National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202 TDD: (202) 962-3213

MEMORANDUM

TPB Technical Committee
February 7, 2014
Item # 2

February 7, 2014

To: TPB Technical Committee

From: Andrew Austin,
Transportation Planner

Subject: Major Projects for the 2014 Update to the Financially Constrained Long-Range Transportation Plan (CLRP)

The attached materials provide a preliminary review of the project submissions that TPB staff propose to include in the Major Projects list for the 2014 Update to the CLRP. Prior to release for public comment the descriptions will be edited to make them as clear and succinct as possible and maps will be provided for projects where appropriate.

In the District of Columbia, DDOT has proposed three Streetcar projects; from H Street NE at Union Station to Georgetown, from Anacostia to Southwest DC, and an additional spur of the planned Benning Road line that will extend to the Minnesota Avenue Metro Station. DDOT has also put forth three studies to examine managed lanes on the 14th Street/ Rochambeau Bridge, I-295, and I-395/I-695 (SE/SW Freeway).

In Maryland, the Maryland Transit Administration is updating the MARC Growth and Investment Plan. The State Highway administration is resubmitting the construction of an interchange on I-95/I-495, the Capital Beltway at the Greenbelt Metro Station in Prince George's County. This project had previously been included in the CLRP, but was removed in 2010 to meet the financial constraint.

In Virginia, VDOT is proposing to widen a segment of US 1in Prince William County and to widen a portion of VA 123, Chain bridge Road in Fairfax County. VDOT is also proposing three alternatives for the Dulles Air Cargo, Passenger, Metro Access Highway project. VDOT plans to release the three alternatives for public comment in March, but expects that the Virginia Commonwealth Transportation Board will select a preferred alternative prior to the TPB's approval of project inputs in April so only one alternative will be carried forward into the Air Quality Conformity Analysis.

WMATA has submitted seven elements of their Metro 2025 plan, which are each described in the attached materials. Which of these projects are released for public comment will depend on the outcome of ongoing discussions on the update to the Financial Plan for the CLRP.

MAJOR PROJECTS FOR THE 2014 UPDATE TO THE CLRP

District Department of Transportation

1. Union Station to Georgetown Streetcar Line

Length: 3.4 miles
Complete: 2016
Cost: $348 million
Description: DDOT is proposing a transportation improvement and the introduction of streetcar along the K Street NW corridor from Union Station to Georgetown. This project will provide an efficient east-west connection for transit and improve transportation mobility, and improve transit reliability. The streetcar alignment is primarily located along K Street, NW, New Jersey Avenue NW, and H Street, NE.

2. Streetcar from Anacostia to Southwest DC

Length: 3 miles
Complete: 2020
Cost:
Description: This portion of the project involves the project development of a streetcar line that connects Downtown Anacostia in Ward 8 to Southwest Waterfront in Ward 6.

3. Benning Road to Minnesota Avenue Metro Station Streetcar Spur

Length: 0.2 mile
Complete: 2015
Cost:
Description: This will be an addition to the DC Streetcar Project which was part of the 2010 CLRP. This addition will have a spur at the Benning/Minnesota Ave intersection and proceed along Minnesota Ave to the Minnesota Ave Metro Station.

4. *Studies: Managed Lanes on 14th Street/Rochambeau Bridge, I-295, and I-395/I-695*

Length: < 1 mile
Complete: 2015
Cost: $5.9 million
Description: The first study will look at converting the two northbound lanes on the 14th Street/ Rochambeau Bridge to High Occupancy Vehicle (HOV) (3+) during the morning peak period on weekdays and the two southbound lanes on the same facility to HOV (3+) during the evening peak period on weekdays, to mirror existing HOV operations in Virginia. The existing four northbound lanes on the Arland Williams, Jr. Bridge and four southbound lanes on the George Mason Memorial Bridge would remain as general purpose lanes. The study will also consider a subsequent conversion of the HOV lanes into High Occupancy/Toll (HOT) lanes.

The second study will look at implementing HOV lanes on I-295 from the Case Bridge to the 11th Street Bridge, and subsequently converting those to HOT.

The third study will consider implementing HOV and then HOT lanes on the Southeast/Southwest Freeway (I-395/I-695) from the 11th Street Bridge to the DC/Maryland Line.

MAJOR PROJECTS FOR THE 2014 UPDATE TO THE CLRP

Maryland Department of Transportation

1. MARC Growth and Investment Plan

Cost: $1.06 billion
Description: Description forthcoming.

2. I-95/495 Interchange at Greenbelt Metro Station

Length: <1 mile
Complete: 2020
Cost: $78.21 million
Description: Construct a full interchange along I-95/I-495 at the Greenbelt Metro Station. The existing partial interchange provides access from inner loop Capital Beltway to the Greenbelt Metro Station. The project includes the addition of auxiliary lanes on I-95/I-495 between the Greenbelt metro and MD 201 interchanges.

Virginia Department of Transportation

1. Widen US 1 from Fuller Road to Russell Road Interchange

Length: 2.38 miles
Complete: 2025
Cost: $76 million
Description: Widen from 4 to 6 lanes.

2. Widen VA 123 from VA 7, Leesburg Pike to I-495, Capital Beltway

Length: <1 mile
Complete: 2021
Cost: $22 million
Description: Widen from 6 to 8 lanes.

3. Dulles Air Cargo, Passenger, Metro Access Highway Alternatives

A. **New Dulles Air Cargo, Passenger, Metro Access Highway (North Star alignment)**

Length: 2.5 miles
Complete: 2025
Cost: $240 million
Description: Construct a new four-lane facility from US 50 at Northstar Boulevard/Bi-County Parkway to VA 606, Loudoun County Parkway at New Dulles Airport Access

B. **Convert US 50 and VA 606 to Limited Access**

Length: 3.75 miles
Complete: 2025
Cost: $330 million
Description: Convert US 50 to Limited Access from Bi-County Parkway/Northstar Boulevard to VA 606, Loudoun County Parkway and Convert VA 606, Loudoun County Parkway to Limited Access from US 50 to 1.5 miles north of US 50/new access to Dulles Airport.

C. **Airport Express Lanes in US 50 and New Limited Access VA 606, Loudoun County Parkway**

Length: 2.34 miles
Complete: 2025
Cost: $250 million
Description: Construct two Airport Express Lanes in the median of US 50 between Nothstar Boulevard/Bi-County Parkway and VA 606, Loudoun County Parkway at New Dulles Airport Access. Upgrade and widen from 4 to 8 lanes, a new limited access VA 606, Loudoun County Parkway from US 50 to VA 606 at New Dulles Airport Access.

Washington Metropolitan Area Transit Authority

1. Expand Fleet, Power and Maintenance to Support All Eight-Car Trains

Complete: 2025
Cost: $2.283 billion
Description: Operating the longest trains possible during the peak periods will maximize the capacity of the existing Metrorail system by enabling operations of 100 percent eight-car trains. Metro will upgrade, replace or expand: the rail car fleet; traction power substations; power cabling; third rail; train control systems; storage tracks and maintenance bays in the yards.

2. Core and End-of-Line Station Improvements

Complete: 2025
Cost: $599 million
Description: Improving and expanding capacity at high ridership stations will ensure safe and efficient operations and facilitate passenger movements from street-level to platform as well as transfers between lines. The proposed stations, most of which are in the system's core, already experience crowding or would reach capacity by 2025. Proposed improvements vary from adding escalators and stairs to building pedestrian passageways connecting platforms within a station and between stations. Stations to be improved are: Farragut North; Farragut West; Gallery Place; Metro Center; Union Station; L'Enfant Plaza; Foggy Bottom; McPherson Sq; Dupont Circle; Vienna; Shady Grove; New Carrollton.

3. Priority Corridor Network Enhancements

Complete: 2025
Cost: $388 million
Description: Metrobus' Priority Corridor Network (PCN) Plan will improve bus service, travel speeds, and reliability on 24 regional corridors, which serve half of Metrobus ridership. Improvements include: improved operational strategies such as transit signal priority and exclusive bus lanes; increased frequency and span of service; improved customer information; added MetroExtra, Metro's limited-stop bus service, routes and buses; expanded fare payment options; added safety, security and incident response measures; enhanced bus stops and facilities. The Metrobus system carries about 440,000 riders each day with more than half on PCN. Buses are frequently caught in heavy street traffic, increasing travel times, degrading reliability, and increasing operating costs just to maintain service levels. Ridership on PCN corridors has increased by eight percent since 2010, straining already-crowded buses on congested streets. Metro will need to add buses to reduce customer wait times and crowding, however Metro's fleet and bus garage capacity is constrained in locations with the highest demand.

4. New Rosslyn Blue Line Station

Complete: 2025
Cost: $1.119 billion
Description: Adding new Blue Line connections seeks to restore train frequencies to every six minutes during the peak period between Pentagon and Rosslyn stations, resulting in less waiting time and crowding for Blue Line riders in Northern Virginia. Once the Silver Line opens, the Blue Line service will operate every 12-14 minutes as opposed to the previous six minutes. The recommended alternative is a second Rosslyn Station for a new Blue Line with an underground passageway to the existing Rosslyn station, which would connect to the Orange/Silver Lines with a pedestrian tunnel. In 2012, to prepare for the Silver Line and better match ridership growth on the Orange Line west of Rosslyn, service changes were implemented that added more capacity to high-growth areas along the Orange Line. Due to the limit of 26 trains per hour per direction from Rosslyn into Washington, Blue Line service was reduced from every six minutes to every twelve to fourteen minutes. Even with expanded Yellow Line service between Virginia and Washington, Metro recognizes that this service change has been disruptive to thousands of riders, especially those who are among the 32,000 peak period daily trips recorded between the west side of Washington and south Arlington and Alexandria. When the Silver Line opens, Blue Line frequency will decline slightly. This initiative will restore peak period Blue Line service between Pentagon and Rosslyn stations and provide more frequent trains to Metro's Blue Line customers in Northern Virginia by adding physical capacity for more trains to move to and from and potentially through Rosslyn station.

5. Next Generation Communications

Complete: 2022
Cost: $400 million
Description: A next generation communications Passenger Information Display System (PIDS) system would expand current communications infrastructure to provide an integrated one-stop communications hub for the region's transit customers. Proposed improvements will capitalize on efforts already underway to improve the functionality of the rail control software. They include the next generation of the PIDS, new public address systems, improved station signage, and equipping station managers with mobile devices. Bus and train information will also be integrated, with real-time information displays to well-used bus stops. Much of Metro's communication infrastructure dates to the rail system's opening in the 1970s. Modifications to Metrorail and Metrobus communications equipment, already in progress, hold potential to provide better, more accurate information for Metro's customers. Improvements to the PIDS and public address system are necessary to get this information to Metro's customers and to improve system accessibility for the visually impaired. For bus passengers, the installation of real-time information screens at the 800 busiest stops would improve the convenience and effectiveness of the bus network.

6. Bus Fleet Expansion

Complete: 2025
Cost: $262 million
Description: Metrobus needs to accommodate growth in demand for bus service. Simultaneously, service effectiveness and reliability are suffering due to increasing traffic congestion. In order to meet this challenge, Metro requires 400 new buses by 2025 in addition to those needed for service on the Priority Corridor Network (PCN). Between PCN implementation and service expansion on "Emerging Corridors", a bus fleet of 2,060 is required by 2025. To support this fleet, an additional 250-space bus garage will be needed along with heavy overhaul capacity expansion from 100 to 150 buses/year. Metro faces dual challenges of growing demand for bus transit and increasing traffic congestion, resulting in slower trips, overcrowding, and less reliable service. In order to achieve and maintain a state of good operations in the face of these challenges Metrobus needs an expanded bus fleet and increased maintenance and storage capacity. An increase in fleet size from 1,505 in 2013 to 2,060 in 2025 would relieve crowding, increase operational efficiencies and allow Metro to meet the ever-growing demand for bus transit along the Priority Corridor Network and the next tier of "Emerging Corridors". To enable such an increase, Metro would also need one additional bus storage and maintenance facility, as well as added heavy maintenance capacity.

7. Add Pocket Tracks and Crossovers to Existing System

Complete: 2025

Cost: $1 billion

Description: Adding special types of tracks at key locations in the system will provide more flexibility to the overall system.

Pocket tracks allow trains to turn back in the direction from which they came (short-lining), gap trains to be stored until placed in revenue service, and the staging of track equipment until nighttime trackwork.

Crossovers allow trains to single track during incidents or nighttime trackwork.

The Metrorail system includes various single- and double-crossovers and additional ones will shorten the distance of single tracking. The system also has seven mid-route turnbacks, each of which is configured to operate as a third or "pocket" track capable of storing an eight-car train. To improve efficiency and reduce operating costs, certain lines could utilize a pocket track for a "short-lining" turnback to provide improved service to the highest-demand segments of the line. Other new pocket tracks would allow for storage of gap trains, disabled trains and track equipment.