EXECUTIVE SUMMARY

CENTRAL JERSEY TRANSPORTATION FORUM

JULY 2002

Delaware Valley Regional Planning Commission

Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.

Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. This study is funded through the continuing aviation planning grant from the Federal Aviation Administration (FAA). The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.

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1 INTRODUCTION

Central Jersey, located at the juncture of Mercer, Middlesex, and Somerset counties, is a hub of office and residential development. During the 1980's, the US 1 Corridor, which is the heart of the area, was nationally recognized as one of the premier high-growth areas in the United States. Substantial development is still occurring with the consolidation of Merrill Lynch offices in Hopewell Township, the expansion of Bristol-Myers Squibb, the development of the Sarnoff and Wyeth (formerly American Cyanamid) sites in West Windsor Township, and the potential long-term expansions of Princeton University and the Princeton Forrestal Center.

In the 1980's, the US 1 Corridor Study, a cooperative effort of the New Jersey Department of Transportation (NJDOT), the counties, and municipalities, developed a series of recommendations to improve traffic flow on US 1. While most of the recommendations have been implemented, some of the remaining projects have become controversial.

In 1997, when the Delaware Valley Regional Planning Commission (DVRPC) was conducting the congestion management study for the Millstone Bypass, municipal officials and public citizens expressed the belief that inadequate attention was being given to the transportation issues in Central Jersey. They felt that because the region encompasses multiple municipalities, portions of three counties and two metropolitan planning organizations, there was a lack of coordination among the different entities responsible for addressing their transportation concerns. As a consequence, DVRPC and NJDOT agreed to create the Central Jersey Transportation Forum.

This Executive Summary presents the findings and conclusions of the initial phase of the Forum. More detailed information on all elements of Forum activities is provided in a separate report.

2 BACKGROUND

Study Area

Central Jersey Transportation Forum is composed of 20 municipalities located in Middlesex, Mercer and Somerset counties, see Figure 1. In initial organizational meetings to establish the Forum, there was considerable debate about which municipalities should be included in the study area. Discussions focused on the trade-off between study area size and the dilution of technical resources. The original study area, shown on the diagram, had US 1 as its central focus. As the Forum became more successful, additional municipalities requested membership. After some debate, the Forum agreed to expand its geographic coverage with the provision that the primary technical focus remain on the original study area.

Activities

Since the initial meeting on January 22, 1999, there have been 13 meetings, including a special land use/transit charrette. In accordance with the Forum's wishes, meetings are usually held at 3-4 month intervals. Meeting dates and locations are listed below:

- January 22, 1999, Municipal Building, Plainsboro Township
- April 16, 1999, Princeton University, Princeton Borough
- July 29, 1999, Princeton University, Princeton Borough
- November 5, 1999, Sarnoff Corporation, West Windsor Township
- February 4, 2000, Sarnoff Corporation, West Windsor Township
- April 7, 2000, Sarnoff Corporation, West Windsor Township
- June 9, 2000, Sarnoff Corporation, West Windsor Township
- September 8, 2000, Sarnoff Corporation, West Windsor Township
- November 9, 2000, Princeton Marriott Forrestal Village, Plainsboro Township
- April 19, 2001, Bristol-Myers Squibb, Hopewell Township
- September 7, 2001, Sarnoff Corporation, West Windsor Township
- November 30, 2001, Bristol-Myers Squibb, Hopewell Township
- February 22, 2002, Sarnoff Corporation, West Windsor Township

Forum meetings are co-chaired by DVRPC and NJDOT. To help guide the Forum and provide technical support, a smaller Steering Committee, composed of the technical agencies, was formed. The Forum is an open, inclusive process that tries to involve all the major parties participating in planning and transportation decision making in Central Jersey. Unlike other standing committees or organizations, there is no formal membership, and no designated representative. As such, the membership of the Forum is continually evolving.

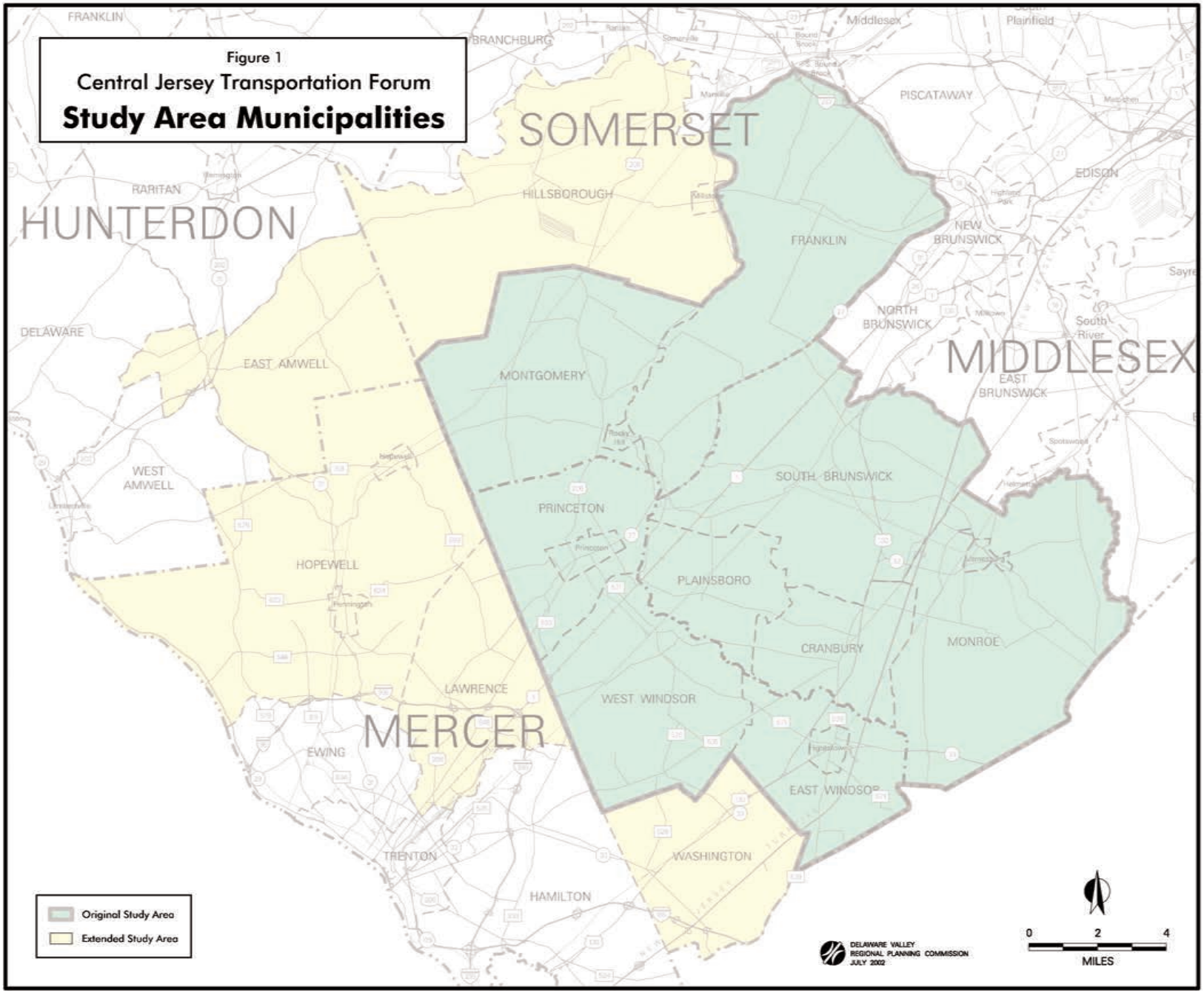
Figure 1
Central Jersey Transportation Forum
Study Area Municipalities
SOMERSET
HUNTERDON
MIDDLESEX
MERCER
FRANKLIN
BRANCHBURG
RARITAN
HILLSBOROUGH
DELAWARE
EAST AMWELL
WEST AMWELL
HOPEWELL
MONTGOMERY
PRINCETON
PLAINSBORO
FRANKLIN
NEW BRUNSWICK
NORTH BRUNSWICK
EAST BRUNSWICK
SOUTH BRUNSWICK
PISCATAWAY
EDISON
South River
CRANBURY
MONROE
WEST WINDSOR
EAST WINDSOR
LAWRENCE
EWING
TRENTON
HAMILTON
WASHINGTON
Original Study Area
Extended Study Area
DELAWARE VALLEY REGIONAL PLANNING COMMISSION
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Municipal Visions and Private Sector Presentations

Since a primary objective of the Forum is to promote coordination among key players in the region, each municipality was given an opportunity to make a presentation regarding proposed development as well as their long-term land use and transportation visions. Not only was this an educational process, but it also enabled them to interact with one another. These presentations were eventually expanded to include updates by major businesses, institutions and developers in Central Jersey.

Two themes emerged from the municipal visions. First, the scope and extent of development was far greater in magnitude than anticipated. Hopewell Township, at the time of their presentation, had approved over 11 million square feet of development, over four million square feet was either approved or in conceptual development in West Windsor Township, and Cranbury Township had approved 1.7 million square feet of warehousing. There is potential for even more development. Build-out in Franklin Township will result in 6,300 more residential units and 17.5 million square feet of non-residential development, and in South Brunswick an additional four million square feet of warehousing is expected. Anticipated long-term expansions of Princeton University and the Princeton Forrestal Center are not included in the above totals.

The second theme to emerge is that of incipient programs to manage growth. Cranbury, Plainsboro, Washington, and West Windsor townships discussed their village center plans. Open space preservation programs are underway in many municipalities. For example, Franklin Township had preserved 3,000 acres; Montgomery Township, 5,000 acres; and Washington Township plans to have a 500-acre green belt around its town center. Monroe Township plans to keep the southern portion of the township rural in nature by designating it an Agricultural Development Area; South Brunswick intends to downsize commercial zones, especially in the US 1 Corridor.

Existing Transit Routes and Services

Even though there is a mix of transit services serving the Central Jersey Region, see Figure 2, the extent of coverage and hours of service sharply limits its use. There is fairly extensive bus service in Plainsboro, Princeton Borough, East Windsor, and West Windsor; however, the remaining municipalities have limited service at best. During the off-peak many services are discontinued, and the services that do operate do so with long headways.

New Jersey Transit's Northeast Corridor Line offers excellent service to New York and Trenton and indirect service to Philadelphia via SEPTA. Until recently, the Princeton Junction Rail Station was the primary rail station serving Central Jersey. The opening of the Hamilton Rail Station helped to relieve a severe parking problem at the Princeton Junction Rail Station. A new station in South Brunswick is needed to serve the communities between Princeton Junction and New Brunswick and offer additional relief to the Princeton Junction Rail Station. The Princeton Branch, commonly known as the Dinky, runs shuttle service between Princeton Junction and Princeton. Its serves a very targeted market.

New Jersey Transit offers seven different bus routes, all but one are local routes. They are generally Trenton oriented and follow the main state highways. Route 600 travels from Princeton Forrestal Village to Trenton via US 1, Route 602 from Pennington to Trenton via NJ 31, Route 606 from Princeton to Trenton via US 206, and Route 605 from Montgomery Center to Princeton via US 206.

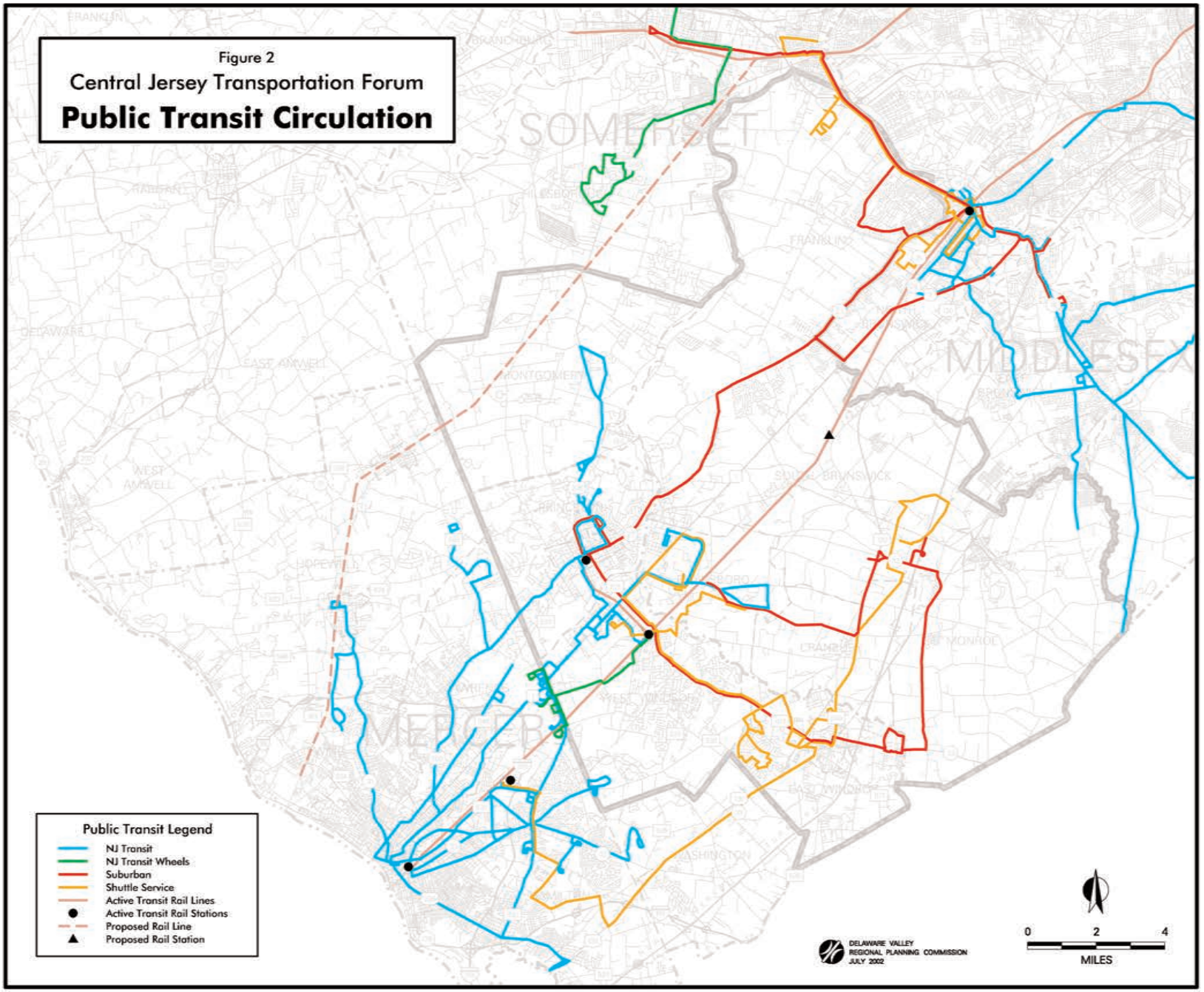
Figure 2
Central Jersey Transportation Forum
Public Transit Circulation
Public Transit Legend
NJ Transit
NJ Transit Wheels
Suburban
Shuttle Service
Active Transit Rail Lines
Active Transit Rail Stations
Proposed Rail Line
Proposed Rail Station
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Parking problems at Princeton Junction Rail Station

They offer 20 minute minimum headways during peak periods, and longer headways during the off peak. New Jersey Transit also offers two "Wheels" type of service. These are shuttle services: Route 976 to the Princeton Junction Rail Station, and Route 989 to office complexes in Bridgewater and Bedminster.

Suburban Transit operates bus service to the Port Authority Bus Terminal and Lower Manhattan, and local bus service along NJ 27 between Princeton and New Brunswick. During peak periods, buses serving the Interchange 8A Park and Ride operate with less than 10 minute headways, the branch routes have slightly longer headways. During off-peak, headways exceed 30 minutes.

Besides the more traditional bus service, there are seven shuttle services connecting residents and businesses to rail stations. They are operated by a mix of private sector companies, municipalities, counties, and transportation management associations. Examples include Merrill Lynch's Hopewell Shuttle Service, which offers a free ride to its employees between the Hopewell Township complex and the Hamilton Train Station; the East Windsor Shuttle, which carries East Windsor and Hightstown residents to the Princeton Junction Rail Station; and Mercer County's Route 130 Connections Shuttle service, which offers bus service from the Hamilton Rail Station to businesses in the US 130 corridor between Hamilton Township and BASF in South Brunswick. Most shuttle services offer only one-way peak period service.

3 ISSUE IDENTIFICATION

Another primary purpose of the Forum is to provide an opportunity for NJDOT and the metropolitan planning organizations, the DVRPC and North Jersey Transportation Planning Authority (NJTPA), to be more responsive to local concerns. Therefore, at the very first meeting a process was established for the Forum members to establish their own agenda. Forum members were asked to identify the critical issues facing Central Jersey. Over 85 different issues were identified ranging from specific transportation problems to much broader planning issues. These were consolidated into five umbrella issues, with the Forum determining East-West Access as its highest priority. Below are the issues and sub-issues identified by the Forum:

East-West Access

Congestion on east-west roads
Congestion impacts on local communities and motorists
Congestion "hot spots" where east-west roads cross US 1 and US 130
Concerns over specific east-west improvement projects

System-Wide Planning and Coordination

Need to improve intergovernmental coordination
Develop vision of the future
Develop unified set of transportation projects
Improve and coordinate the highway planning process
Educate the public and governmental officials about the relationship between transportation and land use

Transit and Alternative Modes

Limited alternatives to the automobile
Lack of an efficient transit system
Implement a premium mass transit service
Design features of new development are not supportive of transit
Free employee parking discourages use of transit and alternative modes
Lack of comprehensive bike system and sidewalks
Equity of transportation funding with respect to transit versus highways

Impacts of Land Use Planning on Transportation

Need more systematic land use planning coordination among municipalities
Impact of land use on transportation decisions
Protection and enhancement of designated centers
Reduce square footage of warehousing
Need land use/transportation capacity analysis
Transportation is an integral component of land use planning

Traffic congestion on east-west roads, like Washington Road, was rated as the highest priority by the Forum

Goods Movement/Trucks

Truck impacts on communities

New Jersey Turnpike toll increases diverts trucks to other highways

Warehousing around Interchange 8A and vicinity

Lack of truck stops and other amenities forces trucks off of the Turnpike and interstate roads onto local roads for services

4 APPROACH

Many of the issues identified by the Forum dealt with the future vision of Central Jersey and the major transportation investments needed to achieve it. As a consequence, a major undertaking of the Forum involved testing alternative transportation and land use scenarios through the use of transportation simulation models. The genesis of this analysis was to examine east-west traffic congestion, but it eventually evolved to address larger issues of mobility and smart growth. Consequently, most of the issues identified by the Forum (East-West Access, System-Wide Planning and Coordination, Transit and Alternative Modes, and Impacts of Land Use Planning on Transportation) were addressed through this analysis.

Modeling Methodology and Assumptions

An incremental approach was taken in the modeling process. First, existing conditions were initially modeled to provide an understanding of existing travel patterns. Next, a "Do Nothing" scenario was modeled as a test of what will happen if the demographic forecasts come to fruition and there are no major highway or transit improvements. The scenario also served as a base case to evaluate the benefits of alternative improvement strategies. In conjunction with the Forum, four future improvement scenarios were developed. The first two scenarios represented different levels of highway investments. The next two assumed implementation of "Smart Growth" strategies in combination with new premium transit services. Under "Smart Growth" the total forecasted development in Central Jersey remains constant, but is slightly redistributed from the outlying areas to the core area along US 1 to help facilitate higher forms of transit.

Central Jersey Transportation Forum meeting

Forum members participating in a "Smart Growth" Transit/Land Use Charrette (or interactive workshop) established the framework for the transit/land use scenarios. They selected light rail transit (LRT) as the preferred premium transit service for Central Jersey. "Smart Growth" assumptions were then developed using New Jersey Transit's Transit Score Index. Studies have shown that the viability of different forms of transit are dependent upon population and employment densities. The higher the densities, the more viable higher forms of transit becomes. For example, in areas with the lowest Transit Scores, only park and ride may be applicable; and in areas with highest Transit Scores, commuter rail

becomes feasible. Using Transit Scores based on Year 2020 population and employment forecasts, and LRT target scores, charrette participants talked about shifting population and employment to centers in the core of the region. These centers largely represent the traditional centers that already exist, such as Princeton Borough, Princeton Junction, and Plainsboro Village. Using feedback from the charrette, the modeling team shifted approximately 26,500 jobs and 2,600 households to the US 1 Corridor where new transit services were proposed. Under trend population growth, transit zones (defined within 0.5 miles of a transit station) represent 4.6 percent of the study area, but 20.2 percent of the jobs and 6.1 percent of the households. With "Smart Growth," the zones near transit would increase to 28.0 percent of the employment and 7.8 percent of the households.

Using input from the charrette, and their knowledge of the area, New Jersey Transit staff developed a tentative alignment for an LRT line to link the centers, see Figure 3. No engineering study was performed to test the alignment's viability; it was developed solely to test the ridership potential of an LRT line and diversion from other transportation modes. The charrette also identified improvements to existing transit lines and new feeder services to the LRT.

Each scenario had a unique combination of land use, highway, and transit assumptions defined by the Forum. Below is a brief description of each scenario:

Existing (Base Year) Scenario - Quantifies existing travel patterns, used as comparison to future "Do Nothing." It uses 1997 base year land use and demographics, the existing highway and transit networks, and existing transit services.

"Do Nothing" Scenario - Determines what future conditions will be if there are no transportation improvements. It is used to compare future conditions to existing conditions, and is a neutral scenario used to rate the effectiveness of the alternate improvement scenarios. It consists of DVRPC and NJTPA forecasted 2020 population and employment, trend land use, existing transit network and services, and existing highway network with projects already under construction (such as the Meadow Road grade-separated interchange).

Highway I Scenario - Examines the impact of committed highway projects (as identified in DVRPC's and NJTPA's Transportation Improvement Programs) plus selected highway improvement projects. For example, it adds US 206 Bypass in Hillsboro, US 1 widening in South Brunswick, New Jersey Turnpike's widening of its outer lanes, and the CR 522 Extension to the "Do Nothing" highway network. Demographics, land use and transit assumptions remain the same as the "Do Nothing" scenario.

Highway II Scenario - Examines more ambitious highway improvements by adding the Millstone Bypass and SR 92 to the Highway I network. Again, demographics, land use and transit assumptions remain the same as the "Do Nothing" and Highway I scenarios.

Transit/Land Use Scenario - Models a center oriented "Smart Growth" land use pattern and modified demographic trend in combination with LRT and other new transit services identified by the charrette. A travel demand management (TDM) component was also incorporated into the scenario. It assumed the "Do Nothing" scenario highway network.

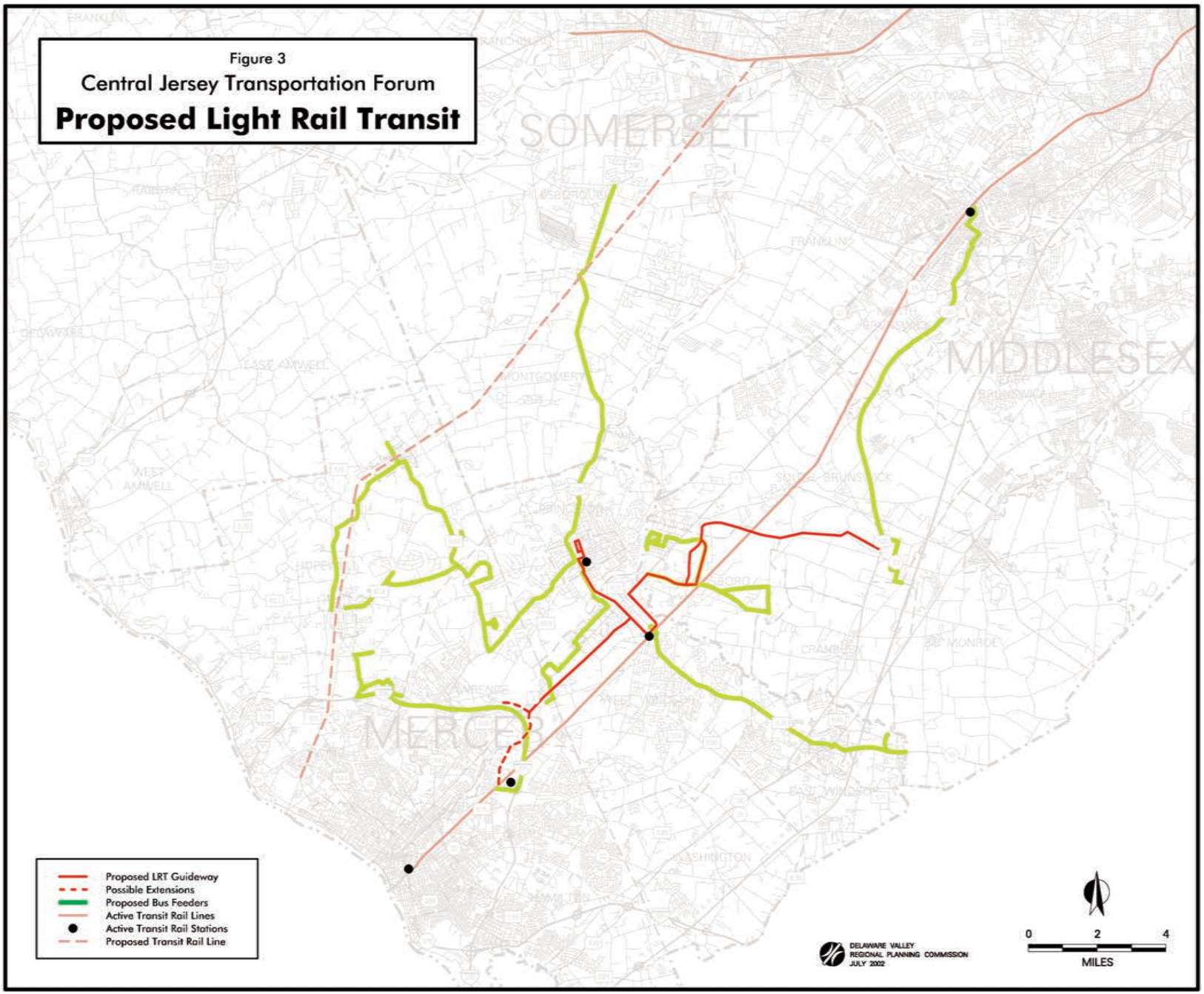
Figure 3
Central Jersey Transportation Forum
Proposed Light Rail Transit
SOMERSET
MIDDLESEX
MERCER
Proposed LRT Guideway
Possible Extensions
Proposed Bus Feeders
Active Transit Rail Lines
Active Transit Rail Stations
Proposed Transit Rail Line
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Transit/Land Use/Highway II Scenario - This is the most aggressive scenario in that it combines center oriented "Smart Growth" land use pattern and modified demographic trend, LRT, and Highway II road improvements.

Performance Measures

To help assist the Forum in evaluating the advantages and disadvantages of each scenario, a number of measures of effectiveness were used to rate highway system performance.

Daily Auto Trips - The number of highway trips in the study area. It is used to measure how effective land use and transit strategies are in reducing the number of highway trips.

Speeds - This measure represents the average travel speed in the study area. It is important because motorists tend to measure congestion by how fast they travel.

Vehicle Miles Traveled (VMT) - A measure of how much traffic is on the road system. Higher VMT can reflect either additional traffic on the highway system or increased travel as motorists seek indirect routes to avoid congestion.

Congested Lane-Miles - At the Forum meetings, congested VMT was used as another surrogate to measure congestion. Since the concept of what percent of the VMT is congested is difficult to comprehend, a simpler measure of congested lane-miles is used in this report.

Volume-to-Capacity (V/C) Ratio - Another measure of congestion that shows if the roadway system is operating below or above capacity. A value above 1.0 indicates a highway facility is operating above capacity, and a value above 0.9 indicates the highway is approaching capacity.

5 FINDINGS

Below are the major findings learned during the planning process and travel demand forecasting:

Reports on Master Plans Revealed More Substantial Development than Anticipated

Over 17 million square feet of development expected in Central Jersey, like this warehouse in South Brunswick Township

Municipal representative and developer presentations revealed the scope and extent of development is far greater in magnitude than anticipated. Over 17 million square feet of non-residential development has been approved or is in conceptual development within the study area. This does not even include anticipated long-term major expansions to Princeton University and Princeton Forrestal Center. Even with extensive open space preservation programs, there is still ample developable land to sustain growth levels.

Travel Pattern Analysis Showed East-West Traffic Is Largely Local in Nature

An analysis of travel patterns was conducted using screenlines. A screenline is an imaginary line, typically along some barrier such as a river or railroad, that planners use to examine traffic characteristics. The screenline line analysis showed east-west traffic is largely local in nature, while north-south traffic on US 1 has a significant external component. For example, 46 percent of the traffic crossing the screenline between US 1 and US 130 (approximately along the Northeast Corridor Line) are internal trips, with both an origin and destination within the study area; and another 49 percent have at least one trip end within the study area. Only 5 percent of the traffic is through trips, with neither trip end in the study area. Through trips constitute 12 percent and 15 percent of the traffic, respectively, crossing the Millstone River and New Jersey Turnpike screenlines. To place this percentage in perspective, 37 percent of the traffic on US 1 at Finnegans Lane, South Brunswick Township, is through trips.

2020 "Do Nothing" Scenario Showed Traffic Congestion Will Increase

If there are no new highways or transit, the analysis shows in 2020 there will be more traffic, slower speeds, longer delays, and peak congestion will be extended for longer periods. As measured by VMT, traffic will increase 55 percent over existing conditions. Congested lane-miles will increase from 7.3 percent of the roads in the 1997 Base Case to 30.1 percent of the roads in the "Do Nothing" scenario. Average travel speed will drop from 29.6 mph to 21.0 mph, a 29.1 percent reduction.

Without highway or transit improvements, traffic congestion will increase and extend for longer periods

The dramatic increase in traffic is largely attributable to anticipated development in the study area. Between 1997 and 2020, population is forecasted to increase 35.9 percent, and employment by 72.0 percent. Consequently, vehicle trips in the study area are projected to increase by 59.3 percent, or 530,500 trips per day. Without a slowdown in the growth rate, or major transportation improvements, gridlock will be unavoidable. Local roads and the collector system, which primarily serve roadside development, will take the brunt of the traffic increase. Their share of the VMT will increase from 12.4 percent in 1997 to 18.3 percent in 2020.

The degree of future congestion can be measured by the screenline V/C ratios. In 1997, only three screenlines were approaching congestion. In 2020, five of the six screenlines will be operating substantially above capacity. Millstone River crossings, with a V/C ratio of 1.51, will be operating 51 percent above capacity. Four other screenlines will be operating in excess of 30 percent of capacity. This may cause commuters to shift their starting times, lengthening the duration of the peak period and the number of hours experiencing congestion.

Highway I Scenario Provides Localized Relief

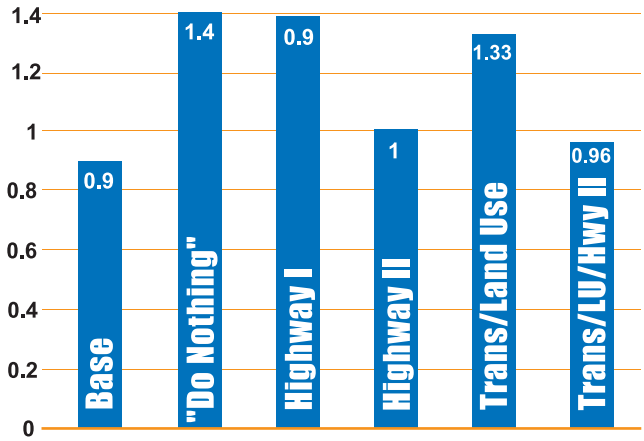
While Highway 1 Scenario will provide localized relief, its regional impact is minor. Widening of US 1 between College Road and Finnegans Lane will significantly reduce congestion on US 1. Construction of the Middlebush Bypass combined with the widening of Cedar Grove Lane will relieve congestion in that area of Franklin Township. Extending CR 522 between US 130 and old CR 522 will improve traffic operations on existing CR 522. Since these improvements are largely oriented to north-south roads, this scenario offers limited benefits in terms of reducing east-west congestion. East-west screenline V/C ratios remain essentially unchanged.

Regionally, total VMT is reduced slightly from "Do Nothing," less than 1 percent, due to additional capacity on US 1 and the New Jersey Turnpike. Average travel speed in the study area increases only 0.8 mph with most of the increase attributable to increased speeds on the freeway system (i.e., the New Jersey Turnpike widening) and the arterial highways. Significant traffic congestion is expected to remain.

Highway II Scenario Effective in Reducing East-West Congestion Between US 1 and US 130

Highway II will provide significant relief to east-west roads between US 1 and US 130. The Millstone Bypass will reduce traffic on Washington Road in the vicinity of US 1. It will also cause a minor redistribution of traffic approaching Princeton via the bridges across Lake Carnegie. Construction of

VOLUME/CAPACITY RATIO FOR US 1 - US 130 SCREENLINE



This diagram shows how east-west traffic between US 1 and US 130 is impacted by the different scenarios studied. It examines the volume to capacity ratio for the composite traffic flow of all major roads crossing Amtrak's Northeast Corridor Line. Under the Base Scenario, existing conditions, traffic volumes are 90 percent of capacity (a V/C ratio of 0.9). Traffic is approaching capacity. In 2020 without any improvements, traffic will exceed capacity by 40 percent. Only two improvement scenarios, Highway II and Transit/Land Use/Highway II, will result in traffic operating at or near capacity.

SR 92 will offer several benefits. It will remove approximately 11,000 vehicles from CR 522 between Ridge Road and Kingston Place, 5,000 vehicles from Dey Road east of Scudders Mill Road, and 4,700 vehicles from Plainsboro Road east of Scudders Mill Road. The redistribution of traffic to SR 92 would result in approximately 9,000 fewer vehicles on US 1 between CR 522 and NJ 18. While the above results accrue from jointly modeling the impacts of SR 92 and the Millstone Bypass, each has its own benefits and independent utility.

Benefits of this scenario to east-west travel can be observed in the V/C ratios. For the screenline located between US 1 and US 130, the V/C ratio is lowered to 1.0 from 1.4 in the "Do Nothing" scenario. While it still higher than the 1997 Base V/C ratio of 0.9, it does represent a significant reduction from "Do Nothing" conditions. Its impact on the remainder of the study area is minimal because the V/C ratios on the other screenlines essentially remain unchanged.

Within the study area total VMT is slightly increased (by less than 1% from "Do Nothing"); however, congested lane-miles is reduced 10.4 percent. Average travel speed will increase from 21.0 mph under "Do Nothing" conditions and 21.8 mph under Highway 1 scenario to 22.5 under Highway II. However, this is still substantially slower than 1997 Base Year speed of 29.6 mph.

With or Without SR 92 East of US 1, the Millstone River Crossings Mainly West of US 1 Will Be Operating Beyond Capacity

The Millstone River crossings will be operating at 51 percent over capacity according to an analysis of its screenline V/C ratio. Since there are no proposals to increase the capacity of the Millstone River crossings, none of the improvement scenarios tested have any substantial impact on alleviating this condition.

Transit/Land Use Scenario Offers Modest Congestion Relief

Based upon the land use and TDM assumptions developed at the charrette, in 2020 the LRT line is projected to carry 12,429 trips per day. Unlike most transit services, ridership will be unusually peaked, with 57 percent occurring during the peak periods. Overall transit ridership will increase by 15,000 daily trips per day due to the LRT, local bus service improvements, new feeder services, and increased Northeast Corridor Line ridership.

The intent of this scenario is to reduce congestion by decreasing the number of auto trips either through eliminating the need to make trips due to compact mixed-use development, substituting transit trips for highway trips, or encouraging more ridesharing. It is modestly successful in achieving its goal. The Transit/Land Use Scenario will generate 34,900 fewer vehicle trips than the "Do Nothing" scenario, a 2.4 percent reduction. Due to its peak period orientation, the reduction in vehicle trips during the peak period is expected to approach three percent. More importantly, it will reduce the growth increment in vehicle trips, between 1997 and 2020, by 6.6 percent.

The reduction in vehicle trips translates to, at best, only modest congestion relief spread throughout the entire study area. While many roads will experience slightly lower traffic volumes due to the redistribution of development to centers, roads near the major centers will actually experience slightly more congestion. VMT will be reduced by approximately 2 percent and travel speeds will remain unchanged from "Do Nothing" conditions. Congested lane-miles will be reduced to 27.7 percent of the roads from 30.1 percent in the "Do Nothing" scenario. There are no major improvements to V/C ratios at the screen lines.

LRT Not Viable as Tested, Need to Determine What Transit Strategies are Feasible and Appropriate

Land use is the most significant component in creating solutions. Transit is dependent upon focused land use patterns and adequate population and employment densities

The proposed LRT falls below the minimum threshold for low-cost LRT service based upon peak hour and peak period criteria. New Jersey Transit's Transit Score guidelines specify that an LRT should carry at least 800 peak hour or 1,600 peak period riders at the maximum load point. During the peak hour, at the maximum load point, just south of Princeton Junction, the peak direction ridership will be 550 riders. The proposed Central Jersey LRT thus achieves only 70-80 percent of the minimum ridership criteria. Even though ridership data indicates LRT is not a viable option, Bus Rapid Transit (BRT) may be a practical alternative. BRT criteria requires lower ridership levels, and the dispersed pattern of ridership boardings may be better served by BRT. Further analysis will be required to test BRT's applicability. Combining Highway II improvements with the Transit\Land Use scenario does not impact the issue of whether LRT or BRT is warranted.

Land Use Is the Most Significant Component in Creating Solutions

Transit ridership estimates are substantially dependent upon the assumed land use patterns and development densities. Without changes to land use patterns, that is, continuation of existing development trends, transit ridership forecasted in the Transit/Land Use scenario would be reduced by 50-60 percent. The implication of not implementing "Smart Growth" land use can not be underestimated if Central Jersey intends to implement a premium transit service.

To Implement Land Use Changes, There Is a Need for Incentives, Some of Which Require Legislative Action

Throughout the United States there are many notable examples of communities working together to promote common land use agendas and "Smart Growth" strategies. These include transfer development rights (TDR), sharing infrastructure improvement costs, and joint planning. Existing state enabling legislation does not provide these tools to the municipalities and counties in New Jersey. Without incentives, financial or otherwise, municipalities will be unwilling to absorb the extra employment and residential densities needed to support LRT, BRT, or other premium transit services.

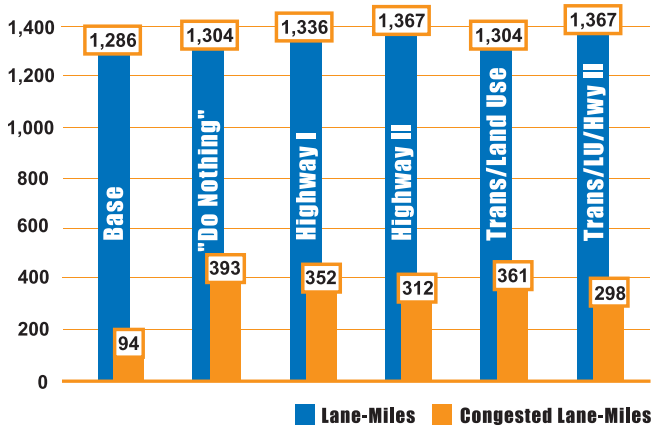
Travel Demand Management Strategies Have a Modest Effect on Reducing Trips

The TDM components of the Transit/Land Use scenarios included a $1.50 parking fee in zones near proposed LRT stations, cash out parking, preferential parking, and intensive marketing of ridesharing services. While TDM accounted for 11 percent of the reduction in vehicle trips, other strategies were responsible for 65 percent ("Smart Growth") and 24 percent (transit). In addition to its relatively modest benefits, the feasibility of implementing parking fees is questionable. However, TDM programs are comparatively inexpensive and do not require changes in land use to succeed.

Transit/Land Use and Highway II Scenario Is the Most Effective Scenario in Reducing Traffic Congestion

Adding Highway II improvements to the Transit/Land Use scenario reduces transit ridership about 5 percent, but a sufficient number of motorists are still diverted off the highway system, that when combined with the highway capacity improvements, produces the lowest levels of congestion among all the improvement alternatives.

CONGESTED LANE-MILES BY SCENARIO



This diagram shows the extent of congestion in Central Jersey. Currently, 94 miles, 7.3 percent of the roads, are operating under congested conditions. In 2020, without any improvements, 393 miles of road, or 30.1 percent of the total, will become congested. All improvement scenarios show some reduction in congestion from "Do Nothing" conditions. However, implementing a balanced approach of transit, land use, and aggressive highway improvements will produce the lowest levels of congestion among the improvement scenarios.

Transit/Land Use and Highway II produces the highest average highway speed, 22.6 mph, and the least congested roadway system, with only 21.8 percent of the lane-miles congested. More importantly, due to the construction of SR 92 and the Millstone Bypass, the screenline between US 1 and US 130 will be operating within capacity (0.96 V/C ratio), a major improvement over "Do Nothing" conditions with a 1.40 V/C ratio. The Forum defined east-west access across this screenline as the number one issue. Two other screenlines, located at the border between Princeton and Montgomery and at the border with Lawrence Township, will experience modest improvements in their V/C ratios from "Do Nothing" conditions. The Transit/Land Use and Highway II scenario was slightly less successful than the Transit/Land Use scenario in reducing vehicle trips and VMT, a 2.3 percent and 1.5 percent decrease, respectively, from the "Do Nothing" scenario.

Combining Highway II with Transit/Land Use will reduce LRT ridership by approximately 700 trips per day, with off-peak being slightly less effected than peak period ridership. Total daily transit trips would be reduced by 800 trips per day. Transit's peak mode share would slip from 5.9 percent under Transit/Land Use to 5.6 percent for Transit/Land Use and Highway II.

There Is an Inherent Conflict Between Goods Movement and Local Community Goals

Since 1991, six truck studies were conducted in and around Central Jersey by NJDOT. Three focused on the US 130/New Jersey Turnpike corridor, the others on the US 206/NJ 31 area. In general, these studies have documented that the vast majority of trucks have a purpose, at least one local stop, in passing through the area. NJDOT has found that some of the increase in truck traffic is attributable to economic growth in Hunterdon, Morris, and Warren counties; changes in retail industry shipping needs, due to box stores and on-time delivery, are also generating many more trips. From a statewide perspective, and maybe even from a regional perspective, if a truck has a "local" stop, it's a local trip. However, from a community perspective, if a truck passes through it to discharge goods in an adjoining community, it is a problem.

As Central Jersey is becoming more developed, there is a growing need for additional commuter services. New rail passenger service is being considered on the West Trenton Line and the Middlesex Ocean Monmouth (MOM) Line. At the same time these lines are being considered for conversion to passenger service, others are advocating increased shipment of goods via rail as a way to reduce truck traffic. Intact rail right-of-ways are at a premium. Central Jersey and NJDOT must jointly decide what is the optimum use for these lines.

There Is a Need for an Ongoing Comprehensive Planning and Advocacy Process in the Central Jersey Study Area

Over the last three years, the Central Jersey Transportation Forum has addressed many of the key issues identified at its initial meeting. Most participants would agree that the municipal presentations laid the foundation for cooperative planning. The modeling of alternate future vision scenarios was a detailed process that required considerable interaction among Forum members and extensive technical work. As a result, a long-term vision is emerging. However, many key issues still remain. Is BRT a viable option and how should it be implemented? How can Central Jersey implement "Smart Growth" and other land use strategies supportive of transit? What can Central Jersey do to advance Highway II improvements? Can the region develop a capital improvement program for the

county and municipal roadway systems? Without an ongoing mechanism like the Central Jersey Transportation Forum that brings the key players and technical resources together, these questions will not be resolved.

A Four-Prong Approach Is Needed: Each Strategy Has Merit; However, a Balanced Approach Combining All Four Strategies Maximizes Their Benefits

The travel demand analysis clearly shows that a balanced approach utilizing transit, Highway II improvements, "Smart Growth" land use, and TDM is the only effective strategy to reduce traffic congestion and increase mobility in Central Jersey.

6 RECOMMENDATIONS

Results of the travel demand analysis show there is no single "silver bullet" that will reduce congestion and increase mobility. However, a multi-faceted, balanced approach employing the following strategies will begin to achieve the Forum's vision. For the most part, the following broad strategies establish the themes for the next phase of Forum activities. More specific recommendations are listed later in this chapter.

Comprehensive Planning - Comprehensive planning is the first step in achieving the Forum's vision. Planning must include a regional approach to integrated transportation and land use planning, giving the municipalities information to make informative decisions and an expanded tool box to implement them, and working with municipalities in implementing "Smart Growth" techniques to support mass transit. Planning must also be a cooperative process involving state agencies, the counties, and the metropolitan planning organizations.

Highways - A mix of short-term and long-term highway improvements, in combination with smaller scale low-cost transportation systems management (TSM) type improvements and operational improvements, will all be needed to address the levels of congestion facing Central Jersey. Preventative maintenance on the highway system to avoid major disruptions in traffic flow is also critical. Improvements must focus on all levels of the highway system, not just state roads. A stable funding source would guarantee implementation of these programs.

Transit - The travel demand analysis showed there is latent demand for new transit services. The scope of this service, BRT versus LRT, station locations, feeder services, park and ride locations, and improvements to local bus service all need to be answered in terms of feasibility and costs. This will require a series of detailed planning and engineering studies. Due to a long, tedious, federally mandated study process, only a small number of new transit start-ups actually are constructed. Therefore, Central Jersey must also begin exploring innovative techniques to get around this hurdle, including public-private partnerships and phasing in different components.

Land Use - The success of new transit services are contingent upon "Smart Growth," shifting proposed development into a more compact mixed use pattern in the US 1 Corridor. Yet the ability to achieve this goal is dependent upon obtaining new planning tools from the state legislature and a solid comprehensive planning program in Central Jersey. Advocating local planning empowerment to the state legislature is therefore a high priority.

Travel Demand Management - The public and private sectors must encourage a variety of TDM programs to reduce single occupant vehicle trips.

Central Jersey Transportation Forum

In accordance with the Forum's Action Plan, an Organizational Committee was formed to explore the Forum's future. The committee agreed the Forum should continue, but should change its focus to solutions. In terms of structure, the committee recommended quarterly meetings, a Steering Committee to provide guidance, and other ad hoc committees as needed. Although transit solutions

may extend outside the Forum's current boundaries, the Forum's region should not be expanded, except in so far as implementation requires. Below are recommendations concerning the Forum:

Continue Central Jersey Transportation Forum - The Forum should continue as presently structured with quarterly meetings co-chaired by DVRPC and NJDOT. A representative Steering Committee should provide policy guidance and technical support, with ad hoc committees formed to address specific issues. Its broad-based open membership policy should continue; however, more emphasis should be given to expanding private sector participation.

The Central Jersey Transportation Forum should continue as presently structured.

Establish Steady Funding to Support Forum Activities - There are two cost components to funding the Forum: administrative activities including organizing meetings, mailings, and meeting minutes; and technical activities, such as conducting additional studies to advance transit. It is recommended that Forum funding reflect this dichotomy. DVRPC, NJTPA, and NJDOT should equally share the cost of administrative activities. The two metropolitan planning organizations should place the Forum on their planning work programs. Funding technical studies, the more expensive component, will need to be addressed on a case by case basis. Some studies might be funded by the metropolitan planning organizations and/or NJDOT; other studies might require a package of public and private sector funding.

Central Jersey Transportation Forum Study Area - The existing Forum boundary should remain with technical focus on the US 1 Corridor. Adjoining municipalities should continue their participation. Focusing on a manageable area makes it easier to implement solutions. It is recognized that some transportation improvements may extend outside the study area, and participation from other municipalities may eventually be required. This can be addressed on an individual basis.

Conduct Public Outreach Program - Implementation of the Forum's vision is highly dependent upon the municipalities supporting the vision. Consequently, presentations to municipal governing bodies and/or planning boards should be conducted. As the Forum becomes institutionalized, there is a need to obtain public input as to their needs, priorities, and vision. This can occur through public meetings.

Forum Activities - The next set of priorities for the Forum should include the following:

- Conduct and sponsor studies to refine the transit concept
- Work with NJDOT to advance Highway II projects
- Identify additional state, county and municipal needs
- Develop and prioritize a multi-modal Central Jersey capital improvement program
- Develop a more innovative tool box of strategies to enable effective regional and land use planning

Technical Support

One of the prime benefits of the Forum was the technical resources brought to bear on Central Jersey's transportation problems. While the travel demand forecasting exercises are very costly and difficult to sustain financially, there are other, more modest, technical activities that can be employed to support the Forum.

Rationalize Regional Functional Classification to Establish a Hierarchy of Roads for East-West Travel - Highway functional classification establishes whether a road serves local traffic or whether it is a high-speed through route. Functional classification is frequently used to determine official right-of-way widths and other design features. Consistency of functional classification among the municipalities and counties is critical to insure both uniform design elements and a common understanding of the road's function.

Provide Traffic Information to Counties and Municipalities to Update Circulation and Master Plans - Many entities in the region are updating their traffic circulation and master plans. The travel demand analysis is a unique source that can be mined to provide valuable information about future travel conditions. Utilizing a common database would be another step towards a more cooperative regional planning process.

Continue Assessing Alternative Transportation Improvement and Land Use Strategies - Many assumptions used in the travel demand analysis were conceptual in nature. As the highway, transit, and "Smart Growth" components become more refined, the Forum's vision will periodically need to be tested. In most instances, this will involve a sensitivity test to determine the consequence of specific implementation actions.

Examine What Other Organizations Are Doing That Might be Useful to the Forum - Central Jersey's growth problems are not unique. The Forum should examine what other organizations are doing, both within New Jersey and across the United States, to fight congestion, manage growth, and promote regional planning. Educating elected officials and the public was identified as an issue.

Conduct Goods Movement Studies - Among the five key issues identified by the Forum, goods movement was the issue least investigated by the group. Areas that need exploration include the impact of NJDOT's truck access regulations on local roads, further study of US 130 warehousing issues, and agreement on how best to utilize existing rail right-of-ways.

Highways

Advancing capacity-adding projects contained in the Highway II package will help east-west access between US 1 and US 130. However, the travel demand analysis strongly suggests additional smaller scale supplemental improvements will be required throughout the study area to address more localized congestion problems. They can include TSM type projects, operational improvements to traffic signals, and even traveler information programs.

Advance Highway II Improvements on a Separate Track - US 1 widening in South Brunswick, the US 206 Bypass, CR 522 extension, SR 92 and the Penns Neck Environmental Impact Study (EIS) are all in various phases of environmental study or design. Each project will advance at its own pace dependent on environmental, right-of-way, design, and funding issues. NJDOT staff should periodically update the Forum on their progress.

Address Millstone River Capacity Needs - Analysis of screenline V/C ratios showed a serious capacity deficiency at the Millstone River crossings. Due to local opposition and the historic significance of neighborhoods surrounding some of the crossings, there has been no vigorous effort to address this capacity deficiency. Eventually, this issue will need to be addressed.

Traffic congestion on US 1 will require a mix of capacity and operations improvements

Implement Advanced Traffic Control Systems and Incident Management Programs - NJDOT has constructed an advanced traffic signal system with closed circuit television cameras, highway advisory radio, and variable message signs on US 1. The purpose of this program is to monitor traffic conditions, base signal timings on real-time conditions, and to inform motorists about traffic problems prior to approaching the bottleneck. Similar operational improvements should be implemented in other highly traveled corridors such as US 130, US 206, and CR 571. Incident management programs that reroute traffic around an accident and notify the public about the situation should be encouraged.

Replace/Upgrade Bridges Over the Northeast Corridor Line - Most of the bridges that cross the Northeast Corridor line are considered "orphan" bridges because neither Amtrak nor the counties accept full responsibility for them. With narrow widths, poor vertical grades, and other substandard characteristics, they are becoming choke points inhibiting east-west traffic flow. Eventually, either due to structural deficiencies or other problems, they will need to be replaced or upgraded.

Implement Preventive Maintenance Programs - With increased traffic and congestion forecasted, it is incumbent upon the counties and NJDOT to maintain the roadway system to minimize traffic disruptions. A poorly maintained roadway system effectively reduces highway capacity.

Improve Highways Through Context Sensitive Design and Incorporating Multi-Modal Components - Poor highway design contributes to traffic congestion. Numerous curb cuts for driveways slows traffic and increases accidents. Context sensitive design looks beyond the pavement to determine some of a road's design elements based upon community values. It can incorporate sidewalks and bike paths; bus pull-outs and shelters; and improve the overall attractiveness of the roadway. Access management is another component of context sensitive design. Working with developers, commercial interests, and local residents, municipalities should try to consolidate driveways, relocate driveways to side streets, and create openings or linkages between adjoining properties.

Study Regional Needs Identified by the Forum and Counties/Municipalities - The Forum's main emphasis so far has been on its future vision and state highways. However, according to the travel demand analysis, the county and municipal roads systems will take the brunt of the traffic increase of the next 20 years. Smaller scale capacity and operational improvements will need to be identified and

programmed. Examples include improvements to the Amwell Road/Cedar Grove Lane intersection or to the South Middlebush Road/Skillmans Lane intersection in Somerset County. While the Forum cannot address every local concern, needs that are more regional in nature should be distinguished.

Transit

Transit is a key component in reducing congestion and increasing mobility. While the main emphasis is on implementing some form of BRT, there are other transit initiatives that should advance with equal dispatch.

Initiate BRT Studies to Determine Feasibility and Appropriateness of a Range of BRT Options - Two efforts are currently underway to advance BRT. First, the Forum is conducting a study to forecast BRT ridership and its effects on traffic congestion in the region. Previous travel demand analyses examined LRT service, but never tested the feasibility of BRT. The Greater Mercer TMA is conducting a parallel effort to examine BRT technology and right-of-way issues in Central Jersey. As part of these efforts, a workshop was convened to refine the BRT alignment and identify feeder routes, stations, and services. If both efforts prove successful, the next step will entail a more comprehensive engineering and feasibility analysis as per Federal Transit Administration guidelines. These studies cannot commence unless they are identified on the long-range plans and work programs of DVRPC, NJTPA, NJDOT, and New Jersey Transit. The New Starts program is a tedious process that every new transit line receiving federal money must successfully navigate. Very few new transit lines are approved under this program. Therefore, Central Jersey must explore alternative implementation mechanisms like the Greater Mercer TMA's public-private partnership effort or implementing BRT incrementally.

Additional stations on New Jersey Transit's Northeast Corridor Line can help relieve overcrowding at the Princeton Junction Rail Station

Advance Environmental Studies for the West Trenton Line and South Brunswick Station - The West Trenton Line is more advanced than the BRT concept, having been identified in the appropriate plans, and is under engineering and environmental study. New Jersey's Transportation Vision for the 21st Century Plan identified ten potential new transit lines of which only two will be constructed. The West Trenton Line is one of the lines identified in the plan. Without the advocacy and support of the Forum, it may not be one of the lines selected. A new South Brunswick station on New Jersey Transit's Northeast Corridor Line could relieve overcrowding at Princeton Junction and serve as the northern terminus of a BRT.

Examine Existing Transit Services in the Region and Formulate Improvement Strategies - Advancing BRT is a long-term process; improvements to local bus service could offer immediate benefits. The travel demand analysis and BRT workshop identified a number of potential improvements to local bus service. New Jersey Transit should work with the Forum to evaluate these proposals and determine which are viable.

Obtain Funding for Additional Feeder Services To/From the Train Stations - There are a number of feeder services to local train stations operated by the public and private sectors. On a number of occasions, Forum members raised the issue of expanding these services. The transportation management associations should look into the feasibility for expanding service into areas not currently served by transit. This will also involve identifying public and private sector funding.

Provide Incentives for Businesses to Implement TDM, Incorporate TDM Requirements in Development Approvals - New Jersey's experience with employee trip reduction programs (ETRP) demonstrated both their benefits and difficulties. Without incentives or regulatory requirements, few companies will go beyond simple ridesharing programs. Yet overambitious programs might create a backlash due to financial burdens they would place on companies. Working with the private sector, municipalities, and transportation management associations, the Forum must find the right balance of TDM programs.

Land Use

Highways and transit are the more visible cornerstones of the Forum's vision. However, without changes to land use, the benefits of highway improvements will largely be negated, and no substantial transit improvements will be implemented.

New tools are needed to foster "Smart Growth". This may require building support for changes to the existing land use enabling legislation

Advocate Changes in State Legislation and Policies to Empower Municipalities and Counties to Conduct Regional Land Use Planning Initiatives - Recognizing the importance of land use planning in achieving the Forum's vision, the Forum established a Legislative Committee to evaluate existing land use legislation, and to advocate changes to the legislation that supports the Forum's vision. Transfer of development rights, enhanced regional planning, and tax reform are three areas the committee is exploring. Governor McGreevey recently established a Smart Growth Policy Council composed of cabinet members to ensure all state agencies incorporate the principles of "Smart Growth" and the State Plan into their policies and regulations. This is another avenue for the Forum to explore.

Support Municipalities Who Wish to Refine Centers Concept and Modify Zoning and Master Plans - Most of the centers identified by the Forum coincide with New Jersey State Development and Redevelopment Plan centers. The Forum should work with the New Jersey Office of Smart Growth to encourage and assist the municipalities to comply with the State Plan thereby encouraging "Smart Growth." This may entail modifying zoning and master plans.

Provide Technical Support to Municipalities Showing the Relationship Between Land Use, Traffic Congestion, and Transit Opportunities - Municipalities will not arbitrarily modify their zoning and master plans to support "Smart Growth" and transit unless there is a clearly perceived benefit. To build support for the Forum's vision, and to encourage the requisite changes, the Forum will continually need to educate the public and elected officials to what the future will look like without a balanced approach to congestion mitigation.

If the BRT Proves Viable and an Alignment Has Been Identified, Work with Municipalities and Developers to Preserve the Right-of-Way for the BRT - There is intense competition both within New Jersey and throughout the United States for communities to receive funding for new transit lines. Actively preserving right-of-way for the alignment demonstrates Central Jersey's commitment to implementing a BRT, an important factor in determining where transit money is invested. Greater Mercer TMA's BRT study is an excellent example how the region, working with major developers, can begin preserving right-of-way. Given the rate of development along the US 1 corridor, without an active right-of-way preservation program, the opportunity for transit on its own exclusive right-of-way will eventually be foreclosed.

Action Agenda and Responsibilities

The following is a list of immediate activities that the forum can undertake to begin advancing the above agenda. Fortunately, many of the items have already been initiated.

ACTION ITEM	RESPONSIBILITY	STATUS
Identify and advocate changes to New Jersey's land use legislation	Legislative Committee	On-going
Obtain funding for continuing Central Jersey Transportation Forum	DVRPC, NJTPA, NJDOT	In discussion
Initiate further analysis of BRT potential	New Jersey Transit, Greater Mercer TMA	Modeling in progress, Greater Mercer TMA study
Continue efforts to advance all Highway II projects	NJDOT, NJTA	On-going
Development of train station feeder services	Private/public sectors	On-going, needs to find new funding sources
To enable cost-effective comparison, determine capital and operating costs needed to advance highway and transit improvements at the scenario level	DVRPC, NJDOT, New Jersey Transit	Not yet initiated

List of Invitees

Jacqueline Alberts - West Windsor Township
Chris Altomari - Stony Brook - Millstone Watershed Assoc.
Michael Amorosa - Engineer, Somerset County
Stuart Appel - Wells Appel Land Strategies
Nicholas Angarone - Mercer County Planning
Michael Arnone - Reporter,Trenton Times
Amy Aughenbaugh - Mayor, Highstown Borough
Karen Ayres - Trenton Times
Catherine Barrier, Franklin Township Council
Janine Bauer - Tri-State Transportation Campaign
Philip Beachem - President, NJ Alliance for Action
William Beetle - NJDOT
John Bergan - UltraPlan
Wendy Benchley - Princeton Borough Council
Peter Bilton - Greater Mercer TMA
Peter Biondi - NJ State Assemblyman
Michael Bolan - Planner, Hopewell Township
Ed Bolden - Clough, Harbour & Associates
Wayne Bradley - Director of Planning NJTPA
Dianne Brake - President, Regional Planning Partnership
Sandra Brillhart - Director, Greater Mercer TMA
Mike Brimmer - CSX
Sharon Brown - Director, First Baptist Comm. Dev. Center
Robert Bzik - Director, Somerset County Planning Board
David Campbell - Princeton Packet
Janet Campbell-Lorenc - SYSTRA Consulting
Mark Cannuli - Washington Township
Peter Cantu - Mayor Plainsboro/Keep Middlesex Moving, Inc.
Jon Carnegie - Rutgers Transportation Institute
Frederick Carr - Township Administrator, Cranbury
Sam Cline - Jamesburg Borough Council
John Clyde - Mayor, Franklin Township
Paul Cohn - Manager Authorities Coordination, NJDOT
Bonnie Coleman - Assemblywoman
Senator John Corzine - US Senator
Larry Cullari - Planner, Federal Highway Administration
Marilyn Davis - Senator Corzine Office
Stephen Decter - West Windsor
Elizabeth Donahue - Sarnoff Corporation
Alice Dorscher - Mayor, Millstone Borough
Stephen Dragos - President, Somerset Alliance for the Future
Cay Dufau - Borough of Helmetta
William Enslin - Princeton Township Council
Jon Edwards - Mayor Hopewell Township
David Eilbacher - Bristol-Myers Squibb
Richard Elan - Princeton Junction Communities
Bruce Fary - Monmouth County Planning Board
Lou Fedele - Bristol-Myers Squibb
Andras Fekete - NJDOT
William Feldman - NJDOT
Mary Jane Felgenhauer - Sharbell Development Corporation
Lesli Floyd - Mercer County Planning
Rick Fontana - Director, Somerset County Freeholders
Amy Fox - FHWA
George Fries - West Windsor Township Engineer
Doug Freudenrich - Michael Baker & Associates, Inc.
Michael Fuhrman - Michael Baker & Associates, Inc.
Kathy Fullerton - Washington Township
Victor Furmanec - Dresdner, Robin
Anthony Gambilonghi - Middlesex County Planning
Helene Garcia - Community Relations, Merrill Lynch
Steven Gardner - NJ Laborers & Employers Cooperative
Hamid Ghadimy - NJ Turnpike Authority
Basil Giletto - A-1 Limousine
Joe Glover - Mercer County
Jennifer Godoski - NJ State Assembly
Bonnie Goldschlag - Monmouth County Planning Board
Denise Goren - Michael Baker & Associates, Inc.
Constance Greiff - Rocky Hill Planning Board
Robert Grimm - NJ Turnpike
Ed Gross - NJ Turnpike
William Guhl - Manager, Lawrence Township
Reed Gusciora - NJ State Assembly
Les Hamilton - Township of East Amwell
Larry Hanover - Trenton Times
George Hawkins - Stony Brook - Millstone Watershed Assoc.
Mary Sue Henifin - Hale & Dorr LLP
Bruce Henry - Engineer, Mercer County
Thomas Henskens - Transp. Planner, Monmouth County
Pam Hersh - Director, Community Dev'ment, Princeton Univ.
Jim Hess - Regional Planning Partnership
Larry Higgs - Reporter, Courier News
Congressman Rush Holt - US Congress
Shing Fu Hsueh - Mayor, West Windsor
Ella Hulfish - Berrien City Neighborhood Association
Ileana Ivanciu - Dresdner Robin
Peter Inverso - NJ State Senator
Jennifer Jaroski - Tri-State Transportation Campaign
Debra Johnson - Mayor, South Brunswick
Jack Kanarek - New Jersey Transit
Lisa Kasabach - Trenton Cycling Revolution
Walter Kavanaugh - Senator, NJ State Senate
Irwin Kessman - Dir of Planning and Program Dev., FTA
Peggy Killmer - DVRPC Regional Citizens Committee
Katherine Kish - Princeton Area Chamber of Commerce
David Knights - Princeton Forrestal Center
John Kovar - DMJM & Harris
Joe Kowalski - Chair, Mayors Taskforce of Traffic & Trucking
Stephen Kukan - Advance Realty Group
James Kyle - Hunterdon County Planning
Tony Lamantia - Mayor, Jamesburg Borough
Lorne LaMonica - USEPA
Walter Lane - Somerset County Planning
Michael LaPlace - Dir, Community Dev'ment, Plainsboro
Matt Ledger - NJ Transit
Michael Leibowitz - NJ Transit

Donna Lewis - Director, Mercer County Planning
Richard Letard - Montgomery Township
Karl Light - Mayors Taskforce of Traffic & Trucking
Andy Link - Lawrence Township
Al Litwornia - Litwornia Associates
Bruce Looloian - The Advance Realty Group
Andrea Lubin - Project Director, Penns Neck Area EIS
Donna Lucash - Council President, Millstone Borough
Philip Ludeke - Forestal Center
Dean Lundahl - Advance Realty Group
Bradford Lyon - Hopewell Borough
Jim Lytle - Pennington Borough Council
Noelle MacKay - Planner, Stony Brook-Millstone Watershed
John Madden - West Windsor Planning
Phyllis Marchand - Mayor, Princeton Township
Tom Marchwinski - NJ Transit
Marc Mariano - Monmouth County Planning Board
Craig Marshall - Director, South Brunswick Twp Planning
Vincent Martino - Middlesex County
Wendy Matson - Business Administrator, Monroe Township
Michael Mays - Mayor, Cranbury Township
Bruce McCracken - Middlesex County Planning Board
Donna McDonough - Ridewise of Raritan Valley
Paula McGuire - West Windsor Transportation Alternatives
Robert Melvin - Washington Township
Dennis Merida - Federal Highway Administration
Alison Miller - West Windsor
Robert Minutoli - Planning Director, Lawrence Twp.
Janice Mironov - Mayor, East Windsor Township
George Morren - Rocky Hill Borough Council
Pam Mount - Deputy Mayor, Lawrence Township
Deirdre Naughton - NJ Governor's Office
Helen Neuhaus - Helen Neuhaus & Assoc., Inc.
Brian Nolan - Mayor, Rocky Hill Borough
Dan Nolan - Bristol Meyers Squibb
John Norwig - Somerset County
Daniel O'Connell - NJ State Legislative Board
Tom Ogren - Assistant Township Manager, East Windsor
Joe O'Neill - Princeton Regional Planning Board
Jules Oroszvary - NJDOT
Carmen Orta - FTA
George Padgett - Mayor, Borough of Hopewell
David Parris - Penns Neck Community
Jim Parvesse - West Windsor Township
Tushar Patel - URS Corporation
Anita Perez - Ridewise of Raritan Valley
Charles Pihokken - Rocky Hill Borough
Jim Pivovar - NJDOT
Raymond M. Pocino - Laborers International Union of NA
Candace Preston - Harrison Street Neighborhood Assoc.
Robert Prunetti - Executive, Mercer County
Richard Pucci - Mayor, Monroe Township
Albert Raboteau - Trenton Times
Pete Rayner - Greater Mercer TMA
John Rea - McDonough, Rea Associates
Marvin Reed - Mayor, Princeton Borough
Ron Reinhardt - Transit Center
Sue Riley - Mayor, Borough of Pennington
Howard Rippetoe - Sharbell Development Corporation
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Sarah Roberts - Montgomery Township
Martin Robins - Director, Rutgers Transp. Policy Institute
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Roger Sager - Delaware River Joint Toll Bridge Commission
Ed Sampson - Monmouth County Planning Board
Marilyn Sanders - Planning Board Chair, Millstone Borough
Rebecca Sanders - Jamesburg Borough Council
Vanessa Sandom - Hopewell Township Committee
Greg Sandusky - Ass. County Engineer, Mercer County
Frank S. Scarantino - Engineer, Hillsborough Township
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Peter Tolischus - Heyer, Gruel & Talley
Senator Robert Torricelli - US Senator
Gail Toth - NJ Motor Truck Association
Peter Treichler - Montgomery Township
Paul Truban - NJDOT
Danielle Tucker - Mercer County Planning
Shirley Turner - Senator, NJ State Senate, District 15
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Kelvin Werth - Princeton Junction Communities
Louise Wilson - Montgomery Township Committee
Bob Wolfe - Princeton Forrestal Center

Central Jersey Transportation Forum: Executive Summary

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Abstract: This report summarizes a multi-year planning effort involving 20 municipalities surrounding US 1 in Central Jersey. The purpose of the Forum is to foster better coordination among the municipalities, counties, state agencies, and regional agencies. Five key issues were identified: east-west access, system-wide planning and coordination, transit and alternative modes, impacts of land use planning on transportation, and goods movement/trucks. The Forum examined a number of alternate future visions involving different combinations of highway, transit, and land use assumptions. Findings of this analysis is documented, as well as recommendations to address the five key issues.

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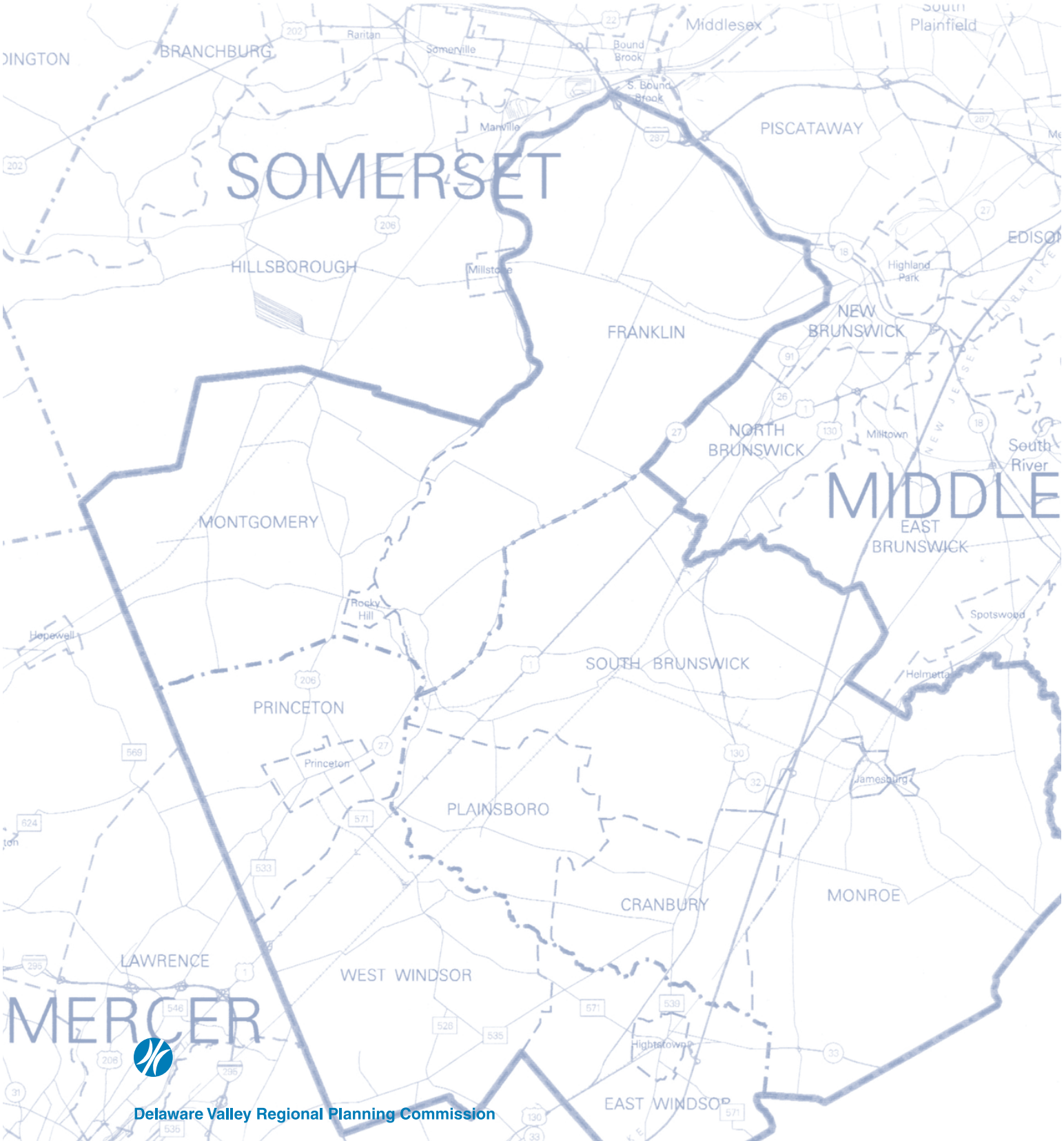

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