



ARLINGTON COUNTY, VIRGINIA

**County Board Agenda Item
Meeting of September 26, 2009**

DATE: August 10, 2009

SUBJECT: Arlington Transit (ART) Enhanced and New Services for FY 2010 & FY 2011

C. M. RECOMMENDATIONS:

1. Approve enhanced and new ART services in FY 2010 & FY 2011 as follows:
 - ART 41 Extended Weekday and Weekend Service (October 2009 Implementation);
 - ART 75 Weekday Peak Period Route Extension to Shirlington (January 2010 Implementation);
 - ART 74 Restructuring (April 2010 Implementation);
 - ART 45 New All-day Weekday Route (Summer 2010 Implementation);
 - ART 41 Weekday Service Enhancement (October 2010 Implementation); and
 - ART 75 Midday Service (April 2011 Implementation).

2. Authorize an additional FTE permanent county-funded position in the Department of Environmental Services (DES) Transportation Division, Transit Bureau to support ART operations.

ISSUES: The proposed enhanced and new ART services will be accommodated within the existing adopted budget for FY 2010, but will require additional expenditures in FY 2011 and FY 2012.

SUMMARY: When the Board adopted the FY 2010 budget, the Board asked the County Manager and staff to develop a proposal for enhanced services on the ART 41, 75 and 74 routes. In addition, the Board has asked staff to develop a new route to improve services to the Sequoia property in anticipation of the Department of Human Services relocation in FY 2011.

This proposal includes the following schedule of enhanced and new services:

- ART 41 Extended Weekday and Weekend Service (October 2009 Implementation);
- ART 75 Weekday Peak Period Route Extension to Shirlington (January 2010 Implementation);
- ART 74 Restructuring (April 2010 Implementation);
- ART 45 New All-day Weekday Route (Summer 2010 Implementation);

County Manager: _____

County Attorney: _____

Staff: Stephen Del Giudice

- ART 41 Weekday Service Enhancement (October 2010 Implementation); and
- ART 75 Midday Service (April 2011 Implementation).

DISCUSSION:

INTRODUCTION AND SERVICE CONTEXT

This proposal establishes a viable short-term direction for the ART program in accordance with the policies and implementation measures included in the Transit Element of the Master Transportation Plan, as adopted by the County Board in June 2009. This proposal is not a substitute for a more extensive 6-year Transit Development and Coordination Plan (TDCP) that staff will initiate in FY 2010. The TDCP is now a requirement of the Virginia Department of Rail and Public Transportation.

ART is undergoing a major transition from a program that provided peak period weekday feeder service connecting neighborhoods to the Metrorail system, utilizing light-duty vehicles with little in the way of supporting facilities to more of a line haul local transit program that provides all-day and weekend service connecting Arlington's commercial districts, employment centers and neighborhoods. To support this transition, ongoing investments in both the fleet and facilities are required. The previous purchase of land and buildings for the ART maintenance facility and the acquisition of heavy-duty buses have been essential to supporting this transition. The transition in the service is reflected in the ridership trends. In the five-year period between FY 2004 and FY 2009, ART ridership has expanded from 674,806 to 1,428,827 passengers. The proposed enhancements are intended to further expand ridership and reduce dependency on single occupancy cars.

OPERATIONS

FY 2010 Base Program

The base program adopted in the FY 2010 budget includes major changes to ART service. These include the following:

- A full year of operations for ART 77 between Shirlington and Courthouse (service started June 8, 2009);
- The assumption of the Metrobus 22b service and the integration with ART 82 as a new ART 87 route, providing connections between Shirlington, Nauck, Arna Valley, Pentagon City and Pentagon (service started June 29, 2009); and
- The assumption of the Metrobus 24p route on weekdays as the ART 42 (service to be implemented September 29, 2009).

These changes expand ART annual revenue hours of service from 55,096 in the adopted FY 2009 budget to 73,855, a 34% increase in revenue hours. As ART assumes operation of the two Metrobus routes (i.e. route number 22b and 24p), some subsequent adjustments to schedules, service and budget will be necessary to respond to actual passenger loads and schedule adherence. For example, the passenger demand for the ART 87 service has exceeded

expectations, and staff has already added an additional bus during the peak periods to meet the increased demand for service.¹

The 2010 base program also includes major changes to operations. ART starts the FY 2010 with a new operations and maintenance contractor, Forsythe Transportation, as the result of a competitive procurement process. As part of this procurement process, Forsythe Transportation assumed operation of the City of Falls Church GEORGE bus service on July 6. Working collaboratively with the City of Falls Church, the Northern Virginia Transportation Commission and WMATA, Arlington staff has overseen this transition.

FY 2010 Proposed Service Enhancements

The following proposed service changes address ongoing service issues across the system that can be achieved with the existing fleet. As noted in the Fiscal Impact section of this report, the costs associated with these service changes will be absorbed in the approved Arlington Transit operations budget for FY 2010. They will require approximately \$ \$415,433 in FY 2011 and \$567,570 in FY 2012.

ART 41 Extended Weekday and Weekend Service (October 2009 Implementation)

The ART 41, the most successful route in the ART system, carried 757,027 passengers in FY 2009. This route regularly experiences overcrowding both on weekdays and on weekends. There is a demand for more service, especially an extension later into the evening. Staff recommends that weekday service begin earlier in the morning at 6:00 am to relieve overcrowding on the earliest runs now at 6:30 am. The service would also be extended from 8:30 pm to 11:15 pm on weekdays.

The weekend ART 41 service is also very successful and the buses are often severely overcrowded. Staff recommends an additional bus during the day on Saturday and Sunday, and an extension of the evening service on Saturday until 11:00 pm and Sunday until 8:30 pm.

These improvements to the ART 41 service will add additional miles of service to the fleet, but will not require additional vehicles. There is a high demand and operational need for an improve span of service and staff recommends that these changes be implemented by the 2nd quarter of FY 2010. The net cost estimate for these additional services will be approximately \$130, 496 for FY 2010, \$128,491 for FY 2011 and \$134,755 for FY 2012.

¹ The estimated net cost for this additional peak period service, four revenue hours per weekday, is \$52,215 for FY 2010, \$38,788 for FY 2011 and \$40,727 for FY 2012. This and subsequent estimates of net costs are based upon the gross cost estimate minus projected fare revenue, other revenues or contributions, and estimated state operating cost reimbursements.

ART 75 Weekday Peak Period Route Extension to Shirlington (January 2010 Implementation)

The current ART 75 provides peak service from Ballston to the west end of Columbia Pike and on to Wakefield High School at half hour headways. This route is the most productive of ART's peak period shuttle routes and there has been ongoing community interest in extending this service to Shirlington. The proposal is to extend the route through Clarendon and North Fairlington to the Shirlington Transit Center. This extension will add time to the route and will require an additional bus to maintain the current 30 minutes headway. Given the need to plan the route, develop and print new schedules, order and install signs, etc., staff recommends that the route extension be implemented by the beginning of the 3rd quarter of FY 2010. The net cost estimate for this additional service is \$43,396 for FY 2010, \$60,582 for FY 2011 and \$63,491 for FY 2012.

ART 74 Restructuring (April 2010 Implementation)

The Board provided funding in the FY 2010 budget to continue the current level of service on the ART 74, while asking the staff to re-examine route alignment and schedule to improve upon its overall utility. This is one of ART's peak period weekday shuttles that connect neighborhoods to Metrorail. Staff recommends that the current ART 74 be replaced by two routes that will better serve the Douglas Park, Nauck, Columbia Heights and Arlington View neighborhoods. Staff is now developing a number of alternative concepts that would require three buses, twice the current level of service, for an additional 11.5 service hours per weekday. These potential routes may all be affected by the introduction of the ART 77 and the ART 87. Staff therefore recommends that these concepts be further tested and vetted with the community before a final decision is made. Staff further recommends that these new routes be implemented in the 4th quarter of FY 2010. The net cost estimate for these services is 40,420 for FY 2010, \$86,218 for FY 2011 and \$92,909 for FY 2012.

Service Plan FY 2011

The following proposed service changes address emerging service issues across the system that can only be addressed through additional investments in the fleet. The implementation of these changes is contingent upon the successful procurement and delivery of 12 heavy-duty buses that the Board authorized in June. The costs associated with these service changes are included in the Fiscal Impact section of this report.

ART 45 New All-day Weekday Route (Summer 2010 Implementation)

The County's plan to move the Department of Human Services (DHS) to the Sequoia property included a new ART route that would improve transit service for clients, employees and the community overall. The proposed route (ART 45) would link the western end of Columbia Pike to Sequoia, Courthouse and Rosslyn. The ART 45 would operate all day with half-hour headways. This service will require the new heavy-duty buses referenced above or the temporary use of leased buses as operational spare vehicles until the new buses are delivered and

ready for deployment. The net cost estimate for this new service is \$216,572 for FY 2011 and \$225,636 for 2012.

ART 41 Weekday Service Enhancement (October 2010 Implementation)

As ridership continues to grow on the ART 41, overcrowding during the weekday will continue to be an issue. Staff proposes to add a fifth bus and 10 service hours to the ART 41 during weekdays to address overcrowding and improve schedule adherence. The new service would not begin until the second quarter when new buses are ready for deployment. The net cost estimate for this additional service is \$75,127 for FY 2011 and 104,218 for FY 2012.

ART 75 Midday Service (April 2011 Implementation)

The ART 75 now runs peak period service at intervals of thirty minutes. This proposal would add service between the peak periods from 9:30 am to 3:30 pm with thirty-minute headways. This service level would require 2 vehicles and 12 service hours if this route were effectively interlined with the midday ART 87 service. The net cost estimate for this additional service is \$53,886 for FY 2011 and \$146,497 for FY 2012.

FY 2012 Service Plan

At this time, no further route changes or service enhancements are proposed in FY 2012. This year is included in the planning horizon to show the full-year fleet requirement and budget impact of the recommended changes in FY 2010 and FY 2011. Route changes/additions and adjustments to service from FY 2012 through FY 2016 will be addressed in the 6-year Transit Development and Coordination Plan (covering the years FY 2011 through FY 2016).

Staffing Requirements

With the recent, planned and proposed growth in ART services, an additional operations employee is required to support the program. The program is currently supported by 2.5 full-time equivalent employees, two operations employees and one manager, who also oversees the STAR paratransit program. The last staff position added to this program was in FY 2003 when ART carried 397,000 annual passengers. The system carried 1.429 million riders in FY 2009 and is anticipated to carry up to 2.5 million riders by FY 2012. This staff has also assumed operation of two new facilities, the ART maintenance facility and the Shirlington Transit Center. We recommend the addition of an operations staff position in the second half of this fiscal year to provide the support necessary for this expanding operation. The cost of this half-year FTE for FY 2010 is approximately \$42,883. The full year cost for FY 2011 and FY 2012 are respectively \$89,197 and \$92,765. The cost of this FTE is included in the fiscal impact section.

Fleet Requirements

Fleet Expansion

Between FY 2009 and FY 2011, staff proposes a modest increase in the fleet size from 29 vehicles to 37.² This increase is even more modest given that the County had a fleet of 35 vehicles in FY 2007 and FY 2008 before 6 poorly performing light-duty vehicles were retired from service. The key shift is replacing light-duty vehicles, which have associated limited capacity, a short life span of 4-6 years, and uneven service reliability, with a more durable and reliable heavy-duty fleet. With this changeover, ART has the ability to service many more riders with a higher level of reliability. This transition is discussed below. A more detailed description of the existing and proposed fleet and vehicle assignments is provided in Appendix A. Staff will continue to assess the fleet and recommend additional acquisitions as may be necessary to provide reliable service.

Fleet Replacement

Arlington has reached just beyond the mid-point of a multi-year plan to replace the light duty bus fleet. The first 8 heavy-duty low floor 35-foot CNG NABI buses were put into service in the fall of 2007. This deployment stabilized ART's most heavily used routes (ART 41, ART 51 and ART 52).

The next twelve 35-foot CNG NABI buses were put into revenue service in June 2009. These buses are being deployed on ART 77, ART 87, ART 42 and the ART 75. With this existing fleet, no additional growth in routes beyond what is proposed in FY 2010 is advisable and the service level on routes still supported by light duty vehicles become more vulnerable to service failures.

The Board-authorized bus purchase in June 2009 provides for another twelve 30-foot NABI heavy-duty buses. This will allow most routes in the system to be supported by heavy-duty low floor vehicles and permits modest service growth including the introduction of the new ART 45 route, expansion of service on the ART 41 and the ART 75.

Arlington has also applied for a federal stimulus grant (Federal Transit Administration TIGGER Grant Program – 80% federal share and 20% local match) to procure an additional 5 heavy-duty CNG hybrid vehicles. If this grant is approved and the vehicles are procured, it will permit the County to retire its remaining light duty vehicles from the fleet by FY 2012. At that time, all vehicles would be heavy-duty low-floor vehicles with a 12-year expected useful life.

² This fleet analysis does not including the buses used for the GEORGE service.

Desired Spare Ratio

The desired spare ratio for a reliable heavy-duty bus fleet is between 15% and 20%. In past years, ART has had to maintain a spare ratio as high as 25% or more given the fleet reliability issues with its light-duty vehicles.

FISCAL IMPACT: The projected cost for the enhanced and new ART services and the mid-year FTE position in FY 2010 will be covered within the existing approved budget. The revised cost structure of the new operations and maintenance contract that took effect July 1, 2009 resulted in reduced cost for the operating budget that will cover the increase cost of these service enhancements. In FY 2011, with a full year FTE and enhanced services on some routes and the start-up of a new route (ART 45 to connect Columbia Pike, Sequoia/DHS and Courthouse/Rosslyn), the net tax support increases to \$415,433 in FY 2011 and to \$567,570 in FY 2012. The Board has previously approved the purchase of twelve (12) 30' NABI buses that will be utilized to replace existing older buses and to support the service enhancements in FY 2011. Nine of these buses will be funded through the Transportation Investment Fund and three will be funded by funds through the federal stimulus program. The net lease savings from the relocation of DHS to Sequoia is projected to be approximately \$750,000 per year, beginning in FY 2011.

APPENDIX A: EXISTING AND PROPOSED FLEET

Fleet Management Plan

The current Fleet Management Plan was developed in March 2008. While it anticipated most of the new route services slated for FY 2010, it did not include the ART 42 weekday service or the proposal to introduce a new route (ART 45) in FY 2011 to serve the DHS relocation to Sequoia. The ART 77, 87 and 42 will each require larger NABI buses. The twelve (12) new NABI buses that will be deployed with the rollout of new services in the FY 2010 budget will provide sufficient capacity. The use of three (3) buses for peak service on the ART 42 will require some adjustment to fleet utilization plans. The remaining new NABIs will be integrated into the existing routes, replacing older vehicles. To address the request to improve or increase other ART services, fewer buses will be retired. The table below presents the current ART fleet and the ART fleet available in FY 2010.

Table 1

Vehicle	Year	FY 2009 #	FY 2010	FY 2011
Ford	2002	2	1	0
Ford	2003	4	2	0
Ambassador	2003	2	1	0
Ford	2004	5	5	0
Glavel	2005	3	1	0
Ford	2006	5	5	5
NABI 35'	2007	8	8	8
NABI 35'	2009		12	12
NABI 30'	2010			12
		29	35	37

Table 2

FY 2010			Useful	Years in	May 2009 Actual Avg. Vehicle Miles	FY 2008 Maintenance cost/mile	FY 2008 % days in service
#	Vehicle	Year	Life	Service			
12	NABI 35'	2009	12	0	0	0	
8	NABI 35'	2007	12	2	63,920	.02	98.30
5	Ford -Diesel	2006	4	4	81,152	.46	75.18
1	Glavel	2005	4	5	67,820	2.60	76.50
		2004,		7	184,899	.52	86.37
7	Ford - CNG	2003	4				
1	Ambassador	2003	4	7	71,200	2.60	76.50
1	Ford - CNG	2002	4	8	165,631	.52	86.37
35							

Fleet Service Plan

The available ART fleet in FY 2010 is 35 vehicles and nine of these are beyond the programmed useful life. While the older CNG Fords are very reliable, these vehicles have very high mileage. The maintenance costs to keep them in service will increase. The following table presents the fleet pullout plan for the adopted budget and the enhanced services. The vehicles need for enhanced services are shown in Bold font.

Table 3

Route #	NABI	Fords	Glavel/Ambassador
41	4		
42	3		
51	1		
52	2		
53		2	
61		2	
62		2	
72 (74 FY 2010 Enhanced Service)		1	
74		2	
75	2		
75 (FY 2010 Enhanced Service)		1	
77	2		
87	4		
Strategic		1	
Adopted Pull-out	18	9	
Enhanced Pull-out	18	11	
Spares ³	2	5/3	2
Contingent ⁴			
Total	20	13	2

The introduction of the new heavy-duty NABI buses will allow for the implementation of the planned and proposed services for FY 2010. The age and condition of the remaining smaller, light duty vehicles does present a challenge for the next fiscal year. The proposed additional services in FY 2010 will require that two of the older CNG Fords remain in service. With the current level of use, most of these older vehicles will need to be replaced in FY 2011. The new route programmed for FY 2011 will also require new, more reliable vehicles. Staff recommended, and the County Board authorized, an order for twelve 30-foot NABI buses to support existing services and modest service growth in FY 2011.

³ Spare vehicles are used regularly to allow for rotation of vehicles for programmed maintenance, and to replace vehicles for unscheduled breakdowns and repairs. While three vehicles would be an adequate spare ratio, the age and reliability of these vehicles makes this potentially problematic.

⁴ Contingent vehicles are used only when necessary.