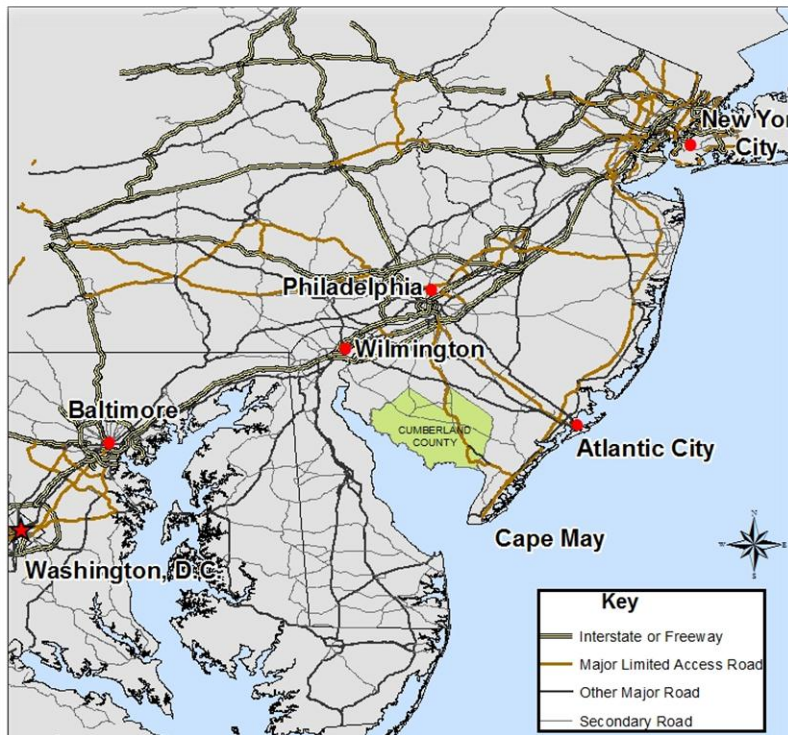


TRANSPORTATION PLAN

CUMBERLAND COUNTY, NJ

MARCH 2013



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The transportation system is an arrangement of circulation methods (roadway, air, water, pipelines, and rail), each of which supports several modes of transport, such as private car, truck, public transit, freight and passenger railroad, bicycle, and pedestrian. In the best transportation system, each of these methods and modes interrelates efficiently, powering a prosperous economy and ensuring a safe and healthy citizenry. A well-planned system should meet the existing travel demands, keep pace with the growth of the region, and adapt to changing needs.¹

EXECUTIVE SUMMARY

This Transportation Plan is an element of the County Master Plan for Cumberland County. The Plan is intended to be a working document which will present realistic and on-going strategies for promoting and maintaining the viability of the transportation system.

Summary of Key Inventory Findings

Seven key findings were established in the course of inventorying and analyzing the transportation system for Cumberland County. These findings present a broad picture of the status of the system as it relates to Cumberland County at the end of the 21st century's first decade.

1. Transportation capability is fundamental to the health of the County economy.
2. The roads and bridges in the County are operating within their capacity.
3. Freight rail is a thriving sector of the County economy with good growth potential.
4. Passenger rail is unlikely to return to the County in the near future.
5. Transit:
 - a. Scheduled transit service is hampered by the low population density but there is potential if new models for service and scheduling are utilized.
 - b. The transportation needs of the underserved and fragile population are being partially met by an array of uncoordinated demand-response services, both County run and non-governmental organizations.
6. There is growing support by federal, State and regional agencies for more comprehensive bicycle and pedestrian transportation modalities, but the County is weak in necessary support facilities and in citizen awareness of the value of these transportation methods.
7. The County has gaps in its telecommunications network that hamper utilization of tele-transportation as a method to reduce road utilization. Land line, cellular service and high speed internet all require improvements in parts of the County.

¹ Emerine, Hannah Twaddell and Dan. *Best Practices to Enhance the Transportation-Land Use Connection in the Rural United States*. Washington DC: Transportation Land Use Board, 2007.

These findings, based on public comment and analysis of the inventory, are a distillation of the overall inventory, which is presented in this Plan. The inventory was expressly evaluated to identify opportunities for improvement in the transportation system based on the County's strengths and constraints. Opportunities were identified from the analysis. Strategies were then developed to implement the Plan.

Strategies and Implementation

Three mechanisms are suggested as most effective for the County to implement the strategies formulated in the Transportation Plan. The County, with its limited statutory power over land development, can nevertheless be effective in transportation policy by acting as:

1. Leader,
2. Coordinator, and, to a limited extent,
3. Funder.

Fifteen strategies for action, developed from the opportunities presented in the analysis, are presented in this Plan. Ultimately, though, they can be narrowed down to six ongoing action items to be employed across County government with regard to transportation issues. They are:

- Appoint a coordinator of transportation within the County whose responsibility it will be to:
 - Support the County interests regionally by consistently bringing its presence to the regional table when transportation issues, such as inter-modal facilities, rail improvements and public transit routes are discussed;
 - Ensure that the adopted transportation strategies of this Plan are proactively supported by all county departments and boards.
 - Disseminate County transportation policy to the private sector by using economic development funds to advocate for business and industry practices that promote integration of transportation with land use development decisions.
- Work with all business sectors to establish cooperative worker transport which will benefit their enterprises with better worker attendance and enhance the County environmentally with a reduction in Single Occupancy Vehicle use.
- Advise and coordinate county municipalities to utilize Complete Streets philosophy when they wield their land use powers and to contemplate the extra-municipal transportation impacts of their land use decisions.
- Use grants and funds to ensure that alternative modes such as biking and walking are implemented within the County.
- Promote coordination through the CATS system of all non-NJ transit transport providers.
- Bring together legislators, residents and business with NJ Transit and telecommunication providers to advocate for increased and improved service in Cumberland County for the economic benefit of all.

The transportation system is a region's lifeline.²**CONTEXT**

The context for a new Transportation Plan for the County must be understood in terms of past studies, County geography, statutory limitations, and present day realities. Cumberland County's transportation system is functioning adequately, particularly within the County itself. Regionally, however, the County remains isolated, with limited access to larger markets, and at a disadvantage in terms of goods' flow both into and out of the County.

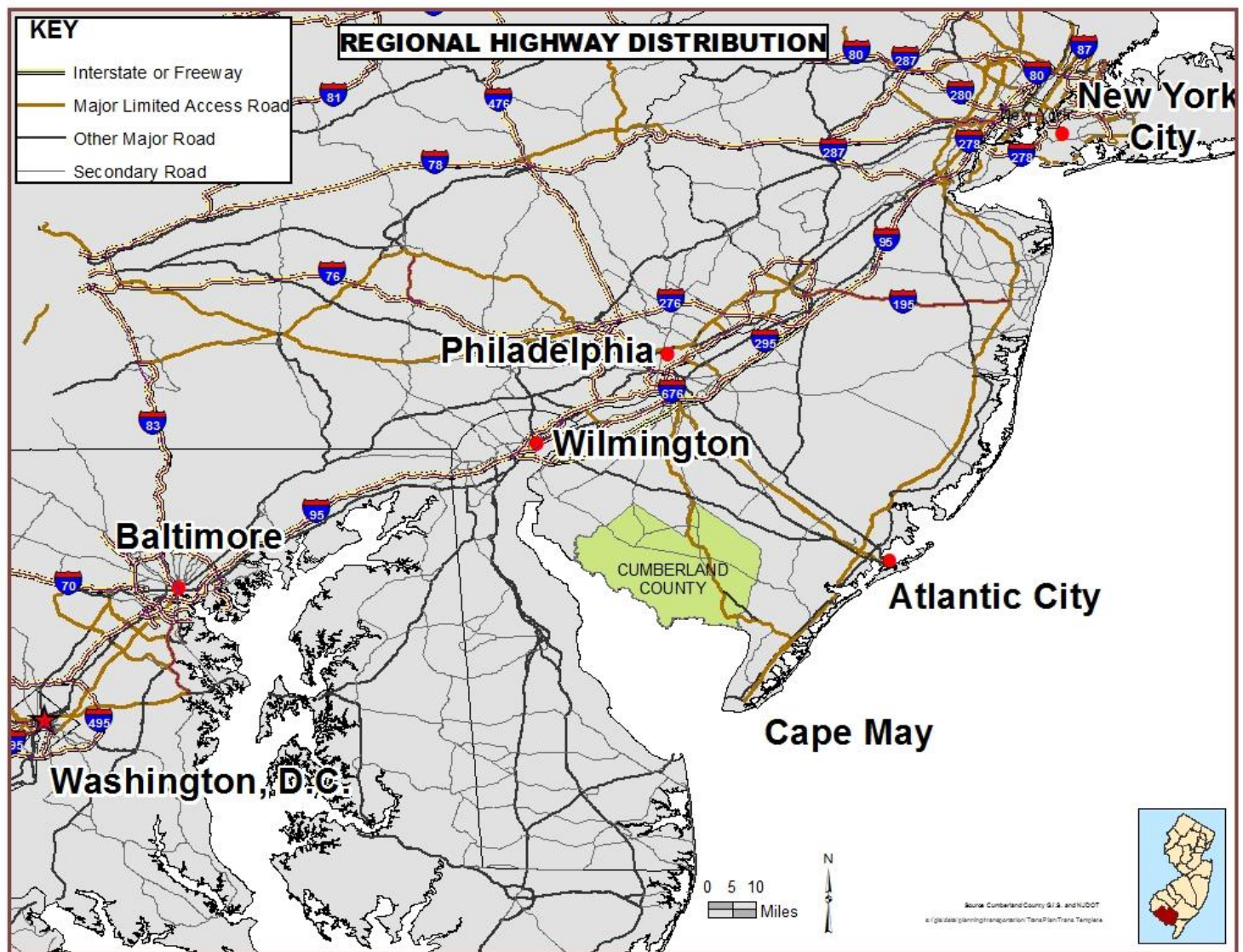
An effective transportation system sustains the region's economy, provides a safe environment and contributes to the quality of the area's character. Transportation issues touch Cumberland County residents lives every day. Transportation underlies all aspects of civil life in this 21st century world.

Development is, to a great extent, dependent on transportation access, both locally and regionally. Roads, for better or worse, are the main conduits for commerce, commuting, and recreation in our lives. The effectiveness of the circulation system is a vital key to prosperity. At the same time, the transportation system, when it is inadequate or mismanaged and overburdened, can damage the environment and quality of life, safety and health. High vehicular accident rates are an obvious hazard to safety, but poor transportation choices affect health in more insidious ways in terms of air quality and access to healthy life choices.

The County's economy and its social potential are hampered by the County's relative inaccessibility. This is especially ironic since Cumberland lies in the midst of the great Northeast megalopolis as can be seen in Figure 1 below.

² DOT, Transportation Branch of NC. "Comprehensive Transportation Plan Study Report for Iredell County." 2008.

FIGURE 1



Cumberland County, itself, is composed of three small cities and eleven rural municipalities. Almost one fifth of the County is tidal wetlands adjoining the Delaware Bay, which forms the County's southern border. Cumberland is divided north to south by two waterways, the Cohansey River and the Maurice River, as well as crisscrossed with numerous smaller streams. This geography influences circulation and access within the County.

Past studies and reports have proposed multiple and various specific actions as potential solutions to Cumberland's transportation challenges. However, these strategies ignore the reality that the County has very limited actual authority to manage the transportation system as a whole. Besides statutory limitations on the County's power to guide development, there is the more basic reality that much of the transportation infrastructure and planning organization upon which Cumberland relies is outside the County's boundaries.

The County is dependent on state roadways and national railroad companies for most of its access to regional markets. The South Jersey Transportation Planning Organization, representing Atlantic, Cape May, Salem and Cumberland counties, is the official federal designee for regional transportation planning. Locally, land development in New Jersey is firmly placed in the hands of the municipalities.

Notwithstanding these limitations on its power, the County does have a statutory responsibility to guide physical development, particularly transportation related improvements. N.J.S.A. 40: 27-2 states that any County with a Planning Board “shall make” and adopt a master plan which shall show the recommendations for physical development, including “...*the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county.*”

In addition, the legislation instructs the Planning Board to “...encourage the cooperation of local municipalities” in preserving the integrity of the master plan. In other words, while each municipality controls its own land development, the County is instructed to create a larger template which looks at the County as a whole rather than as 14 smaller areas. Furthermore, the County must liaison with larger entities such as NJDOT and SJTPO to ensure that its interests are identified and discharged at the regional level.

The Cumberland County Planning Board and the Freeholders are committed to fulfilling their responsibilities under the County Planning Act as well as their duty to the safety and public welfare of the County and its citizens. This Plan is written to confirm transportation as an essential and integral part of the Master Plan for physical development of the County and to establish the strategies the County will pursue to further its transportation policies and objectives both within the County and regionally.



The meaning of terms is extremely important. Certain words have slightly different meanings to different people and/or in different contexts. Clarity of terminology increases effective communication.³

TERMINOLOGY

Several terms require definition and/or explanation for the purpose of this Plan. While there are hundreds of technical transportation terms which help in understanding transportation planning and engineering, the goal of this Plan is to present simple strategies which will work for all parts of County government, beyond the engineering and planning departments. The six terms discussed here are meaningful in the context of Cumberland County's requirements and future planning for its transportation system.

- **COMPLETE STREETS**

Complete streets are roadways designed to safely and comfortably provide for the needs of all users, including, but not limited to, motorists, cyclists, pedestrians, transit and school bus riders, movers of commercial goods, persons with disabilities, seniors, and emergency users. New Jersey DOT has adopted a Complete Streets Policy for all federally or state funded project.



Source: <http://www.flickr.com/photos/>

- **MODE**

The various methods used for a movement. For each mode, there are several means of transport. For purposes of Cumberland County planning, modalities are:

- Road includes private truck, private automobile, public transit of various forms, bicycle and pedestrian
- Railroad includes passenger and freight rail
- Air includes passenger and freight service
- Water includes commercial and recreational boating
- Tele-transportation services include land and cell service and internet

³ George, Henry. *Progress and Poverty*. New York: Robert Schalkenbach Foundation, 1998.

- **OFFICIAL COUNTY MAP**

Presently Cumberland County does not have an “official county map,” i.e., a map “...showing the highways, roadways, parks, parkways, and sites for public buildings or works, under county jurisdiction, or in the acquisition, financing or construction of which the county has participated or may be called upon to participate.” (N.J.S.A. 40:27-5). The official county map must be adopted by resolution of the Board of Freeholders after consideration by the County Planning Board and only after repeated weekly notices are published and all pertinent parties are informed.

The principle of a county map derives from the mid to late 20th century idea that there is a static and complete planning vision for all places. In 1966, after completing the first County Master Plan, the freeholders requested a map report from the Planning Board. A report and map were prepared, based on the ideals of the Master Plan. This map was never adopted. While plausible and visionary for its time, today its potential problems and flaws are more apparent.

The value of planning ahead and preparing for future development that underlies an official map must be weighed against changes in requirements for land development and new technologies. A County which is as undeveloped as Cumberland requires, perhaps, a more flexible method to advance its Master Plan than a static map. This Transportation Plan does not recommend a fixed Official Map at this time, but, instead, focuses on strategies to improve Cumberland’s position in the regional transportation system..

- **RIGHT OF WAY (ROW)**

The County established a delineated right-of-way width for all County roads in the 2011 “Development Review Standards.” This was done as part of the County’s legislated mandate to maintain a safe and efficient road system (N.J.S.A. 40:27-6.6).

The adoption of the 2011 County road widths, and their inclusion in this Master Plan Element, will standardize an array of widths which had developed over the years, often without rational justification. It should be remembered that the County has had right-of-way widths on all County roads. The new specifications merely standardize the system. The designated width would only be utilized by the County in the event that development occurred on or adjacent to the road which necessitates widening or improving the road.

Appendix A contains a list and map of all County roads and their rights-of-way.

- **SINGLE OCCUPANCY VEHICLE TRAVEL (SOV)**

The predominant mode of personal movement in Cumberland County in which one driver completes a trip to without any passengers in the vehicle.

- **TRANSPORTATION DEMAND MANAGEMENT (TDM)**

Transportation Demand Management uses strategies, measures and incentives to reduce vehicle travel demand and encourage travel by alternative modes, such as by bicycle, walking, using public transportation, communications technology or other alternatives to single occupancy car travel.

Successful communities include collaborative (often regional) partnerships; an active public involvement and education process; a focus on quality of life and a sustainable future; and strong government leadership.⁴

PURPOSE AND BACKGROUND OF PLAN

Outreach

This Plan was not developed in a vacuum. The South Jersey Transportation Planning Organization, which funded it, researches and publishes reports which allow local access to invaluable data and information about transportation trends in the region. In addition, the SJTPO utilizes its technical expertise to model the data and produce trend information. This information informed the inventory and trend sections of this report. While this Plan is the product of many studies and reports that preceded it, the ongoing information flow from SJTPO provides its scaffold.

The input from the public, including comments and advice at Board meetings, as well as the ongoing work by the County Planning Department provided contemporaneous information on multiple transportation modalities in the County. The Plan utilizes information from the Cumberland County 2012 Strategic Action Agenda, a document prepared with input from a steering committee composed of business, government, industry, community and education stakeholders.

Informational meetings for the County's Rails to Trails Plan, the Bayshore Heritage Byway Management Plan, and ongoing studies of public transit on several fronts have provided public feedback, both locally and regionally, for various transportation types. The multiple fronts on which the County is approaching transportation, including alternative transit studies, recreational biking and hiking, and byway tourism are indications of the crucial role transportation plays in Cumberland County's future.

County Role

Cumberland County officials and the public have seen the need to integrate and coordinate land use and transportation planning. The County's limited funds and lack of ability to control local land development constrain its role in transportation planning. But there are several other mechanisms which the County can employ to effect improvements in the transportation system. The County can utilize leadership, coordination and staff expertise to move forward transportation planning's agenda. It can employ Transportation Demand Management techniques, such as education and re-allotment of resources, to further a coherent transportation strategy.

⁴ Carlos Rodrigues, Jeffrey Wilderson, and Noelle Reeve. "Out and About: A Guide to Sustainable Local Circulation Planning." 2011.

The County can utilize its leadership role to foster positive attitudes toward exploring new, innovative transportation modalities such as telecommuting and alternative public transit options. Businesses, local officials and residents often look to the County for reaction to new ideas and respond accordingly.

The County can also take leadership in promoting more effective working relationships among local, regional and state agencies. Since most of the County's municipalities have minimal governmental organization, the County can act as a conduit to regional and state agencies for local needs while relaying information and possibilities back to the municipalities.

State legislation urges the counties to coordinate their municipalities' physical development. State statutes mandate that the counties oversee development along county roads to ensure citizen safety. Ongoing federal and state initiatives promote regional partnerships as the most expedient way to accomplish planning programs. Cumberland County can utilize its position to act as coordinator, not just of the municipalities, but between local government and non-governmental organizations which have been operating independently of each other's efforts.

The third mechanism for accomplishing the strategies of the Plan is to increase the effectiveness of the limited funds that the County has. Sometimes hard cash must be expended to address opportunities and challenges as the County did, usually with State and/or Federal contributions, after storms damaged the road and bridge network. But, more often, money is a fungible commodity, best represented at the County level in human capital. The County has a workforce, almost all of whom could be advancing County projects, either with their technical expertise or, maybe simply with their understanding and concurrence with the transportation strategies. County employee buy-in is a viable mechanism for "funding" the Transportation Plan.

County employees in virtually every department can participate in Transportation Demand Management techniques, both personally and as ambassadors for changing the transportation culture in the County. This Plan, then, is not a static outline of specific projects to be accomplished within a short or medium range timeline. That function is being met with day to day staff decisions based on funding and analysis of immediate needs. The purpose of this new Transportation Plan is to provide a basis for all-encompassing transportation planning which will transcend one department and become the basis for integration of transportation into all aspects of the County's land use and economic decision making and thus improve the economy and wellbeing of the County and its residents.

The following sections of this Plan will:

1. Present an assessment of the trends and current conditions for each transportation mode;
2. Analyze each mean's strengths, challenges and opportunities;
3. Formulate strategies based on input from stakeholders, County staff, the Planning Board and citizens;
4. Consolidate the strategies to form an integrated and coordinated strategy for improving the transportation system.



CURRENT TRENDS

Transportation Patterns

As can be seen in Figure 1, while Cumberland County lies within the NYC-Philadelphia-Baltimore-DC metropolis, it is not on the all-important highway-rail corridor connecting those cities. Furthermore, even within South Jersey, Cumberland County is not linked by important transportation modalities.

The County's one freeway does not join directly to any major corridor route and, in fact, terminates in Cumberland County. Most of the roads which connect Cumberland County with its immediate neighbors, such as State Routes #77 and #49 are classified as "secondary," two lane highways with multiple access points. This results in adequate local access, but creates obstacles for their use for regional transport and commuting.

Rail infrastructure is weak in all of South Jersey with the one Delaware River rail crossing below Trenton requiring considerable work to bring it up to 21st century railroad practices. The isolation created by these poor transportation linkages impact goods movement, commuting patterns, job creation and almost every aspect of life for people living within Cumberland County.

Population

The 2010 Census for Cumberland County was 156,898 of which about 10,000 were institutional (prison population). The County's 7.1% growth rate is well above the State growth rate of 4.5%. Eighty-two (82%) percent of the actual growth occurred in the three cities of Vineland, Millville and Bridgeton (8,584 out of 10,460 total population increase). Most of the County's population growth can be attributed to in-migration, particularly of Hispanic origin. The percentage of Hispanic population in the County grew from 19% in 2000 to 27.1% in 2010.

Figure 2 illustrates population density for the County's fourteen municipalities utilizing 2010 Census data.

Figure 2: 2010 Population and Density

Municipality	2010 POP	Area	2010 Pop/mi ²
Bridgeton City	25,349	6.2	4,102.5
Vineland City	60,724	68.4	887.5
Millville City	28,400	42.0	676.2
Shiloh Borough	516	1.2	427.3
Upper Deerfield Township	7,660	31.1	246.3
Deerfield Township	3,119	16.8	186.1
Commercial Township	5,178	32.1	161.2
Fairfield Township	6,295	41.3	152.6
Hopewell Township	4,571	29.9	153.0
Lawrence Township	3,290	36.9	89.1
Maurice River Township	7,976	93.1	85.7
Stow Creek Township	1,431	18.3	78.2
Greenwich Township	804	17.8	45.1
Downe Township	1,585	48.6	32.6
County Total	156,898	483.7	324.4

Source: NJ DOL 2010 Census

Density of population is a key issue for transportation planning. In general, fixed route bus transportation service is likely to become available when overall population density reaches 2,500 persons per square mile. Figure 2 illustrates the need for innovative thinking in terms of public transit within the County.

The nature of population dispersion in the County has other implications for transportation planning. A study of Figure 2 shows that the average County population density for all municipalities except the three cities (and Shiloh Borough which is a one mile square anomaly) is far below the County average. In fact, aside from the three cities (and Shiloh), the population of the County is diffusely spread over the County's 484 square miles, requiring an extensive road network to be maintained.

Another aspect of the County's demographic is the "extent of fragility." This refers to the numbers within the general population which are stressed by one or more social or economic handicaps. These include the elderly, low income households, households with limited English, and those with disabilities. The population of Cumberland County, as a whole, exceeds 10% in each of these categories with the greatest need concentration in the three cities.

Persons who fall into the stressed population category tend to have a greater need for transportation assistance. Another category in which Cumberland County exceeds 10% is in households without access to any motorized vehicle (Zero Vehicle Households). The combination of a large percentage of fragility and a widely dispersed population must be considered when planning for an area's transportation needs.

Economic Profile

The April, 2011 NJ DOL Cumberland County Snapshot⁵ reports that, between 2004 and 2009, 3,641 private sector jobs were lost in the County, a decrease of 7.8% which was twice the State rate. Manufacturing jobs saw the most precipitous loss with an average decrease of 2.6% per year. Even so, manufacturing remains the County's largest employment sector.

At the same time, healthcare and social services jobs grew at over 1% per year. Many of the healthcare jobs are related to centralized locations such as the area surrounding the Regional Health Center which has become an employment node for the health related sector.

Centralization of jobs, especially support staff which works on regular shifts, presents an opportunity for alternatives to single occupancy vehicle (SOV) commuting.

The 2010 'Cumberland County Economic Development Strategy'⁶ presents actions to counteract the downward trend which began in 2005-06. The first item in the Strategy's Action Agenda is to improve transportation and circulation. The report states, "...the County is committed to helping its businesses hire and retain good employees. One of the keys to making this happen is providing a good, comprehensive, public transportation network." This Economic Department report, prepared with the input of local businesses, highlights the importance of promoting the expansion of rail and transit bus in the County and improving road and highway connections. The 2020 'Strategic Action Agenda'⁷ for the County follows up on this with one of its nine guiding principles being to "Improve the movement of goods and people to, from and within the county and emphasize the use of multi-modal transportation systems."

The 2008 Cumberland County Business Retention Summit established that the issue of transportation and the need to identify alternatives for people to get to work are priorities for existing businesses in the County. Figure 3 demonstrates that the majority of workers in the County live in Cumberland. Almost 50% of all workers employed in Cumberland, commute less than 10 miles to their places of employment.⁸

Figure 3
Cumberland County Work Commuting Patterns

	2010
Total County employment	54,396
Total resident County workforce	57,680
Live and work in Cumberland County	30,944
Commute into Cumberland County	23,452
Live in Cumberland and commute to another place	26,736

Source: U.S. Census Bureau, 2010 (from Cumberland County Department of Planning & Development)

⁵ NJ Department of Labor and Workforce. *Southern Regional Community Fact Book Cumberland County*. Trenton, NJ: New Jersey Dept. of Labor, 2011.

⁶ Cumberland County Planning & Economic Development Dept. *Cumberland County Economic Development Strategy*. Bridgeton, NJ: 2010.

⁷ Cumberland County Board of Freeholders. *Cumberland County Strategic Action Agenda 2020*. Bridgeton, NJ: Cumberland County, 2012.

⁸ 2010 Local Employment Dynamics data (<http://onthemap.ces.census.gov/>)

For the vast majority of workers, the commute is alone in a car as can be seen in Figure 4 below.

**Figure 4:
Means of Journey to Work for Cumberland County Workers**

	Estimate*	Percent
Total:	60,178	100.00%
Drove alone	48,428	80.47%
Carpooled:	7,103	11.80%
Public transportation (excluding taxicab):	1,161	1.93%
Taxicab	395	0.66%
Motorcycle	25	0.04%
Bicycle	172	0.29%
Walked	1,068	1.77%
Other means	1,069	1.78%
Worked at home	757	1.26%

Source: U.S. Census Bureau, 2010 American Community Survey 1 Year Estimate⁹

These percentages have remained relatively static since 2000. Bicycling is considered an ideal commuting method for short commutes of 5 to 10 miles. A ten mile commute is estimated to take less than an hour of time in good conditions and saves approximately \$3000/year in vehicle costs. Carpooling is capturing about 10% of workers but there is good potential for a higher rate due to Cumberland County's large number of fixed shift workers and centralized job centers.

An unemployment rate of over 13% for the past two years has affected all sectors of the Cumberland County economy. The top ten industries for employment have remained essentially the same but now, at 43,401, employ far fewer than the Year 2000 Census figure of 60,350.

Figure 5 shows the top 10 industries by employment in 2010 in the County.

**Figure 5:
Cumberland County Industries Ranked by Employment**

Rank	Group: North American Industry Classification System (NAICS) Sectors	Average Employment (2010Q2 thru 2011Q1)
	All NAICS Sectors	43,401
1	Health Care and Social Assistance	8,854
2	Manufacturing	8,665
3	Retail Trade	6,125
4	Accommodation and Food Services	3,232
5	Wholesale Trade	2,262
6	Transportation and Warehousing	2,225
7	Agriculture, Forestry, Fishing and Hunting	2,218
8	Construction	2,126
9	Administrative and Support and Waste Management and Remediation Services	1,427
10	Other Services (except Public Administration)	1,391

Source: U.S. Census Bureau, Local Employment Dynamics

⁹ Margin of error at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_afpt=table

Manufacturing, in spite of enormous losses, remains a large source of employment for Cumberland's workers. However, health services, which is a growing sector, now is the largest employment sector in the County. The construction of a centralized hospital facility has changed the commuting dynamic for a large sector of the employment base. The hospital services staff that used to be spread among three facilities is now mainly located at the Regional facility which is adjacent to the County College.

Although truck transportation has, like other industries, seen a decrease in employment, the increase in wholesalers and nondurable goods business could, in the future, help both the trucking industry and be beneficial to expanded rail. The changes in industry sector strength present opportunities for systemic changes to traditional wholesale and storage transportation methods.

While the Planning and Economic Development Department correctly focuses on jobs and goods movement as means to revitalize the economy, the transportation system in the County is fundamentally driven by the automobile and its use (or overuse). The lack of widespread public transit and the dispersed nature of the population require high reliance on the automobile for most of the County. Figure 6 illustrates vehicles per household within the last year.

Figure 6:
Vehicles Available by Household Cumberland County

	Number of vehicles	Percentage of Households
TOTAL NUMBER OF HOUSEHOLDS	50,237	100%
No vehicle available	6,307	12.5%
1 Vehicle available	16,935	33.7%
2 Vehicles available	17,825	35.4%
3 Vehicles available	9,170	18.2%

SOURCE: 2010 American Community Survey 1-Year Estimates

Among the five least densely populated counties in New Jersey, only Cumberland exceeds 10% of households with no vehicle as seen in Figure 7. Overall, Cumberland County is fourth in the State in percentage of zero vehicle households after Hudson, Essex and Passaic which are among the top five most densely populated counties.

**Figure 7:
Lowest Density New Jersey Counties
by Zero Vehicle per Household**

	TOTAL SQUARE MILES	2009 POP	POP DENSITY	PERCENTAGE ZERO VEHICLE HOUSEHOLD
Salem	332	64,438	194.0	9.0 %
Sussex	519	148,680	286.4	2.5 %
Hunterdon	428	125,795	293.9	1.7 %
Warren	357	107,537	301.2	5.2 %
Cumberland	484	147,768	305.5	12.6 %

SOURCE: 2010 American Community Survey 1-Year Estimates and Cumberland County Dept. of Planning & Development

This has repercussion for job access, but also for general mobility among the population. There is a dual challenge in Cumberland County of high automobile use, particularly single occupancy vehicle (SOV) use, and simultaneously a lack of transportation access in a significant portion of the population. Both of these are challenges to an effective transportation system.

The final factor which influences efforts to improve transportation in Cumberland County is the approach of outside agencies to the County. There is a general attitude at the State and regional level that Cumberland has too many drawbacks to merit much consideration for improvement. The 'South Jersey Freight Transportation & Economic Development Assessment'¹⁰ states, in its County summaries, "[Cumberland] County is remote from key interstate bridges and the I-295/New Jersey Turnpike corridor. Cumberland County also has relatively poor roadway access and lacks a limited access roadway network." Cumberland County's transportation planning needs to include counter arguments to the "lands' end" syndrome attached to the County by some outside agencies.

¹⁰ Brinckerhoff, Parsons. *South Jersey Freight Transportation & Economic Development Assessment*. Trenton, NJ: NJ Department of Transportation, 2010.

Conducting an inventory of your community's transportation system is crucial to identifying current and future needs.¹¹

INVENTORY: ROADS and BRIDGES

Circulation Considerations

The federal government utilizes a “functional classification” system which has been adopted by most other levels of government. The figure below shows the classification of Cumberland roads under the federal system and the daily Vehicle Miles Travelled (VMT) under each category. This figure demonstrates that road usage is unrelated to actual miles of road within the County. The most heavily utilized road per mile in the County, Route 55, has the shortest actual length.

**Figure 8:
Road Mileage and VMT by Federal Roadway Classification for 2010**

	Expressway	Principal Arterial	Minor Arterial	Urban Collector	Major Collector	Minor Collector	Local
Miles of Roadway	17	30	204	78	70	34	839
VMT	433,982	313,775	1,133,219	353,814	113,449	66,091	481,557

SOURCE: NJ DOT Bureau of Transportation Data Development, Roadway Systems Section¹²

In the federal system, an area is classified as “urban” when the population reaches 5,000. Arterial roads, whether principal (providing long distance connections) or minor (a continuous route with a relatively high overall speed, linking towns) are assumed to be the chief movement mediums. In that sense, the federal system does not reflect the actual usage of roads in Cumberland County. In the federal system, Route 553, which connects most of the southern part of the County is relegated to collector status.

An understanding of the transportation system in Cumberland County requires an examination of how roads are actually utilized. Ultimately, usage is more important than classification. Figure 9 illustrates and Figure 10 quantifies the road system in Cumberland. The County road numbering system, while not an official classification system, provides a more realistic understanding of road usage in the County.

¹¹ Wisconsin Department of Transportation. *Transportation Planning Resource Guide*. Madison: Wisconsin Department of Transportation, 2001.

¹² http://www.nj.gov/transportation/refdata/roadway/pdf/hpms2010/VMTFCC_10.pdf

FIGURE 9: STATE AND COUNTY ROADS IN CUMBERLAND COUNTY**Figure 10: Miles of Roadway in Cumberland County by Jurisdiction**

	Mileage In County	Percent of Total County Mileage
Municipal	643	51%
County	539	42%
State Highway	72	6%
State Expressway	17	1%
TOTAL	1,270	100%

SOURCE: NJ DOT Bureau of Transportation Data Development, Roadway Systems Section

An fundamental issue in assessing the transportation system in Cumberland County is the conundrum of Route 55. The County's only freeway (limited access highway) is not an interstate and, in fact, is unfinished, ending in rural southeaster Cumberland County. It does connect the eastern part of the County to larger markets to the north but the link is weak. At its northern terminus, Route 55 traffic must merge onto State Route 42 and then to an interstate.

Cumberland's principal roads of regional importance, providing inter-county access, are the state highways, Routes 49, 77 and 47 and, to a lesser extent, County roads 553 and 552. All these

roads are two lane roads with multiple intersections. The only direct east-west access through the County is Route 49.

The rest of the County's 500 numbered roads act as minor arterials, providing access between towns within the County. Many of the County's 600 level roads, (e.g., 610, 698 and 655) perform the same function as 500 roads. Most 600 numbered roads, particularly in the more populated northern part of the County, connect local roads to arterials and thus function as "collectors."

Many communities, such as Mauricetown, are only connected to the rest of the County via 600 and 700 level County roads. The County roads, although not largest in terms of total pavement mileage, are the element which connects all parts of the public arena. They provide the most comprehensive coverage across the entire area. In a rural area, every road is important, from small local circulation roads within the villages to the county and state network which provide the ability to connect to schools, shops, medical centers.

Roads are the conduit for the population to get to destinations. Certain locations are major destinations or trip generators. As previously noted, most commuting trips (and, more anecdotally, shopping trips) in Cumberland County are made by automobile, predominantly single occupancy auto. One of the challenges for Cumberland County in terms of transportation system planning is to analyze whether any of the major trip generators can be accessed through alternative modes.

According to data assembled for the "SJTPO Regional Human Service Transportation Plan,"¹³ over 80% of the major trip generators are located in Bridgeton, Millville or Vineland. The 53 major trip generators listed in the SJTPO study can be divided into four categories:

- Major Employers, including industrial parks (over 400 employees at a single site);
- Shopping Centers, including Cumberland/Union Crossing Mall, Carll's Corner, and the three cities' downtowns;
- Health related, including the Regional Hospital health care nexus, senior living residences and 11 Senior centers;
- Educational centers, including the County College and County VoTech Center.

In effect, in spite of its highly dispersed demographic, most trips for the vast majority of residents are entirely within Cumberland County and to a fairly small number of centralized locations. This is a circumstance which can be utilized to better manage the transportation system.

¹³ Abrams-Cherwony & Associates and Eng-Wong, Taub & Associates. *Regional Human Services Transportation Plan for Cumberland County*. Vineland, NJ: SJTPO, 2007.

Road Health

Beyond the basics of circulation, there are several indicators of the health of a transportation system that should be included in planning. The three most common are:

- congestion,
- pavement conditions, and
- safety.

Congestion is probably the least problematic issue of the three for Cumberland County. The SJTPO Congestion Management models run over the last decade indicate that Cumberland County has the fewest areas of high concern in terms of corridor/intersection congestion of the four SJTPO counties.

The most recent (draft) SJTPO release on congestion management is Appendix 5 of the 'Regional Transportation Plan for 2040.'¹⁴ The geographic parameters of the modeling for this study was limited to roads within the SJTPO area that impact regional travel, including roads within ¼ mile of transit centers, roads with transit service, roads with bike paths, and evacuation and truck routes. Although this limits the scope of the modeling, it encompasses the highest volume (and thus expected to be most prone to congestion) roads in Cumberland County. Three segments of Route 47 in Vineland and two segments of Route 77 in Bridgeton are on the SJTPO prioritization table of the top 20 locations, with the three segments of Route 47 within the top ten priority.

This is an ongoing congestion problem as the state's 2005 'Assessing New Jersey's Transportation System'¹⁵ contains a map showing congestion levels on NJ Roadways which confirm concerns of over-capacity on Route 77. It also shows all of Route 47 from Landis to Route 49 as either over capacity or approaching capacity.

There is no doubt that there are small areas of occasional congestion in Cumberland County. But other road health issues are creating a much stronger negative impact on the system, particularly pavement conditions within the County. The condition of road pavement is essential for safety as well as for the economy.

An examination of the state transportation data demonstrates the relatively low priority of state road re-paving in Cumberland County. The first Cumberland project on the State's annual pavement study is the repaving of Route 56 which is 96th on the list. The State report focuses on North Jersey where less than 1/3 of state roads provide good pavement condition. In contrast, over 75% of the eight South Jersey counties are rated in fair, good or very good condition.

While the state highways bear the brunt of freight trucking traffic statewide, in Cumberland, both county and local roads are heavily utilized by the trucking industry. The dispersed nature of the

¹⁴ South Jersey Transportation Planning Organization. *Regional Transportation Plan 2040 (Technical Appendix #5)*. Vineland, NJ: SJTPO, May, 2012.

¹⁵ NJ DOT. *Assessing New Jersey's Transportation System, Transportation Choices 2030*. Trenton, NJ: NJ DOT, 2005.

warehouse industry in the County contributes to local road usage. Thus, it is not the state roads which are of concern with regard to pavement conditions.

The SJTPO 'Regional Transportation Update'¹⁶ in its Outlook Analysis looks at roads throughout the regions and notes "...the trend [since 2001] is moving to a worse state of repair of the area's pavement conditions. If pavement conditions continue to deteriorate, the impact due to user cost will rise and comfort and capacity will degrade. More funding to support pavement rehabilitation projects in the SJTPO region is necessary." County roads have suffered through several hard winters and natural disasters with associated strains on maintenance. For the economy of the County to recover, more traffic, both freight and tourism based, is necessary. Deteriorating roads will hinder that recovery effort.

The final road health issue is safety. There is ample data, collected by the NJ State Police, on accidents in the County. Statistics are kept on date, time, place, kind of roadway, number of vehicles, vehicle description, alcohol involvement, kind of collision and number killed and/or injured. The conundrum, for planning purposes, is how to use this information to improve the system. A summary of Cumberland data for 2010, as shown below in Figure 11, does not reveal sufficient information to suggest transportation system management improvements.

Figure 11
Selected 2010 Cumberland County Accident Statistics

	#	MILES ROADWAY
Crashes on State roads	1,011	89
Crashes on local roads	1,743 ¹	643
Crashes on County roads	1,440	539
Total Pedestrians injured on all roads		63
Pedestrians injured on County Roads		12
Total Accident injuries on all roads		1,592
Total Accident injuries on State roads		498
Total Accident injuries on local roads		451
Total Accident injuries on County Roads		628
Fatalities = 24 (21 with no alcohol involved) in 23 accidents <ul style="list-style-type: none"> • 12 on county roads • 5 on State roads • 7 on local roads 		
¹ Local road statistics include some county/state roads mislabeled by police. As many as 100 additional accidents should be on County and State roads		

SOURCE: Collated from NJ DOT crash data (<http://www.nj.gov/transportation/refdata/accident/>)

¹⁶ SJTPO. "2025 Regional Transportation Plan." 2004. *2035 Regional Transportation Plan Update*. Vineland, NJ: SJTPO, Rev. 2010.

The flaw with raw accident data is that often one cannot determine, even deleting the alcohol related incidents, whether the cause resides with the driver or with a road issue or whether the accident is weather related. Certain corridors/intersections do show higher proclivity for accidents, which could be due to higher traffic volume (the more vehicle miles passing any point, the higher the likelihood of an incident) or could be a road design concern. Even if it is simply higher traffic volume generating accident rates, traffic management strategies can be employed to control the higher volume without recourse to additional roadway or roadway width.

Another method of studying accident data looks at miles of roadway in combination with high incidents. What is it about these roads which engenders a higher accident frequency? The most obvious answer is high volume to capacity, but this is not always borne out. Orchard Road had a 2010 Average Annual Daily Traffic (AADT) rate of 4,109 while Brewster, which has significantly fewer accidents per mile, had an AADT ranging from 6,148 to 7,565 over the accident road segment. Other factors, such as frequent road cuts and intersections or driver attitude to road use contribute to accident rates. Often these factors are susceptible to correction utilizing Transportation Demand Management strategies.

Figure 12 analyzes the County roads with the highest number of 2010 accidents in relation to roadway length within the County.

Figure 12: County Roads with Highest Accident Rate per Mile (2010)

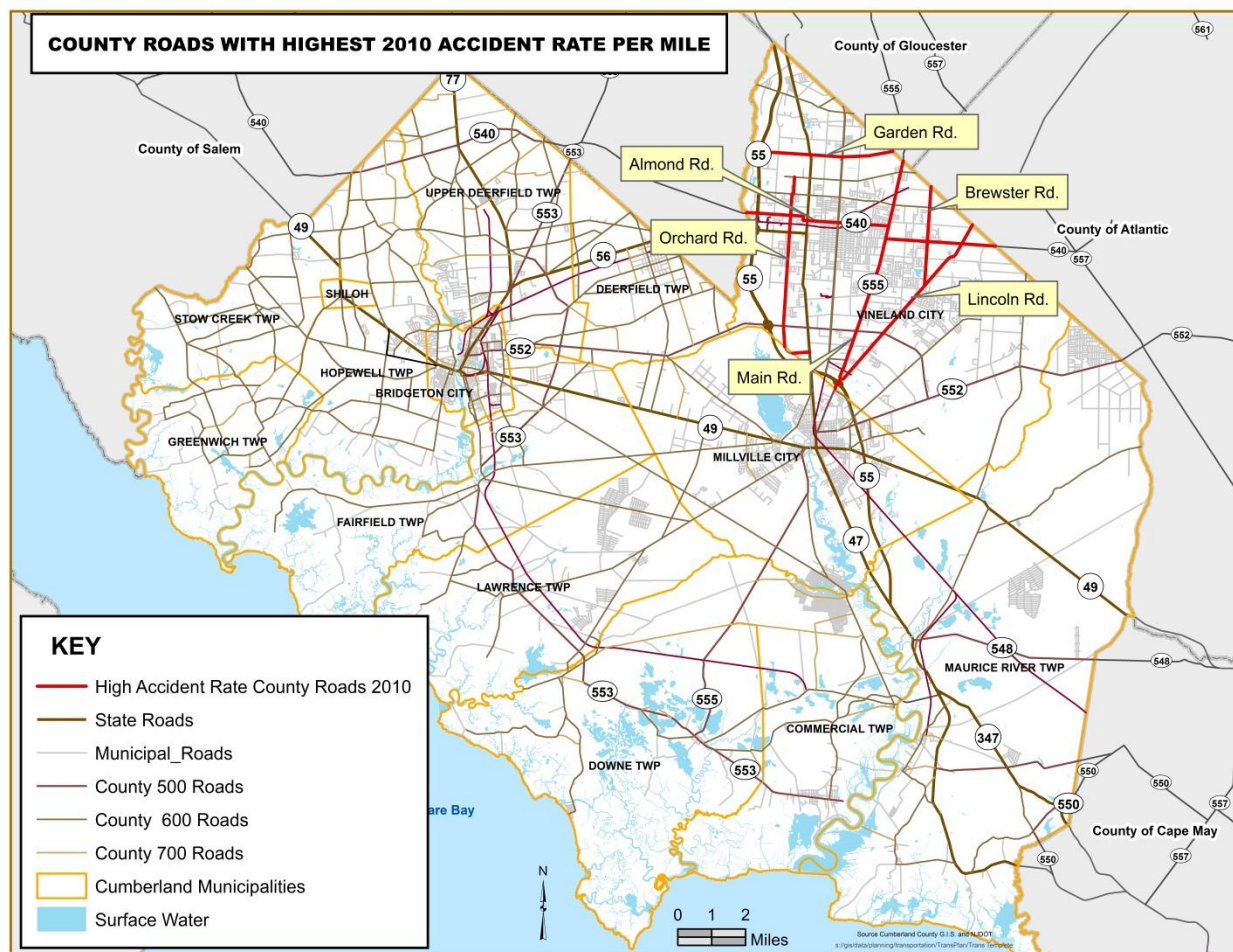
Rte. #	Road Length in miles	Inter-section Accident #	Non-Inter-section Accident #	Non-Inter-section Accident Rate/Mile	Total Accident	Accident Rate/ Mile	Road Name/Municipality
628	2.16	7	36	16.67	43	19.91	Orchard Road/Vineland
672	2.9	11	27	9.31	38	13.10	Brewster/Vineland
655	6.06	17	42	6.93	59	9.74	Lincoln/Vineland
540	13.7	47	84	6.13	131	9.56	Route 540
555	18	38	125	6.94	163	9.06	Route 555
674	4.15	12	22	5.30	34	8.19	Garden/Vineland
552	24.7	55	132	5.34	187	7.57	Route 552
606	4.87	10	25	5.13	35	7.19	Laurel-Old Deerfield Pike Bridgeton/Upper Deerfield
681	5.93	7	34	5.73	41	6.91	Oak Road/Vineland
615	15.7	38	20	1.27	58	3.69	Boulevard/Vineland
553	24	29	42	1.75	71	2.96	Route 553
670	17.88	10	40	2.24	50	2.80	Buckshutem/ Bridgeton/Fairfield/Commercial
550	6.28	0	11	1.75	11	1.75	Route 550

NOTES:

- Orchard, Brewster, Lincoln and Rtes 540 and 555 have most accidents per non-intersection mile making them the roads to monitor for WHY accidents happening.
- 140 of the 163 accidents on Rte 555 occurred in Vineland (6 in Downe and 17 in Millville)
- 120 of the 132 accidents on Rte. 540 occurred in Vineland (1 in Hopewell and 10 in Upper Deerfield)
- Boulevard has low accident rate for length (could it be slow speed and stop signs?)

Figure 13, a map of the highest accident segments on County roads indicates the possibility of managing high volume traffic segments to reduce accident rates by manipulating commuting routes, number of road cuts and other factors. Road widening as a method to reduce accident rates is based on the belief that accidents occur solely because of high volume rather than as a combination of factors which can be altered without road construction or with reduced construction. Mini-roundabouts, pavement markings, roadway buffers, lane controls and signage are a few of the methodologies which have been used successfully to reduce accident rates without expensive road construction.¹⁷

FIGURE 13



¹⁷<http://www.sustrans.org.uk/assets/files/Info%20sheets/Rural%20road%20traffic%20calming.pdf>

Roads in Cumberland County are becoming more than corridors for automobiles and trucks. The following two trends in this inventory have had limited impact to date, but hold the potential to change the “roadmap” and circulation of the County. These are the Complete Streets initiative mandated by the State and new actions in developing the tourism sector in the region. The two initiatives have a synergistic energy which can positively influence the transportation system in the next decade.

The State DOT has adopted a Complete Streets policy which is intended to:

- Improve safety for pedestrians, bicyclists, children, older citizens, non-drivers and the mobility challenged as well as those who cannot afford a car or choose to live car free.
- Provide connections to bicycling and walking trip generators such as employment, education, residential, recreation, retail centers and public facilities.
- Promote healthy lifestyles.
- Create more livable communities.
- Reduce traffic congestion and reliance on carbon fuels thereby reducing greenhouse gas emissions.
- Make fiscal sense by incorporating sidewalks, bike lanes, safe crossings and transit amenities into the initial design of a project sparing the expense of retrofit later.¹⁸

A byproduct of the Complete Streets initiative is to preserve and protect fragile environments and historic resources. It is these attributes which the tourism programs are relying on to attract visitors to Cumberland County. The County, beginning in 1996 with the Ecotourism Plan and continuing through the present with the “Rails to Trails” initiative has invested in the unrealized tourist potential of the area’s natural resources. Regional studies, such as the Bayshore Coalition’s “Bayshore Heritage Scenic Byway Study,” realize and are advocating tourism, particularly eco- and heritage tourism, as viable development opportunities in Cumberland County.

Another underdeveloped hospitality sector for which Cumberland is ideally suited is agri-tourism. Agri-tourism invites tourists to farms for recreation or education. It can mean a farm stay, a maze ride or pick-your-product experience. Automobiles, buses and bicycles are all vehicles involved in this sector which has an explosive growth potential in Cumberland due to the number of farms in the County.

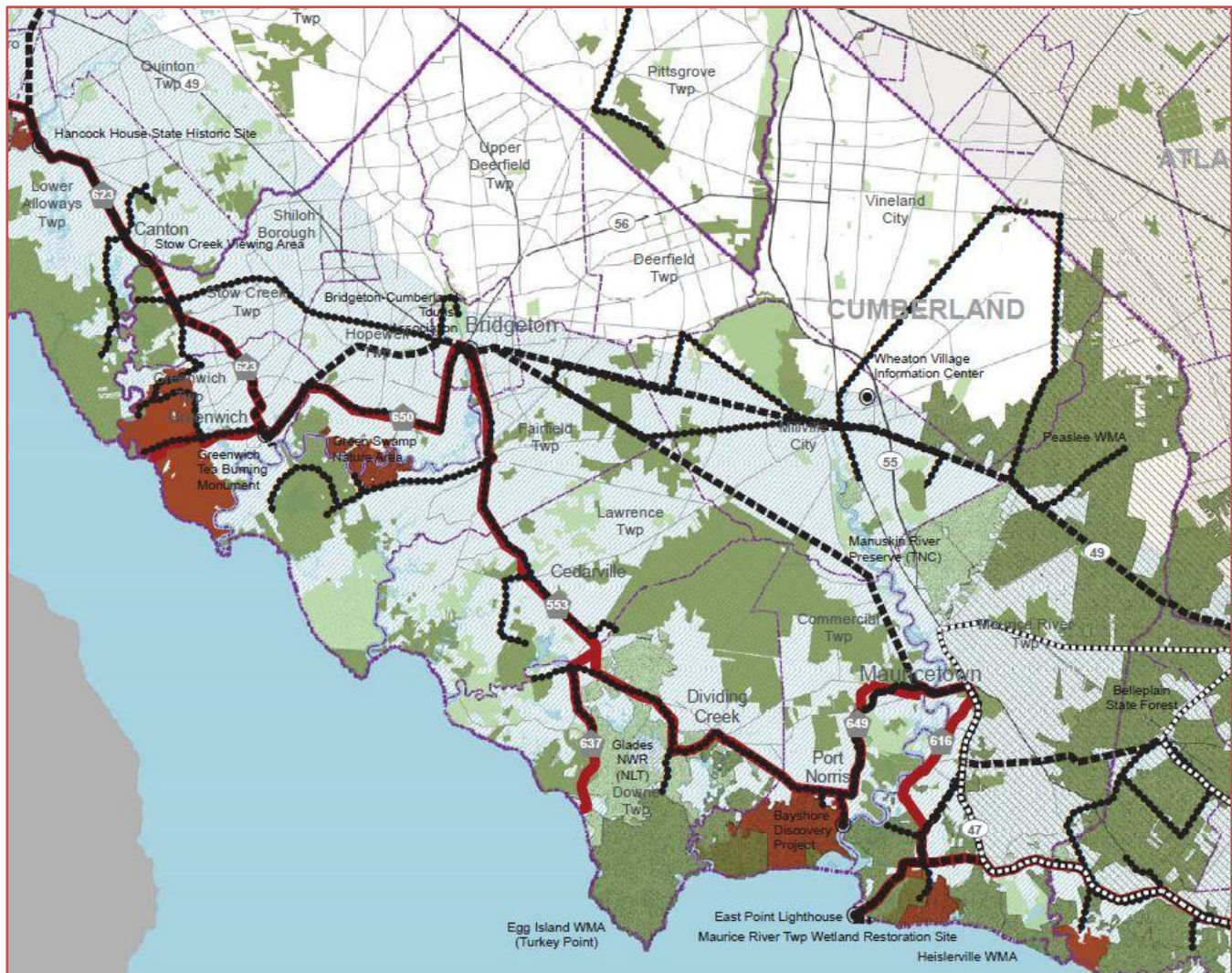
Since its opening in 2008, the Motorsports Track has attracted visitors and new businesses to the area even as it struggled financially. High expectations remain for the Millville Motorsports Park to increase tourism and traffic within the County. Although the facility is not based on Cumberland’s traditional tourism attractions of history, agricultural and environment, its automotive basis attracts a tourism industry sector which requires inclusion in transportation system planning.

An expanded and vibrant tourism sector will have immediate impact and require a new attitude toward road usage. The Bayshore Heritage Scenic Byway, shown in Figure 14, illustrates the extensive use of County roads and the extent of the Byway’s impact for Cumberland, especially

¹⁸ <http://www.state.nj.us/transportation/commuter/pedsafety/complete.shtm>

the more rural southern half of the County. The State has approved the route of the Byway through Cumberland County and the work is ongoing to promote the Byway as a regional destination.

FIGURE 14: BAYSHORE HERITAGE BYWAY ROUTE IN CUMBERLAND COUNTY



LEGEND: Corridor Definition - Sites, Linkages & Regional Resources

- | | |
|---|--|
| — Bayshore Heritage Byway | ■ PSEG Estuary Enhancement Sites |
| - - - Proposed route amendment | ■ NPS Coastal Heritage Trail Corridor |
| - - - Proposed segment to be re-routed | ● NPS Coastal Heritage Trail Sites |
| — Municipal boundaries | ● NPS Coastal Heritage Trail Sites |
| ■ County/municipal lands | Linkages |
| ■ NJ DEP lands | — Birding & Wildlife Trails |
| ■ Federal open space | — NPS Coastal Heritage Trail Bicycle Routes |
| ■ Coast Guard Station | — Pine Barrens Byway |
| ■ Pinelands | |

Notes:

- Public open space includes county/municipal lands, NJ DEP lands and federal lands (National Park Service and Fish & Wildlife Service properties).
- Sites identified on this map are included in the Coastal Heritage Trail's list of sites for the Delsea Region Destinations. A complete list will be developed as part of the corridor management planning process.

GIS data sources: NJ Department of Environmental Protection; NJ Department of Agriculture; NJ Department of Transportation, SJB/C/Rutgers University

0 0.75 1.5 3 4.5 6 Miles

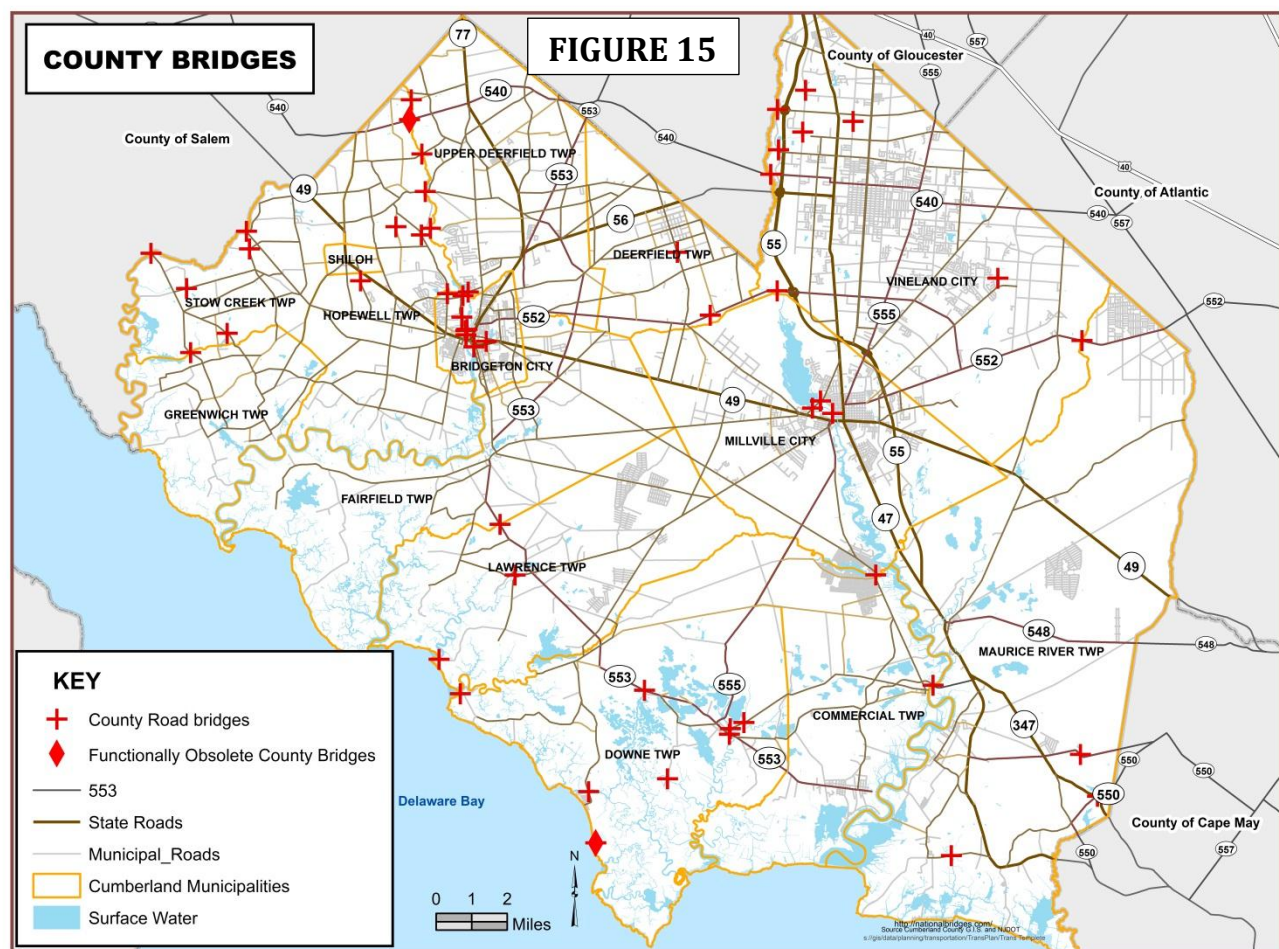


Bridges

The tourism industry will have an impact on bridges and marinas, as well as roads. Overall, County maintained bridges (greater than 20' in span) are rated favorably in the National Bridge Inventory system. But, according to the New Jersey Association of Counties inventory, updated in 2009, there are numerous non-County, local road bridges which require repair and/or replacement. While this is not a County maintenance issue, per se, it is clear that the circulation system must rely on local as well as County bridges, especially in the parts of the County crisscrossed with small tidal creeks.

Bridges take on increased importance, as can be seen in Figure 15, when their impairment restricts or, even, isolates parts of the County. The months after damaging rain storms in 2011 demonstrated how dependent traffic patterns are on a complete system of interdependent roads and bridges.

Crucially, bridges supply access to the County for several important economic sectors. The County's marinas, which have been a mainstay of recreational tourism for fishing, are mainly accessible by bridge. Access to one of the County's greatest assets, its shoreline, is dependent on bridge access. These areas of the County are its most isolated and, for much of the year, have very low usage. But this does not diminish their importance in the County's economy and transportation system.



Public transportation in rural areas is a vital contributor to accessibility and quality of life, especially for those who cannot or choose not to drive.¹⁹

INVENTORY: PUBLIC TRANSIT

Public transportation is an effective and common mode of getting around by bus or train in some parts of the country. In Cumberland County, there is no passenger rail service and limited fixed route bus service, making scheduled public transportation impossible for large parts of the County. Figure 16 indicates commonly accepted thresholds of population density for the provision of fixed route public transit.

Figure 16: Thresholds for Scheduled Public Transit

Guide	Transit Service	Pop/sq.mi.	Dwelling Units/ Acres	Employment/ Acre
NJ Transit	Rail/other high capacity service		15-24+	150+
	Local Bus Service		7+	40+
	Car pools and vanpools		4-6+	2+
Smart Growth Guidelines	Bus Service	1 bus per hour	4-6+	
		1 bus/ 30 minutes	7-8+	
	Urban Rail	5 minutes	9	
NJDOT	Bus Service per direction/per day	20 runs	3,000-4,000	
		40 runs	5,000	
		120 runs	10,000	

Source: Out and About: A Guide to Sustainable Local Circulation Planning

In spite of these thresholds, there is momentum for new paradigms for public transit which would allow more widespread access, even within sparsely populated areas like Cumberland County. Regional forces, like an expanded university in Glassboro, and realization of untapped markets on the part of transit providers, have resulted in several studies for the extension of light rail into Gloucester County to Glassboro. These studies envision, in the long run, extensions of passenger rail into Cumberland County. For the moment, though, any passenger rail, even as close as Glassboro, is a decade away.

The County does have limited inter-County fixed route bus service with service to Philadelphia and Atlantic City. There is no public bus service to Delaware, a job source for much of the western part of the County. This also constitutes all the intra-County scheduled bus service. The four fixed route scheduled routes are listed below in Figure 17.

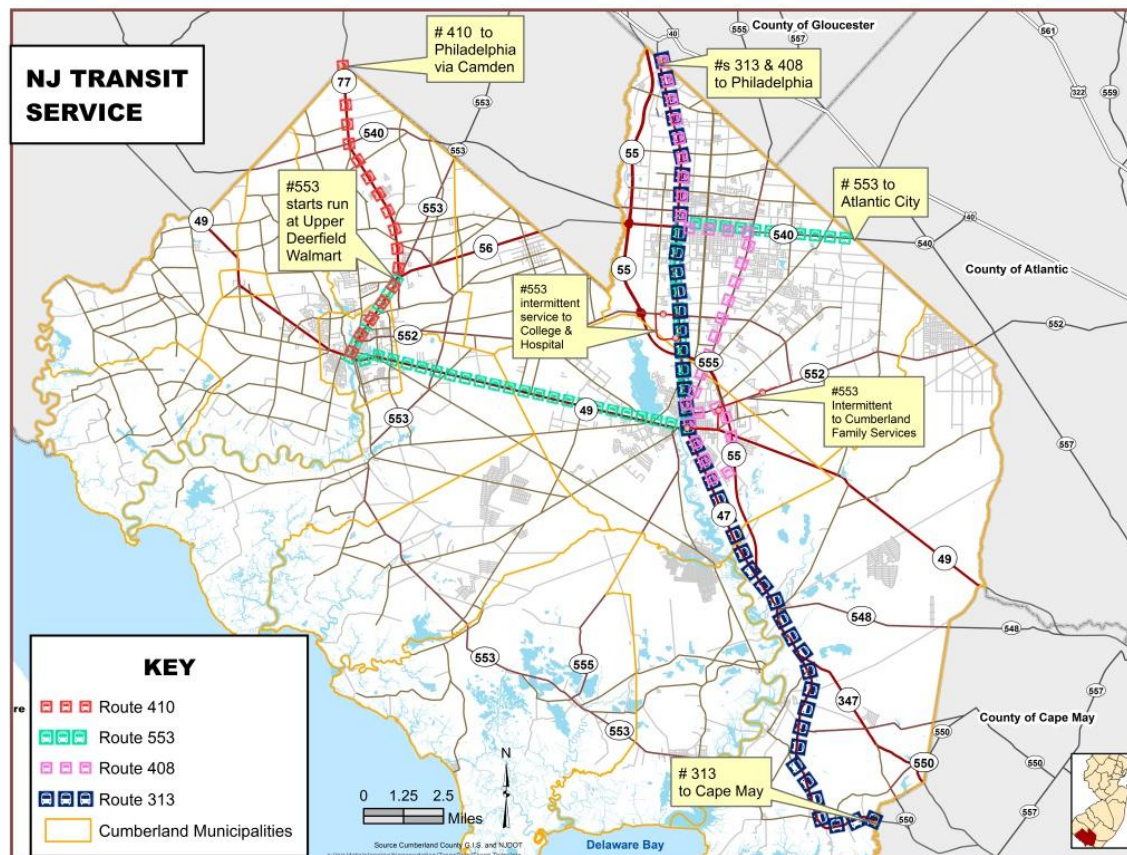
¹⁹ Emerine, Hannah Twaddell and Dan. *Best Practices to Enhance the Transportation-Land Use Connection in the Rural United States*. Washington DC: Transportation Land Use Board, 2007.

Figure 17: Fixed Route NJ Transit Serving Cumberland County

Route #	Service Days	Round Trips/Day	Served Municipalities	Key Stops	Termini
313	Daily	3	Maurice River Millville Vineland	<ul style="list-style-type: none"> Cumberland Mall County College South Jersey Regional Hospital 	Cape May Philadelphia
408	Monday-Friday Saturday Sunday	17 10 8	Millville Vineland		Millville Philadelphia
410	Monday-Friday Saturday Sunday	16 15 11	Bridgeton Upper Deerfield	<ul style="list-style-type: none"> Walmart Bridgeton CBD 	Bridgeton Philadelphia
553	Monday-Friday Saturday Sunday	38 36 36	Upper Deerfield Bridgeton Millville Vineland	<ul style="list-style-type: none"> Cumberland County College Cumberland Mall 	Upper Deerfield Atlantic City

SOURCE: NJ Transit

Figure 18 better demonstrates the limitations of the fixed route service for much of the County's geography. The routes connect the three cities, but leave large swathes of the County uncovered. There is only one fixed route bus service connecting the eastern and western parts of the County itself.

FIGURE 18: FIXED ROUTE TRANSIT

Fixed route transit service in the County is further weakened by the limited schedule offered. Only the #553 bus to Atlantic City runs 24 hours/day. Atlantic County's 'Master Plan'²⁰ noted that, after Ventnor, Margate and Longport, the largest number of passengers out of the Atlantic City depot were headed to Cumberland County. This suggests that, if the service exists, Cumberland County commuters will use it. The other regularly scheduled routes do not run all night and do not allow for most daily commuting. The first Millville pickup on Route 313 to Philadelphia is at 11.18 a.m., arriving in Philadelphia after 1pm, making it unusable for a 9 to 5 commuter.

Human Service Transit studies by SJTPO and the State in Cumberland County indicate that there is a need for alternative transit due to sufficient constituency of fragile and stressed members. The studies suggest flexible fixed route and/or demand responsive transportation to service the entire County because the fragile populations are dispersed widely within the County. In fact, there are numerous and effective non-governmental and governmental agencies offering demand response and small flexible fixed route service in Cumberland County. But each is operating only within its restricted client pool and there is little coordination among the providers.

The most comprehensive demand response service is the Cumberland Area Transit Service (CATS) agency buses. CATS provides transportation services for the elderly and disabled, veterans and, with limitations, for the general public in small buses. While there are some scheduled point to point trips (to shopping centers), most service must be arranged by an eligible person at least 48 hours in advance. The service is free but donations are suggested. CATS provides limited inter-county medical transportation, but is predominantly intra-County. The service is operational Monday through Friday with no evening service. Even so, it offers a fairly comprehensive method for the targeted population to achieve transportation.

For workers and job seekers without transportation, the Office of Workforce Development in the County has a shuttle service to targeted high-employment sites and to work training sites. This is also free, requiring only that the client obtain a pass from the County office. The three shuttle routes' schedules are based on shift work hours, running Monday through Friday between 5:30 am and 6:30pm. The routes are shown in Figure 19 below:

Figure 19: Workforce Development Shuttle Schedules

Trip Termini		Times
Downtown Vineland	Vineland Industrial Park	6 total between 5.30am-6pm
Transit Center	One Stop Center	4 total between (8.30am-4.30pm)
Vineland	Bridgeton	8 total between 5.55am and 7.45 pm
Bridgeton	Seabrook	4 total between 6 am and 5 pm

SOURCE: Cumberland County website

Non-government providers deliver an additional resource for need-oriented transit passengers in Cumberland. At least six providers, both profit and non-profit, operate a variety of demand-

²⁰ Atlantic County Dept. of Regional Planning and Economic Development. *Atlantic County Master Plan*. Northfield, NJ: Atlantic County, 2000.

response shuttle services which service all the County. Most of them offer their services only to their clients and only for designated services. Besides CATS and Access Link (a mandated service operated by NJ Transit for disabled passengers within $\frac{3}{4}$ mile of regular transit stops), only one other service, Pearl Transit Corporation, is non-client based. Pearl Transit, offers car service for low income and disabled residents on a reservation basis, mostly for work and education but also for personal needs, if requested.

Individually, these service providers supplement the CATS service in the County. There are varying, but real, degrees of overlap in service and times as well as areas of unmet need and demand. The lack of evening and weekend service creates a large hole in coverage in the County. Past studies have acknowledged the unmet public transit need in Cumberland.

The 2007 and 2010 'Human Services Transportation Plan'²¹ call for an extension of CATS hours as well as consideration of more connections between Bridgeton and Vineland and between Salem and Bridgeton. The draft Western Southern Cumberland Regional Plan (2010), with its eleven rural municipalities' concerns, recommended using innovative systems to meet needs of transit dependent residents, particularly farm workers.

A particular challenge in the study area is the lack of transit options for lower income farm workers, many of whom are immigrants, and travel from housing typically found in Vineland, Millville and Bridgeton, to outlying farms. A flexible carpool or vanpool service should be considered to address those needs.
Source: WCRSP Summary Plan Draft (June, 2010)

Salem and Bridgeton Cities are also exploring methods to resolve their need for inter-city bus transportation. The utilization of smaller, more efficient buses is one idea proposed. NJ Transit, with its recent interest in expanding alternative types of services, is in talks with those cities concerning scheduled small bus service on Route 49. This willingness to explore alternatives to traditional large bus, fixed route service substantiates the need for leadership and coordination in approaching transportation challenges.

There are methods for assessing what is best in providing rural transit. One successful model from rural Nova Scotia details seven steps a region can take to determine what would work best for it.²² The steps are:

- a. Determine who will use this service
- b. Determine major destinations
- c. Determine what service design would best work for the community
- d. Determine type of vehicle most appropriate with awareness of disabled population, maintenance costs and the availability of used vehicles, such as minivans and small bus
- e. Forecast capital and annual maintenance costs
- f. Compare budget requirements with loss to community in terms of attractiveness to industry, lost education and work day potential.

²¹ Gannett Flemin and Mundle Associates, Inc. *Human Service Transportation Plan Update*. Vineland, NJ: SJTPO, 2010 and Abrams-Cherwony & Associates and Eng-Wong, Taub & Associates, *SJTPO Regional Human Service Transportation Plan*. Vineland, NJ: SJTPO, 2007.

²² ENTRA Consultants, . *Rural Transit Planning Guidelines*. Halifax, NS: Halifax Regional Municipality, 2008.

- g. Explore innovative ideas to make transit work in community, such as:
- commuter bus service
 - parcel bus
 - formal volunteer program
 - shuttle services for community employers
 - transit services targeted to grocery stores
 - public-private partnerships
 - school buses used to provide public transit
 - selling bus seats to employers
 - centralized brokerage
 - combined funding streams with non-revenue municipal fleet

Much of the preliminary work for an alternative transit study has been accomplished in Cumberland County. SJTPO has determined the targeted population and the County knows the major trip generators. What is needed is a push to involve businesses, municipalities, and, maybe, surrounding counties in new thinking about the potential of transit to strengthen the economy by improving the transportation system for all.

Shifting trips to modes of travel other than the automobile requires smarter and more informed planning, a better understanding of what makes transit and non-motorized modes viable, a better integration between transportation, infrastructure and land use planning and a much better understanding of the realities that govern how different modes of transportation operate, and what actually motivates people when they make decisions about which mode to use for a particular trip.²³

INVENTORY: NON-MOTORIZED TRANSPORTATION

Bicycling and Walking

Cumberland County is a non-attainment air quality area under the federal Clean Air Act requirements. Current federal law requires areas of non-attainment to develop traffic management strategies to reduce single occupancy vehicle miles in their area. One accepted strategy is increasing the mileage of bikeways and bicycle compatible roads if they can be shown to decrease trip reduction.

The Cumberland County Bicycle Study, completed in 2000, assessed 300 miles of County roads and off-road areas to determine bicycle compatibility. It then mapped out a county bike route network for the County. The 2010 'Rails to Trails'²⁴ report for Cumberland County built on this information to map out a potential trail network for biking and pedestrians utilizing abandoned rail corridors. Both studies advance the idea of biking as a transportation mode for recreation, for commuting and for attracting tourism to the County.

The 2000 Bike Study also realizes the importance of integrating bicycling into all relevant County plans and makes suggestions for expansion of the Ecotourism Plan and the older Transportation Element of the Master Plan to include new ideas and strategies for promoting bicycling.

These studies provide information on methods and strategies for improving and providing safe and effective bike paths. The 2000 study is more wide ranging as it explores roads as well as off road trails and wildlife management areas for biking possibilities. From the 2000 Bike Study, the County produced a biking map for tourists in the County as seen in Figure 20 below.

²³ Carlos Rodrigues, Jeffrey Wilderson, and Noelle Reeve. "Out and About: A Guide to Sustainable Local Circulation Planning." 2011.

²⁴ Campbell Thomas & Co. *Feasibility Study for Various Rails to Trails Projects Within the County of Cumberland*. Bridgeton, NJ: Cumberland County Department of Planning and Development, 2010.



SOURCE: http://www.co.cumberland.nj.us/filestorage/171/215/2921/CC_Bicycle_Brochure.pdf

Both of these studies provide an underpinning for the state and federal drive to expand bicycling as a mode of transportation. The SJTPO 2040 Transportation System Assessment re-iterates the 'Statewide Bicycle and Pedestrian Master Plan'²⁵ goals to make bicycle and pedestrian modes an integral part of the transportation system. First there must be an acknowledgement that there is more to promoting the multi-faceted possibilities of biking than merely creating bike routes along existing roadways. This is because the possibilities of bicycling (and walking to a lesser

²⁵ NJ DOT. *Statewide Bicycle and Pedestrian Master Plan: Strategic Planning Model*. Trenton, NJ, 1995.

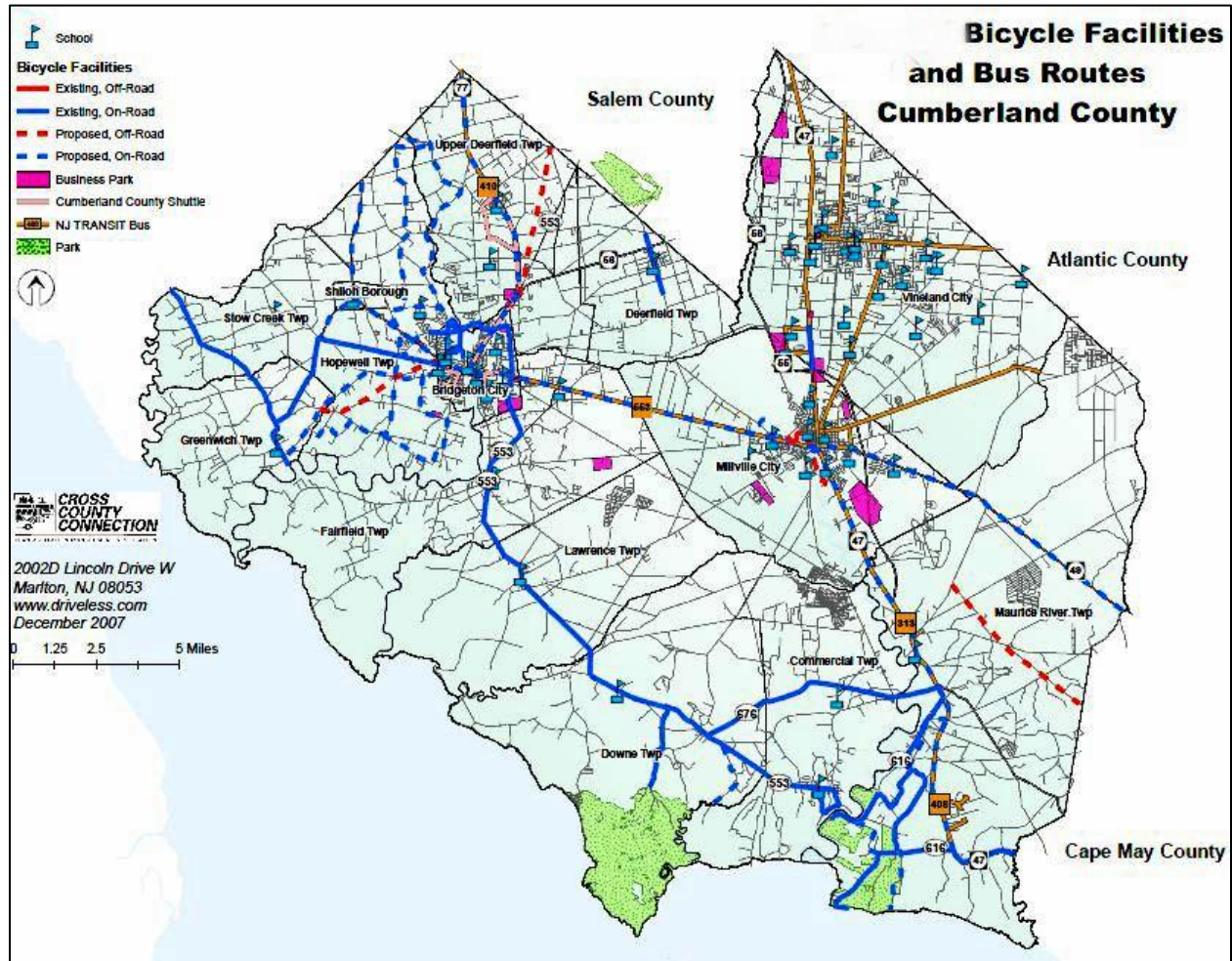
extent) as a method of transportation are more than the mapped route itself. A successful bicycling promotion program requires a sustained and wide ranging effort combining outreach, education, signage and maintenance.

First and foremost, bicycling needs to be seen in its several facets. The Cumberland County studies seek to promote bicycling as a method for developing and increasing the tourism industry in the County. Bicycling tourism requires safe routes, facilities for rest stops, bicycle oriented hospitality in restaurants and overnight accommodations.

Bicycling can also be an important component of commuting and school mobility patterns, even in a low density area. With proper facilities and planning, bicycles can operate as partial commuting vehicles for vanpooling, carpooling and for public transit. To accomplish this, both education, and proper storage facilities for the bicycles are necessary. The 2007 Bicycle Facilities and Inventory Analysis²⁶ looked at bicycling for commuting to school and work. The study found 42 bicycle trail segments (all but two were on road) consisting of 75 miles of travel with an additional 115 miles (mostly on road) proposed. The analysis points out that, for commuting, it is not the actual mileage of bike ready roadway but whether it connects with a destination or public transit. Figure 21 illustrates the existing and proposed routes with schools and industrial parks overlaid on the map. It does not include many, additional bike-compatible roads in the County which are not marked as “bike routes.”

²⁶ Cross- County Connection Transportation Managment Association. *Bicycle Facilities Inventory and Analysis for Cumberland County*. Marlton, NJ: Cross County Connection, 2007.

**FIGURE 21:
CORRELATION OF MARKED BIKE ROUTES TO SCHOOLS AND EMPLOYMENT**



SOURCE: CROSS COUNTY CONNECTION

Bicycling as a means for school transportation will require planning, coordination and cooperation among several stakeholders to achieve success in Cumberland County. Better and safer bike routes are necessary for school children and for the occasional recreational biker. Adequate and safe storage of bicycles and school procedures would have to be addressed.

While the SJTPO 2040 Plan advocates increasing bicycling and walking throughout its service area, it presumes that increases in bicycle commuting will be primarily in Atlantic and Cape May Counties due to their density. The Plan does advocate that all new roadway projects be shared-use for bicycles in compliance with state policy. Specific strategies to increase bicycle commuting in rural areas do exist and should be examined for their possible implementation in Cumberland.

Pedestrian traffic as a mode of transportation should be the easiest to implement and encourage. It requires no equipment or fuel and walking can be undertaken almost anywhere. Walking has been proven to improve quality of life. Yet, in Cumberland County, residents do not walk. The issues which are inhibiting residents from walking include poor sidewalk continuity, lack of sidewalks altogether, fear of crime, vehicular speed and general safety. These are complicated by the generally poor health and weight of the citizenry.

There is a greater awareness in recent years of how the design of roadways can impact the behavior not just of motorists, but of pedestrians and bicyclists. There is also a better understanding of how important the design of a roadway can be to the character of a place.

For example, the presence of a wide roadway will encourage motorists to drive faster, all other things being equal, and discourage pedestrian crossings of that roadway. In an area with high vehicular speeds, parents will feel less comfortable about letting their children play in a park adjacent to such a roadway. A well connected sidewalk system, with sidewalks set back from the street by a grass buffer or parked cars, will make pedestrians feel more secure, and encourage more walking.

City of Vineland Master Plan Circulation Element (May, 2009)

The County requires a two prong approach to improving pedestrian mobility, especially among children. The infrastructure component can be improved as localities embrace federal programs for sidewalks near schools and the state directive to consider multiple modalities when making road improvements gains greater acceptance among engineers. The other prong involves the more difficult task of changing the inclination and general thinking among the population. The use of public transit, by its nature, usually involves walking (or biking) to designated stops. If the public resists walking, it will never embrace public transit.

What seems to be necessary is an incremental but coordinated approach throughout the County to encourage walking as a viable type of transportation. Bridgeton City has embarked on a public campaign to get its citizens walking. Vineland's Master Plan Circulation Element calls for County-municipality cooperation and coordination in increasing the number of sidewalks on County roads within the City.

The Safe Routes to School program, coordinated by Cross Connections in Marlton NJ, has not received any response from Cumberland County schools. The program requires parent involvement and the school must initiate the process. This is an example of a program, like the Bridgeton walk for exercise program, which would have value in Cumberland County if it was endorsed and promoted as part of a County sponsored effort to promote pedestrian use.

Tele-transportation

Cumberland County's distance from major population and economic centers, a constraint for moving goods and people, necessitates strategies for efficient and cost-effective long range communications and data movement. Tele-transportation uses modern communications technology and infrastructure to move information rather than goods.

Information-related jobs can only locate where there is reliable high speed communications infrastructure. Community investment in this type of transportation infrastructure has economic benefits, if only in reducing physical transportation costs. Trip-reduction is of particular benefit to Cumberland County, where business and public agency workers often have to drive long distances to attend meetings, obtain information, or other services.

The challenges to utilizing tele-transportation as an alternative within the transportation system are:

- the County's poor high speed internet coverage,
- some areas' lack of reliably operational hardline service,
- and the poor cell phone coverage throughout much of the County.

Several rural communities have appealed to the Board of Public Utilities to intervene with phone service providers to ensure the County is receiving the coverage which it deserves under existing agreements.

Figure 22, on the following page, summarizes the limitations and appropriate uses for the modalities discussed in the Inventory.

Figure 22: Summary of Transportation Modes

Mode	Non-Drivers	Most Appropriate Uses	Limitations	Advantages
Automobile	No	Short and long trips for commuting, shopping, recreation, personal needs	<ul style="list-style-type: none"> Requires license Vehicle. High fixed costs 	<ul style="list-style-type: none"> Flexibility in route and scheduling
Taxi	Yes	Infrequent trips, short and medium distance trips	<ul style="list-style-type: none"> Relatively high cost per mile Limited service areas in County 	<ul style="list-style-type: none"> On call at any time Usually offers loading and unloading aid
Fixed Route Transit	Yes	Short to medium distance trips along busy corridors	<ul style="list-style-type: none"> Limited routes Infrequent times Poor facilities 	<ul style="list-style-type: none"> Low cost Access to areas outside County
Demand Response Transit	Yes	Travel for disabled/special needs	<ul style="list-style-type: none"> Requires reservation Limited service. 	<ul style="list-style-type: none"> Home pickup Handicapped capability Free or sliding scale fees
Car pooling	Yes	Trips that the driver would take anyway (ridesharing).	<ul style="list-style-type: none"> Requires cooperative automobile driver. Locks passenger into driver's schedule 	<ul style="list-style-type: none"> Cost savings Limits congestion
Van pooling	Yes	Employee commute	<ul style="list-style-type: none"> Requires a coordinator Van/driver cost 	<ul style="list-style-type: none"> Cost savings Reliable schedule Door to door
Walking	Yes	Short trips by physically able people.	<ul style="list-style-type: none"> Limited distance and carrying capacity Difficult or unsafe in some areas. 	<ul style="list-style-type: none"> Cost savings Health benefits Flexibility
Bicycle	Yes	Short to medium length trips by physically able people on suitable routes.	<ul style="list-style-type: none"> Requires bicycle and physical ability. Somewhat limited distance and carrying capacity. 	<ul style="list-style-type: none"> Cost savings Route flexibility Health benefits
Telecommute	Yes	Alternative to some types of trips.	<ul style="list-style-type: none"> Requires equipment Requires connection 	<ul style="list-style-type: none"> Saves commuting costs Flexibility in work schedule Reduces congestion/accidents

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.

INVENTORY: GOODS MOVEMENT

Trucking

Truck freight is a large component of Cumberland County's economy, both in employment and industry share. But the trucking industry is constrained by the two lane road network within the County and the County's relative remoteness from larger markets to the North and West.

"East-west truck traffic in the southern and easternmost portions of southern New Jersey is generally restricted to two-lane roadways, significantly reducing the speed and capacity of the system for freight." (South Jersey Freight Transportation Study)

Agriculture, as a major industry in the County, introduces a strong seasonal component into trucking in the County. Since the majority of agricultural food products grown in South Jersey are perishable, trucking to meet the demands of this industry is influential and should be given consideration in terms of goods movement improvements.

There are possibilities to expand the trucking industry in the County in spite of the limitations of the road network. The County's trucking industry is dispersed somewhat widely across the northern half of the County. This reduces the effectiveness of overall warehouse space in the County in terms of attracting storage markets. On the positive side, the County has a healthy warehouse capacity in its four urban industrial parks as seen in Figure 23.

Figure 23: Industrial Parks in Three Cities

NAME	CITY	SQ. FT. STORAGE	PRIMARY ACCESS
Vineland Industrial Parks	Vineland	2,000,000	NJ Route 55, Exit 35
Bridgeton Industrial Parks	Bridgeton	750,000	NJ Route 49, NJ Route 77
Millville Airport Industrial Park	Millville	600,000	Local roads (4 miles) to NJ Route 55, Exit 4
South Millville Industrial Parks	Millville	2,500,000	NJ Route 55, Exit 4

Source: NJDOT South Jersey Freight Transportation & Economic Development Assessment (Tech. App.)

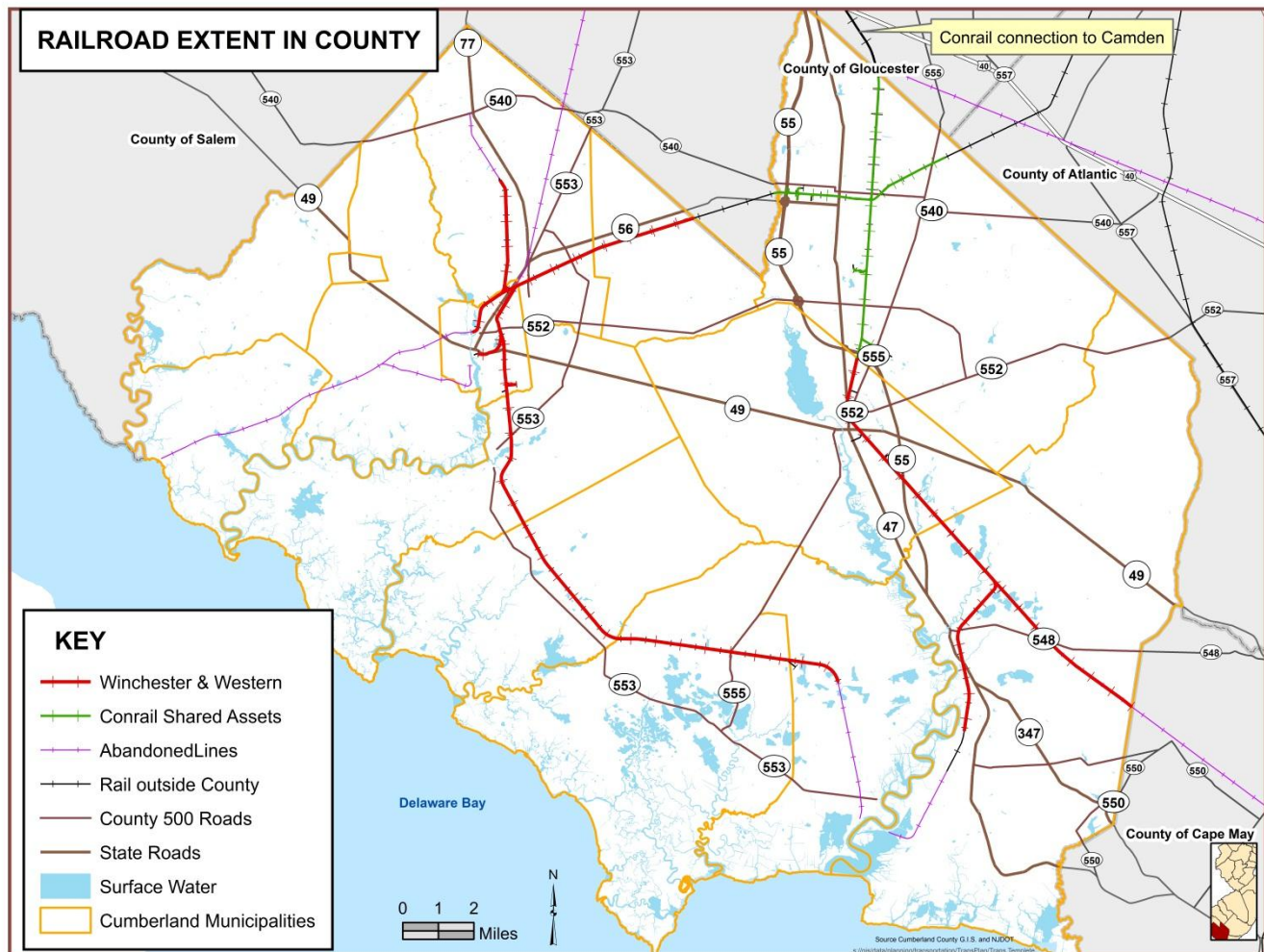
The Cumberland Economic Development Corporation has proposed a new regional business park with a major distribution center in Upper Deerfield on Route 77 adjacent to a Winchester & Western railroad spur. It is almost a necessity to establish an inter-modal rail-truck terminal in order for Cumberland to compete in the increasingly high-tech goods movement industry.

Presently there is no capacity for truck-rail intermodal goods movement in the County. All rail cars operating in the County are carload service, not container carriers. An intermodal terminal in the County would require upgrades to the railroad infrastructure but, as Figure 25

Rail Freight

Of the 105 miles of railroad constructed in Cumberland County, 62 miles are still in service. Railroad company right-of-ways on the 43 miles of abandoned track are generally lapsed, making corridor restoration difficult. Figure 25 illustrate track status and distribution in Cumberland County.

FIGURE 25: CUMBERLAND COUNTY RAIL



At one time, the rail service in the County was both freight and passenger. There is some momentum to return passenger service to South Jersey beyond Camden. Studies have been done which may lead to passenger service as close as Glassboro in Gloucester County. A 2009 State Transportation Study endorsed light rail from Camden to Glassboro with rapid transit bus service extending to Vineland along Routes 42 and 55. This remains in the initial study phases.

Thus, it is freight rail and goods movement which this Plan inventoried and assessed. Winchester and Western and the Southern Railroad Company of NJ (operating on Conrail shared services track) are the two short lines in Cumberland County. As can be seen in the map above, there is limited rail connection to the north from the County. Lines in the western portion of the County must travel east to go north and west to Camden.

Freight movement in the SJTPO region 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. (SJTPO 2040 Regional Transportation Plan)

The County's railroad sector is further impaired by regional considerations over which there is no local control. According to the 'Southern New Jersey Freight Transportation and Economic Development Assessment,'²⁷ goods movement by rail throughout South Jersey has numerous constraints including:

- Double stacked railcars are prohibited in South Jersey due to height restrictions;
- The Delair Lift Bridge is the only connection across the Delaware River south of Trenton and it is antiquated and requires upgrades;
- All rail freight to Cumberland must pass through the Pavonia Yard in Camden which is at capacity and experiences frequent delays for incoming trains from Pennsylvania;
- Weight capacity limitation on all track in South Jersey is 286,000 pounds while regional and interstate track allow 315,000 pounds.

In spite of these challenges, there are several positive aspects for the future of rail in Cumberland County. The sand/gravel mining industry is thriving (in part due to the growth of Marcellus shale mining in Pennsylvania and New York) and South Jersey sand is desirable. The growing food processing industry as well as agriculture products such as nursery stock and grains are well suited to rail transit.

²⁷ Brinckerhoff, Parsons. *South Jersey Freight Transportation & Economic Development Assessment*. Trenton, NJ: NJ Department of Transportation, 2010.

Water has been a major influence on the alignment of transportation routes and the location of settlements in Cumberland County.²⁸

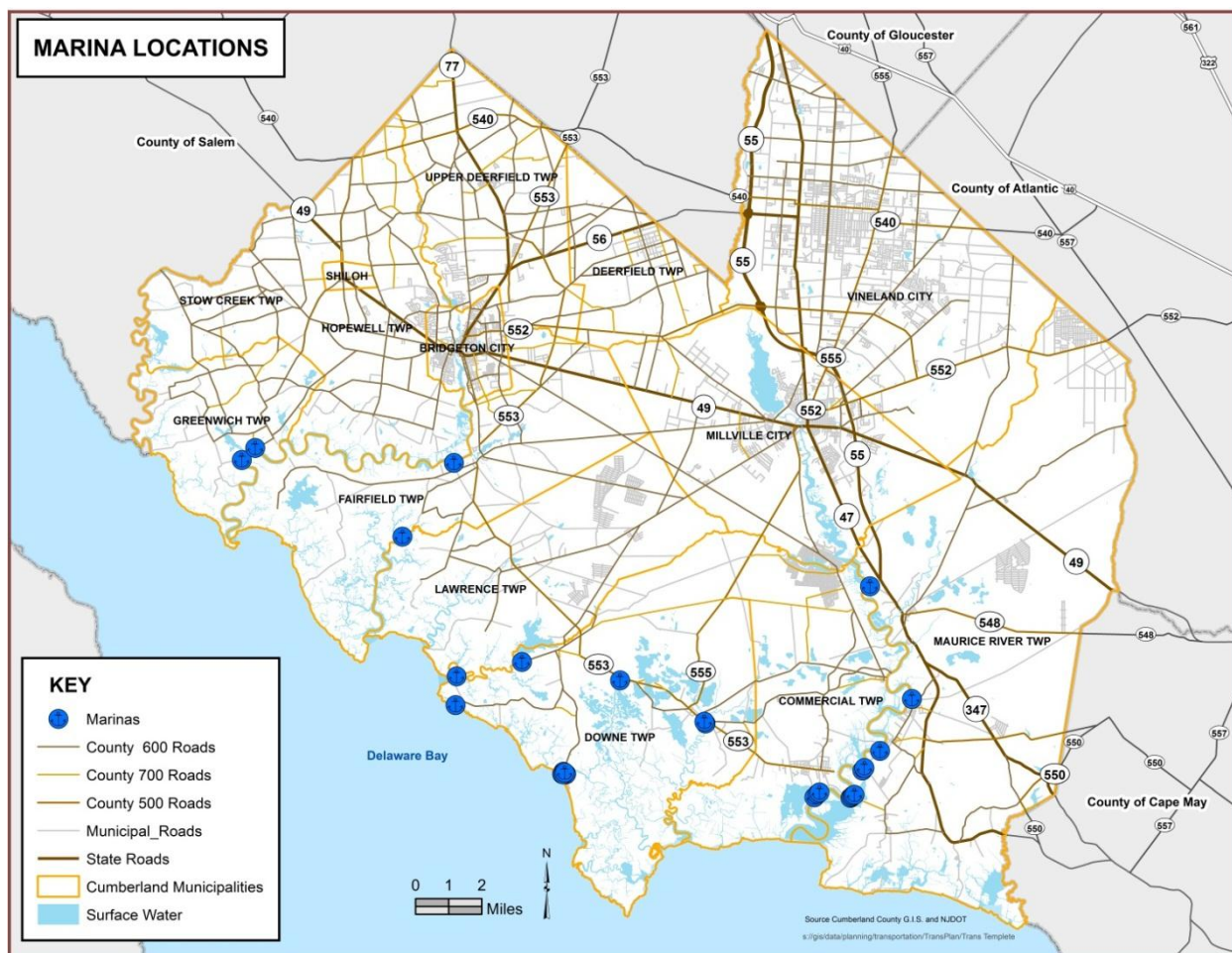
INVENTORY: WATER AND AVIATION

Water

Transportation by water has degenerated from the County's early days when it was a primary transportation mode to the present time when there is not a single functioning port in the County. The Port of Bridgeton, as late as the 1970's operated as a gateway for incoming coal and outgoing sand and other products. But it has not been in operation for years and the current Bridgeton Master Plan does not envision its resurrection as an industrial facility.

The County does have over 25 marinas (Figure 26) which play a large role in the County's tourism sector.

FIGURE 26 : MARINAS



²⁸ Cumberland County Department of Planning and Development. "Traffic and Transportation Plan Update." 2001.

Recreational fishing in the Delaware Bay draws sports tourists from outside the County to a variety of chartered and rental boats. The marinas also are home to the County's shrinking, but still extant fishing industry. Looking at a map of the marina's locations, it is evident that a tourist must traverse a great part of the County to access the marinas. The marinas' locations offer the opportunity to expose the County's potential for recreation and business to a larger audience as they travel through the County to the marinas on and near the Bay. The locations also require that the road and bridge network, even in the most rural and water threatened areas, be well maintained in order to maintain this sector of the economy.

Aviation

There has been a decrease in small airports over the last quarter century in the County with just three registered with the State for public use. These small airports, each with one turf runway, together operate less than 125 flights per month. Millville Airport, though, is a larger facility operating almost 5,000 flights/month.

Millville is the only airport in the County with an asphalt runway. None of Millville's runways exceed 6,000 feet in length and this limits its usefulness as a large scale freight facility since most freight airplanes require a 10,000 foot runway. Nevertheless, in 2000, SJTPO commissioned a study to identify possible access improvements to the Airport and to the adjacent Industrial Park location.

While the study did not address the airport conditions, it does draw attention to the improvements required in the transportation system to make the airport and industrial park and, not incidentally, the Motor Sports Park, more accessible. Basically, the study saw the need for added rail and road infrastructure to fully exploit the airport facility as a transmodal facility.²⁹

Inventory Summary

Conducting an inventory of existing conditions is only beneficial if it goes beyond the raw data and facts and examines the realities, both challenges and opportunities, which the data present.

Some of that analysis has been already presented here in order to understand the data as it was presented. The following sections will expand upon the background conditions which have been described above to extract the information which the County can use to create a method for advancing its transportation system as the 21st century unfolds.

The range of solutions to transportation problems is broader than tends to be considered in most conventional transportation planning. Land use management strategies (such as more accessible neighborhood design), and substitutes for mobility (such as electronic access and delivery services) and other strategies can be as important as improvements to mobility to help achieve transportation planning goals. (TDM Encyclopedia @ www.vtpi.org/tdm/tdm65.htm)

²⁹ McCormick Taylor Associates. *Program of Access Improvements for the Millville Airport and Industrial Park*. Vineland, NJ: SJTPO and DRBA, 2000.

ASSESSMENT AND ANALYSIS

Methodology

The foremost question to be asked in any assessment of a system is whether it is meeting the programmatic needs of its classification. In the case of Cumberland County's transportation system, the answer can be a qualified yes. But there are significant weaknesses which require upgrades, expansion and/or correction. There are segments of the population which do not have sufficient mobility for work, school or commerce. The business community has indicated that limitations in Cumberland County's transportation system are holding back the economy. Regional connectivity is poor across the modalities in the system. The consequences for Cumberland County of not addressing these concerns will be a weakened economy and will damage the social wellbeing of its citizens.

Central to the consideration of any transportation system enhancements is the necessity of establishing what the County's role should be. How can the County best effect positive change? Each mode of transportation in the system requires assessment on its own and in terms of its interactions with other modalities in order to ascertain what steps the County could take to improve the system. The assessment's intent is to focus on the critical junctures where the County can be most effective.

This Plan's methodology for assessing the different modalities has several steps. First the inventory was presented to the Planning Board and the public at a regularly scheduled Board meeting. The information presented was posted in the County's website for general review and comment. After the Board meeting, County staff reviewed the inventory to identify critical transportation connections as well as problem areas and service gaps. All comments and information were then assessed in terms of the types of transportation mode with which they were associated.

The result was a diagram or table for each mode of transportation illustrating its strengths, constraints and opportunities in terms of the existing transportation system. These diagrams graphically illustrate the inter-relationship of the transportation system both internally (among modalities) and across the spectrum of County life. In looking at the array of issues, it becomes clear that the County could be involved in almost all of them to varying extents in its three different roles as coordinator, leader and funder.

Most fundamentally, but perhaps the least far reaching for future planning, is the County role as direct **funder** of projects. Funding is the traditional County responsibility to maintain its roads and drainage facilities. Another potential manner for the County to impact the transportation system is in the role of **coordinator**, both among the municipalities and between the County and larger, regional agencies, such as SJTPO, the state, and the federal government. The lack of paid work force in most of the County's municipalities increases the need for County staff to assist municipalities in local and regional transportation concerns. Although it may seem the least effective strategy, County **leadership** in advocating for a better transportation system is crucial. The County, through a dynamic policy involving clear strategies, leadership and good communication can influence its constituents' behavior and transmit County goals effectively to the larger region.

The County could restrict itself to its most basic role, simply controlling and funding the improvements and maintenance of County roads and facilities. But there are several good reasons to broaden its involvement. Strong policies which support federal and state initiatives for Complete Streets, lowered vehicle use, support for bicycling as well as safety and health programs will place the County and municipalities in a stronger position to receive state and federal aid. In addition, the County Planning Board enabling legislation (N.J.S.A. 40:27-*et seq.*) stated in the box below explicitly instructs the Counties to act as coordinator and leader for the physical development of the County.

The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterway and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces; the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county.

The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatsoever which may concern the integrity of the county master plan... (N.J.S.A. 40:27-2)

Analysis

The County policies upon which this Plan is based come from a variety of local and regional sources. The primary source of policy is the 2001 County Transportation and Traffic Plan Update. Although over a decade old, the plan's goals for the County remain pertinent. In summary, they are:

1. Plan, design, construct, maintain and manage a circulation system, which provides for efficient vehicular movement within and through the county
2. Plan, construct and maintain the transportation, public transit and circulation network to advance the growth and development of the county
3. Maintain and improve the traffic safety features of the County road network.
4. Enhance regional connections to and from Cumberland County
5. Maintain rail freight service in Cumberland County
6. Maintain, expand and explore new opportunities for mass transit connections within and around the county.
7. Expand and improve pedestrian and bicycle facilities in the County.
8. Coordinate Transportation planning with environmental and land use programs.
9. Maximize funding opportunities and promote a well-coordinated funding strategy for transportation projects and programs.

The 2001 Plan has over 60 strategies for the nine goals, but, except for the specific road projects, they are not practicable and do not identify what the County role will be in their execution. In order for the transportation system to improve as a whole, the Transportation Element of the Master Plan must be integrated into County thinking across County departments, in the

municipalities, in industry and schools, and among the populace. For the County to have effective impact in transportation planning, the Plan's purpose and strategy must be straightforward and understandable. The 2001 Plan, in spite of its valid goals, lacks an effective plan for implementation.

There are more recent plans and studies, whose data and agendas are more pertinent than the 2001 Plan, which should be considered in formulating the 2012 County Transportation Plan. The three County cities have all revised their Master Plans over the last several years. And the townships have worked with the Cumberland Development Corporation to produce a draft regional plan, the 'Western Southern Cumberland Regional Plan.'³⁰ The three urban plans all advocate the fundamentals of the Complete Streets policy in encouraging support for an increase in walking and biking and in supporting increased public transportation.

But, not surprisingly, the local plans are focused upon local improvements and specific projects with only Bridgeton discussing regional or extra-city issues. This is not surprising since Bridgeton is the most isolated of the three cities as well as the only city which participated in the Western Southern Region Plan. This Plan, a product of the eleven rural municipalities and Bridgeton, calls for regional transportation projects and innovative transit alternatives to inadequate fixed route service.

The most straightforward statements of the County's support of transportation system improvements are in the 'Cumberland County Strategic Action Agenda 2020.'³¹ The Strategic Action Agenda calls for a transportation guiding principle to "Improve the movement of goods and people to, from and within the county and emphasize the use of multi-modal transportation."

Transportation projects in South Jersey, in large part, flow through the South Jersey Transportation Planning Organization. Under federal mandate, the SJTPO provides research and guidance for transportation decisions. SJTPO sets goals and priorities over 25 year spans. Since it is a regional planning agency, SJTPO can provide a wider look at the challenges and opportunities on a wider scale. This Plan supports the SJTPO's guiding principles of:

- Promote transportation choices for movement of people and goods
- Support regional economy
- Improve transportation safety
- Improve security
- Mitigate traffic congestion
- Protect and Enhance the Environment
- Enhance integration and connectivity of transportation system
- Restore, preserve and maintain the existing system.

³⁰ Orth-Rodgers & Associates, Maser Consulting, S. Huffman Associates and Karabashian Eddington Planning Group. *Western Southern Cumberland Region Strategic Plan*. Bridgeton, NJ: Cumberland Development Corporation, 2010 (draft).

³¹ Cumberland County Planning & Economic Development Dept. *Cumberland County Economic Development Strategy*. Bridgeton, NJ: Cumberland County Dept. of Planning and Economic Development, 2010.

This Plan recognizes that Cumberland County, as just one constituent part of the SJTPO, is responsible for ensuring that its requirements are not overlooked in the regional dialogue.

The other entities which influenced this Plan's strategies are the state and federal guidelines for transportation systems. As of 2009, the NJ DOT has a Complete Streets Policy which informs all new and expanded projects funded by the state. The state is currently working on promoting its policy at county and local levels in order to provide greater consistency and to fulfill federal mandates for increased mobility of the entire population. In addition, the federal Clean Air Act requires that localities reduce car emissions in order to comply with standards for air pollutants in non-compliant areas. Decreasing single occupancy car trips is the single most effective method of air pollutant reduction in a rural area where industry is not contributing to the pollution.

The federal, state, regional and local plans that inform the strategies of this Plan are all consistent in their drive for an integrated and truly multi-modal transportation system. The information contained in the Inventory and Background of this Plan are the basis for a system of strategies to promote the formation, over time, of an integrated multi-modal transportation system which will strengthen the economic and social fabric of Cumberland County.

The strategies proposed arise out of each transportation mean's Strengths and Opportunities, with full acknowledgement of the Challenges. The strategies are intended to be linked in order to maximize their overall value to the County and to increase the multi-modal intent of the Plan. All of the strategies employ the ideas of Transportation Demand Management (TDM). TDM's guiding principle is to look at the transportation system as a whole rather than as individual modules. TDM recognizes that many transportation improvements are not physical. A successful change in driver behavior to be more aware of bicyclists as part of the road system is a TDM strategy achievement which calls for guidance and education rather than infrastructure. The County can employ TDM strategies in many ways in its triple roles of leadership, coordination and funding.

The charts on the following pages draw from the inventory to create a snapshot appraisal of each transportation mode's present conditions and opportunities. The Strengths are almost all outnumbered by the Challenges/Constraints, but it is the Opportunities upon which the County should focus.

ECONOMIC TRENDS

STRENGTHS

- ✓ County Strategic Action Agenda stresses importance of transportation
- ✓ Trucking/warehousing sector endures in recession
- ✓ Predominantly local commute and centralized employment centers supports alternatives to single vehicle

CHALLENGES/CONSTRAINTS

- ◆ High percentage of 'transit priority population' presents challenge in low density area
- ◆ Cooperation/communication among municipalities and with other counties is challenging
- ◆ Lack of tax base and financing for County maintenance and improvements
- ◆ Regional and state Agencies' focus on NJ Turnpike-Route 295 corridor and Atlantic City overshadows Cumberland County's needs in regional planning
- ◆ Tourism sector lacks support structure and facilities
- ◆ Cumberland County and South Jersey railroad infrastructure requires modernizing
- ◆ High local preference for single vehicle occupancy trips
- ◆ Peninsula effect limits through traffic
- ◆ Telecommunications facilities, both land line and satellite/tower /cable are unreliable and slow
- ◆ Signage and access to potential recreation/tourism areas is poor

OPPORTUNITIES

- Businesses in County realize importance of good transportation planning
- Agricultural sector has potential to consolidate transportation needs in centralized warehousing locations for incoming materials and outgoing goods
- Farm sector busing is in place and accepted by workers.
- Employment is concentrated in cities
- Potential for business growth in ecotourism, agri-tourism, recreational fishing and other environmentally based tourism

ROAD CIRCULATION, WATER AND BRIDGE ISSUES

STRENGTHS

- ✓ Extensive county road system serves all municipalities within county
- ✓ Volume on most county roads is below capacity with few areas of chronic (non-seasonal) congestion noted by SJTPO
- ✓ County bridges are all classified as “sufficient” based on structural adequacy, serviceability, and essentiality to circulation
- ✓ Numerous marinas operating within the County

CHALLENGES/CONSTRAINTS

- ◆ Limited expressway access and distance from interstate highways hampers goods movement into and out of County and isolates County economically
- ◆ Route 55 terminus short of Cape May presents an evacuation obstruction in Maurice River
- ◆ Secluded villages require road access, increasing maintenance expense across budget
- ◆ Older rural county routes are not suited to higher traffic volumes and often not easily upgradable due to environmental/cost constraints
- ◆ Arterial roads can impair experience of historical villages
- ◆ Reliance on 2 lane highways for major east-west access hinders movement through County
- ◆ Western County has no limited access highway to other counties
- ◆ Multiple bridges within bayshore communities creates evacuation vulnerability and mobility issues
- ◆ Extensive wetlands/watercourses present mobility barriers and raise maintenance costs
- ◆ Selected County roads have high rate of accidents per mile of roadway

OPPORTUNITIES

- Rural routes are well suited to scenic by-way, agri-tourism and ecotourism possibilities
- Support for improvements, including new interchanges in Cumberland County, and extension of Route 55 exists at regional level
- Bayshore Heritage Byway project is moving forward to supplement/build on de-funded federal Coastal Heritage Trail
- Updated and clear County Development Standard with established rights of way for all County roads assists in logical and safe road development and should be attractive to quality developers.
- Marinas offer opportunity for tourism expansion
- Funding availability for bridge repairs/replacement
- NJ DOT and Federal support for Complete Streets presents ideas and guidance for rural and urban area enhancements

TRANSIT SERVICE ISSUES**STRENGTHS**

- ✓ Extensive response-demand service programs in place
- ✓ Workforce Development transit for employees
- ✓ Strong employer support for better worker transportation opportunities
- ✓ Major trip generators are to limited points

CHALLENGES/CONSTRAINTS

- ◆ Limited scheduled bus service routes with limited service times for commuters
- ◆ Rural areas of County do not have population density to support scheduled service under NJ Transit guidelines.
- ◆ Most response-demand providers lack dedicated vehicles
- ◆ Scheduled transit service lacks adequate support facilities
- ◆ Perception that public transit is province of the underprivileged hurts service expansion
- ◆ Slow service to Philadelphia
- ◆ No service to Delaware
- ◆ Cumberland County College and Regional Medical Center have limited scheduled transit service
- ◆ Private car culture prevails with single vehicle occupancy most prevalent in commutes
- ◆ High “transit-propensity” distress measures in County

OPPORTUNITIES

- Expansion and coordination of existing demand-response transportation assistance to wider clientele base.
- Possibility of express bus service to Atlantic City to serve high number of Cumberland workers
- The County’s population density supports van and carpooling alternatives
- Regional hospital is central large employer which could operate as test case for alternatives to Single Vehicle Occupancy commuting
- Increased interest by all parties in alternative types of public transit between County cities and between Bridgeton and Salem
- Scheduled transit service is increasingly seen as feasible by utilizing innovative features such as mini-buses.

RAIL AND AVIATION SERVICE ISSUES**STRENGTHS**

- ✓ Two freight lines exist with growing demand for product
- ✓ There is an existing right of way allowing for expansion of rail service
- ✓ Two of the County's industrial parks are adjacent to active rail service
- ✓ Sand mining, a leading County industry, is well suited to heavy cargo rail freight
- ✓ Millville airport has DRBA backing and federal funding for improvements and expansion

CHALLENGES/CONSTRAINTS

- ◆ Only one railroad bridge to Pennsylvania and limited track connections to the north
- ◆ Need for extra-county improvements at Winona Bridge prior to heavier and double car rail expansion
- ◆ The County lacks support facilities for air-truck-rail intermodal transport.
- ◆ Routes are single track and do not accommodate double stack, which is increasingly utilized throughout the rail industry
- ◆ No airport runway in County is long enough for freight cargo deliveries

OPPORTUNITIES

- Opportunities are available for developing intermodal warehousing/terminals along existing track at industrial parks
- Possibility of passenger light rail to Glassboro in future
- Millville Airport study identifies road and rail improvements and City is supportive of development of intermodal linkages
- The increase in fine sand and silica demand from Pennsylvania Marcellus shale operations will increase freight business and supply capital for expansion
- Agriculture, food processing, and oyster industry have high market value and there is room for expansion in rail shipping with track upgrades and better connections.

GOODS MOVEMENT ISSUES**STRENGTHS**

- ✓ Strong warehouse/trucking sector
- ✓ Two freight rail lines with desire for expansion
- ✓ There is room in industrial parks for expansion
- ✓ Lack of roadway congestion for trucking compared to central and northern NJ is some compensation for poorer routes

CHALLENGES/CONSTRAINTS

- ◆ Both rail lines are short lines with limited regional connections
- ◆ Geographically isolated from Northeast corridor routes
- ◆ Nearest railyard in Camden is near capacity
- ◆ Western county has fewer/slower regional truck routes
- ◆ Agricultural warehousing is dispersed

OPPORTUNITIES

- Agricultural storage and warehousing of transfer product is well suited to rail/trucking possibilities in County
- Construction and fine sand demand is growing
- Costs for land and warehousing are lower than state and region
- Locally grown agricultural product is a growth sector supporting local trucking firms
- Distribution center expansion possibility in Upper Deerfield along Route 77 and RR spur
- Improvements to Route 55 could include a new exchange at South Millville Industrial Park, making it rail and truck accessible

PEDESTRIAN/BICYCLE/TELETRANSPORTATION ISSUES**STRENGTHS**

- Flat landscape, rural environment and moderate climate are attractions for bicycling and walking
- Rails to trails study shows potential for tourism economy in development of trail network
- New technology is making tele-commuting increasingly viable

CHALLENGES/CONSTRAINTS

- ◆ Long distances between settlements require motorized transportation for shopping/school/work
- ◆ Many rural roads are not suited for sidewalks or bicycle paths
- ◆ Few sidewalks connect schools to homes outside cities (and even within Millville, Vineland and Bridgeton)
- ◆ Cultural bias against on street bicycling as too urban
- ◆ School attendance shown to increase with busing even within one mile
- ◆ General perception of lack of safety for walking and bicycling
- ◆ Internet, landline and cellular connections are poor in much of the County

OPPORTUNITIES

- Complete Streets programs starting at local level
- State and federal programs for healthier lifestyles are aimed at poorer communities
- Safe routes to schools funding combined with restricted budgets for extensive busing
- Low cost/low impact improvements for bicycling
- Rails to Trails Plan shows opportunities for tourism and recreational bicycling walking in County
- SJTPO 2035 Plan emphasizes support of bike-pedestrian programs
- The BPU is involved in ensuring that telecommunication coverage is fairly and widely disseminated.

The many Opportunities dwarf the County's staffing or funding to implement, but that does not make them inconsequential or unusable or hopeless. Looking at transportation in an overall manner is important for the County even as it focuses on specific achievable strategies for its limited role. In the following section, a strategy is associated with several related Opportunities which include several modalities. These Opportunities and their accompanying strategies should remain part of the County's long term planning and should be used in promoting improvements and change to the transportation system.

The strategies are based on the following six general policies which the County Planning Board adopts as part of its Master Plan:

- The County encourages and promotes safe and efficient management and operation of integrated transportation modalities to serve the mobility needs of people and goods in order to promote economic growth and development.
- The County relies heavily on the existing road and bridge system and must remain prepared for its support and maintenance
- Relationships with regional partners and neighboring counties are essential to encourage Cumberland County's improved integration into regional transportation plans.
- Transportation decisions are best integrated with sustainable land use planning at all levels.
- All economic and social groups within the County should have access to jobs, shopping, education, and internet.
- "Complete Streets" and "Safe Routes to School" are components of transportation management which the County supports

CUMBERLAND COUNTY STRATEGIES

	OPPORTUNITY	STRATEGY	COUNTY ROLE
1	Businesses in County realize importance of good transportation planning	Coordinate establishment of employers' consortium to offer worker transportation by van/carpooling to areas of concentrated employment as adjunct to existing limited "to work" busing.	Coordination
	Employment is concentrated in cities		
	Possibility of express bus service to Atlantic City to serve high number of Cumberland workers		
2	Agricultural sector has potential to consolidate transportation needs in centralized warehousing locations for incoming materials and outgoing goods.	Raise transportation issues with various agricultural boards and associations to highlight benefits of cooperative and centralized warehousing.	Leadership
	Agricultural storage and warehousing of transfer product is well suited to rail/trucking possibilities in County		
	Locally grown agricultural product is a growth sector supporting local trucking firms		
3	Farm sector busing is in place and necessary for workers.	Help farm owners/boards to look for ways to retain and expand farm worker busing as viable alternative to Single Vehicle Occupancy commuting	Coordination
4	Potential for business growth in ecotourism, recreational fishing and other environmentally based tourism.	Work with business, and other county departments to establish a hospitality association which will have transportation issues such as signage and access on its agenda.	Coordination
	Rural routes are well suited to scenic by-way, agri-tourism and ecotourism possibilities		
	Bayshore Heritage Route project is moving forward to supplement/build on de-funded federal Coastal Heritage Trail		
	Marinas offer opportunity for tourism expansion		
	Rails to Trails Plan shows areas for tourism and recreational bicycling walking in County		
5	Possibility of passenger light rail as far as Glassboro in future	Partner with local agencies and other governmental bodies to advocate regular/frequent scheduled transit service on state highway routes and secure a voice in the planning for the Camden to Glassboro light rail to maintain presence for continuation of the rail into County and for facilities to accommodate bus to rail links for Cumberland commuters. The County should put in place methods to promote use of light rail (and all automobile-alternative modes).	Leadership Coordination Funding
	Scheduled transit service is increasingly seen as feasible by utilizing innovative features such as mini-buses.		

	OPPORTUNITY	STRATEGY	COUNTY ROLE
6	Support for improvements, including new interchanges in Cumberland County, and extension of Route 55	Ensure that Cumberland County requirements are included in State planning for extension of Route 55 to Cape May.	Leadership
	Possibility of improvements to Route 55 could include a new exchange at South Millville Industrial Park, making it rail and truck accessible		
7	Updated and clear County Development Standard with established rights of way for all County roads will assist in logical and safe road development and should be attractive to quality developers.	Use County Development Standards to set an example for municipalities by utilizing smart growth principles inherent in the Standards.	Leadership
8	Funding availability for bridge repairs/replacement	County should act as lead planner for all its municipalities to ensure that local road bridges/culverts are in good repair to ensure retention of pan-county circulation	Coordination
9	NJ DOT and Federal support for Complete Streets presents ideas and guidance for rural and urban area enhancements.	County should act as leader in advocating for smart growth, complete street, bike and pedestrian accommodation in road/highway improvements.	Leadership
10	Expansion and coordination of existing demand-response transportation assistance to wider clientele base can focus on a limited number of targeted trip locations	County CATS system can function as central coordination for myriad targeted demand-response NGO providers as well as initiate study of alternative to scheduled transit concepts which would broaden mobility access for all County residents.	Coordination
11	The County's population density supports van and carpooling alternatives to Single Vehicle Occupancy commutes.	The County should pioneer/fund/ support a pilot project with good facilities for park & ride van pooling to one targeted large employer.	Funding Leadership
	Regional hospital is central large employer which could operate as test case for alternatives to Single Vehicle Occupancy commuting.		

	OPPORTUNITY	STRATEGY	COUNTY ROLE
12	Opportunities for developing intermodal warehousing/terminals along existing track at industrial parks.	County should encourage regional agencies to promote positive aspects of funding for the introduction of intermodal termini in County.	Leadership
	Millville Airport study identifies road and rail improvements and City is supportive of development of intermodal linkages		
	Costs for land and warehousing are lower than state and region		
	Distribution center expansion possibility in Upper Deerfield along Route 77 and RR spur		
13	Demand for fine aggregate sand is growing	The County should pro-actively provide assistance to the railroad sector for track and facility upgrades to rail within the County and should advocate for better rail connections for all of South Jersey.	Leadership Coordination Funding
	Agriculture, food processing, and oyster industry have high market value and there is room for expansion in rail shipping with track upgrades and better connections		
14	The BPU is involved in ensuring that telecommunication coverage is fairly and widely disseminated.	The County can inform and support municipalities to upgrade land lines, improve cell coverage and open up possibilities for high speed internet in rural areas.	Leadership Coordination
15	Complete Streets programs offer ideas which often have low implementation costs for rural and urban street calming, traffic control, and pedestrian safety.	Since federal legislation mandates that the region reduce Single Vehicle Occupancy miles, the County should promote and engage all its citizens in the health, economic and safety aspects of complete streets and increased walking/biking by pursuing funding for its transportation system to be demonstration project of the possibilities for mobility change in a rural, economically challenged area.	Leadership Coordination
	Low cost/low impact improvements can improve bicycling safety and experience.		
	Safe routes to schools funding combined with restricted budgets presents opportunities for consideration of alternatives to busing		

Considering the County's economic circumstance and the limited staffing of the Department of Planning and Development, the strategies suggested here must be carried out with broader County support and involvement than simply by one department's staff. To achieve a truly effective transportation system, these planning strategies should be supported by all departments of the County. More broadly, the message that a healthy inter-modal transportation system is vital to the County's success needs to be accepted broadly by County staff, by the business and industry sector, by educators and by the general populace. The most important mission of the County with regard to this Plan is to disseminate the message and strategies and persuade all stakeholders as a whole to adopt them.

To that end, the fifteen strategies proposed here are distilled into six general recommendations for the County to practice. The first recommendation is necessary to complete the five others

because overall improvement in the County transportation will not come about without a transportation system coordinator to ensure that the message is spread and that all stakeholders remain “on task” with regard to the strategies.

The six recommendations to initiate a truly inter-modal, fair, and comprehensive transportation system are:

- Appoint (can be from within existing staff) a coordinator of transportation planning for the County whose responsibility it will be to:
 - Support the County interests regionally by consistently bringing its presence to the regional table when transportation issues, such as inter-modal facilities, rail improvements and public transit routes are discussed;
 - Ensure that the adopted transportation strategies of this Plan are proactively supported by all county departments and boards.
 - Disseminate County transportation policy to the private sector by using economic development funds to advocate for business and industry practices that promote integration of transportation with land use development decisions.
- Work with all business sectors to establish cooperative worker transport which will benefit their enterprises with better worker attendance and the County environmentally with a reduction in SOVs.
- Advise and coordinate county municipalities to utilize Complete Streets philosophy when they wield their land use powers and to contemplate the extra-municipal transportation impacts of their land use decisions.
- Use grants and funds to ensure that alternative modes such as biking and walking are implemented within the County.
- Promote coordination through the CATS system of all non-NJ Transit transport providers.
- Bring together legislators, residents and business with NJ Transit and telecommunication providers to advocate for increased and improved service in Cumberland County for the economic benefit of all.

As can be seen, these six action items are, in reality, one *modus operandi* for transportation policy, i.e., a coordinated, persistent and extensive policy which recognizes the importance of transportation for the future success and prosperity of Cumberland County.

COUNTY ROAD RIGHT OF WAY WIDTHS		
Road #	Road Name(s)	Limits
90' WIDE		
CR 552	Irving Avenue / Sherman Avenue / Mays Landing Road	from CR 638 (Burlington Road) to Atlantic County
CR 552 Spur	Broad Street / Mays Landing Road	from CR 678 (Wade Boulevard) to CR 552 (Sherman Avenue)
CR 555	Dividing Creek Road / Silver Run Road	from Buckshutem Creek to CR 610 (Cedar Street)
CR 555	Wheaton Avenue / Main Road	from 'G' Street to Gloucester County
CR 627	Silver Run Road	from CR 670 (Buckshutem Road) to CR 555 (Dividing Creek Road)
CR 628	College Avenue / Orchard Road	from NJSH 47 (Delsea Drive) to Garrison Road
CR 655	Lincoln Avenue	from CR 555 (Main Road) to Atlantic County
CR 670	Buckshutem Road	from CR 638 (Burlington Road) to CR 627 (Silver Run Road)
CR 678	Wade Boulevard	from CR 552 Spur (Broad Street) to CR 555 (Wheaton Avenue)
50' WIDE		
CR 555	Wheaton Avenue	Third Street to 'G' Street
CR 610	Jones Island Road / Maple Avenue	southern end to CR 653 (Bowers Creek Road)
CR 630	Foster Road / Parsonage Road	from CR 617 (Finley Road) to CR 606 (Old Deerfield Pike)
CR 641	Market Lane	from CR 741 (Pier Road) to CR 623 (Ye Greate Street)
CR 642	Wheaton Island Road	from CR 703 (Old Mill Road) to CR 639 (Gum Treet Corner Road)
CR 648	Sayres Neck Road	from southern end to CR 553 (Main Street)
CR 651	Hands Mill Road	from NJSH 47 (Delsea Drive) to CR 550 (Mosslander Road)
CR 652	Sheppard Davis Road	from CR 648 (Sayres Neck Road) to CR 553 (Main Street)
CR 653	Bowers Creek Road	from CR 648 (Sayres Neck Road) to CR 610 (Maple Avenue)
CR 657	Rockville Road / Husted Bateman Road	from CR 648 (Sayres Neck Road) to CR 553 (Main Street)
CR 664	Turkey Point Road / Hickman Avenue	from CR 553 (Main Street) to CR 553 (Main Street)
CR 700	Old Beaver Dam Road	from western end to CR 553 (Main Street)
CR 702	Old Beaver Dam Road	from CR 553 (Main Street) to eastern end
CR 707	Hance Bridge Road	from CR 552 Spur (Broad Street) to CR 678 (Wade Boulevard)
CR 715	Pindale Drive	from CR 553 (Centerton Road) to Salem County
CR 724	Cake Road	from CR 612 (Seeley Road) to CR 689 (Harmony Road)
CR 726	John Dare Road	from CR 603 (Harmony Road) to CR 617 (Columbia Highway)
CR 729	Weber Road	from CR 711 (Northville Road) to CR 687 (Woodruff-Husted Station Road)
CR 730	Tice's Lane	from Salem County to NJSH 77
CR 734	Schoolhouse Lane	from CR 643 (Newport Neck Road) to CR 637 (Fortescue Road)
CR 736	Matt's Landing Road	from western end to CR 616 (Main Street)
CR 739	Prison Farm Road	from CR 616 (Main Street) to NJSH 47 (Delsea Drive)
CR 740	Heislerville Road	from CR 616 (Main Street) to NJSH 47 (Delsea Drive)
CR 741	Pier Road	from CR 641 (Market Lane) to CR 642 (Bacons Neck Road)
CR 743	Parsonage Road	from CR 606 (Old Deerfield Pike) to NJSH 77
CR 754	Tuska Avenue	from CR 654 (Lebanon Road) to Salem County

NOTE: All other County road Right-of-Way widths = 66'

ROW MAP

