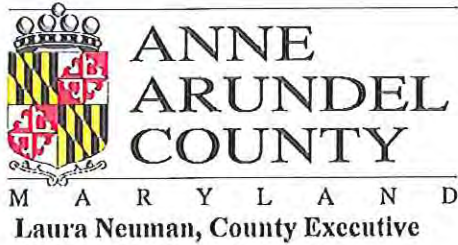




Laura Neuman, County Executive

**Transportation Commission
Of
Anne Arundel County**

September 2013 through April 2014



**Office of Planning and Zoning
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TRANSPORTATION COMMISSION of
ANNE ARUNDEL COUNTY

March 18, 2014

Laura Neuman, County Executive
Anne Arundel County
Arundel Center, P.O. Box 2700
Annapolis, Maryland 21404

**RE: Final Report of the Transportation Commission
Of Anne Arundel County**

Dear Ms. Neuman:

On behalf of the members, thank you for creating and appointing us to the Transportation Commission. We are pleased to forward our Final Report, dated March, 5, 2014. This Final Report represents the consensus of the Commission.

Your charge to the Transportation Commission was to provide near-and long-term recommendations focused on the following transportation related areas:

- Public Transportation
- Roads and Bridges
- Pedestrians and Bicycles
- Program Administration

During our deliberations we also identified a very strong relationship between transportation, land use, safety (all modes) and economic development.

The final recommendations, which build upon the Interim Recommendations of January 2014, include the Commission's visions for, and concerns about, the transportation future of the County. The essence of this report is the Commission's belief that the County must change the course of how it plans programs and administers its transportation program.

At your convenience, we look forward to meeting with you and the Administration to present the report's findings and recommendations and to obtain your feedback on this effort.

We would like to thank our fellow Commissioners for their diligent effort that required scores of hours in attending meetings and developing this report. In addition the efforts of the Office of Planning and Zoning staff were invaluable for facilitating the meetings and providing critical input and data about the transportation program. Likewise, the critical input we received from other County agencies, Maryland State Highway and Maryland Transit Administrations and the City of Annapolis staff helped shape this report.

Finally, to execute the recommendations in this report, we suggest the following:

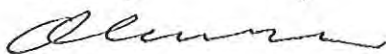
First and most importantly, the Commissioners recommend that a Transportation Commission be created as part and parcel of County government to fine tune, modify, and otherwise develop continuing recommendations to shape transportation in the County. We see transportation as a key partner with Planning and Zoning, Economic Development and Emergency Services.

Second, we recommend that nontraditional public listening sessions be held to review and/or modify the findings of this report. Nontraditional in the sense that they be held during the day at key locations including Anne Arundel Community College, Arundel Mills, one of the hospitals, and Ft. Meade.

Third, that one of the key tasks of a follow-on Commission should detail the cost, priorities and funding sources for the recommendations in this report. That is an effort that our limited time did not permit.

The Commissioners thank you for identifying the need for this effort and we offer our appreciation for being able to serve the County in the deliberations required to complete this report.

Sincerely,



Alex Pline
Co-Chair



William Nevel
Co-Chair

Enclosure

cc: Karen L. Cook, Chief Administrative Officer
Larry R. Tom, Planning & Zoning Officer
Carole Sanner, Assistant Planning & Zoning Officer
George Cardwell, Planning Administrator

Members of the Transportation Commission

William Nevel, Co-Chair, Broadneck

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Rusty Bristow, Severn

Derek Meyers, US Naval Academy

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Robert Burdon, Annapolis AA Co Chamber

Robert Reilly, Crofton

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Michael Gellner, Edgewater

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Final Report of the Anne Arundel County Transportation Commission

March 5, 2014

Executive Summary

This report sets forth recommendations of the Transportation Commission of Anne Arundel County. The County Executive established the Transportation Commission in order to provide near- and long-term recommendations focused on public transportation, roads and bridges, pedestrians and bicycles, and program administration. The Commission also recognized that County land use policies are inherently coupled with these transportation modes and provided recommendations for changes that affect the transportation network.

The Commission is very concerned about the long-standing planning and programming emphasis on an auto-centric, roadway-dominated system that encourages ever-increasing lane miles in an attempt to solve our congestion issues. The Commission recommends a reversal of this trend by focusing on maintaining and improving the existing system, paying down the County's project backlog, developing a more balanced modal system and altering land use policy to facilitate these efforts. As explained in greater detail below, the County should address each of the key transportation areas as follows.

Public Transportation

The County should fully participate in the creation of the Regional Transit Agency (RTA), conditioned on strengthening the memorandum of understanding (MOU), the document governing its establishment, to ensure that it affords full and equal partnership in all decision making for policies and operations that impact the County. Once satisfied with the MOU, the County should actively participate in the process of selecting an initial contractor and work with its partners to formalize the RTA as soon as possible. In the long term, the County should consider constructing transit centers, studying extending existing nearby light and heavy rail systems into the County, and other infrastructure improvements.

Roads and Bridges

The County must prioritize its limited funds in a way that optimizes the performance, operation, and maintenance of the current roadways. Crash and safety data should be collected proactively. The County should ensure effective coordination between land use development and transportation. Consideration should be given to implementing a "Complete Streets" policy to create communities where people have convenient access by car, transit, walking, and biking to schools,

businesses, shopping, and recreation. The County should adopt a strategy to market to state and federal funding agencies its impact on the regional economy to justify increased funding, as well as become more of an active participant in the transportation planning and operations for the larger Baltimore/Washington region. Legislation should be pursued which gives the County authority to acquire necessary land for transportation projects in an expedited manner and seize opportunities to promote public-private partnerships creating improved transportation facilities. The County should address its maintenance backlog to reduce future liabilities and streamline the County capital project development process. Further, we believe that the Transportation Commission, in some form, should be continued to facilitate effective, ongoing public input into transportation plans and policies.

Pedestrians and Bicycles

We recommend that the County establish a County Bicycle/Pedestrian Coordinator position and staff a citizen Pedestrian/Bicycle Advisory Committee. It should implement the 2003 and 2013 Bicycle and Pedestrian Master Plans. The County should integrate its bicycle/pedestrian activities with adjacent jurisdictions, State efforts and private sector development. Bicycle/pedestrian requirements should be incorporated in future road and other transportation projects, and all significant developments should include sidewalks, bicycle infrastructure and pedestrian/cycling connections to neighboring developments. Where possible, the County should seek funding opportunities to expand the network. It is important for the County to implement educational and other programs to address safety improvements for bicycling and walking.

Program Administration

The County must upgrade hardware and software technology so that it can better model and analyze County-wide transportation needs. The County's transportation efforts should be reorganized to facilitate clearer lines of authority and coordination among the many activities and functions affecting transportation. The County should allocate appropriate resources toward addressing the outstanding \$250 million backlog in transportation maintenance and repairs.

Land Use and Transportation Planning

Land use and transportation planning are intimately linked, and this linkage is implicit in all of the areas covered by this report. The Commission is very concerned with the reactive nature of transportation planning, resulting from current land use practices in Anne Arundel County. Without significant changes, the County will continue to struggle to meet the demands placed on the road network. The Commission recognizes that this is a complex problem that touches all aspects of the County government requiring many policy and regulatory changes, but unless the County begins to address the issue, we will continue with the fiscally unsustainable status quo.

Final Report of the Anne Arundel County Transportation Commission

March 5, 2014

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Mission Statement of the Commission

It is the mission of the Transportation Commission of Anne Arundel County to study the planning, design, delivery and operation of transportation services and facilities within the County; to value the cost-effective, safe, and efficient movement of people and goods in a manner which protects and enhances natural environments and quality of life; to promote the County's regional competitiveness with regards to transportation; and to provide near- and long-term recommendations to the County Executive in the form of a report regarding the County's current transportation program and future transportation planning and programs.

For the purpose of the Commission, *near-term* is defined as a period up to ten years, which includes recommendations that can begin implementation immediately. *Long-term* is defined by a period of 10–20 years, which includes recommendations that will require significant planning and funding efforts. Due to the Commission's time constraints, many of the recommendations in this report are of a short-term nature; however, we did discuss a variety of longer-term issues. Many will require significant lengths of time to bring to fruition.

Commission Process

As a first step in meeting its charge from the County Executive, the Transportation Commission gathered transportation and program related information from a number and variety of sources. County, State, and the City of Annapolis representatives from the respective transportation programs briefed the Commission on maintenance, operations, planning, construction, and funding of roads, highways, and transit. We reviewed the County's current transportation plans and held two public meetings in order to gather information from the citizens and community groups on their transportation concerns, needs, and priorities. Next, the Commission held a series of bi-weekly meetings attended by County staff and members of the public. The Commission created working groups addressing the major transportation areas, and some groups held working sessions apart from the Commission meetings. All Commission meetings have been open to the public, and the agenda of each meeting has afforded opportunities for additional public comment.

Anne Arundel County Transportation Overview and High-Level Findings

Anne Arundel County is the home of nearly 540,000 people. It is the location of more than 350,000 jobs and places of business. Anne Arundel County is situated between the rapidly growing Washington Metropolitan Area and the redeveloping Baltimore Metropolitan Area. It is adjacent to America's East Coast Main Street (I-95), the Northeast Corridor, which is the longest high-speed rail corridor in the United States, and to the Port of Baltimore, which has been expanded to accept

greater amounts of ship-borne commerce due to the widening of the Panama Canal. The County borders the Chesapeake Bay and is connected to Maryland's Eastern Shore by the William L. Preston (Chesapeake) Bay Bridge and contains one of the Nation's fastest growing international airports (BWI-Thurgood Marshall), the 22nd-busiest in the U.S., with presently more than 22 million annual enplanements. The County is therefore superbly located to take advantage of growing commercial activities and movement of goods and services.

The requirements for moving goods, services, and people compel a balancing of transportation infrastructure to achieve livable communities for County residents, mobility for its work force, accessibility to its activity centers, mitigation of environmental impacts to its resources, travel choices and options to meet its increasing and varied demand, as well as to provide opportunities to promote regional competitiveness. Land use decisions about development and redevelopment also must be linked to a transportation system that will accommodate convenient access to, through, and around new developments without creating undue congestion.

Transportation influences virtually every aspect of county community life, including its economic health. The Commission has focused on the constraints of the existing transportation system and how people move about, in, and through the County, and our travel patterns with surrounding jurisdictions. The Commission's review included by whom and how decisions are made regarding maintaining, modifying, and expanding our transportation system to best meet existing and future needs. The Commission's deliberations revealed that there is a complex structure of overlapping Municipal, County, State, and Federal agencies dealing with planning and programming resources that establish the pattern of the existing and future arterials. Often, there is a solid relationship between land use and the supporting transportation network, but this is not always the case.

The Commission discovered that the majority of transportation resources in the County are devoted to roads and bridges that carry about 90 percent of our traffic. The majority of that traffic (about 80 percent) occurs on designated State and Federal roads in the County. Yet for fair-share funding allocated for projects in the County by the State and Federal governments, the planning and programming for those projects is considerably influenced by local input. Additional unified local input is required to influence key decision makers at the local, State, and Federal levels to address the transportation needs of Anne Arundel County.

Transportation Strategies

Throughout the information-gathering phase, the Commission found recurring themes that created a number of cross-over issues. In order to address these issues and structure the discussion of the County's transportation programs and needs, these themes are summarized in the following non-prioritized strategies that describe the general approach the Commission recommends.

Balance transportation investments among automobile, transit, pedestrian, and bicycle users: Transportation investments should support mobility and accessibility needs for everyone in our community—automobile drivers, transit riders, pedestrians, bicyclists, and freight.

Address safety issues as a top priority: The safety of drivers, transit riders, pedestrians, and bicyclists should be a top priority of all County transportation investments.

Preserve and optimize the performance of the current transportation system: County agencies should work first and foremost to maintain and modernize our current transportation facilities and operate the elements of the system (i.e., roadway, transit, highway enforcement, traffic control, special event planning, and emergency response) as a comprehensive, coordinated system.

Promote economic development: Transportation investments should support economic development within the County and region by ensuring timely access and transportation alternatives for customers, employees, and freight. The County recognizes that regions with comprehensive, multi-modal transportation systems attract both jobs and residents.

Foster environmental stewardship: The County should use its transportation investments to help mitigate adverse environmental impacts associated with development and to promote active stewardship of the natural environment.

Link land use and transportation to create livable communities: The County should use land use and transportation decisions to create communities and neighborhoods where people have convenient access and transportation alternatives to schools, businesses, shopping, and recreation.

Coordinate program management: The County should effectively plan, operate, maintain, and fund its transportation facilities and services and coordinate with partner agencies to optimize the performance of the transportation system for all users—now and in the long term.

Ensure public accountability: Encouraging public input on transportation policies, plans, and investments should be a hallmark of the County's transportation program. Public agencies should demonstrate the effectiveness of their programs and report on their progress.

Public Transportation

Background

The Commission recognized that the most pressing Public Transportation issue was whether Anne Arundel County should participate in the proposed Regional Transit Agency (RTA). The Commission understood that the County has a very short time frame in which to decide whether or not to participate on the ground floor in the creation of the RTA. The RTA presents a unique opportunity to create, with neighboring jurisdictions, a regional integrated and coordinated public transportation system in Central Maryland.

Additionally, there are other short-term public transportation improvements that can be made to further the goal of providing an efficient multi-modal system throughout the County.

Proposed Regional Transit Agency

Regional Transit Agency

Regional transit agencies exist throughout the country to provide urban, suburban, and rural areas with a range of public transit services. Typically, they provide these services without regard to political boundaries, focusing on providing trips from major trip generators, such as employment centers, schools, shopping areas, medical centers, airports, recreation and leisure facilities, major events and more.

Regional transit agencies are usually governed by appointed, representative board members who plan, organize, operate, coordinate, maintain, and fund a variety of transit services. Frequently, they own and operate services, but many agencies contract for service either with purchase of service agreements, or through contractor-provided services, or combinations of all of the aforementioned. They typically coordinate with public and private entities, public works, planning and traffic departments, and with Federal, State, and other nearby jurisdictions.

In the case of central Maryland, the RTA would be an “Authority-lite” entity, because it would only have the powers granted to it by the appointing jurisdictions and would not be a municipal corporation. It would have no power to tax or raise funds other than through the appointing jurisdictions. However, it could be a stepping-stone to an eventual “Authority” with taxing or fund-raising powers, which would require State enabling legislation. This incremental approach has advantages, including allowing for time for a learning curve to develop the groundwork for an eventual Authority.

Current Services Related to the Proposed RTA

Anne Arundel County presently enters into an annual grant agreement with Central Maryland Regional Transit (CMRT). CMRT is not a municipal corporation, and it is not sponsored, coordinated, managed or directed by any public entity. Rather, it exists to distribute the subsidies it receives. Anne Arundel County provides subsidy support for three bus routes (Connect-A-Ride (CAR) Routes B, J, and K) operating on one-hour to 90-minute intervals (headways) covering Maryland City, Odenton, Severn, and northwest Glen Burnie. These routes connect residential areas with shopping and employment opportunities at Corridor Market Place and Sam's Club, Fort Meade, Arundel Mills/Maryland Live!, Glen Burnie, and Sun Valley Shopping Plaza, to note some locations. The routes also provide transfer opportunities to the MTA 14 Bus Route, the Light Rail at Cromwell Station, Baltimore/Washington International Thurgood Marshall Airport (BWI) and the MARC train station at Odenton. The routes serve the areas of the County experiencing significant growth, as well as areas where zero-to-single-automobile ownership, lower-than-average household incomes, and higher unemployment are most prevalent. Combined, these routes carry an estimated 700,000 riders annually. The County provides CMRT approximately \$800,000 annually as an operating subsidy for these routes.

The County also separately contracts with CMRT for the M Route service (Piney Orchard to Odenton MARC) for \$150,000 annually at approximately \$46.00 per service hour. The County (through American Recovery & Reinvestment Act funds provided by the federal government) provides CMRT with two 31-foot low-floor buses to operate this route. The contract is annual with an opportunity for four renewals. Presently, CMRT is in its second renewal period.

The County also provides a grant agreement to the City of Annapolis to help subsidize four bus routes, operated by the City, that provide access to major activity centers in the County, including the Westfield Mall, Anne Arundel Medical Center, Anne Arundel Community College, Edgewater, Arnold, and Parole. The present value of the grant agreement is \$135,000 annually.

Findings

The Public Transit Working Group of the Commission, after participating in Q&A sessions with County, State and City of Annapolis transit professionals and gathering other information, concluded that there are major advantages to the County's participation in the RTA. Among the advantages found by the Commission are:

- Providing economies of scale
- Supporting jobs and job growth
- Melding geographically aligned transit services
- Helping relieve peak period congestion
- Providing a single organization for coordinating bus service with rail, commuter bus, and other private transportation services

- Coordinating development of related infrastructure (transportation centers, maintenance facilities, bus shelters, and the like)
- Facilitating regional planning and coordination of fares and service
- Competing collaboratively for a greater share of State, Federal, and private-sector funding
- Simplifying accounting, planning, and managing efforts of multiple jurisdictions

The Commission also closely examined the plan for the RTA, looking for weaknesses and potential disadvantages of Anne Arundel County's joining the RTA. The Commission did not discover a deal-stopper. The most telling argument for not joining is the "unknowns," as this is a first for this region. The Commission believes that those arguments can be dealt with by creating a RTA Commission with equal representation that can negotiate appropriate and fair terms and conditions. Later, we suggest a few safeguards that should be considered to minimize this concern.

Consequences of Not Joining the RTA

The Commission reviewed the issues related to not joining the RTA in the coming months.

If the County is not a member of the RTA and thus does not have a position on the RTA's policy board, it is left with the limited options noted below, which have uncertainties in the cost, reliability, quality and availability of service beginning in July 2014, when the existing contract(s) expires.

As a consequence of not entering into the RTA, the 700,000 trips previously noted would have to be made by automobile or another means. Recent travel surveys conducted by CMRT noted that approximately 70% of all transit trips are work-related. Consequently, those trips would need to be replaced or these jobs will likely be lost for many of the present riders.

County's Options If It Does Not Join the RTA

If Anne Arundel County is not included in the RTA, it has three options for continuing existing service:

Option 1: Assume that CMRT will continue to operate fixed-route transit after Howard County's service is assumed by the RTA, thus reducing CMRT's current annual funding by approximately 70%.

Currently, CMRT indicates that the cost of service is approximately \$82.00 per hour across all the CAR routes. That cost is averaged across all eight CAR routes that receive subsidies from Howard and Prince George's Counties, along with the City of Laurel. Once Howard County ceases to fund CAR service, the remaining subsidy will be borne by fewer jurisdictions, thus raising the average cost. The three county-subsidized routes are the longest of the eight, both in terms of hours of service and miles of coverage, leading to higher costs. If the subsidy is not increased, the

amount of service will need to be reduced, leading to fewer hours of service and fewer miles of coverage, and ultimately reducing the ability to meet demand. Other jurisdictions (Prince George's County, City of Laurel) may also opt out, further reducing the amount of funding made available to CMRT.

This is not a desirable option.

Option 2: Prepare a Request for Proposals (RFP) soliciting interested operators to provide both service and transit equipment.

If the County chooses to seek a different operator, previous history shows that the rate per hour of service will be greater than the current \$82.50 per hour. It is unlikely that only three County routes (currently running in the CAR package) will attract bids from reputable operators. Further, the County does not own the rolling stock (buses) needed to service these routes. This would further increase the cost of service, as the depreciation of the leased vehicles would be added to the hourly operating cost. In addition, the six-month period between January and June of 2014 does not offer enough time for a traditional Purchase of Service procedure to obtain contract services without endangering the continuation of transit services starting on 1 July 2014.

While this option is superior to Option 1, it is likely to lead to higher costs for less service than what is presently available.

Option 3: Enter into a grant agreement with either Howard County or The City of Annapolis to replace current service provided by CMRT.

The County could contract with another "creature of the State" (a municipal corporation with a transit system, such as Annapolis) or Howard County, which would engage the services of the RTA. In doing this, Howard County (through the RTA) would set the rate for hourly service. The rate would most likely be higher than the bid by Howard County, which developed the RTA, considering the need to provide supplemental service, thus requiring added labor and equipment. A similar circumstance occurs with Annapolis, which would have to hire or contract for additional labor and equipment. Additionally, the Annapolis garage has very limited space. Neither of these costs is known, but a safe assumption is that either the County would be paying for less service at the same grant level or additional funding would be required to maintain the existing minimal levels of service. In both instances, the County's only control over quality and quantity of service is the grant agreement, which does limit the County's liability but offers minimal oversight of the quality of the service.

While this option is superior to Options 1 and 2, it does not appear to be a rational choice to contract with neighboring jurisdictions that simultaneously would be operating a "regional" transportation service that would exclude the County.

MOU Governing the Creation of the RTA

Presently there is a draft Memorandum of Understanding (MOU) under consideration that would be the bedrock agreement to create and govern the RTA.

The MOU, if executed, would be an agreement among Anne Arundel County, Howard County, the City of Annapolis and other interested jurisdictions that establishes the procedures for creating and governing the RTA. It allows the jurisdictions signing the MOU to become part of the process of selecting an initial contractor, a step that must occur because of time constraints before the actual creation of the RTA. Procurement and contracting procedures, as well as drafting, editing, and adopting operating and administrative policies, take time—and a true deadline looms on July 1, 2014. The time lost by not signing the MOU jeopardizes the success of this valuable effort.

The MOU is a logical first step to the creation of the RTA. It addresses many of the key areas that the jurisdictions must ultimately agree on when forming the RTA. As noted in the “Recommendations” sections, parts of the MOU need to be strengthened.

Recommendations

For the reasons discussed below, the Commission recommends that Anne Arundel County fully participate in the creation of the RTA. As a first step to becoming a member of the RTA, representatives of the County should immediately begin to work with their counterparts from other jurisdictions to strengthen the MOU to ensure that it affords full and equal partnership in all decision making for policies and operations that impact the County. After Anne Arundel County signs the MOU, it should actively participate in the process of selecting an initial contractor and work with the other partners to formalize the RTA as soon as possible.

We applaud the designers of the MOU, a significant first step toward formally bringing interested jurisdictions together to create the RTA. The MOU contemplates an approach far superior to the options outlined above in which each jurisdiction independently purchases bus services in the current uncoordinated manner. Instead, the MOU complements the RFP that is now under consideration. It would replace piecemeal service in northwest Anne Arundel County, Howard County, and parts of Prince George’s County with coordinated service. It provides an organizational structure that would coordinate service, schedules, and fares. It would create a “one brand” approach focused on providing service to major employers, shopping, medical, schools, and the like—based not on political boundaries but on service needs. The Commission sees tremendous advantages to the creation of a single forum to create, arbitrate, coordinate, and negotiate existing and future service on a regional basis.

The major advantages offered by the MOU in its current form (the Commission reviewed the draft dated November 11, 2013) are:

- It creates an organization that can oversee transit services with a regional perspective.
- It provides a catalyst for working with other jurisdictions in the region, which may lead to other joint public and private initiatives.
- It results in cost savings from economies of scale, which can be invested in badly needed expansion and frequency of service.
- It offers the County greater control of the planning of transit service and the delivery of that service to its residents as customers of the service.
- It eliminates artificial boundaries, enabling services to be provided to BWI, Fort Meade, NSA, and National Business Park, and better connects our work forces—for example, in Glen Burnie, Annapolis, Severna Park, Odenton, Crofton, Davidsonville and other communities—to areas outside our County.
- It increases the success of an eventual Regional Transportation Authority, which requires State enabling legislation.
- The agreement is non-binding and the organization can be adjusted as required to protect the interests of Anne Arundel County.

The Commission recommends that Anne Arundel County representatives work with their counterparts from other jurisdictions to make the MOU be more instructive, that is, to have more “teeth.” We believe it would be best for Anne Arundel County and the other executing parties to agree to as many of the key terms now that will define the expectations and relationships among the parties, in order to minimize possible contentious issues for the appointed RTA Commission. It is recommended that sufficient safeguards be established in the MOU to protect everyone’s interests. Some of these safeguards might include the following: appointment of commissioners from each jurisdiction; voting powers (for example on regional issues vs. local issues); power to amend the by-laws; calling meetings; selection of the contract manager; and deliberating on decisions and actions between the date of executing the MOU and establishment of the Commission, among others. These safeguards should automatically roll into the RTA’s by-laws by means of the amendment provisions and be adjusted as the RTA gains experience. The sooner the executing jurisdictions agree to the initiating conditions and establish the RTA, the sooner the number of “unknowns” can be minimized. This will lead to an organization capable of coordinating, controlling, and managing the transit services in Anne Arundel County and neighboring jurisdictions, and overseeing their costs.

Other Public Transportation Improvements

Local and Regional Bus Service

Today, much of the roadway congestion in Anne Arundel County occurs during peak hours. Federal, State and County economic realities, coupled with very high construction costs, will prevent significant road infrastructure upgrades aimed at solving peak congestion problems. Mitigating these problems will require a

different approach. Shifting a small percentage of users from single occupancy vehicles to transit can have a significant effect on reducing congestion during these periods. As discussed above, much of the transit (bus service) in Anne Arundel County is at near subsistence levels, and is not sufficient to attract “choice riders” who would voluntarily switch from driving to public transit or to a mix of transit and walking/biking in urbanized areas. There are a number of factors that influence those riders’ choices—principally that the service must be timely, convenient, and take people where they need to go.

The County should employ a number of longer-term strategies through the proposed RTA to attract a higher ridership. These strategies build on the earlier recommendations in this report and are a mixture of increased service, better coordination between various service providers, better technology, and targeted transit infrastructure upgrades.

Foremost, the number of fixed routes should be increased, and service levels improved to twenty-minute headways (interval between buses), in order to connect population centers such as Annapolis, Odenton, Parole, Glen Burnie, and Pasadena with work/education centers such as Fort Meade, BWI, Arundel Mills, Annapolis area Malls, medical centers, and community college campuses. The schedules for the buses that serve employment centers must tie times to employment hours, including non-commuting hours typical of service workers.

The County should create a network of intermodal or transit centers in locations that facilitate connecting people with employment centers. The centers should include quality transit as described above with integrated park and ride facilities and pedestrian and bicycle access, and should allow for a seamless mixture of modes. These centers should be geographically dispersed around the county in or near population centers, which can begin with the proposed center at Arundel Mills/Maryland Live! and be expanded to the Odenton MARC Station and the Annapolis/Parole area. In other areas where redevelopment could create transit supporting population and employment densities, intermodal centers should be considered during the planning process. Furthermore, regional bus service provided by the proposed RTA must be integrated with other regional services provided by the Maryland Transit Administration (MTA) and the Washington Metropolitan Area Transit Authority (WMATA), especially for commuter routes into Washington DC and/or Baltimore.

In order to make these bus improvements attractive to users, physical and technological modifications are required to the bus infrastructure. Bus shelters must be added and commuter parking lots must be created or expanded, especially on the east side of the Severn River Bridge. A unified website and mobile app showing the current location of GPS-enabled buses is critical for route planning and minimizing waiting time. This infrastructure must be high-quality and well-maintained.

By working with the MTA and the State Highway Administration (SHA) and regional planning organizations, the County should evaluate/fund studies for premium bus/bus rapid transit (BRT) between Annapolis and Washington DC and Annapolis and Baltimore. BRT uses existing roadways with preferential priority and is aimed at commuters in an effort to reduce the key issue of peak congestion. Assigning priority to transit significantly shifts the value proposition between driving and transit use and provides many of the benefits of fixed rail, but without the additional high capital infrastructure costs, making such projects more competitive for limited State and Federal funding support.

Finally, the County should build on the proposed Regional Transit Agency to eventually create a Regional Transit/Transportation Authority to allow for greater flexibility and expansion of these services. Additionally, innovative public-private partnerships should be sought to fund these services.

Rail

Western, northwestern, and northern Anne Arundel County has—or is in close proximity to—world-class light and heavy rail service. Yet, such service barely penetrates the County’s borders to its population centers.

The County should support and seek the extension of the MTA Light Rail Yellow Line from BWI Business Park Station to Dorsey MARC train station. This extension would address transportation needs in the fastest growing and most congested areas of the County, which also contains many of its largest employers, including BWI Airport and Fort Meade.

Other short-term plans should identify opportunities to create more Amtrak and MARC stations and better connections to the Northeast Corridor and CSX (MARC) lines. The County should enhance the interconnectedness of MARC/Amtrak stations with other transit modes (e.g., bike racks, parking, bus scheduling, etc.), including allowing bikes on trains. Future intermodal centers should be designed with rail retrofit in mind so that they can accommodate trolley tracks or light or heavy rail, even if the tracks come years later.

Turning to long-term goals, the County should “go back to the future.” Downtown Annapolis once enjoyed rail connections to Baltimore and the Odenton area. The WB&A Electric Railroad ran from Annapolis through Odenton to Annapolis Junction (at the Northeast Corridor) and Annapolis through Linthicum to Baltimore. These corridors still exist.

The County should fund, co-fund, or promote studies to evaluate the following rail extensions as well as identify and take steps to preserve existing and future rail corridors:

- BWI to Annapolis (MTA Light Rail)
- Odenton to Annapolis (MARC)
- New Carrollton to Annapolis via Route 50 (Metro extension).

The County should recognize its potential to play a significant role in the movement of freight along the Eastern seaboard and the possibility of being a significant distribution center. The dominant form of transportation for many goods is containers moved by ship, rail, and truck. The County is in close proximity to Baltimore harbor, which has large container terminals; CSX, one of the two largest railroads in the East, is expanding its intermodal container yards and facilities near the northern part of the County and eastern Howard County. The County should study and play a role in such activities, since they are job creators. The County should look to large companies that need distribution centers, such as Walmart and Amazon, which may want to locate such facilities in the northwest part of the County.

Roads and Bridges

Background

Anne Arundel County is an integral part of the transportation and economy of the greater Baltimore/Washington region and a major “crossroads” for the larger mid-Atlantic region. The County hosts major regional economic generators including BWI/Thurgood Marshall International Airport, Fort Meade, National Security Agency, Arundel Mills/Maryland Live!, National Business Park, and the City of Annapolis. All of this vital economic activity brings increasing demand for transportation.

The Commission recommends a balanced approach to meeting these demands now and in the future. Highway congestion may be seen as an economic problem rather than an engineering problem. No jurisdictions have been able to “build their way out” of congestion; simply adding more lanes of highway induces more travel during peak periods, and soon the roads are just as congested as they were before. However, increasing highway congestion can be mitigated with coordinated transportation and land use strategies that include needed highway construction in combination with tailored land use policies, targeted traffic demand management strategies, efficient operation and maintenance of current highway facilities, and safe/convenient transit, pedestrian, and bicycle alternatives.

Findings

- There are approximately 5,000 lane-miles of roadway in the County; roughly 75 percent of which are County-owned roads and the rest State-owned. About 70 percent of automobile travel in the county occurs on State roads, which consequently experience the most congestion. The majority of the County’s highway transportation planning and construction funds are spent to address congestion on State-owned roads.

- The County does not proactively collect/maintain comprehensive crash data, traffic counts, and/or travel surveys to guide decision making.
- The County's current transportation and land use policies have been designed to support and encourage automobile travel. Transportation for pedestrians, bicyclists, and transit riders has been a lower priority.
- Mitigating current highway congestion by building additional lanes and intersection improvements is a top priority in the current County transportation plans. Addressing safety problems is not a major factor in prioritizing projects.
- Most of the current planned highway construction projects focus on the fast-growth area around Ft. Meade and Arundel Mills.
- Projects to optimize the capacity of the current system (maintenance, signal timing, lighting, safety programs, traffic enforcement, and emergency response) are underfunded.
- There is a \$250 million backlog of maintenance projects that, unchecked, is a growing liability.
- There is an evolving commuter shift from Baltimore to Washington by county residents. The County exports about 40 percent of its labor force to Washington and imports about 45 percent of the workforce from Baltimore.
- The County has partnered with private developers to fund the construction of highway improvements as part of larger private development plans. The costs of highway construction by these private developers is often much less than it would cost the County, due to procurement laws and regulations of local, State and Federal entities.
- Unlike Federal and State transportation agencies, the County does not have the legal authority to take property for highway projects through eminent domain and must have a willing seller to purchase property. This can cause long delays in critical highway projects.
- The public capital transportation project development process is time- and labor-intensive, resulting in higher project costs.

Recommendations

- In the near term, the County should give priority for funds to optimize the performance, operation, and maintenance of the current roadways (traffic signal timing, lighting, reversible lanes, and intersection improvements). A value-engineering review of current capital, operating, and maintenance projects could be used to identify projects for funding.
- The County should proactively collect and analyze crash and safety data for prioritizing roadway improvements (including enforcement) to address safety problems.
- The County should evaluate its organization structure, planning, and approval process to ensure effective coordination between land use development and transportation.

- The County should implement a Complete Streets policy to help create vibrant communities where people have convenient access by car, transit, walking, and biking to schools, businesses, shopping, and recreation.
- The County should increase public and private sources of funding for transportation including: (1) document and effectively market to State and Federal funding agencies the County's impact on the regional economy to justify increased funding; and (2) study and benchmark transportation funding processes and sources in similar counties and recommend improvements and new strategies.
- The County should become a more active participant in the transportation planning and operations for the larger Baltimore/Washington region. In addition to its participation in the Baltimore Metropolitan Planning Organization (MPO), the County should be represented in the Washington regional planning organizations.
- The County should continue the Transportation Commission to facilitate effective, ongoing public input into transportation plans, budgets, and programs. The Transportation Commission could provide analysis, comments, and suggestions to the County Executive and County Council.
- The County should evaluate and, if a favorable finding is made, pursue legislation to give the County authority to acquire the necessary land for transportation projects in an expedited manner comparable to the State's "quick take" procedure.
- The County should address the maintenance backlog to reduce future liabilities.
- The County should streamline the capital project development process to reduce costs through such concepts as innovative contracting and public/private partnerships.
- The County must work closely with the SHA to ensure the long-term investment in the maintenance and upgrade of the key corridors outlined in the Corridor Growth Management Plan, so that they are not allowed to deteriorate.

Pedestrians and Bicycles

Background

Bicyclists and pedestrians are legitimate road users who have the legal right to use our roadways. Each time a person walks or rides a bicycle instead of driving, our region experiences a direct positive effect in reduced traffic congestion and air pollution. The county's topography is both rolling and flat and is generally well suited for bicycle and pedestrian travel. The wide-ranging benefits of cycling and walking for transportation can improve all areas of Anne Arundel County by creating more healthy and prosperous communities and reducing the impact of congestion and air pollution on the County's and the State's many crowded roadways.

Findings

The County recognizes the opportunity that bicycle and pedestrian facilities present as an integral element of its broader multi-modal transportation network to balance the needs of all users. The County has prepared transportation impact studies; two Bicycle and Pedestrian Master Plans over the last 10 years; and Land Preservation, Parks and Recreation Master Plans that address walking and bicycling.

Studies have estimated that approximately 30 percent of all transportation trips in the County are less than 2 miles in length and could be served by bicycling or walking (1-mile to ¼ mile radius) if safety were improved.

The State and the County have made significant progress in upgrading sidewalks and bicycle lanes along State roadways and recreational areas. However, bicycling and walking depends on the availability of safe and comfortable roads, and gaps or missing sections of sidewalks or bicycle lanes are major obstacles.

A staff-level champion and single point-of-contact for pedestrian and bicycling infrastructure coordination, planning, and design does not exist within the County government.

The State has budgeted more than \$194 million for bicycle- and pedestrian-related projects between 2013 and 2019. Without a dedicated Bicycle and Pedestrian Coordinator, the County is limited in accessing State funds (or Federal funds by the Metropolitan Planning Organization) to improve walking and bicycling.

Urban areas and suburban corridors in the County (including the City of Annapolis) have the greatest potential to support safety improvements for walking and bicycling to complement investments in the transit system. Vehicle-bicycle and vehicle-pedestrian collisions are too common an occurrence on County and State roadways, resulting in injuries and/or worse, the occasional fatality.

Recommendations

Establish a County Bicycle/Pedestrian Coordinator position and recruit a talented professional to be responsible for:

- Integrating County bicycle/pedestrian activities with the City of Annapolis, other adjacent jurisdictions, major employers, and State efforts;
- Providing technical review of development projects to ensure that bicycle/pedestrian requirements are incorporated and the transportation impacts are mitigated;
- Seeking other sources of funding opportunities to expand the bicycle and pedestrian network;
- Prioritizing facility improvements by securing grant proposals or local funds;
- Implementing educational programs with business leaders, media, law enforcement, transit agencies, and other stakeholders to support walking and bicycling;

- Staffing a citizen Pedestrian/Bicycle Advisory Commission;
- Tracking progress toward implementing the 2003 and 2013 Bicycle and Pedestrian Master Plans;
- Implementing a Complete Streets policy and pursuing corresponding implementation legislation for Anne Arundel County;
- Dedicating a specific percentage (e.g., 10 percent) of the Capital Improvement program's annual funding to address *safety improvements* for bicycling and walking.

It is always easier to include bicycle and pedestrian accommodations during development rather than after the fact. The county should review and revise codes and design manuals to require sidewalks, bicycle infrastructure and pedestrian/cycling connections to neighboring areas in all significant developments.

Program Administration

Background

The County needs to address how it delivers transportation services across a broad array of bureaus, offices, and departments that loosely or informally coordinate efforts to plan, fund, organize, deliver, and maintain services. Accountability and focus of effort are needed to supplant the number of transportation-related personnel, funding, and output.

Findings

The County has professional transportation staff located in Office of Planning & Zoning, Department of Public Works, Department of Aging & Disabilities, Department of Inspections and Permits, and Department of Recreation and Parks. The staffs are limited in number, which reduces their ability to be proactive in engaging and addressing challenges to the County's transportation system of roads, trails, sidewalks, public and specialized transit, and park-and-ride lots. The ability to obtain, analyze, and react to data becomes even more crucial in the County's reactive mode.

The County is well-equipped in some areas of current technology and lagging in other areas. Although there is room to grow and upgrade, the County generally has state-of-the-art Geographic Information System (GIS) software and knowledgeable GIS and research staff. However, County departments engaged in transportation services suffer from the lack of supporting technologies and infrastructure. The current limitation is twofold: (1) its network speed is severely limited in capacity and (2) it lacks adequate network/server space. This combination limits the amount and speed of data that can be processed. While upgrading network capacity and response is necessary, having staff to own, manage, and control the quality of available data is paramount to using data to provide consistent support to transportation decision making.

The problems noted above in data creation, management, retrieval, and analysis occur not only within the transportation agencies, but throughout the County as well. The County is establishing a Land Use Technology Board, comprised of the agencies noted above, to evaluate and identify the current and long-term technology needs with the intent to upgrade and integrate existing databases and introduce digital document management, including digital review of applications. Numerous databases are currently being managed independently in various departments for similar but different purposes. There is some overlap in data, although the many databases may not be maintained uniformly across agencies. This situation makes it difficult for the County to provide accurate and timely analysis of data on specific requests outside of the original database purpose, mostly at the expense of quality control. In other words, when a specific data request comes in, it usually requires data to be gathered from multiple existing databases and manually synthesized to correct for anomalies in how the databases are designed and maintained. In order to address these concerns, the County must be able to better exploit these databases to prioritize expansion projects based on safety and demand (population and employment) data, to address network deficiencies (crash, travel demand, facility condition), and to evaluate transit route functions (population, income, support facilities).

Recommendations

Transportation programs can be more effectively managed if the following challenges are addressed:

The County should upgrade hardware and software technology that will improve access to timely data, data collection, and data management for use in measuring County-wide transportation needs. Key benefits from this upgrade include:

- Improved and timelier decision making, an enhanced ability to prioritize planning and work efforts, and establishment of a solid foundation for evidence-based decision making.
- Improved economic growth modeling to facilitate the use of transportation data and infrastructure as economic development drivers.
- Improved anticipation of transportation needs that result from zoning decisions, as well as better planning for common transportation infrastructure requirements when determining permitted land uses in various zoning classifications.
- Improved long-range transportation planning and capital resource allocation.
- Improved technology and access to timely data, a more collaborative organizational structure, and higher levels of confidence in decision making to enhance the stature of transportation efforts, thereby improving the ability to influence outcomes and become an equal partner in the County's planning and development efforts.

The County should reorganize its transportation efforts to facilitate clearer lines of authority and coordination among the many activities and functions affecting

transportation planning, construction, and maintenance, as well as interaction with State and adjoining jurisdictional agencies. Specifically, the County should:

- Evaluate reorganizing the transportation effort away from a traditional hierarchal structure to a horizontal collaborative structure that promotes better communication, information sharing, and coordination among different transportation functions in the Administration and with agencies at the State level and with adjoining jurisdictions.
- Exploit opportunities to advance projects. As a corollary to this suggestion, the Administration may want to consider establishing an “Innovative Contracting Branch” with participants from Purchasing, Budget, DPW, and the Office of Planning and Zoning to leverage public/private partnerships for innovative financing that may stretch public dollars by using private resources that, will yield the benefit of advancing projects in a more timely manner, reduce future project costs, and delivering projects faster to support anticipated demand.
- Review personnel needs and requirements, delineation of job duties, knowledge depth and experience, and training to maintain currency in transportation best practices.

The County should allocate appropriate resources toward addressing the outstanding \$250 million backlog in transportation maintenance and repairs. Failure to do so will unnecessarily incur additional expenses as infrastructure continues to decline and potential safety problems become concerns that can no longer be ignored.

The County should identify sources of funding for underwriting an effective County-wide transportation effort. This effort should:

- Explore opportunities for using County dollars to leverage and improve access to State funding for addressing transportation needs.
- Evaluate the adequacy of State transportation dollars distributed to the County.
- Consider establishing a local dedicated funding source for addressing County transportation needs.

Land Use and Transportation Planning

Background

The Anne Arundel County General Development Plan (GDP) is used by County, State, and Federal agencies, citizens, developers, consultants, community associations, and others as a guide for growth and development, land preservation, resource protection, and provision of infrastructure and services. Specific to this plan is the effect of growth on the transportation network in and through the County. According to the US Federal Highway Administration, “The role of transportation professionals is evolving and more frequently requires them to understand how transportation investments can be consistent with the principles and practices of

land use planning and development. At a minimum, the coordination of land use and transportation requires that those concerned with the well-being of a community (or region, state or nation) assess and evaluate how land use decisions effect the transportation system and can increase viable options for people to access opportunities, goods, services, and other resources to improve the quality of their lives. In turn, the transportation sector should be aware of the effects the existing and future transportation systems may have on land use development demand, choices, and patterns.” It must be understood that making a land use decision is equivalent to making a transportation decision.

Findings

In the Transit Orient Development (TOD) area near the Odenton MARC Station, and along specific corridors per the Corridor Growth Management Plan (CGMP), transportation infrastructure is a central feature in planning. In TOD designated areas especially, the planning of the development revolves around multiple modes—transit, walking, biking, and cars—providing residents choices that meet their specific needs and abilities as additional development occurs. As a result, higher densities and economies of scale are possible without the traditional need for increased road lanes.

Elsewhere in the majority of Anne Arundel County, transportation planning happens as a result of development of zoned areas based on very broad use categories as described in the GDP. These uses may have widely differing transportation requirements; thus, the effect on the macro transportation network is not known until development plans are submitted. This process forces the County into a reactive, “catch up” posture that is typically handled by extending existing auto-based infrastructure. Ultimately, this single-mode focus results in congested local/rural roads that were never intended for the levels of use they experience. In addition, ever-widening local roads end up serving neither the purpose of a road (conveying traffic efficiently) nor the purpose of a street (providing opportunity for economic development) very well. Without a holistic view of land use and transportation, we will continue in the status quo.

Adequate Public Facilities (APF) analyses and impact fees are the traditional methods used by the County to mitigate the effects of any particular planned development within a specified zoning use. Other than at a very high level in planning documents (e.g., GDP and CGMP) this is the first real intersection between land use and transportation planning. When these analyses are done and mitigations proposed, they are tactical, local, and specific to the particular project under review. There is little or no strategic focus on the broader transportation network. As a result, APF is a purely reactive response.

The current standard is: “Road facilities in the impact area are considered adequate if they meet a minimum Level of Service (LOS) “D” and have an adequacy rating of not less than 70 as defined by the county road rating program.” Based on the

experience of Commission members living and working in the County, this does not meet the average citizen's common-sense concept of "adequate." Thus, changes are necessary in the way the County manages land use and the transportation network. We recognize that this is a complicated issue and there are many facets to consider, but generally a more strategic focus is needed. Consideration of the effect of proposed developments on the transportation network as a whole, not just the immediate auto-based road network, and how specific development fits in with the strategic land use plans is critical. Higher densities in additional Transit Oriented Developments or true mixed-use developments in restricted geographical areas are examples that provide citizens with services they need and desire, along with various mobility choices.

The County's land use pattern has evolved over decades of development, redevelopment, and regulation and cannot be altered quickly. Likewise, planning, design, and delivery of intensive transit systems such as heavy and light rail take decades to complete, particularly when funding from outside sources is necessary. During the preparation of the 2009 GDP, the Office of Planning and Zoning prepared travel demand forecasts for all major roadways in the County. The purpose of this task was to determine the anticipated impact of growth in population of almost one-third (31.1 percent) and in employment by one-eighth (12.1 percent) between 2015 and 2040. The travel forecast showed that, without major changes in the type and amount of transportation capacity provided (which is predominately highway capacity), travelers would experience substantially longer periods of congestion. This finding clearly demonstrates that the transportation methods used by the County, and products or facilities provided by it, must change.

Recommendations

The Commission suggests the following broad recommendations to better link land use and transportation:

- Consider transportation as early in the development process as possible.
- Broaden the impact area to include not only immediate access infrastructure, but also the local area network.
- Change codes to include bike/pedestrian/transit infrastructure in APF mitigations, not just roads.
- Factor in existing and available area transit (as is done with TOD) with the allowable uses.
- Link land use/transportation planning, zoning, staffing, funding, and operations and coordinate the execution of transportation programming with all appropriate County departments.
- Review and rewrite County codes and manuals to be consistent with the land use and transportation strategies put forth herein.
- Pursue travel demand management strategies to mitigate demand on the existing road network. Managing demand can be a cost-effective alternative to increasing capacity, or at the very least can delay the need for costly capacity increases.

Conclusion

Overall, the Commission recommends that Anne Arundel County coordinate and invest in a comprehensive, multi-modal transportation network to empower its residents and workers with a broad range of transportation choices that will result in a prosperous and sustainable region. Because about one third of the residents in the County will not be able to drive in the next decade, the County needs to change its emphasis on an auto-centric transportation system while still providing for the safety of its users and the mobility needs of its residents. This transformation will require a significant change in land use management. At the same time, the County needs to better maintain its existing road network before the maintenance backlog blooms to an unmanageable level and should improve the way its transportation activities are managed. In addition to selectively adding roadway capacity, increasing its supply of transit services, and enhancing and adding to the pedestrian and bicycle network, the County should embrace and implement strategies to reduce congestion on major arteries and better connect our County with the world-class cities in the region.

