary highway system consists of a limited number of arterials. These arterials must serve the dual purpose of providing regional mobility and access to centers of activities for longer-distance travel, as well as localized mobility and access for commuters and residents. The amount of travel demand placed on the roadways varies significantly based on the day of the week and the season of the year. Volumes can increase significantly in the summer season on many roadways. This places a serious strain on the region's primary roadways. Minor improvement concepts have been proposed or are being advanced to improve the efficiency of the existing system. However, a comprehensive assessment of the long-term needs of the primary corridors in the SJTPO region is necessary to determine the extent of the deficiencies and to develop comprehensive improvement plans. These improvements are expected to include high-level capacity additions such as more lanes and possible new roadways on new alignments where needed. The following corridors are proposed as priority corridors for study and concept development.

Route 55

The Routes 55 /47 Corridor extends from Route 55 and 47 in Vineland to the terminus of Route 55 at Route 47 in Port Elizabeth, and follows Route 47/347 toward Cape May County and the shore. Several areas along this corridor are identified as significant problem areas both now and in the future. In fact, this corridor has been identified as a problem corridor for many years, and the issue predates the creation of the SJTPO as an organization. Interim improvement concepts, such as signalized intersection upgrades and a modest motorist information system, have provided some short-term relief, but still fall far short of significantly improving traffic flow conditions in the corridor today and do little to address the long-term needs of this growing regional problem.

The Route 55 corridor serves two vital functions in the region: as a primary recreational corridor, and as a primary emergency evacuation corridor. As the tourist season and the demands it places on the system extend in duration with each passing year, more stress is placed on the primarily local roadways that service traffic in this corridor. Numerous studies have been conducted calling for improvements in the corridor. The Shore Connection Committee, composed of local, county, and state transportation agencies and officials along with business and citizens groups, concluded in 1998 that significant seasonal congestion exists in and around the corridor and measures should be taken to address this growing problem. The Committee also supported the completion of Route 55 as a long-term improvement. The corridor currently experiences a high number of accidents, as the traffic flow conditions have contributed to 1387 accidents between 1995 and 2001.

The SJTPO has called for measures to add sufficient capacity through major expansion, upgrading of existing facilities, or the development of new facilities on new alignments to develop a lasting solution. A possible completion of the Route 55 corridor would extend from the existing terminus of Route 55 in the City of Millville, Cumberland County, to the Garden State Parkway (GSP), in Dennis Township, Cape May

County. The proposed four-lane, limited access freeway would be built primarily as a new road extending from Route 55 to cross CR-548, Hunter's Mill Road, CR-550, and CR-651 before following Route 83 on the existing, upgraded alignment to US-9 and GSP. Additional concepts and potential alignments have been proposed.

From a traffic perspective, a new segment of Route 55 is forecast to carry a significant amount of traffic volume, as the new roadway would draw recreational and long distance traffic from overtaxed local roadways not designed to handle the current and future demands. Congestion and delays are present on Route 47 and Route 49, particularly during the summer months, and the future demand is expected to exceed capacity on these two state roads. Thus, the new segment of Route 55 would provide significant relief to the roadway system, as summer traffic volume would be diverted from two-lane state and county roads.

The shore communities of Cape May County contribute significantly to the state and federal treasuries. Tourism is a major revenue generator in the region, and employs over one hundred thousand people in the area. The southern resorts and businesses are in competition with other regions, and failure of the transportation system to serve existing and future demand will lead to the erosion of this important economic engine. In addition, as demonstrated in the emergency evacuation assessment, completion of Route 55 is forecast to significantly improve the ability to move people and goods in the event of an emergency. In these times of increased security threats and the need for homeland security, Route 55 could play a vital role in everyday life as well as providing an enhanced level of safety that is impossible to achieve with the existing transportation system. In events ranging from hurricanes to nuclear emergencies, the benefits of improved evacuation of up to 650,000 visitors, and the residences and workers in 16 municipalities, far outweigh the cost and impact of completing this vital missing transportation link.

Improving the Route 55/47 corridor, in a manner that is respectful of the communities through which it passes, and in a least intrusive environmental manner as possible, is a critical need. The years and years of waiting for action should come to an end.

Cumberland County Route 552

This corridor extends from Laurel Street in Bridgeton City to Main Road in the City of Vineland, and along Orchard Road from CR 552 to Chestnut Avenue. The study was undertaken to determine the transportation needs of the Corridor based on both existing and future design hour traffic flows. Other areas such as school speed limits and emergency response travel patterns were also examined. The findings showed that the CR 552 Corridor will ultimately require widening to a four to five lane section from Kenyon Road to Main Road with additional improvements at some of the intersections. West of the Carmel area, CR 552 as a two-lane roadway will operate with satisfactory flows. The Orchard Road corridor from CR 552 to Chestnut Avenue will operate sufficiently as a two-lane roadway; however, the County should re-examine the need for widening Orchard Road to a three-lane section with the potential development in the area.

With the various intersection and roadway improvements in place, CR 552 should maintain acceptable levels of service. In order to limit the widening that may be needed at various intersections and to aid in decreasing traffic along and within the vicinity of the corridor, trip reduction strategies and/or the introduction of public transit along the corridors should be considered. Ongoing evaluation of the corridor either through traffic studies as required by the various municipalities or the County, or through the SJTPO yearly traffic data collection program, is recommended.

Wrangleboro Road Corridor

This corridor extends from the Black Horse Pike (U.S. 40/322) to Duerer St (CR 561). This corridor serves as a north-south connector between rapidly developing sections of Egg Harbor, Hamilton, and Galloway townships, and is a vital link for both local and regional travelers. Access to several key regional travel corridors is provided through an interchange with the Atlantic City Expressway and signalized intersections at the Black Horse Pike (U.S. 40/322), White Horse Pike (U.S. 30), and Tilton

Road (CR 563); the Atlantic City Airport lies adjacent as well. A key element of the project is a widening of the bridge over the Atlantic City Expressway, which is proposed in a study currently being conducted by SJTA. Widening of the Wrangleboro Road/ Pomona Road corridor, as well as intersection improvements at Wrangleboro Road/ Tilton Road and Pomona Road/US-30 are currently in the concept development phase.

Route 9/Garden State Parkway Corridor

A study of this corridor is currently underway.

BRIDGES

Bridge Management System data supplied by NJDOT for 2003 indicate a total of about 23% of the region's bridges are either *structurally deficient* or *functionally obsolete* (10.9 and 11.9% respectively). This actually represents an improvement compared to the total of more than 28% from the Department's data for 2000 (14.6% *structurally deficient* and 13.5% *functionally obsolete*). The SJTPO should follow this trend and continue to improve the region's bridge infrastructure.

SOUTH JERSEY TRAVEL DEMAND MODEL ENHANCEMENTS

The South Jersey Travel Demand Model was placed into service in 2000. Model applications include support of regional travel forecasting efforts and the air quality conformity assessment. The model was upgraded as part of the 2004 RTP Update as part of an ongoing process to ensure the quality and accuracy. The current enhancements include

- improvements to the trip distribution model the modal split logic modules
- trip assignment validation to a new base year of 2000 consistent with the 2000 Census and revised demographic projections
- assignment runs through the 2025 forecasting year using the updated demographics
- develop an emergency evacuation scenario and implications for regional planning efforts

CONGESTION MANAGEMENT SYSTEM

Although it has been useful in other part of New Jersey the statewide Congestion Management System (NJ CMS) has severe limitations when applied to the unique travel conditions, time periods, and peaking characteristics of the SJTPO region, where congestion is most severe on summer weekends for recreational and shore-oriented travel, and weekend evening travel related to the Atlantic City Gaming industry.

To address these deficiencies, the SJTPO Congestion Management System (SJ CMS) was conceived as a long-term, multi-phased effort to develop the data resources, tools, and procedures relevant to transportation planning efforts in the SJTPO region. Phase I of SJ CMS development was completed in 2002; Phase II was completed in 2003. To date, the SJ CMS development effort has completed the following milestones:

1. established the critical parameters and performance measures for identifying and evaluating congestion and applicable in the SJTPO region
2. defined analysis areas and applicable volume to capacity ratio (v/c) ranges for measuring congestion using the South Jersey Travel Demand Model (SJTDM)
3. packaged and applied these data resources, measures, and tools into a database tool called the *SJ CMS Tracker* used to identify, track, and evaluate congested intersections, interchanges, and corridors in the four-county region
4. defined these congested locations as *CMS Needs*
5. developed a traffic monitoring program to coordinate ongoing data collection efforts with the need to monitor congestion at identified *CMS Need* locations

The SJTPO has successfully integrated the SJ CMS and the SJ CMS Tracker into the planning process. Examples include the following:

- Identification of more than 100 existing and 125 future CMS Needs
- Development of the SJTPO Study Corridors
- Identification of refinements and critical needs for the SJTPO data collection and traffic counting work program.
- SJ CMS data and findings have been applied to the following studies:
 - Route 9/Garden State Parkway corridor in Atlantic and Cape May Counties
 - Wrangleboro/Pomona Road

SAFETY

Facilities identified as exhibiting safety concerns should be evaluated to determine appropriate corrective action measures. The work of the South Jersey Traffic Safety Alliance should be continued.

EMERGENCY EVACUATION

The SJTPO region has a very significant inflow of people throughout the recreational season. During an emergency, the ability to evacuate this large population base, which is many times greater than the year-round population, is critical. Evacuation may be necessary during severe weather, when roadways are flooded, making many impassible. The ability to provide a system that can withstand the adverse elements and reliably move a large number of persons in a limited amount of time is a fundamental need of the shore communities and region.

Demographic and travel model forecasts indicate significant growth in the region's transportation needs over the next twenty years. This growth, however, does not come without a price. This growth and congestion translates into increased delays getting to and from the region's shore communities particularly during the peak summer months. Delays of this magnitude can become a safety hazard should an area have to be evacuated in the event of an emergency or disaster.

To illustrate the magnitude of this problem the SJTPO has developed an Evacuation scenario, using the South Jersey Travel Demand Model was used to evaluate the ability of the region's roadways to evacuate a large number of vehicles in a short time period. This scenario represents a worst case of what might happen if a sudden disaster were to trigger a full and immediate exodus of the Shore areas in Cape May and Atlantic Counties on a typical summer evening. The analysis identified critical links/bottlenecks and tested improvement measures, including constructing the Route 55 completion

Methodology

The SJTPO region was divided into a series of districts are classified as either "safe" or "danger" districts based on their proximity to shore areas. Danger areas are those districts where we assumed that all personnel would be evacuated "from". Safe districts are those areas where we assumed personnel would be evacuated "to". The district concept was developed using Storm Surge Maps produced by the Army Corp of Engineers. These maps illustrate flood inundated areas based on different classes of Hurricanes. The Class 4 Hurricane flood maps were used to estimate the safe and danger districts.

An evacuation trip table was developed based on the following simplified assumptions. Trips traveling from danger district to danger district (danger-to-danger) were redirected to a safe district (danger-to-safe) based on the existing danger-to-safe distribution in the district of origin. This means that local trips will cease to exist under an evacuation scenario. Inbound trips which are defined as originating in a safe district and ending in a danger district were reduced by 90%. The remaining 10% of the inbound trips represent emergency vehicles and personnel entering and exiting the area to facilitate the evacuation process form a staging, logistics or rescue fashion. Trips that originate in a danger district and are destined to a safe district (danger-to-safe) were left untouched. Trips that originate and end in a safe district (safe-to-safe) were left untouched. Trips originating in a danger district and ending in a safe district (danger-to-safe) remain untouched.

These assumptions were applied to the PM peak period trip table (3PM to 7PM) to generate a trip table designed to evacuate the typical Summer population from the SJTPO shore region to designated safety regions somewhere inland.

Having identified key bottleneck areas from past model runs, a what-if scenario was developed to test the region’s ability to move people more effectively during an evacuation situation. This what-if, or build scenario, consists of the completion of NJ 55 from the existing terminus in the City of Millville, Cumberland County, to the Garden State Parkway (GSP), in Dennis Township, Cape May County. The proposed four-lane, limited access freeway would be built primarily as a new road extending from Route 55 to cross CR-548, Hunter’s Mill Road, CR-550, and CR-651 before following Route 83 on the existing, upgraded alignment to US-9 and GSP. The proposed alignment is depicted in Figure V-1.

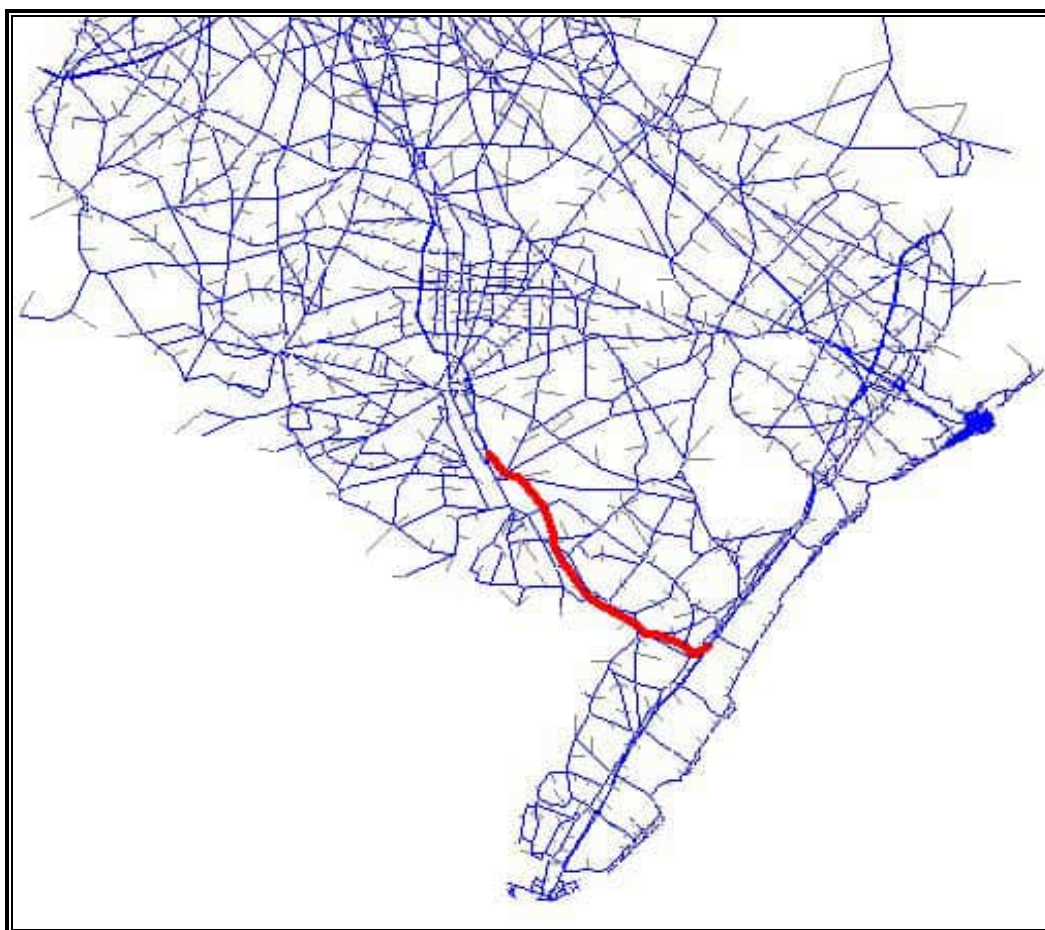


Figure V-1 Proposed Route 55 Alignment

The completed Route 55 was added to the base scenario 2025 Plan network and it represents the only infrastructure change in the build network. To highlight the effectiveness of the what-if scenario, two scenarios were built to compare against. The first is a **No-build** scenario which uses the Plan 2025 network and assigns to it the evacuation trip table. The second, **Build** scenario uses the upgraded NJ 55 network and assigns to it the evacuation trip table. The assignments were done for the evening peak period which is from 3PM to 7PM on a typical July weekday. PM peak period results were then extrapolated over a 24-hour period to generate daily evacuation figures.

Results

The scenario testing indicates that vehicle throughput in the danger districts as defined by the number of vehicle hours traveled (VHT), improves by 2.29% during the PM peak period. This improved throughput would mean that an additional 2,956 vehicles can make it through the danger districts to safety during the PM peak period. Based on an estimated vehicle occupancy of 2.0, an additional 5,912 people could make it to safety during the PM peak period.

Hourly volume forecasts indicate that the PM peak period represents 22.4% of the daily volume. Extrapolating over a 24-hour period from the PM peak period translates into an additional 13,196 vehicles or an additional 26,392 persons that can make it to safety if Route 55 Freeway is completed (see Table V-1). These results indicate the critical need to complete Route 55 to address emergency evacuation in the region.

Table V-1 Evacuation Scenario Statistics

	No-Build	Build w/Route 55
Vehicle Hours Traveled	1,369,174	1,337,817
Base Evacuation Trips (vehicles)	129,087	
Average Vehicle Occupancy	2.0	
	PM Peak Period	24 Hours
Additional Vehicles Evacuated	2,956	13,196
Additional Persons Evacuated	5,912	26,392

ITS IMPLEMENTATION AND REGIONAL ARCHITECTURE

Maximizing the efficiency of the existing highway system is a priority in view of limited financial resources and environmental constraints. Intelligent Transportation Systems (ITS), including motorist information systems and incident detection systems, are particularly important to the South Jersey region due to the large number of motorists who are unfamiliar with the highways, mainly recreational travelers, and the limited capacity of primary and secondary routes to absorb incident-related capacity reductions. Variable message signs (VMS) have been used in the region during peak periods and have proven effective. A system of closed-circuit cameras linked to VMS signs and the South Jersey Traffic Operation Center operated by NJDOT provides motorists with “live” traffic information regarding route selection during the peak travel periods. Additional measures, such as the expansion of the Atlantic City Computerized Traffic Signalization system and other signal systems, have also been effective in improving vehicle throughput. Additionally, E-ZPass has now been implemented on all the toll roadways and bridges leading into the SJTPO region.

SJTPO is currently engaged in a major effort with the New Jersey Department of Transportation and the North Jersey Transportation Planning Authority to develop statewide and regional (for SJTPO and NJTPA) ITS Architectures by April 2005. The Regional and Statewide ITS Architectures will establish the framework for ensuring institutional agreement and technical integration of ITS projects in the respective areas, and will identify opportunities for making ITS investments in a more cost – effective fashion.

TRANSIT

Although transit service is available in every county of the SJTPO region, it is generally sparse due to the low population densities. Most of the region’s transit service is concentrated in Atlantic County, and more specifically in Atlantic City. This is a result of the tens of thousands of commuters and tourists who

work and visit the city on a daily basis year round and thus provide the demand that is necessary for successful transit operations.

However, there are many transit needs in the region. There are unmet needs for transit-dependent and rural populations in the region. Additionally, as employment continues to spread out along highway corridors, new bus services may be needed and expansions of existing services may be warranted. Further, it is critical to build upon the transit services that currently operate in the region so that the mobility offered by these essential services are maintained and improved.

South Jersey Regional Rail Study

This Interim Report, completed in 2002, evaluated the potential for restoring passenger rail service to abandoned lines and freight rail corridors within the South Jersey area. Four candidate rail corridors were identified for further study:

1. Atlantic City to Mays Landing
2. Winslow Junction to Cape May
3. Millville-Vineland-Winslow Junction - Bridgeton (spur)
4. Glassboro - Vineland.

The study concluded that are that each of the four corridors shows some level of merit for consideration of the reactivation of passenger service. The results of the analysis performed in this study indicate no “fatal flaws” were found in any corridor that would eliminate an entire corridor from moving to the next phase of study, although specific aspects of several corridors present significant challenges.

Currently, the only rail corridor offering commuter rail service in the SJTPO region is the Atlantic City Rail Line serving the towns of Hammonton, Egg Harbor City, Absecon, and Atlantic City. The South Jersey Regional Rail Study provides the basis for more detailed planning to reactivate one or more abandoned rail lines for passenger service. Future phases of this long-term effort will yield detailed ridership, environmental, and cost analyses.

BICYCLE/PEDESTRIAN

SJTPO has taken many steps to address the needs of bicyclists and pedestrians. The current Transportation Improvement Program (2006-2006) for the region identifies the following projects for implementation:

County	Route	Program	Description
Atlantic	9	Northfield Sidewalk Replacement	New sidewalks, curbs, curb cuts, and crosswalks
Salem	40	Route 77 to Elmer Lake	Provision of 8-foot shoulders for bicycle compatibility, construction of new sidewalks, enhanced pedestrian crossings, and signage for pedestrians
Salem/ Cumberland	49	Salem/Cumberland, Salem River to Route 55 Bicycle Improvements	Improvements to gaps on a primarily bicycle-compatible route. May further include installation of crosswalks, bicycle lane striping and signage, and improved access to bridges
Cape May/ Atlantic	52	Causeway Replacement and Somers Point Elimination	Provision of a wide sidewalk for pedestrian and bicycle use, and recreational pull-off areas for pedestrian access
Salem	130	Penns Grove Sidewalk Replacement	New sidewalks and crosswalks at various locations along the corridor
Cape May	CR 609	Crest Haven Road	Pedestrian access improvements.
Cumberland		Buckshutem Road Bridge at Laurel Lake	Provision of two 8-foot shoulders and a sidewalk on one side of the bridge

Cumberland County Bike Trail Study

The majority of Cumberland County's roads are favorable for bicycling by virtue of their wide shoulders or very low traffic volumes. The Cumberland County Bike Trail Study provides a comprehensive review of actions, system improvements and programs that can help advance bicycling for local transportation and recreation uses as well as for attracting bicycle touring and events. The Bike Trail Study provides recommendations that integrate or expand bicycling into existing County efforts such as the County Ecotourism Plan, the County Transportation Master Plan and regional bicycle safety programs. Critical components of the study include a mapping effort that evaluated 300 miles of County roadways for bicycle compatibility; a recommended county bike route network and potential trail facility locations; suggested programmatic strategies for attracting bicycling activity to the County. Potential funding opportunities from all levels of government, commercial and nonprofit private sectors to noted resources and organizations are also identified.

Priority Actions

The following are proposed as priority actions for bicycle and pedestrian travel in the SJTPO region.

- *Support Efforts by Counties to Advance Bicycle and Pedestrian Projects* - The SJTPO will support efforts by the counties to advance bicycle and pedestrian projects so that more short trips can be served in the region by these alternative modes. Many counties and municipalities in the region have developed local bicycle and pedestrian facility plans, adopted bicycle and pedestrian-friendly comprehensive plans and/or made requirements for bicycle facilities part of the development review process. The improvements called for in these plans should be prioritized for funding.
- *Continue to Work with NJDOT to Maximize New Facility Mileage in South Jersey* - The use of bike and walk modes continues to grow in the region. The shares of bike and walk to work in the SJTPO region are higher than the overall state shares, and within the region, the greatest shares of walk and bike to work trips are found in Atlantic and Cape May counties. The barrier islands in Atlantic and Cape May have high population and employment densities as well as mixed land uses and a resort environment, all of which supports bicycle and pedestrian travel. Some high density population centers in Cumberland County (Bridgeton, Millville, and Vineland) and Salem County (Penns Grove and Salem City) also permit walking or biking for some work, school, and shopping trips. The update of the New Jersey Bicycle and Pedestrian Master Plan, being developed by NJDOT, will be reviewed when available and the guidance incorporated into the SJTPO planning process as much as possible

Facilities need to be provided to increase foot and bicycle traffic for both tourism and non-tourism-related travel in the region. - Roadway improvements should be planned, designed, constructed, and maintained to accommodate shared use by motor vehicles, bicycles, and pedestrians. Additionally, funds need to be secured to continue the development of designated facilities for bicyclists and for improved facilities for pedestrians, including sidewalks, especially in the more urbanized areas.

- *Assist in System Assessment and Planning and Design Standards Work Efforts of the Counties and NJDOT/NJ TRANSIT* - This action will help ensure that roadway improvements accommodate bicyclists and pedestrians, transit facilities are accessible by both pedestrians and bicyclists, and designated facilities are designed to current standards.
- *Develop Regional Promotional or Marketing Materials* - Educating the public about mobility options is a critical step to expand the use of non-motorized modes of travel and to support greater travel by bicycle in southern New Jersey. Given the developed tourism markets in Atlantic and Cape May counties as well as growing eco-tourism along the Delaware Bay shore, a comprehensive guide containing information on bicycle routes and facilities in the region is a priority.

MULTIMODAL INCLUDING FREIGHT

The movement of goods is vital to the economic well-being of an area. Freight movement can have a considerable impact on quality-of-life issues. Intermodal connections should be improved in the SJTPO region to facilitate the movement of goods. Upgrades to the region's rail system are important to maximize the amount of freight that can be carried by rail, thus helping to limit the increase in truck traffic. Improving access of local rail carriers to regional and interstate facilities has been identified as a need to keep the rail lines competitive and open new markets. Area airports must also have adequate access to the multimodal transportation system to promote the efficient movement of both people and goods.

Freight Issue Group

County representatives of SJTPO's Technical Advisory Committee met in February 2004 to discuss issues related to the movement of freight in the region. This meeting was held in conjunction with the Statewide Freight Plan effort. Significant issues and concerns raised at the meeting are summarized below:

- Double-stacked container freight on rail is increasing in an effort to accommodate the significant rise in the amount of freight that must be moved. Height restrictions impeded the access of double-stack rail cars to southern New Jersey.
- The Delair Bridge is a major chokepoint for freight entering from Pennsylvania. An engineering analysis is needed to determine the modifications necessary to correct this problem.
- Significant trucking activity causes capacity problems at many area intersections; turning radius is also a problem at key locations
- Freight movement in Atlantic City is not a major problem since the casinos have established their own distribution centers off island; however, trucks bringing product in do compete with the tour buses and have difficulty navigating in city streets because of their size. Unlike the buses, trucks do not have designated routes in the city.
- The Salem County port is shallow – it is being dredged to a depth of 26 feet.
- Intermodal connectors are needed to the Millville Airport (an Empowerment and Federal Trade Zone) and Pleasantville (an Urban Enterprise Zone).
- The region's peninsular shape is an inherent disadvantage for freight travel which essentially operates as a spur line. Rather than through-movements, most travel is one-way in, and then back out, so returning vehicles are empty and therefore not cost-efficient.

Millville Airport Industrial and Park Intermodal Access Plan Study

In 2002, the SJTPO sponsored a detailed study of highway access to the Millville Airport and Industrial Park. Access between Airport/Industrial Park area and major state routes such as Routes 49, 47 and 55, will be critical to attracting businesses and encouraging economic development. Currently, the majority of the signed routes to the Airport/Industrial Park convey traffic through heavily congested, urbanized residential and commercial areas in Millville. A direct connection to major State highways does not exist and the signed routes have numerous deficiencies that limit the number and size of commercial vehicles that can be accommodated. The Millville Airport Industrial and Park Intermodal Access Plan Study identified and evaluated a number of Conceptual Alternatives that would meet the project needs of improving highway access to the Airport/Industrial Park. These Conceptual Alternatives entail highway operational, capacity and safety improvements to both existing highways and proposed new highway segments,

A series of phased improvement was identified with each phase intended to accommodate a successively higher level of development.

- Short term: provides improved access to the Airport/Industrial Park within a relatively short time frame, with minor environmental impacts and permit involvements and relatively low cost.

- Intermediate: provides upgrades to accommodate additional truck traffic resulting from new development.
- Long Term: provides the most direct access to the Airport/Industrial Park; would also improve traffic circulation in the Millville area by providing a connection between the Airport/Industrial Park and the City's other Industrial Park, east of NJ Route 47. While this alternative would best meet the needs of improving access to the Airport/Industrial Park and improving overall traffic circulation of the Millville area, it would result in significant environmental impacts and require a number of State and Federal permits/approvals for construction.

TOURISM

Tourism is vital to the SJTPO region and the entire state. Tourism is New Jersey's second largest industry; in 2001 it generated \$31 billion revenue. Mobility is essential to assuring that this valuable source of employment and revenue will continue well into the future. Planning and development of regional transportation infrastructure is crucial to supporting the continued growth and economic stability of the tourism industry.

In the SJTPO region, the vast majority of visitors arrive by automobile, although a considerable number of visitors – about 6.7 million in 2003 – are casino bus passengers to Atlantic City. Prospects for growth in visit-trips by air are excellent, as plans by the South Jersey Transportation Authority for increased scheduled air service and an extensive capital improvement program at the Atlantic City International Airport near fruition.

Nevertheless, the automobile will remain far and away the dominant mode for tourism travel in the foreseeable future. Corridor planning and project development involving facilities leading to tourism areas must therefore fully acknowledge seasonality, time-of-week/time-of-day, and other trip-making characteristics common to recreational travel. This is nowhere more true than in the NJ 47/NJ 347 corridor, which, as mentioned earlier, lacks a long-term solution to the chronic and growing congestion, delay, and environmental degradation brought about by tourism-related travel.

VI. FINANCIAL OUTLOOK

INTRODUCTION

This chapter describes current financial mechanisms and analyzes future spending requirements for the SJTPO. This chapter demonstrates that the proposed transportation investment agenda contained in the plan is consistent with reasonably available sources of funds.

Federal transportation planning requirements assert that financial plans are a required element of regional transportation plans for Metropolitan Planning Organizations (MPO). However, MPO plans may include for illustrative purposes, additional projects that would be included beyond identified resources of the financial plan if those resources were to become available.

The transportation requirements of the region go far beyond those listed in the annual Transportation Improvement Program (TIP), which can only address the most pressing needs because of funding limitations. The SJTPO must strike a balance between funds used for maintenance and improvements to substandard infrastructure, and those used for new construction to meet growing travel demands.

TRANSPORTATION IMPROVEMENT PROGRAM

Current funding for transportation improvements in the SJTPO region is dedicated through FY 2006.¹

The actual budgeting of federal and state funds for projects within the MPO is a product of the development of three regional Transportation Improvement Programs (TIP), the State Transportation Improvement Program (STIP), and the Annual Capital Program. There may be significant variations in the amount of funds actually programmed within an MPO, as needs and specific project implementation schedules dictate. These programming decisions are made by cooperative participation of NJDOT, NJ Transit, local government representatives, and other agencies.

The Transportation Improvement Program (TIP) for the SJTPO lists state and federally funded state and local highway projects, public transit projects, and statewide transportation programs scheduled for implementation within the next three fiscal years (2004 through 2006). The TIP provides for \$220 million of transportation investments in southern New Jersey for this period. The TIP includes a detailed description and a funding schedule for each project and program.

The FY2004-2006 TIP is constrained to currently available funding.

The remaining two years, FY2007-2008, are estimates which total \$326 million, and are provided for informational purposes only. These latter two years are not financially constrained.

The FY2004-2006 TIP was developed over a number of months by NJDOT, NJ TRANSIT and the SJTPO. To develop the TIP, projects are screened for their ability to be advanced for implementation and to verify their scope and cost. Projects that pass this initial screening are placed in the project pool for further evaluation and review. The SJTPO employs a project prioritization process that is used to evaluate the project pool.

The current project prioritization process, coupled with funding limitations, leaves many projects with little or no financial backing. This leads to future challenges as the region continues to develop and transportation needs increase. Insufficient funding means these needs will continue to grow, especially as the region's existing transportation system ages.

¹ Financial data based on the following:

<http://www.state.nj.us/transportation/capital/stip04-06/FinTable/Table4.pdf>, accessed March 29, 2004
<http://www.sjtpo.org/tiptables2&3.pdf>, accessed March 29, 2004

Continued federal and state funding is required to support the SJTPO's short-term investment program. Although adequate funding levels are in place to support this plan's short-term investments, on-going planning studies will identify additional short and long-term investments needed in the region. The actual budgeting of funds with the funding categories will be a product of the planning process: needs analysis, prioritization, project selection, and the TIP negotiation process. Plan updates and the requirements of a fiscally constrained TIP will ensure that investments are economically feasible for this region.

The SJTPO is faced with the enormous task of maintaining the existing transportation infrastructure while addressing future needs by undertaking significant improvements to the infrastructure. The scale of existing maintenance needs has necessitated targeting most resources and efforts to making these necessary repairs. The need to maintain the existing highway system in a state of good repair is of paramount importance to the SJTPO region. In particular, there are many bridges throughout the region that appear on the bridge deficiency list, indicating that they are either structurally deficient or functionally obsolete. This backlog of bridge projects must be systematically addressed to bring all bridges into a state of good repair. Funds needed to maintain and preserve the system must be made available, as deferring maintenance leads to increased long term maintenance cost and shortened useful lifecycles. Funds in the SJTPO have also been used to make the existing system more efficient. In contrast, projects that expand our region's transportation system have only been implemented selectively due their great cost, the need to minimize environmental impacts and difficulty in selecting and acquiring right of way. The system enhancements identified in the plan echo this balanced approach to the region's needs.

New Jersey's Transportation Trust Fund has provided a stable source of funding for the state's transportation system. However, maintaining and enhancing the SJTPO's infrastructure requires a tremendous amount of additional investment. Even with this source of stable funding in place, the SJTPO still requires adequate levels of funding to improve or replace the existing transportation infrastructure.

The SJTPO region historically receives somewhere between 4% to 6% of available funds (excluding statewide programs). For FY2004-2006, the SJTPO region is receiving 3.8% of the \$5.7 billion transportation program (excluding statewide programs), while NJTPA, the MPO for northern New Jersey is receiving 81.1% and DVRPC, the MPO for central New Jersey, is receiving 15.1%.

Table VI-1 depicts the distribution of funds for short-term investments included in this plan. An additional \$1.3 billion is expected to be available for statewide programs. Other projects included in this plan are funded by independent agencies, like to SJTA, through dedicated tolls and other revenue sources.

Figure VI-1 and Table VI-2 depict the projects programmed for each fiscal funding year for 2004-6, as well as the estimated years 2007-8.

Table VI-1 FY 2004 to FY2006 TIP

**South Jersey Transportation Planning Organization Distribution of Funds
*NJDOT and NJ TRANSIT (\$ millions)**

Funding Category	FY 2004	FY 2005	FY 2006	Total
<u>NJDOT</u>				
FHWA: Bridge	12.8	11.5	24.5	48.4
FHWA: CMAQ	1.0	1.3	1.0	3.3
FHWA: Minimum Guarantee	.5	3.4	0.0	3.9
FHWA: NHS	5.8	7.2	11.2	24.2
<i>FHWA: STP-Statewide</i>	<i>5.350</i>	<i>4.700</i>	<i>3.000</i>	<i>13.050</i>
FHWA: STP-SJ	9.2	9.2	9.2	27.5
FHWA: STP-Safety	.1	1.1	1.1	3.3
FHWA: High Priority	5.3	0.0	0.0	5.3
FHWA: Planning	1.0	1.0	1.0	3.0
<i>Bond 99</i>	<i>13.780</i>	<i>0.000</i>	<i>0.000</i>	<i>13.780</i>
<u>Transportation Trust Fund</u>	<u>25.7</u>	<u>23.9</u>	<u>15.2</u>	<u>64.7</u>
Subtotal	62.2	58.6	63.2	184.0
<u>NJ TRANSIT</u>				
CMAQ	0.3	0.2	0.8	1.3
MATCH-LOCAL	0.2	0.2	0.2	0.5
MATCH-OPER	0.7	0.7	0.7	2.2
Other	0.5	0.5	0.5	1.6
Section 5307	3.1	3.3	3.4	9.8
Section 5310	0.2	0.2	0.3	0.7
Section 5311	0.6	0.6	0.6	1.7
<u>Transportation Trust Fund</u>	<u>6.8</u>	<u>5.8</u>	<u>5.6</u>	<u>18.1</u>
Subtotal	12.4	11.5	12.0	36.0
Total	74.7	70.1	75.2	219.9

***Does not include expenditures from “Statewide” programs within the region.**

South Jersey Transportation Planning Organization

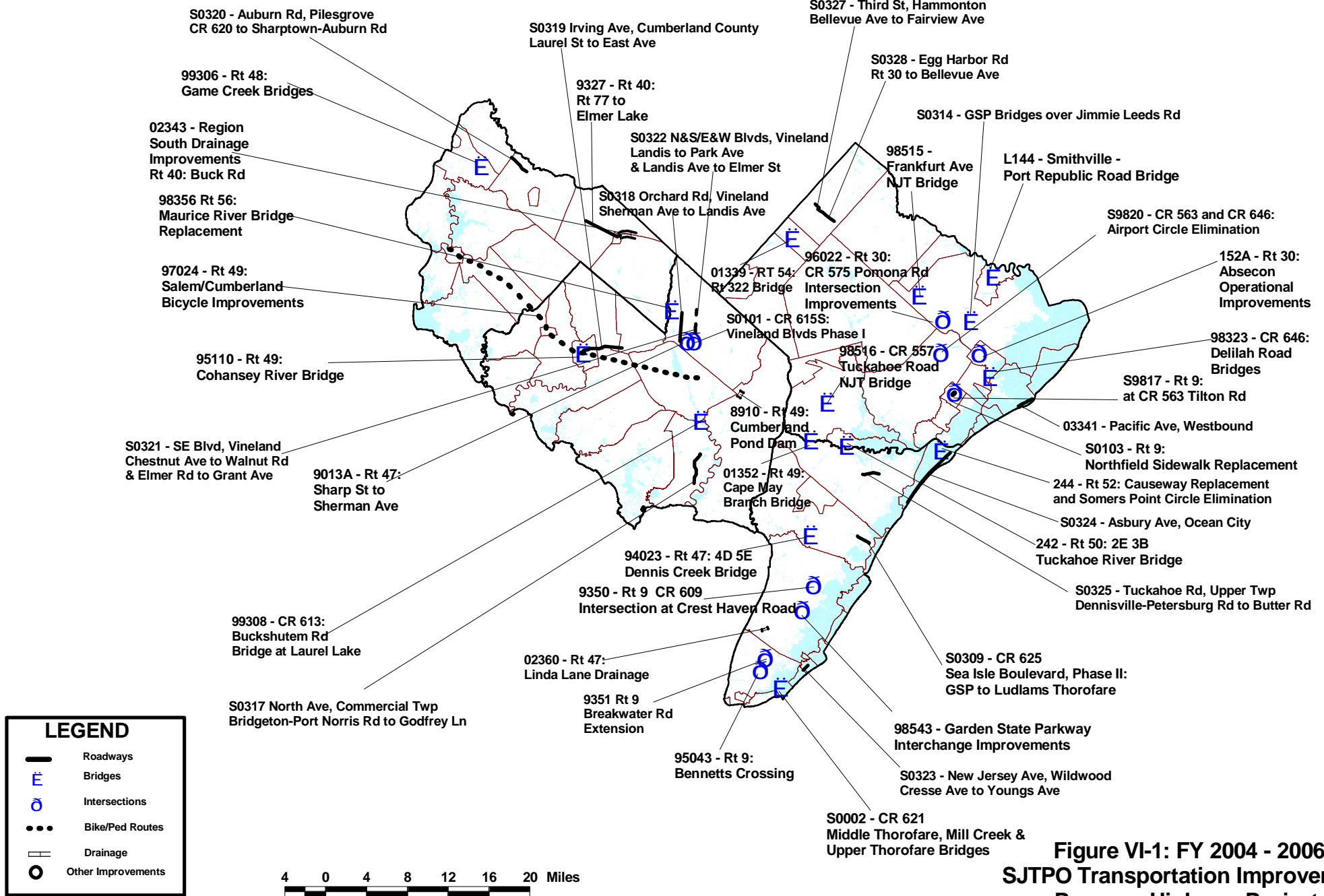


Figure VI-1: FY 2004 - 2006 SJTPO Transportation Improvement Program Highway Projects

**Table VI-2: South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
Section 2 - Highway Projects																
II - 1	S9820	Airport Circle Elimination	Atl	OIS			CON	2.040			2.040					2.040
II - 1	S0324	Asbury Avenue, Ocean City	Cap	SPH	CON	0.750					0.750					0.750
II - 2	S0320	Auburn Road, Pilesgrove	Sal	SPH	CON	0.658					0.658					0.658
II - 2	99308	Buckshutem Road Bridge at Laurel Lake	Cum	SPB			CON	1.000			1.000					1.000
II - 3	98323	Delilah Road Bridges over Water Mains	Atl	SPB	ROW	1.000	UTI	0.500	CON	6.000	7.500	CON	5.500			13.000
II - 3	S0328	Egg Harbor Road	Atl	SPH	CON	0.900					0.900					0.900
II - 4	98515	Frankfurt Avenue NJT (Atlantic City Line)	Atl	SPB	PD	0.100					0.100					0.100
II - 4	S0314	GSP Bridges over Jimmie Leeds Road	Atl	SPB	CON	1.750					1.750					1.750
II - 5	98543	GSP Interchange Improvements in Cape May	Cap	OIS	ERC	5.132					5.132					5.132
II - 5	S0319	Irving Avenue, Cumberland County	Cum	SPH	CON	0.600					0.600					0.600
II - 6	S0002	Middle Thoro, Mill Crk, Upper Thoro Bridges	Cap	SPB	LPD	0.050					0.050					0.050
II - 6	S0323	New Jersey Avenue, Wildwood	Cap	SPH	CON	1.030					1.030					1.030
II - 7	S0322	N & S / E & W Blvds, Vineland	Cum	SPH	CON	0.518					0.518					0.518
II - 7	S0317	North Avenue, Commercial Township	Cum	SPH	CON	0.620					0.620					0.620
II - 8	S0318	Orchard Road, Vineland	Cum	SPH	CON	0.556					0.556					0.556
II - 8	03341	Pacific Avenue, westbound	Atl	O	LFA	1.500					1.500					1.500
II - 9	02343	Region South Drainage Improvements	Sal	OIS	ROW	0.096	CON	0.871			0.967					0.967
II - 10	S0309	Sea Isle Boulevard, Phase 2	Cap	SPH			CON	1.000			1.000					1.000
II - 10	L144	Smithville-Port Republic Road Bridge	Atl	SPB	PD	0.050					0.050					0.050
II - 11	S0321	South East Boulevard, Vineland	Cum	SPH	CON	0.537					0.537					0.537
II - 11	S0327	Third Street, Hammonton	Atl	SPH	CON	0.500					0.500					0.500
II - 12	98516	Tuckahoe Rd NJT Bridge,Cape May Branch	Atl	SPB	PD	0.050					0.050					0.050
II - 12	S0325	Tuckahoe Road, Upper Township	Cap	SPH	LFA	0.300					0.300					0.300
II - 13	S0101	Vineland Boulevards, Phase 1	Cum	OIS			CON	1.000			1.000					1.000
II - 13	95043	Route 9 - Bennetts Crossing	Cap	OIS	PD	0.050					0.050					0.050
II - 14	9351	Route 9 - Breakwater Road Extension	Cap	OIS	PD	0.050					0.050					0.050
II - 15	9350	Route 9 - Crest Haven Road	Cap	OIS	CON	2.100					2.100					2.100
II - 15	S0103	Route 9 - Northfield Sidewalk Replacement	Atl	OIS	ERC	0.750					0.750					0.750
II - 16	S9817	Route 9 - Tilton Road	Atl	OIS	DES	0.500	ROW	0.750			1.250	CON	1.130			2.380
II - 16	152A	Route 30 - Absecon, Operational Imps	Atl	OIS			ROW	0.750	CON	2.600	3.350					3.350
II - 17	96022	Route 30 - Pomona Road	Atl	OIS	ROW	0.500	ROW	2.500	CON	6.000	9.000					9.000
II - 18	9327	Route 40 - (4) Route 77 to Elmer Lake	Sal	SPH	PD	0.050					0.050					0.050
II - 18	94023	Route 47 - 4D 5E, Dennis Creek Bridge	Cap	SPB	UTI	0.500	CON	3.400			3.900					3.900

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
II - 19	02360	Route 47 - Linda Lane, drainage	Cap	SPH			PD	0.250			0.250					0.250
II - 19	9013A	Route 47 - Op Imps, Sharp to Sherman	Cum	OIS	CON	8.900	CON	10.500	CON	2.000	21.400					21.400
II - 20	99306	Route 48 - Game Creek Bridges	Sal	SPB	ROW	0.150			CON	2.845	2.995					2.995
II - 20	01352	Route 49 - Cape May Branch Bridge	Cap	SPB	PD	0.250					0.250					0.250
II - 21	95110	Route 49 - Cohansey River Bridge	Cum	SPB	PD	0.050					0.050					0.050
II - 21	8910	Route 49 - Cumberland Pond Dam	Cum	SPH	CON	1.208					1.208					1.208
II - 22	97024	Route 49 - Salem/Cumberland, Salem River	Sal/Cum	O			PD	0.250			0.250					0.250
II - 23	242	Route 50 - 2E 3B, Tuckahoe River Bridge	Cap/Atl	SPB			ROW	0.968	CON	13.400	14.368					14.368
II - 24	244	Route 52 - Causeway & Somers Point Circle	Cap/Atl	SPB	DES/ROW	9.000	DES/ROW	7.000			16.000	CON	113.600	CON	113.600	243.200
II - 25	01339	Route 54 - Route 322 to Cape May Point	Atl	SPB	PD	0.050					0.050					0.050
II - 25	98356	Route 56 - Maurice River Bridge Replace	Sal/Cum	SPB	ROW	0.100			CON	3.022	3.122					3.122
Highway Project Totals						40.905		32.779		35.867	109.551		120.230		113.600	343.381

KEY: County: Atl = Atlantic; Cap = Cape May; Cum = Cumberland; Sal = Salem
 Type: SPH = System Preservation - Highways; SPB = System Preservation - Bridges; OIS = Operational Improvements / Safety; NJT = New Jersey Transit; O = Other
 Phase: PLS = Planning Study; (L)CD = (Local) Concept Development; PD = Preliminary Design; (L)FA = (Local) Feasibility Assessment; DES = Design;
 EC = Design & Construction; ERC = Design, Right of Way, Construction; ROW = Right of Way; CON = Construction; UTI = Utility; CAP = Capital Acquisition

Section 3 - Regional Highway Programs

III - 1	X242	Accident Reduction Program	Var	OIS	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
III - 1	03304	Bridge Deck Preservation Program	Var	SPB	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
III - 2	X07E	Bridge Inspection, Local Bridges	Var	SPB	EC	0.550	EC	0.550	EC	0.550	1.650	EC	0.550	EC	0.550	2.750
III - 2	X07A	Bridge Inspection, State NBIS Bridges	Var	SPB	EC	0.520	EC	0.520	EC	0.520	1.560	EC	0.520	EC	0.520	2.600
III - 3	X08	Bridge Painting, Federal	Var	SPB	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
III - 3	X065	Local CMAQ Initiatives	Var	O	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
III - 4	X41A1	Local County Aid, SJTPO	Var	O	ERC	7.939	EC	7.939	EC	7.939	23.817	EC	7.939	EC	7.939	39.695
III - 4	X98A1	Local Municipal Aid, SJTPO	Var	O	ERC	5.219	ERC	5.219	ERC	5.219	15.657	ERC	5.219	ERC	5.219	26.095
III - 5	X30A	Metropolitan Planning	Var	O	PLS	1.205	PLS	1.205	PLS	1.205	3.615	PLS	1.205	PLS	1.205	6.025
III - 5	X35D1	Rail Hwy Grade Xing, Cape May Seashore	Cap	OIS	CON	0.500	CON	0.500	CON	0.500	1.500					1.500
III - 6	X35A1	Rail-Hwy Grade Xing Program, Federal	Var	OIS	EC	0.500	EC	0.500	EC	0.500	1.500	EC	0.500	EC	0.500	2.500
III - 6	X03A	Restriping Program (SJTPO)	Var	OIS	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
III - 7	S044	SJTPO, Future Projects	Var	O	ERC	0.038	ERC	4.167	ERC	6.357	10.562	ERC	9.164	ERC	9.164	28.890
III - 7	X82	Traffic Operations Center (South)	Var	O	EC	0.400	EC	0.400	EC	0.400	1.200	EC	0.400	EC	0.400	2.000
Regional Highway Program Totals						20.971		25.100		27.290	73.361		29.597		29.597	132.555

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
Highway Project & Regional Program Totals					61.876		57.879		63.157		182.912	149.827		143.197		475.936

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 EC = Design & Construction; ERC = Design, Right of Way, Construction; ROW = Right of Way; CON = Construction; UTI = Utility; CAP = Capital Acquisition

Section 4 - NJDOT Statewide Programs

IV - 1	X153	Access Management	Var	CM	EC	0.250	EC	0.250	EC	0.250	0.750	EC	0.250	EC	0.250	1.250
IV - 1	X166	Access Permit Application Review	Var	CM	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 2	X62	Adopt-A-Highway Program	Var	QL	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 2	X12	Advance acquisition of right of way	Var	CD	ROW	2.500	ROW	2.500	ROW	2.500	7.500	ROW	2.500	ROW	2.500	12.500
IV - 3	02355	Advance Technology Emissions Reduction	Var	QL	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 4	X02	Airport Safety Fund	Var	IP	EC	8.000	EC	8.000	EC	8.000	24.000	EC	8.000	EC	8.000	40.000
IV - 4	X155	Aviation Block Grant Program	Var	IP	EC	20.000	EC	20.000	EC	20.000	60.000	EC	20.000	EC	20.000	100.000
IV - 5	03308	Baseline Document Update	Var	CD	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 5	X72A	Betterments, Bridge Preservation	Var	BP	EC	10.000	EC	10.000	EC	10.000	30.000	EC	10.000	EC	10.000	50.000
IV - 6	X72B	Betterments, Roadway Preservation	Var	RP	EC	7.000	EC	7.000	EC	7.000	21.000	EC	7.000	EC	7.000	35.000
IV - 6	X72C	Betterments, Safety	Var	SY	EC	4.000	EC	4.000	EC	4.000	12.000	EC	4.000	EC	4.000	20.000
IV - 7	X185	Bicycle & Ped Facilities/Accommodations	Var	IP	ERC	3.000	ERC	3.000	ERC	3.000	9.000	ERC	3.000	ERC	3.000	15.000
IV - 7	99357	Bicycle Projects, Local System	Var	IP	ERC	7.000	ERC	7.000	ERC	7.000	21.000	ERC	7.000	ERC	7.000	35.000
IV - 8	X70	Bridge Management System	Var	BP	PD	0.225	PD	0.225	PD	0.225	0.675	PD	0.225	PD	0.225	1.125
IV - 8	03344	Bridge Safety Program	Var	SY	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 9	98316	Bridge Scour	Var	BP	ERC	6.000	ERC	6.000	ERC	6.000	18.000	ERC	6.000	ERC	6.000	30.000
IV - 9	98384	Bridge, Concrete Encasement Removal	Var	BP	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 10	98315	Bridge, Emergency Repair	Var	BP	CON	5.500	CON	5.500	CON	5.500	16.500	CON	5.500	CON	5.500	27.500
IV - 10	X180	Construction Inspection	Var	CD	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 11	99322	Culvert Inspection Program	Var	BP	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 11	01335	Dams, Betterment	Var	RP	EC	0.200	EC	0.200	EC	0.200	0.600	EC	0.200	EC	0.200	1.000
IV - 12	X142	DBE Supportive Services Program	Var	CS	EC	0.500	EC	0.500	EC	0.500	1.500	EC	0.500	EC	0.500	2.500
IV - 12	X106	Design, Emerging Projects	Var	CD	DES	4.500	DES	4.500	DES	4.500	13.500	DES	4.500	DES	4.500	22.500
IV - 13	X197	Disadvantaged Business Enterprise	Var	CS	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 13	X154	Drainage Rehab & Maintenance, State	Var	RP	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 14	X154D	Drainage Rehabilitation, Federal	Var	RP	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
IV - 14	01312	Ecotourism Grants	Var	SM	ERC	0.500	ERC	0.500	ERC	0.500	1.500	ERC	0.500	ERC	0.500	2.500
IV - 15	X147	Electrical & Signal Safety Engineering	Var	CS	EC	0.250	EC	0.250			0.500					0.500
IV - 15	X241	Electrical Facilities	Var	CS	EC	1.500	EC	1.500	EC	1.500	4.500	EC	1.500	EC	1.500	7.500
IV - 16	X120	Emergency Response Operations	Var	CS	EC	0.250	EC	0.250	EC	0.250	0.750	EC	0.250	EC	0.250	1.250
IV - 16	03309	Environmental Document Development	Var	CD	PD	1.000	PD	1.000	PD	1.000	3.000	PD	1.000	PD	1.000	5.000
IV - 17	X75	Environmental Investigations	Var	CD	EC	2.000	EC	2.000	EC	2.000	6.000	EC	2.000	EC	2.000	10.000
IV - 17	X15	Equipment (Vehicles & Construction)	Var	CS	EC	7.000	EC	7.000	EC	7.000	21.000	EC	7.000	EC	7.000	35.000
IV - 18	99331	Equipment , Overage Reduction Program	Var	CS	ERC	2.000	ERC	2.000	ERC	2.000	6.000	ERC	2.000	ERC	2.000	10.000
IV - 18	02378	Fast Move Program	Var	CM	EC	10.000	EC	10.000	EC	10.000	30.000	EC	10.000	EC	10.000	50.000
IV - 19	00377	Ferry Program	Var	IP	EC	10.000					10.000					10.000
IV - 19	X202	Fixed Object Safety Treatment	Var	SY	EC	0.250	EC	0.250	EC	0.250	0.750	EC	0.250	EC	0.250	1.250
IV - 20	X34	Freight Program	Var	IP	CON	10.000	CON	10.000	CON	10.000	30.000	CON	10.000	CON	10.000	50.000
IV - 21	03302	GEOGIS Soil Boring Management System	Var	CD	EC	0.600	EC	0.600			1.200					1.200
IV - 21	X200A	Good Neighbor Landscaping	Var	CS	EC	1.500	EC	1.000	EC	1.000	3.500	EC	1.000	EC	1.000	5.500
IV - 22	X236	Historic Bridge Preservation Program	Var	BP	CON	1.000	CON	1.000	CON	1.000	3.000	CON	1.000	CON	1.000	5.000
IV - 23	03305	Intelligent Transportation Systems	Var	CM	ERC	0.290	ERC	0.500	ERC	0.500	1.290	ERC	0.500	ERC	0.500	2.290
IV - 24	98333	Intersection Improvement Program	Var	SY	ERC	1.000	ERC	1.000	ERC	1.000	3.000	ERC	1.000	ERC	1.000	5.000
IV - 24	X51	Interstate Pavement Preservation	Var	RP	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 25	X151	Interstate Service Facilities	Var	SM	EC	0.250	EC	0.250	EC	0.250	0.750	EC	0.250	EC	0.250	1.250
IV - 25	02349	Land Information Management System	Var	CD	EC	0.500					0.500					0.500
IV - 26	X137	Legal Costs for Right of Way Condemnation	Var	CD	EC	1.300	EC	1.300	EC	1.300	3.900	EC	1.300	EC	1.300	6.500
IV - 26	X161	Local Aid for Centers of Place	Var	LA	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 27	X186	Local Aid, Discretionary	Var	LA	ERC	15.000	ERC	15.000	ERC	15.000	45.000	ERC	15.000	ERC	15.000	75.000
IV - 27	X98Z	Local Municipal Aid, Urban Aid	Var	LA	ERC	5.000	ERC	5.000	ERC	5.000	15.000	ERC	5.000	ERC	5.000	25.000
IV - 28	X196	Maintenance Management System	Var	RP	PD	0.300	PD	0.300	PD	0.300	0.900	PD	0.300	PD	0.300	1.500
IV - 29	01309	Maritime Transportation System	Var	IP	EC	4.000	EC	4.000	EC	4.000	12.000	EC	4.000	EC	4.000	20.000
IV - 29	03316	Median Cross-over Crash Prevention	Var	SY	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 30	X233	Motor Vehicle Crash Record Processing	Var	SY	EC	2.500	EC	2.500	EC	2.500	7.500	EC	2.500	EC	2.500	12.500
IV - 30	01342	National Boating Infrastructure Grant	Var	IP	EC	0.100					0.100					0.100
IV - 31	99372	Orphan Bridge Emergency Repairs	Var	BP	EC	0.900	EC	0.900	EC	0.900	2.700	EC	0.900	EC	0.900	4.500
IV - 32	X28B	Park & Ride/Transportation Demand Mgt	Var	CM	EC	11.700	EC	11.700	EC	11.700	35.100	EC	10.000	EC	10.000	55.100
IV - 33	X69	Pavement Management System	Var	RP	PD	3.000	PD	3.000	PD	3.000	9.000	PD	3.000	PD	3.000	15.000
IV - 33	X29	Physical Plant	Var	CS	ERC	5.000	ERC	5.000	ERC	5.000	15.000	ERC	5.000	ERC	5.000	25.000
IV - 34	X30	Planning & Research, Federal-Aid	Var	CD	PLS	14.161	PLS	14.161	PLS	14.161	42.483	PLS	14.161	PLS	14.161	70.805

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
IV - 34	X140	Planning & Research, State	Var	CD	PLS	2.500	PLS	2.500	PLS	2.500	7.500	PLS	2.500	PLS	2.500	12.500
IV - 35	X135	Pre-Apprenticeship Training Program	Var	CS	EC	0.500	EC	0.500	EC	0.500	1.500	EC	0.500	EC	0.500	2.500
IV - 35	98319	Professional Auditing Services	Var	CS	EC	0.450	EC	0.450	EC	0.450	1.350	EC	0.450	EC	0.450	2.250
IV - 36	X10	Program implementation costs, NJDOT	Var	CD	EC	79.000	EC	79.000	EC	79.000	237.000	EC	79.000	EC	79.000	395.000
IV - 36	X32	Project Development, Prelim Engineering	Var	CD	FA	14.800	FA	14.800	FA	14.800	44.400	FA	14.800	FA	14.800	74.000
IV - 37	01344	Public Lands Hwys Discretionary Program	Var	CD	ERC	2.000					2.000					2.000
IV - 38	00351	Quality Assurance	Var	CD	EC	0.600	EC	0.600	EC	0.600	1.800	EC	0.600	EC	0.600	3.000
IV - 38	X35A	Rail-Hwy Grade Xing Program, State	Var	SY	CON	1.000	CON	1.000	CON	1.000	3.000	CON	1.000	CON	1.000	5.000
IV - 39	99409	Recreational Trails Program	Var	IP	ERC	0.807					0.807					0.807
IV - 39	X144	Regional Action Program	Var	RP	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
III - 6	X03A	Restriping Program (Statewide)	Var	SY	EC	3.000	EC	3.000	EC	3.000	9.000	EC	3.000	EC	3.000	15.000
IV - 40	X03E	Resurfacing Program	Var	RP	EC	51.000	EC	51.000	EC	51.000	153.000	EC	51.000	EC	51.000	255.000
IV - 40	99327A	Resurfacing, Interstate Fast Track Program	Var	RP	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 41	99358	Safe Streets to Schools Program	Var	IP	ERC	6.000	ERC	6.000	ERC	6.000	18.000	ERC	6.000	ERC	6.000	30.000
IV - 41	X68	Safety Management System	Var	SY	EC	5.400	EC	5.400	EC	5.400	16.200	EC	5.400	EC	5.400	27.000
IV - 42	X239	Sign Structure Inspection Program	Var	QL	EC	1.000					1.000					1.000
IV - 42	X239A	Sign Structure Repair Program	Var	QL	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 43	X39	Signs Program, Statewide	Var	QL	EC	10.000					10.000					10.000
IV - 43	X186A	Smart Growth Initiatives	Var	LA	EC	4.000	EC	4.000	EC	4.000	12.000	EC	4.000	EC	4.000	20.000
IV - 44	02379	Smart Move Program	Var	CM	EC	5.000	EC	5.000	EC	5.000	15.000	EC	5.000	EC	5.000	25.000
IV - 44	X160	Solid & Hazardous Waste Cleanup	Var	CS	EC	1.130	EC	1.130	EC	1.130	3.390	EC	1.130	EC	1.130	5.650
IV - 45	X150	State Police Enforcement & Safety Services	Var	CD	EC	6.500	EC	6.500	EC	6.500	19.500	EC	6.500	EC	6.500	32.500
IV - 45	X230	Statewide Incident Management Program	Var	CM	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 46	99367	Survey Program, National Highway System	Var	CS	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 46	01304	Technology Evaluation	Var	CD	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 47	X66	Traffic Monitoring Systems	Var	CD	PLS	6.500	PLS	6.500	PLS	6.500	19.500	PLS	6.500	PLS	6.500	32.500
IV - 47	X238	Traffic Signal LED Installation	Var	CS	EC	1.000					1.000			EC	5.000	6.000
IV - 48	X237	Traffic Signal Relamping	Var	CS	EC	1.500	EC	1.500	EC	1.500	4.500	EC	1.500	EC	1.500	7.500
IV - 48	X47	Traffic Signal Replacement	Var	SY	EC	4.000	EC	4.000	EC	4.000	12.000	EC	4.000	EC	4.000	20.000
IV - 49	X244	Training & Technology Development	Var	CS	EC	0.750	EC	0.750	EC	0.750	2.250	EC	0.750	EC	0.750	3.750
IV - 49	01316	Transit Village Program	Var	LA	EC	1.000	EC	1.000	EC	1.000	3.000	EC	1.000	EC	1.000	5.000
IV - 50	02393	Transportation & Community System Pres	Var	LA	ERC	4.850					4.850					4.850
IV - 51	X43	Transportation Demand Management	Var	CM	PLS	0.210	PLS	0.210	PLS	0.220	0.640	PLS	0.220	PLS	0.230	1.090
IV - 51	X107	Transportation Enhancements	Var	QL	ERC	10.000	ERC	10.000	ERC	10.000	30.000	ERC	10.000	ERC	10.000	50.000

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
IV - 52	X162	Transportation Grants	Var	CD	ERC	1.000	ERC	1.000	ERC	1.000	3.000	ERC	1.000	ERC	1.000	5.000
IV - 52	X11	Unanticipated Expenses, State	Var	CD	ERC	15.000	ERC	15.000	ERC	15.000	45.000	ERC	15.000	ERC	15.000	75.000
IV - 53	X101	Underground Exploration for Utility Facilities	Var	CD	EC	0.100	EC	0.100	EC	0.100	0.300	EC	0.100	EC	0.100	0.500
IV - 53	X126	University Transportation Research Tech	Var	CD	EC	2.000	EC	2.000	EC	2.000	6.000	EC	2.000	EC	2.000	10.000
IV - 54	X182	Utility Reconnaissance & Relocation	Var	CD	EC	2.000	EC	2.000	EC	2.000	6.000	EC	2.000	EC	2.000	10.000
IV - 54	01328	Whistle Ban Demonstration Program	Var	IP	EC	0.100	EC	0.100	EC	0.100	0.300					0.300
IV - 55	X199	Youth Employment & TRAC Programs	Var	CS	EC	0.250	EC	0.250	EC	0.250	0.750	EC	0.250	EC	0.250	1.250
NJDOT Statewide Program Totals						459.273		428.726		427.886	1,315.885		426.086		431.096	2,173.067

KEY: County: Atl = Atlantic; Cap = Cape May; Cum = Cumberland; Sal = Salem
 Type: BP = Bridge Preservation; CD = Capital Program Delivery; CM = Congestion Management; CS = Capital Support; IP = Intermodal Programs; LA = Local Aid;
 QL = Quality of Life; RP = Roadway Preservation; SM = Strategic Mobility; SY = Safety
 Phase: PLS = Planning Study; (L)CD = (Local) Concept Development; PD = Preliminary Design; (L)FA = (Local) Feasibility Assessment; DES = Design;
 EC = Design & Construction; ERC = Design, Right of Way, Construction; ROW = Right of Way; CON = Construction; UTI = Utility; CAP = Capital Acquisition

Section 5 - New Jersey Transit Programs

V - 1	T70	ADA - -Vans	Var	M	CAP	0.025	CAP	0.140	CAP	0.129	0.294	CAP	0.082	CAP	0.120	0.496
V - 1	T32	Building Capital Leases	Var	M	CAP	0.472	CAP	0.472	CAP	0.472	1.416	CAP	0.472	CAP	0.472	2.360
V - 2	T111	Bus Acquisition Program	Var	P	CAP	1.907	CAP	1.907	CAP	2.667	6.481	CAP	2.667	CAP	8.057	17.205
V - 2	T06	Bus Passenger Facilities	Var	M	ERC	0.050	ERC	0.150	ERC	0.200	0.400	ERC	0.200	ERC	0.200	0.800
V - 3	T08	Bus Support Facilities & Equipment	Var	P	ERC	2.001	ERC	2.100	ERC	1.600	5.701	ERC	2.100	ERC	2.305	10.106
V - 3	T68	Capital Program Implementation	Var	P	EC	0.880	EC	0.995	EC	1.000	2.875	EC	1.031	EC	1.070	4.976
V - 4	T170	Cumberland County Bus Program	Cum	P	CAP	0.683	CAP	0.690	CAP	0.700	2.073	CAP	0.700	CAP	0.700	3.473
V - 4	T16	Environmental Compliance	Var	P	ERC	0.170	ERC	0.170	ERC	0.170	0.510	ERC	0.170	ERC	0.170	0.850
V - 5	T138	GIS Development Projects	Var	M	EC	0.030	EC	0.030	EC	0.030	0.090	EC	0.030	EC	0.030	0.150
V - 5	T20	Immediate Action Program	Var	P	ERC	0.905	ERC	0.900	ERC	0.900	2.705	ERC	0.900	ERC	0.900	4.505
V - 6	T199	Job Access & Reverse Commute Program	Var	E	SWI	0.322	SWI	0.322	SWI	0.322	0.966	SWI	0.322	SWI	0.322	1.610
V - 6	T96	Market Research	Var	M	ERC	0.145	ERC	0.145	ERC	0.050	0.340	ERC	0.050	ERC	0.050	0.440
V - 7	T122	Miscellaneous	Var	M	ERC	0.030	ERC	0.030	ERC	0.030	0.090	ERC	0.030	ERC	0.030	0.150
V - 7	T121	Physical Plant	Var	P	ERC	0.410	ERC	0.175	ERC	0.200	0.785	ERC	0.200	ERC	0.200	1.185
V - 8	T135	Preventive Maintenance-Bus	Var	P	CAP	0.500	CAP	0.643	CAP	0.643	1.786	CAP	1.920	CAP	1.920	5.626
V - 8	T150	Section 5310 Program	Var	M	CAP	0.240	CAP	0.240	CAP	0.250	0.730	CAP	0.260	CAP	0.260	1.250
V - 9	T151	Section 5311 Program	Var	M	CAP	1.106	CAP	1.106	CAP	1.154	3.366	CAP	1.216	CAP	1.216	5.798
V - 9	T120	Small/Special Services Program	Var	M	EC	0.190	EC	0.100	EC	0.100	0.390	EC	0.030	EC	0.050	0.470

**South Jersey Transportation Planning Organization
Fiscal Year 2004 - 2006 Transportation Improvement Program**

Page	ID No.	Project	County	Type	Fiscal Year Funding (dollars in millions):											
					Phase	2004	Phase	2005	Phase	2006	FY 04-06 Total	Phase	2007	Phase	2008	FY 04-08 Total
V - 10	T88	Study & Development	Var	D	PRD	0.132	PRD	0.100	PRD	0.100	0.332	PRD	0.100	PRD	0.100	0.532
V - 10	T500	Technology Improvements	Var	M	EC	1.677	EC	0.500	EC	0.750	2.927	EC	0.789	EC	0.500	4.216
V - 11	T210	Transit Enhancements	Var	P	ERC	0.030	ERC	0.032	ERC	0.034	0.096	ERC	0.034	ERC	0.034	0.164
V - 11	T300	Transit Rail Initiatives	Var	E	PLS	0.540	PLS	0.540	PLS	0.540	1.620	PLS	0.540	PLS	0.540	2.700
New Jersey Transit Program Totals						12.445	11.487	12.041	35.973	13.843	19.246	69.062				
Highway Project + Regional Program + NJ Transit Totals						74.321	69.366	75.198	218.885	163.670	162.443	544.998				
Highway Project + Regional Program + NJDOT Statewide + NJ Transit Totals						533.594	498.092	503.084	1,534.770	589.756	593.539	2,718.065				

KEY: County: Atl = Atlantic; Cap = Cape May; Cum = Cumberland; Sal = Salem
 Type: D = Study & Development; E = System Expansion; M = System Management; P = System Preservation
 Phase: PLS = Planning Study; (L)CD = (Local) Concept Development; PD = Preliminary Design; (L)FA = (Local) Feasibility Assessment; DES = Design;
 EC = Design & Construction; ERC = Design, Right of Way, Construction; ROW = Right of Way; CON = Construction; UTI = Utility; CAP = Capital Acquisition

TRANSPORTATION FUNDING SOURCES

The major federal funding sources for transportation in the SJTPO region are described Table VI-3 as authorized through TEA-21.

Table VI-3 Federal Funding Sources for Transportation

Highway and Bridge Programs	Program Description
Bridge Program	Repairs and maintains key bridges
Congestion Mitigation and Air Quality Program (CMAQ)	Assists states and Metropolitan Planning Organizations to meet federal Clean Air Act requirements
National Highway System (NHS)	Maintains a comprehensive system of highways to serve national transportation and economic goals and policies
Interstate Maintenance Program	Provides funding to maintain the Interstate Highway System
Surface Transportation Program (STP)	Funds highway maintenance and improvement, safety programs, and transportation enhancements.
Transit Programs	Program Description
Section 5307	Provides capital, operating and planning assistance for transit.
Sections 5310 and 5311	Provides transit services for the elderly, persons with disabilities, and rural transportation
Section 5309	Provides funding for the establishment of new rail or busway projects (new systems), and the improvement and maintenance of existing rail and other fixed guideway systems and the upgrading of bus systems.

There are additional sources of funding as well, including discretionary and demonstration funds, which are awarded on a competitive basis to projects that meet Federal Highway Administration or the Federal Transit Administration criteria. Congressional earmarks are another source of funding.

Although the federal government is currently determining the reauthorization of federal transportation funding, for this plan’s purpose, the SJTPO assumes that Congress will reauthorize funding through 2025.

State Highway and Transit Funding

Transportation projects in New Jersey are funded primarily through the New Jersey Transportation Trust Fund, which was created in 1984 to provide a stable source of funding for transportation improvement projects.

The proceeds, which come from the selling of bonds financed from appropriations to the legislature, are used to fund capital programs for NJDOT and NJ TRANSIT as well as provide aid for local roads. The initial Trust Fund legislation covered fiscal years 1985-1988 and was renewed in 1988 for another seven years and then renewed again to 1998. The most recent Trust Fund reauthorization was in July 2000 and provides \$3.75 billion through 2004. Revenues for the Trust Fund come from motor fuels taxes,

appropriations from the General Fund, heavy truck/diesel fees, and contributions from toll road authorities. For the purposes of this exercise, it was assumed that the Trust Fund will continue to provide stable funding for transportation in New Jersey through the plan horizon of 2025. However, at the time of this publication the State had not yet identified long term funding sources required to meet the projected future needs of the Trust Fund.

Specific investments that will be pursued over the period of the plan cannot be fully identified. Current experience indicates that the majority of funding will be targeted toward investments that preserve, maintain and improve our region's existing transportation facilities. The majority of the region's future transportation system is already in place, and this system must be maintained and preserved so it can continue to serve both current and future needs. Deferring maintenance cannot continue, or the system will lose its ability to satisfy travel demand in a safe and efficient manner.

Given the needs for maintenance and preservation, the SJTPO will face tough choices allocating limited remaining funds to proposals for capacity expansion for the highway and transit system.

Projected Capital Funding Requirements

Financial analysis conducted as part of New Jersey's Statewide Long-Range Transportation Plan provides information on future capital costs statewide over the next twenty-five years (to 2025). The capital costs required to maintain and expand New Jersey's transportation network are significant. In the discussion below, all dollars are expressed in year of expenditure dollars.

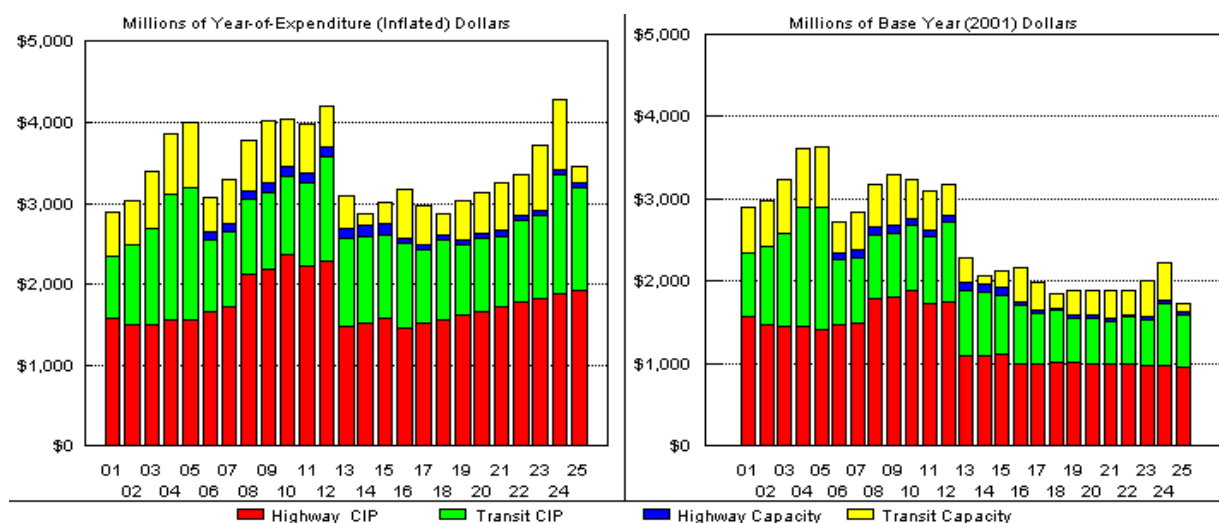
The state transportation plan asserts that the cumulative capital costs will grow to \$85.8 billion by FY 2025 for New Jersey. Assuming a 6% share of that need for the SJTPO region, a figure of \$5.1 billion by 2025 can be assumed for the RTP. The NJDOT portion of capital costs represents 53.2 percent of the FY 2025 horizon year. NJ TRANSIT's portion of these costs equals 46.8 percent of the FY 2025 horizon year. NJDOT's and NJ TRANSIT's capital costs would likely be funded from a combination of federal and New Jersey Transportation Trust Fund sources or possibly other innovative sources.

Over the long-range planning period, NJ TRANSIT will need \$40.1 billion statewide by FY 2025 to maintain its existing facilities in a state of good repair, provide for the normal replacement of the bus and rail fleet, and implement new bus, commuter rail, and light rail services to meet the state's growing mobility needs. In contrast to the highway long-range capital costs discussed below, the transit capital costs have a greater percentage allocated to new services and capacity expansion (33.7 percent of the FY 2025 totals, respectively). Baseline transit system capital costs, bus and rail car replacements, and regular rehabilitation and replacement of capital assets for system expansion projects equals 66.3 percent of the FY 2025 totals.

Highway capital costs are primarily for addressing the deficiencies of the current network and for bringing assets to a state of good repair. Over the long-range period, NJDOT will need \$45.7 billion statewide for capital costs. On the highway side, overall, expenditures to bring bridges to a state of good repair represent the largest percentage of projected capital costs (33.4 percent through 2025). This is followed by initiatives to enhance highway operations and capital project delivery (18.8 percent through 2025) and support for local highway systems (16.7 percent through 2025). Providing additional highway capacity represents a small portion of total highway capital costs (4.1 percent of the total through FY 2025 total).

Figure VI-2 below shows the capital funding requirements for transportation in New Jersey in both year of expenditure dollars (inflated) and base year dollars. As can be seen the capital costs required to maintain and expand New Jersey's transportation network are significant.

Figure VI-2 Capital Funding Requirements for Transportation – Statewide



As part of the state long-range transportation plan financial analysis, long-range forecasts of current Trust Fund revenue sources were developed. Forecasts were based on projected growth in population, employment, and vehicle miles traveled as well as increased motor vehicle fuel efficiency. Current New Jersey Transportation Trust Fund revenues would be available to pay annual debt service on existing bonds and a portion of annual debt service and capital costs associated with future highway and transit needs.

However, the financial analysis found that current Trust Fund revenues projected into the future will not be sufficient to meet the capital funding needs (net of federal funding) identified in the statewide long-range plan.

The statewide financial analysis projected the amount of supplemental revenues that would be required to bridge the gap between current revenue sources and projected statewide long-range plan highway and transit capital costs. Supplemental revenues could be provided from a variety of sources, including user fees dedicated to the Transportation Trust Fund such as an increase in the state gas tax and/or sales tax; an increased allocation of revenues from the highway authorities; and/or additional, dedicated appropriations of General Fund sources. The specific amount and mix of supplemental revenues dedicated to the Transportation Trust Fund will ultimately need to be agreed upon by New Jersey’s citizens, elected officials, and transportation policy makers.

The specific funding sources to meet the long-term capital needs for transportation in New Jersey will need to be evaluated by the state’s citizens and policy makers, to include stakeholders in the SJTPO region, based on:

- The benefits of the recommended transportation improvement strategies in maintaining the state’s quality of life and enhancing its economic competitiveness
- The potential adverse environmental, economic, and social impacts from not maintaining existing transportation assets and providing capacity to accommodate future growth
- The increased financial burden on New Jersey’s citizens and businesses associated with the increased transportation funding need

- The impacts on other state programs if existing resources were to be diverted to meet increased funding requirements for transportation.

OPERATING FUNDING

Operating budgets are directly impacted by capital expenditures. On the transit side, operating costs include expenditures for personnel to operate and maintain vehicles and facilities as well fuel and materials. For NJDOT, operating costs are associated with road maintenance personnel and materials. Frequently operating costs are overlooked and instead should be included as part of the total cost for a capital investment. However, some capital investments work to lower operating costs as they can improve the efficiency of the existing system, like bridge reconstruction. However, these operating cost impacts vary project to project.

A stable funding mechanism for NJ TRANSIT's operations is very important, as operating costs for NJ TRANSIT are projected to increase as a result of annual inflation and the operation of new services in New Jersey. Recently, state operating subsidies and revenues from increased ridership have helped to fill the federal funding gap and allowed NJ TRANSIT to avoid fare increases and service cutbacks.

NJDOT's operating costs are projected to increase in the future. This increase is mostly attributable to annual inflation. In real terms, operating costs are forecasted to grow but only a small percent would be from the result of new needs associated with maintenance and the operation of additional highway capacity, enhanced maintenance and operation of the existing system, and ITS. As almost one half of NJDOT operating funds come from state appropriations, if NJDOT is to use its limited capital funding effectively over the plan horizon, state officials must maintain a commitment to fund NJDOT operations adequately.

VII. CONFORMITY

INTRODUCTION

The Regional Transportation Plan must demonstrate conformity with Federal Clean Air Act requirements as set forth in U.S. Environmental Protection Agency regulations. The term “conformity” means that the MPO’s actions *conform* to the goal of improving air quality. Specifically, the transportation conformity process is intended to ensure that transportation plans, programs, and projects will not:

- create new violations of the National Ambient Air Quality Standards (NAAQS);
- increase the frequency or severity of existing NAAQS violations; or
- delay the attainment of the NAAQS in designated nonattainment (or maintenance) areas.¹

Under the 1990 Clean Air Act Amendments (CAAA), the U.S. Department of Transportation cannot fund, authorize, or approve Federal actions to support programs or projects that are not found to conform to the Clean Air Act requirements,² so without demonstrated conformity, the Plan cannot be fully adopted and the advancement of transportation projects is severely limited.

In order to demonstrate conformity, an assessment of air quality in the SJTPO region was performed. The purpose of the assessment was to show that the improvements proposed in the Plan would result in the generation of emissions that are below the applicable emissions budgets, thereby demonstrating conformity.

Computer models were used to generate estimates of mobile source emissions resulting from the highway system. Conformity was determined by testing estimated emission levels against applicable budgets for the required test years. These years included 2005, the Ozone attainment year; 2007, the CO maintenance budget test year; 2015, the interim year; and 2025, the RTP’s horizon year.

As the SJTPO region is designated non-attainment for ozone, emissions of volatile organic compounds and oxides of nitrogen, precursors of ozone, were evaluated. Portions of the SJTPO region have also been designated as maintenance areas for carbon monoxide (CO). Therefore, carbon monoxide emissions were evaluated in Salem and Atlantic Counties.

METHODOLOGY

Ozone (O₃) is a colorless gas associated with smog or haze conditions. Ozone is not a direct emission, but a secondary pollutant formed when precursor emissions, volatile organic compounds (VOCs), also known as hydrocarbons (HC), and oxides of nitrogen/Nitrates (NO_x), react in the presence of sunlight. Carbon monoxide (CO) is a colorless gas formed by the incomplete combustion of fuel. Anywhere combustion takes place (i.e. industrial processes, home heating, vehicle engines, etc.) high concentrations of CO can develop.

As part of the Clean Air Act Amendments of 1990, federal officials grouped areas into air quality control regions (AQCR) based on Consolidated Metropolitan Statistical Areas (CMSA) for the purpose of air quality planning. In the SJTPO region, Atlantic and Cape May Counties were grouped into the Atlantic City AQCR. Cumberland and Salem Counties, along with Burlington, Camden, Cumberland, Gloucester, and Mercer Counties, were included in New Jersey’s portion of the Philadelphia AQCR. Both of these AQCR were designated as Non-attainment Areas for ozone. However, in order to assist in the evaluation of air quality conformity in the SJTPO region, emission budgets for VOCs and NO_x were established for

¹ <http://www.fhwa.dot.gov/environment/conform.htm>, accessed April 15, 2004

² Ibid.

the SJTPO region as a whole. Two areas, Atlantic City and part of Penns Grove, are also now considered maintenance areas for CO. For the purposes of evaluating CO emissions, budgets were established for all of Atlantic County and Salem County, which encompass the maintenance areas.

A combination of computer programs centered around MOBILE6.2 and PPSUITE were used to assess air quality in the SJTPO region. MOBILE6.2 is a software package developed by the USEPA to calculate mobile source emissions. PPSUITE is a software package used to pre-format and post-format data to and from MOBILE6.2. It provides a linkage between MOBILE6.2 and the transportation model, the South Jersey Travel Demand Model (SJTDM). Emissions are calculated for three categories of pollutants: volatile organic compounds, oxides of nitrogen, and carbon monoxide.

Test and Analysis Years

The first required analysis year, is the ozone attainment year, 2005, when tests for VOC and NOx are required. The next year of concern is the CO maintenance budget year, 2007, when tests are required for CO only. The next analysis is for the year 2015 because it provides an interim year that is not more than 10 years from the 2005 analysis or from the Plan’s horizon year of 2025. The Plan’s 2025 horizon is the last analysis year required.

Applicable Tests and Budgets

The SJTPO region has emission budgets for all relevant pollutants, and as such, only budget tests are required to demonstrate conformity. The SJTPO regional Ozone budgets are taken from the April 2003 New Jersey SIP revision submission which was approved and published by EPA on July 23, 2003 with an effective date of August 22, 2003. These budgets reflect new vehicle registration data that SJTPO must now incorporate in its assessment. Under the SIP Revision, 22.12 tons per day of VOC and 36.36 tons per day of NOx are the budget levels for the year 2005 and later for the SJTPO region. VOC and NOx budget levels corresponding to the analysis years of 2005, 2015 and 2025 are listed in Table VII-1 below. The values correspond to emissions generated for a July weekday, the prescribed analysis day/period for the VOC and NOx emission testing in the SJTPO region.

Table VII-1 Budgets for VOC and NOx (tons per day) for SJTPO

Budgets	2005 (tons)	2015 (tons)	2025 (tons)
VOC	22.12	22.12	22.12
Nox	36.36	36.36	36.36

*Budgets approved by USEPA July 23, 2003

CO budgets under the maintenance plan are evaluated at the county level to account for Atlantic City and part of Penns Grove maintenance areas. For the year 2007, 91.68 tons per day of CO is the budget level established for Atlantic County. In Salem County, the 2007 budget for CO is 31.99 tons per day. These are newly proposed CO budgets which were submitted on March 15th 2004 as part of a New Jersey SIP revision. These budgets will become effective only when and if EPA issues its approval of the revised budgets. CO budgets for 2007, 2015 and 2025 are listed in Table VII-2 below. The test for CO was performed for a typical winter weekday.

Table VII-2 Budgets for CO (tons per day) for SJTPO Maintenance Areas

Budgets:	2007 (tons)	2015 (tons)	2025 (tons)
Atlantic County	91.68	91.68	91.68
Salem County	31.99	31.99	31.99

*From March 15, 2004 Proposed SIP Revision for CO and 1 – Hour Ozone NAAQS; USEPA approval pending.

Planning Assumptions

The latest planning assumptions must be used in the conformity analysis. Key elements utilized in the conformity assessment follow.

- Population & Employment

Population and employment forecasts (as endorsed by the SJTPO TAC on December 16, 2003) were used to forecast future year traffic conditions in the SJTPO area. These demographic forecasts project population and employment trends at the county and municipal level in five – year intervals to the year 2025. The forecasts were developed in close cooperation with the county planning and economic development departments and, where available, SJTPO relied on projections prepared directly by the counties. The SJTPO Technical Advisory Committee was also kept involved at every step of this process.

- Travel & Congestion

For all analysis years, VMT and VHT are calculated by the South Jersey Travel Demand Model. Base year VMT was adjusted based on NJDOT’s Highway Performance Monitoring System (HPMS) estimates.

- Transit Operation Policy and Fare Changes

Transit ridership has continued to grow, which provides a favorable effect on emissions.

Transit service assumptions and fare/toll increases over time - Detailed assumptions for different facilities were included in network coding files. In general, fares and tolls will change in step with inflation. This will cover any anticipated NJ Transit fare increases.

- Transportation Control Measures (TCMs)

Transportation Control Measures that were implemented in the region, as identified in previous SIPs, are included in the base network. The current SIP does not include any Transportation Control Measures. Therefore, neither the budgets nor the conformity analysis reflect any additional Transportation Control Measures.

Models and Inputs

There are several requirements for travel demand models for severe ozone areas. They are:

- General Model Requirements
- Consistency with the Highway Performance Monitoring System (HPMS)
- Vehicle Miles Traveled (VMT) estimates
- Reasonable Methods to Estimate Off-Network VMT
- Capacity- and Volume-Sensitive Speed-and-Delay Estimates
- Consistency with SIP Emissions Modeling Assumptions

The South Jersey Travel Demand Model (SJTDM) was used along with PPSUITE. This model has been accepted and was used to establish the current 2005 budgets, as well as the proposed new budgets for

CO maintenance. The latest emissions model for New Jersey, Mobile 6.2 was used to prepare the proposed CO maintenance budgets and was used for the conformity analysis. The 2002 vehicle age and distribution data were used in the analysis process.

Control measures included reflect those used to prepare the proposed CO maintenance budgets. These include taking Tier 2/Low Sulfur credits for analysis years after 2004.

Interagency Consultation

Requirements for interagency consultation were met primarily through an in-person meeting on conformity issues at NJDOT held on March 15, 2004. At this meeting, the interagency consultation group concurred on all planning assumptions, applicable tests and budgets, demonstration and analysis years, and models and inputs.

If additional issues requiring consultation arise, consultation will be by conference call unless needs dictate an in-person meeting. Any further changes to Exempt and Non-Exempt project lists resulting from changes to the FY 2005 – 2007 TIP will be distributed by e-mail to the Interagency Consultation Group (ICG) with a recommendation as to their disposition. The members of the ICG will respond within a reasonable period to indicate concurrence, disagreement, or the need for additional information. When the proposed conformity determination documentation is completed, a summary document will be distributed to all participating agencies for comment. SJTPO may ask USEPA to conduct its review simultaneously with the public comment period and will request that USEPA raise any issues well in advance of SJTPO's scheduled action on conformity. Decisions made through consultation were documented and distributed to the participating agencies.

Public Involvement Procedure

The proposed conformity determination will have a 30-day comment period, but it may not be simultaneous with the 30-day period for the FY 2005 - 2007 TIP. The summary document will be available to outline how conformity requirements have been met. Any questions on technical backup will be addressed upon request.

Projects Analyzed

All non-exempt projects that could be modeled, including non-Federal projects, will be covered in the current conformity determination (See Figure VII-1, dated January 16, 2004). The following changes will be made to the previous conformity analysis:

- NJDOT's Route 47 project (9013A) will first be analyzed in the 2015 network.
- NJDOT's Route 30/152A project will be removed.
- SJTA's Branch Toll Lane project will be first analyzed in the 2015 network.
- SJTA's Managed Corridor will first be analyzed in the 2015 network.
- SJTA's Exit 17 Interchange will first be analyzed in the 2015 network.

TESTING RESULTS

Overview

Demographic forecasts were input to the modeling process to generate future travel demand data. Network changes resulting from the addition of improvement projects were used to define the action scenarios based on the year the proposed improvement would likely be constructed. The combination of demographic changes and network changes were run through the modeling process, and resulted in the overall estimates of VMT, VHT, and emissions generated in the SJTPO region. A summary of the population, employment, VMT, and VHT values generated in the SJTPO region is found in Table VII-3 below. The VMT and VHT data is summarized by analysis period, winter or summer, and is presented for comparative purposes.

Table VII-3 Regional Travel Summary

	2005 ACTION	2007 ACTION	2015 ACTION	2025 ACTION
Population	589,555	599,284	644,501	702,409
Employment	266,221	273,244	304,043	350,169
VMT Winter	NA	7,382,767	8,153,335	9,279,375
VHT Winter	NA	180,144	199,428	244,439
VMT Summer	24,956,628	NA	25,888,827	28,593,338
VHT Summer	767,188	NA	849,114	1,005,422

ASSESSMENTS

Action Scenarios

The conformity assessment depicts the results of the action scenarios testing versus the budgets established for each emission level for the analysis years. To develop the action scenarios, the base year highway network, the highway system as it existed in the model in the year 2000, is used as the starting point. For each analysis year, the highway network is modified based on the projects to be analyzed, as identified in

Figure VII-1. For each analysis year, the SJTDM is re-run with the appropriate future year demographic inputs and the modified, action scenario highway network assumed in place by the analysis year. The corresponding emissions generated are a result of both the future year demographic inputs and the new projects, or actions, added to the base network in the appropriate year(s). The emissions from these action scenarios are then compared to the corresponding analysis year emission budgets.

Budget Tests

As previously stated, SJTPO regional Ozone attainment budgets that were effective August 2003 are used for VOC and NOx. Budgets for the analysis years for VOC and NOx, previously stated as 2005, 2015 and 2025, are listed in Table VII-4. Proposed CO budgets under the maintenance plan are evaluated at the county level to account for Atlantic City and part of Penns Grove. CO budgets are also listed below for years 2007, 2015 and 2025.

Budget tests were performed for VOC and NOx for the SJTPO region. The tests show whether improvement actions, or the action scenarios, keep emissions within budget. Results are determined by subtracting projected emissions from the budgeted amounts. The VOC and NOx budget tests for analysis years 2005, 2015 and 2025 all passed, as seen in the Table VII-4 and Table VII-5 below.

Table VII-4 VOC Budget Test, SJTPO (tons per day)

	2005	2015	2025
Budget	22.12	22.12	22.12
Action	21.85	9.36	7.25
Budget-Action	0.27	12.76	14.87
Pass/Fail	Pass	Pass	Pass

Table VII-5 NOx Budget Test, SJTPO (tons per day)

	2005	2015	2025
Budget	36.36	36.36	36.36
Action	35.07	10.89	5.43
Budget-Action	1.29	25.47	30.93
Pass/Fail	Pass	Pass	Pass

The proposed CO budget tests for the analysis years 2007, 2015, and 2025 also passed and are shown in Table VII-6 and Table VII-7 below.

**Table VII-6 CO Budget Test, SJTPO Maintenance Areas
Atlantic County (tons per day)**

	2007	2015	2025
Budget	91.68	91.68	91.68
Action	90.97	72.68	77.16
Budget-Action	0.71	19.00	14.52
Pass/Fail	Pass	Pass	Pass

**Table VII-7 CO Budget Test, SJTPO Maintenance Areas
Salem County (tons per day)**

	2007	2015	2025
Budget	31.99	31.99	31.99
Action	29.83	25.28	24.21
Budget-Action	2.16	6.71	7.78
Pass/Fail	Pass	Pass	Pass

PLAN CONFORMITY DETERMINATION

For Ozone all of the budget tests passed for all required years. For CO all of the maintenance tests passed for all of the required years. However, these are newly proposed CO budgets which were submitted March 15th 2004 as part of a New Jersey SIP revision and have yet to be approved. Therefore the Regional Transportation Plan will comply with Federal CAAA regulations and will be a conforming plan only when and if EPA issues its approval of the revised CO budgets.

Figure VII-1 List of Projects Included in Action Years

Source	Sponsor/ Implementer	Proj. #	Location	Description	Anticipated Completion	Base Network	2005	2007	2015	2025
TIP			Atlantic City Traffic Control System	Signal installation, computerized control	-	O				
TIP	NJDOT		Route 40: 3K Chester-Jonathons (MP 59.8-	Widen, center barrier/lane, jughandles, signals	-	O				
SJTA	SJTA		Atlantic City Expressway E-Z Pass	Electronic toll and traffic management	-	O				
TIP,SJTA	SJTA		A.C. - Brigantine/Marina Connector	New alignment, tunnel	-	O				
NJHA	NJHA		Parkway: Int. 36 NB Entrance (Fire Road)	New NB ramp from the existing ramp network	-	O				
Var.	NJTA		E-Z Pass on Turnpike & Parkway	Electronic toll and traffic management	-	O				
Garmen	SJTPO		Update the network to existing conditions.	(See Tech Memo)	-	O				
TIP	NJDOT	152	Route 30: 5G Chester-Shore (MP 50.7-52.1)	Widen, center barrier, decel. lanes, jughandles,	2004		X			
TIP	NJDOT	229	Route 47: 1C GSP - Railroad (MP 3.2-4.1)	Widen, center lane	2004		X			
TIP	NJDOT	9013A	Route 47: Sharp - Sherman	Op.& safety imp., turn lanes, add through lane 0.7 mi.	2006				X	
TIP	NJDOT	244	Route 52: Somers Point Circle	Circle cut-through, signalize, add through lane 0.5 mi.	>2007				X	
TIP	NJDOT	98323	Deililah Rd Bridges: US30, ACRL, Water Main	Replace 3 structures, add ramp, geometric imp's	2008				X	
02 S&D	NJDOT	9351	Breakwater Road Extension	New alignment: Route 9 to Seashore Road, 500+/- ft.	>2007				X	
02 S&D	NJDOT	2149	Route 47 & 55: Shore Connection Intersections	Improvements at 5 intersections	>2005				X	
CMCBC,	Cape May	S0002	Middle Thorofare Bridge Toll Facilities	Increase from 2 to 3 lanes	n/s				X	
Atl. City			Atlantic City Traffic Control System	Add 27 additional signals to the system	2004		X			
SJTA	SJTA	-	A.C. Expressway: Exit 5 (Route 9)	Completion of interchange - westerly access	completed	O				
SJTA	SJTA	63520	A.C. Expressway: A.C. - Pleasantville	Third lane (EB & WB)	completed		X			
SJTA	SJTA	63016	A.C. Expressway: Exit 17 (Route 50)	Completion of interchange - easterly access	n/s				X	
SJTA	SJTA	-	Huron Avenue U-turn	New ramp from H-Tract to Marina/Brigantine	completed		X			
SJTA	SJTA	63994	Expressway: Branch Toll Lane @ Egg Harbor	2 additional toll lanes - reversible	n/s				X	
SJTA	SJTA	63995	A.C. Expressway: Parkway - A.C.	Managed corridor	n/s				X	
SJTA	SJTA	-	Expressway-Airport Connector	Direct ramp connection: Exit 9 to Airport access road	n/s				X	
NJTA	NJTA	65002	Turnpike: Interchange 1	Relocation - additional plaza capacity	2004		X			
NJTA	NJTA	-	Turnpike: Widening: Int. 1-4	Add third lane each direction	unknown				X	
NJTA	NJTA	GSP134	Parkway: Int. 6 Imp. (Route 147)	New ramps to/from south	2011				X	
NJTA	NJTA	GSP124	Parkway: Cape May Grade Separations	3 intersections: Shell Bay, Stone Harbor, Crest Haven	2008-2012				X	
NJTA	NJTA	GSP134	Parkway: Int. 17 Improvement (Sea Isle Blvd.)	New ramps to/from south	2011				X	
NJTA	NJTA	GSP137	Parkway: Int. 20 Improvement (Route 50)	New ramps to/from north	2010				X	
NJTA	NJTA		Parkway: Int. 40 Improvement (Route 30)	New ramps to/from south	2014				X	
NJTA	NJTA		Parkway: Int. 44 Improvement (Route 575)	New ramps to/from south	2014				X	
NJTA	NJTA	GSP133	Parkway: Widening: Int. 30-48	Add third lane each direction	2010-2015				X	

Source: SJTPO, April 2004

* Project schedules per 2/23/04 Draft Capital Program

n/s not scheduled