

2011 Priority Projects for Regional Bus

TPB Technical Committee
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2008 Bus Priority Project List

- In 2008, the TPB Regional Bus Subcommittee (RBS) developed a list of capital projects that would provide benefits to bus transit operators and address regional issues:
 1. Bottlenecks and/or running way improvements,
 2. Capacity improvements at major bus stops and park-and-ride lots,
 3. Common regional needs, including:
 - Emerging Corridors,
 - Storage and Maintenance Facilities,
 - Marketing and Customer Information,
 - HOT Lane Enhancements, and the
 - WMATA Priority Corridor Network.

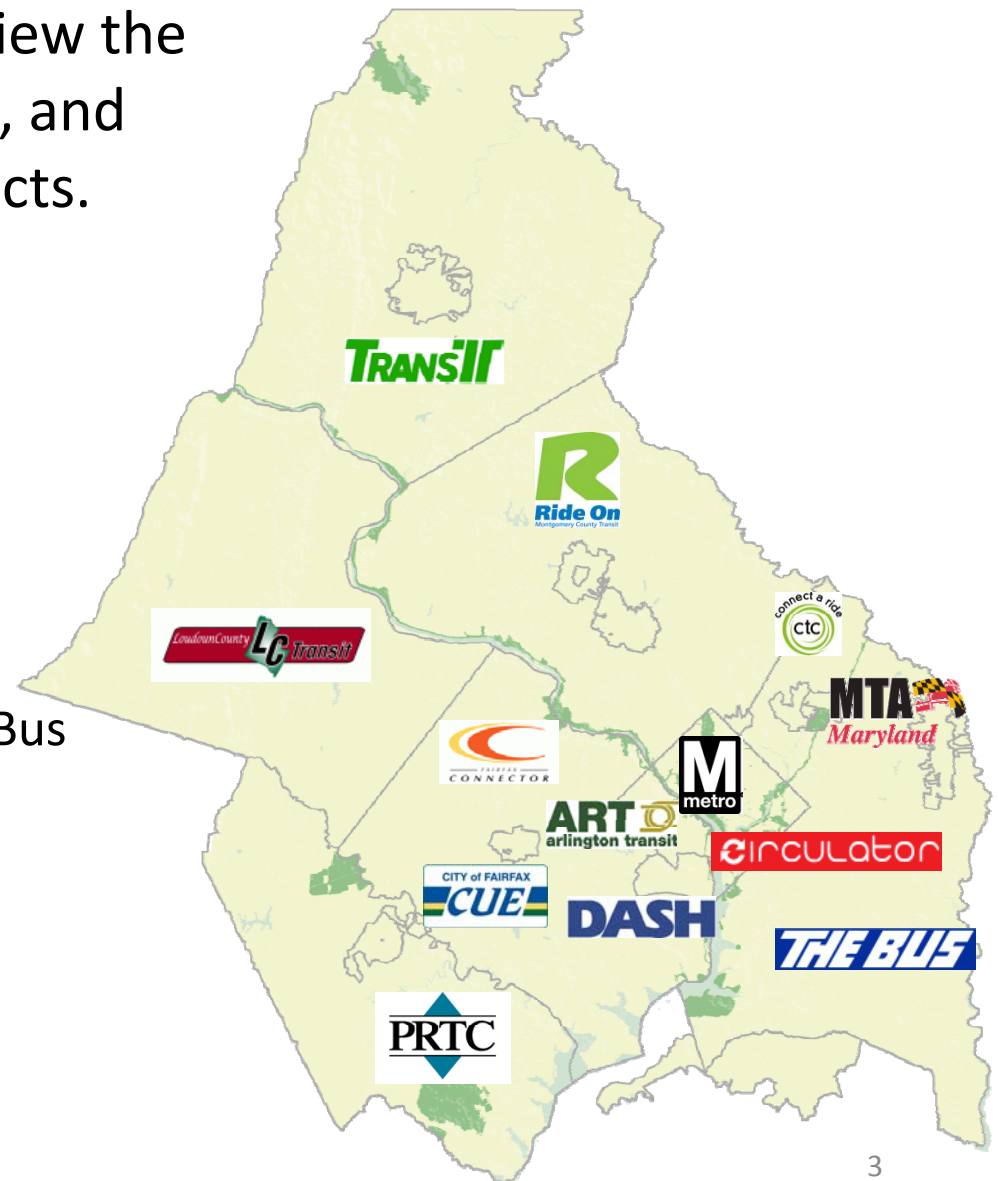


2011 Update – Contributing Organizations

RBS members were asked to review the 2008 list, note accomplishments, and identify new needs for bus projects.

Inputs were received from:

- City of Alexandria
- Arlington County
- District of Columbia
- Fairfax County
- Frederick County
- Maryland MTA & MARC/Commuter Bus
- Montgomery County
- PRTC
- Prince George's County
- WMATA
- Virginia DRPT



Regional Bus Accomplishments since 2008

Though many bus agencies have reduced service due to financial pressures, there have been several regional accomplishments in capital bus projects, including:

- Inauguration of Metrobus limited-stop express service on District of Columbia elements of the Priority Corridor Network
 - Georgia Ave., 16th St, Wisc. & Penn. Aves., H St/ Benning Road.
- Opening of the Shirlington Transit Center.
- New/replacement bus facilities are in progress:
 - Loudoun: Leesburg;
 - Metrobus: DC Village, Cinder Bed, West Ox, Shepherd Parkway.
- The 2008 Priority Project list was an important factor in developing the region's application for a TIGER Grant, which led to the award of \$58 million for bus priority projects.



2011 Regional Bus Project Priorities

The TPB Regional Bus Subcommittee identified the following themes for sets of projects needed to meet regional bus customer and agency needs:



1. Serving Customers
2. Connecting the Region
3. Bottlenecks and Hot Spots – Bus Access to Regional Hubs / Activity Centers
4. The DC Core – Downtown DC Bus Center & Bus Stops
5. Regional Transit and Intermodal Transfer Centers
6. Providing the Fleet – Bus Facilities
7. Service Needs and Changes
8. Federal Relocation & BRAC

1. Serving Customers

Improving the quality of service for customers is the number one priority. Quality improvements include: information, accessibility, security, and safety. Traveler needs also need to be identified.



- Improve coordination of regional information
 - Leverage WMATA trip planner, RITIS info, 511, and other means by incorporating regional information,
 - Improve distribution of customer information, especially in outer region for less-frequent commuter service.
- Bus stop lighting & ADA accessibility
 - Improve accessibility, security, and safety through improvements at bus stops.
- Improve collection of customer market information
 - Survey Bus Riders - trip details and demographics - to inform bus planning,
 - Regional Market Analysis to identify needs for service.

2. Connecting the Region

Develop an integrated network of regional bus service, including commuter bus and routes connecting regional hubs

- Coordinated network connecting major activity centers and commuter locations.
 - Service between suburban Transfer Locations, Park & Ride Lots, and downtown/hub Transit Centers.
- Service connecting to / extending Metrorail at: Branch Ave, Shady Grove, Franconia-Springfield, etc.
- Intra-regional service: Tysons-Bethesda, Frederick-Dulles, Alexandria-Woodbridge, etc.
- Integrated corridor management systems – such as proposed for I-66 – would link transit improvements with managed lanes (HOV/HOT) and active traffic management utilizing technology for operator enhancements and customer information.

3. Bottlenecks and Hot Spots – Bus Access to Regional Hubs and Activity Centers

To provide an effective regional transportation alternative, bus service needs to be fast and reliable for customers. Bus priority treatments are needed along major arteries and at the access points to activity centers / transit hubs.

Major Arteries – Congestion Challenges:

- I-270, I-66, I-395, US-15, US-1, MD-5, and the 14th Street Bridge

Activity Center / Transit Hub – Access Hot Spots:

- Vienna Metro, South Eads / Pentagon, Duke Street / King St Metro, Fern / Joyce Streets (Pentagon City)
- Potential solutions for highways include managed lanes (HOV/HOT) and bus-only access ramps.
- Access points often suffer from poor design, with buses unable to easily maneuver. Modest roadway layout improvements could provide significant benefits.
- Access points to activity centers should also feature transit signal priority (TSP), queue jumps, and – where feasible – bus-only or transit/HOV lanes.

4. The DC Core – Downtown DC Bus Center & Bus Stops

As the urban center, downtown DC has the highest demand for transit service, with hundreds of local, commuter, tour and intercity buses.

A. Central DC Bus Storage / Layover Sites

- Critical need for mid-day commuter bus and tour bus storage / layover location.
- Joint development of locations with street-level bus centers and air rights used for office or other commercial activities is a potential solution.

B. Bus Stop Rationalization & Improvements

- DDOT Commuter Bus Management Plan is combining 312 stops to 220.
 - This will lead to unimproved bus stops such as 7th & Maryland (L'Enfant Plaza) growing from 500 to 700 daily boarders.

C. Intercity Bus Center

- Previous locations in downtown DC being developed, while Union Station cannot accommodate current vehicle types (height/size).
- Development of bus centers for intercity bus operators are needed, with connections to local transit.

5. Regional Transit and Intermodal Transfer Centers

As travelers increase their use of transit across the region, customer facilities to are needed to improve synchronize

- Transit Centers are needed at regional hubs to provide customers with access to local activity centers and to connecting bus services
 - Union Station, Fort Totten, Frederick Town Mall, Ballston Common Mall, Crystal City.
- Park & Ride Lots for long-distance commuters are needed in outer suburban locations
 - Springfield, Davidson, Monocacy, Myersville, Frederick City, Potomac Mills.
- I-66 Improvements could include P+R lots or transfer centers at:
 - Haymarket, Gainesville, VA 234 Bypass, Bull Run, Centerville, Stringfellow, Fairfax Corner



6. Providing the Fleet – Bus Facilities

Bus fleets require adequate facilities for servicing and maintenance to keep in a state of good repair.

- Half of public bus agencies are already exceeding intended facility capacity, imposing additional costs.
- Facilities are needed for at least 228 current buses as well as to meet plans for future growth of the bus transit system across the region.



Agencies requiring greater bus facility capacity include:

- 1) DC Circulator
- 2) Ride On
- 3) ART
- 4) PRTC
- 5) Frederick Translt
- 6) WMATA
- 7) Fairfax Connector

7. Service Needs and Changes

Customer demand for transit service is increasing, not just generally but also in specific sectors and by other developments.

- Restructuring for Silver Line: 11 new routes, modifications to 27 routes, discontinuation of 8 routes.
- New bus service on the ICC; to expand once eastern portion opens.
- Virginia HOT Lane opening will lead to service changes.
- Metrobus skip-stop express service is planned for more of the Priority Corridor Network. Funding has yet to be identified, but corridors include:
 - Veirs Mill Road (Q9), connecting two branches of Red Line.
 - White Oak-Fort Totten Metro (K9), serving FDA site and proposed transit centers.
 - Dupont Circle-Anacostia (99), serving many urban activity centers.
 - Proposed Anacostia-Congress Heights line, serving St. Elizabeth's development.
- More requests for increased Saturday and reverse-commute service.

8. Federal Relocation & BRAC

Federal office and military base moves are expected to significantly impact regional travel patterns. Transit service will be restructured, but investment in service and facilities are needed if the region hopes to make transit a mode of choice for these locations.

Base Realignment and Closing (BRAC)

- Mark Center/BRAC-133 (I-395 and Seminary Road)
- Medical Center (NIH & *New* Walter Reed)
- Arlington Hall (Arlington Blvd and George Mason)
- Andrews AFB, Ft. Meade, Ft. Detrick, Ft. Belvoir



DHS / St. Elizabeth's – 14,000 planned employees

- The DHS campus development already has dense transit service in proximity: 25 bus routes serve nearby Metrorail stations while two of the corridors are among the top 10 in bus ridership.
- A Transit Center is needed to integrate restructured bus service with the development. Roadway bus priority investments (traffic signal priority, queue jump lanes) are also needed if transit is to be effective in attracting customers.

Summary

- Over 195 million trips were taken in 2009 on public buses across the region.
- Bus service can be improved:
 - Effective investments in bus priority and other short-term and high-priority congestion/bottleneck projects.
 - Coordinate customer information and technology.
 - Cooperation across modes and agencies.
- In the long-term, planning and investment in customer centers, bus facilities, and a modern bus fleet are needed to make bus service an efficient, effective, and attractive transportation choice.



Transit Inputs

Criteria for Regional Significance

The 2008 working group established the following criteria for determining whether a submitted project was regionally significant:

1. For bottlenecks or running way improvements: 5,000 passengers per day or an effective headway of 10-minutes.
2. For stops: at least 250 passengers per day.
3. For park-and-ride lots: serviced by at least 4 buses per hour (15 minute frequency) and a minimum of 200 parking spaces.
4. Projects should be capital projects that would provide benefit to multiple transit operators or multiple jurisdictions in the region.



City of Alexandria

Proposed Transportation Commercial Real Estate Tax to fund transit projects.

Bottlenecks

- Duke Street Corridor: King Street Metro access and Telegraph Road interchange
- Private shuttles at Van Dorn Metro station

Expansion & Capacity Issues

- Southern Towers & I-395/Seminary Road Interchange – activity center and transportation hub is suffering severely from local access for buses, and is expected to be further degraded by BRAC-133 opening

Arlington County



Expansion & Capacity Issues

- Metrobus 22A (BRAC service between Ballston and Arlington Hall)
- ART bus facility
- DC Bus Staging area

Bottleneck

- South Eads / Pentagon / I-395 HOV access
 - Build transit-only ramp between I-395 HOV and Pentagon Transit Center

Bus Stops

- Ballston Common Mall (S. Randolph Street)
- Arlington Hall (Arlington Blvd and George Mason)
- Crystal City Metro (18th Street South. Transit Center is part of Crystal City Master Plan)

Customer Information

- RITIS, WMATA trip planner

Need more developments like Shirlington Transit Station

District of Columbia



Correcting Bottlenecks

- Skip-stop express service: Dupont Circle-Anacostia
- H and I Streets NW – Implement Paired Bus-Only Lanes
 - Nearly 60 buses operate during the peak hour on this corridor with speeds averaging only 4.9-6 mph.
- 14th Street Bridge Bus Only Lane
 - 20 public buses per hour and private buses need a bus only lane over the bridge and up to H Street NW

Expansion & Capacity Issues

- Circulator Bus Facility – new facility at Hains Point would support core city operations
- Intercity Bus Facility – Current NW location being redeveloped. Union Station cannot support double-decker buses now used by operators
- Fort Totten Transit Center – more bus bays to support 12 routes
- Union Station Transit Center – support regional hub of inter-city and regional rail and bus
- St. Elizabeth's Transit Center – 25 bus routes serve nearby Metro stations; two of the corridors are among the top 10 in bus ridership. These services need to be integrated with the St. Elizabeth development.

Bus Stops

- Commuter Bus Stop consolidation, permitting, and downtown bus parking
- ADA Accessibility – proactively address bus stop access issues

Customer Information

- Improve NextBus, other real-time passenger information devices
- Interface and integration between buses and streetcars

Fairfax County



Expansion & Capacity Issues

- **HOT Lanes Bus Service** (3 new routes to Tysons, from Lorton, F-S, and Burke)
- **Bus Storage and Maintenance** (Connector expansion and WMATA Royal Street closure)
- **Springfield P&R**

Service Rationalization

- **Metrorail Silver Line – Bus Network Changes** (11 new routes, modify 27 routes, discontinue 8 routes)

Bottleneck

- **I-66 HOV Access to/from Vienna Metrorail Station**

Frederick County



Expansion & Capacity Issues

- Reverse Commute on MTA Commuter Bus and MARC
 - 40% of Frederick's workforce commutes outside County. Since June 07, ridership on MTA 991 Commuter Bus and MARC have increased 15-20%
- Myersville P&R expansion; need funding for new North Frederick P&R
- Service between Frederick train stations and Urbana P&R (connecting to Ride-On 75)
- TransIt Bus Facility (Currently handle 60 buses in a 45-bus yard)

Bottleneck

- I-270 in Frederick and Montgomery Counties (More commuter bus service needed, ideally traveling on bus-only lanes)
- US-15 / Frederick City

Customer Facilities

- Passenger Transfer Center for Frederick Town Mall (5 TransIt routes and parking for MARC feeder).
- Passenger Transfer Center for Francis Scott Key Mall (2 TransIt routes)

Customer Information

- Republish Frederick Regional Commuting Options brochure, and in general improve information for transit service options in exurbs

Opening of Frederick and Monocacy MARC stations in Dec 2001 has led to new demand for TransIt service, with system ridership growing by 150% over past 9 years.



MTA Commuter Bus

Expansion & Capacity Issues

- Davidson P&R (service to New York Ave Metro station in DC)
- Monocacy P&R (service from Hagerstown/Frederick to Shady Grove, plus new ICC bus service)
- DC Bus Storage and Stop Improvements (SW and NW)
 - 7th & Maryland near L'Enfant stop (500 to 700 boarders)

Bottleneck

- MD 5 (Branch Ave) and MD 373 (Accokeek Rd)
(improve service from Southern MD to Metrorail stations in Prince George's County/Green Line)

Montgomery County



Expansion & Capacity Issues

- Hillandale Layover
- Milestone P&R (service from Frederick Co. via Germantown to Shady Grove)
- Lakeforest Transit Center (MidCounty and Lakeforest Mall)
- Improve vehicle flow for existing park & ride lots (including ICC service lot on Georgia Ave)

Bus Stops

- Lighting at Bus Stops

Customer Information

- Increase regional coordination of automated data, including: regional service in WMATA trip planner, 511.

Potomac and Rappahannock Transportation Commission (PRTC)



Potomac and Rappahannock
Transportation Commission

Expansion & Capacity Issues

- Prince William Saturday Service (Woodbridge and F-S)
- PRTC Bus Facility (Need Western facility. Currently handle 133 buses in a 100-bus yard in the Eastern part of the County)
- DC Bus Staging area
- Commuter Parking in the I-95 corridor
 - Horner Lots construction scheduled for 2012, but smaller than lost Potomac Mills spaces and does not properly accommodate buses.

Prince George's County



Expansion & Capacity Issues

- Oxon Hill and Branch Avenue areas require circulator service

Bottlenecks

- US-1 corridor
 - Beltsville – Capital Beltway – University Park – College Park – MD 410(East-West Hwy) – Mount Rainier
- MD 210 (Indian Head Hwy) / South Capitol Street corridor

Service Rationalization

- Multimodal coordination – Metrorail and Commuter bus schedules and operation need to connect with TheBus

VDRPT

Expansion & Capacity Issues

- Implementation of transit service along I-66 (from Route 15 to I-495)
 - Express bus service
 - Transit Station and P+R lots
 - Haymarket, Gainesville, VA 234 Bypass, Bull Run, Centerville, Stringfellow, Fairfax Corner
 - Direct access ramps from managed lanes (HOV/HOT)

Service Rationalization

- Link transit improvements with managed lanes and active traffic management to provide an integrated corridor management system utilizing technology for operator enhancements and customer information

WMATA



Service Rationalization

- Implement skip-stop, peak-hour express service
 - Veirs Mill Road (Q9), connecting two branches of Red Line
 - White Oak-Fort Totten Metro (K9), serving FDA site and proposed transit centers

Bottlenecks

- 14th Street Bridge
- K Street NW
- I street NW (13th – 19th Streets/McPherson and Farragut Squares)
- New Hampshire Ave (University Ave – I-495) – need peak-hour bus lane
- Army Navy Drive (Fern – Joyce Streets) – over 150 buses daily affected by the congestion on this segment and Hayes Street intersection

Customer Facilities

- Anacostia Metrorail Station bus station – accommodate service for St. Elizabeth’s development
- Regional Park & Ride Lots – Commuter Bus extension for Metrorail branches (e.g., Lorton P&R for Franconia –Springfield terminus)

Customer Information

- Survey Metrobus Riders: trip details, demographics, to inform bus planning
- Regional Market Analysis: need for service between outlying and growing activity centers: Bethesda – Tysons, Alexandria – Woodbridge