



Customer Service and Operations Committee

Board Information Item III-C

October 9, 2014

Metrorail Pedestrian, Bicycle Access Plan Update

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

Action Information

MEAD Number:
201032

Resolution:
 Yes No

TITLE:

Metrorail Pedestrian, Bicycle Access Plan Update

PRESENTATION SUMMARY:

Staff will update the Customer Service and Operations Committee on Metro's efforts to increase bicycle and pedestrian access to Metrorail.

PURPOSE:

To update the Board on progress toward implementing recommendations in the 2010 Metrorail Pedestrian and Bicycle Access Improvements Study.

DESCRIPTION:

Key Highlights:

- Walk and bike access to Metrorail during peak periods increased by 15 percent and 54 percent, respectively, during the five years between the two most recent Metrorail passenger surveys (2007 and 2012) and since Metro increased its focus on walk and bike access planning.
- Increases in bicycle access have Metro on track to meet Board bicycle mode share goals established in 2011, with higher than expected demand at new Silver Line stations helping further that progress.
- These increases equate to about 23,600 daily trips, or 5.4 million annual trips, and roughly \$15 million in fare revenue. In contrast, capital funding spent on planning and new or improved pedestrian and bicycle infrastructure during the same timeframe was about \$1.8 million, suggesting a cost-effective approach to increasing ridership.
- Increasing walk access from households within the 10 minute walkshed by adding missing walk or bike links to stations has a direct impact on ridership and revenue, and may result in avoided costs related to parking construction and bus operations, as well as added revenue in places where there is excess capacity.

Background and History:

In February 2011, the Board endorsed the *Metrorail Bicycle and Pedestrian Access Improvements* study. The study took a comprehensive look at how the organization approached pedestrian and bicycle access to the system and recommended improvements that would yield greater walk and bike access to Metrorail stations. At that time, the Board also adopted bicycle mode share goals for 2020 and 2030, as well as practices to improve pedestrian access around stations that were recommended in the

study. Since then, Metro staff has been working to implement study recommendations for policy changes, safety and security measures, improvements to customer information and station design practices, and capital project development and operations that will help meet these goals and create a culture at Metro that recognizes and embraces the importance of non-motorized access to the system.

The *Metrorail Bicycle and Pedestrian Access Improvements* study serves as Metro's master plan for improving non-motorized access to the Metrorail system. Study recommendations had two tracks: one track identified Metro-led actions; the other track identified actions Metro and its partners would jointly undertake. Metro-led elements covered policy, safety and security, station design, customer information, institutional capacity building and bicycle parking. Board adoption of plan recommendations to triple the bicycle access mode share by 2020 and quintuple it by 2030 immediately set the tone for how Metro would approach bicycle access going forward.

To address study recommendations for improving pedestrian and bicycle infrastructure at Metrorail stations, Metro identified funding in its capital improvement program (CIP) and began a process to identify and prioritize needs to guide funding within the program.

In 2011, each of the then 86 stations was inventoried to identify projects at Metrorail stations to improve walk and bike access. The field survey identified hundreds of individual projects (e.g., new sidewalk connections, improved street crossings, locations and concepts for new secure high capacity bike storage) to be programmed for implementation in the CIP. After prioritizing projects relative to Metro strategic goals, staff created a \$7 million phase 1 capital program to be spent over five years (2012-17).

The material from this project is available on Metro's planning blog site, PlanItMetro.com: <http://tinyurl.com/BikePedCIPBlogPost>

In 2013, as a follow-up to the 2011 CIP development project, the Planning office conducted more focused signage and lighting reviews at and developed recommendations for a total of 14 case study stations. The reviews identified places where more could be done to improve wayfinding, signage and lighting on pedestrian walkways and in bike parking areas.

Discussion:

Bicycle and pedestrian access touches on each of Metro's strategic goals:

- **Safety:** Providing a safe means of access for Metro customers, including safe roadway crossings and sidewalks, as well as safe bicycle access to stations.
- **Quality of Service:** Improving convenience and providing more options for customers with more direct pedestrian and bicycle connections to our stations.
- **Mobility:** Better connect the region by improving walk and bicycle access to rail and connect more of the region's jobs and households to one another.
- **Financial Viability:** Improving walk and bike access helps grow the ridership base for existing rail lines, allowing for improved farebox recovery and more efficient use of resources. The more riders who walk or bike, the lower the cost for providing access.

Specifically, with respect to mobility, the Board has discussed a Key Performance Indicator (KPI) for connecting communities. The KPI is framed in terms of growing near

transit, with 'near transit' defined as 'within a 10-minute walk,' or about ½ mile, and identified three ways to facilitate this growth.

- Locate more growth around rail stations. More density means there is a better chance jobs, housing and retail will be better connected on either end of a trip. Metro's Joint Development and Station Access Planning programs focus on this particular 'lever' for connecting communities.
- Expand the reach of transit. Metro's new Silver Line fits this bill.
- Make stations more walkable and fix barriers to bring more existing development into the "walk shed." New research indicates that for every household that locates within a ½ mile walk shed of Metrorail, the system enjoys at least 180 new walk trips per year.

Metro has made good progress toward improving walk and bike access to stations by implementing recommendations from the master plan. Highlights from the 'Metro-led' elements include:

Policy and Customer Information:

- Updating and improving the bicycle area of the WMATA website.
- Changing the folding bike policy to eliminate requirement that bikes be encased during peak hours to ride the train.
- Conducting an annual bike count to measure progress on bike mode share goal.

Safety and Security:

- Promoting bike registration via the National Bike Registry.
- Giving away MTPD approved bike locks at Metro Bike to Work Day pit-stops.
- Installing cameras and new lights along Greenbelt path.

Capacity Building:

- Hiring a Bicycle & Pedestrian CIP project manager to focus on implementing walk/bike infrastructure projects on Metro property using CIP funds.
- Updating *Station Site and Access Planning Guidelines* to include best practices in walk and bike access planning.

Bicycle Parking and Infrastructure:

- Adding more racks at high-use stations.
- Constructing Metro's first Bike & Ride secure bike parking facility at College Park Metro Station.
- Constructing new pedestrian paths at Largo, Vienna and Franconia-Springfield.
- Constructing bike channels at Rhode Island Ave. and Glenmont.
- Replacing all old-style bicycle racks.

Partnerships:

- Working with bike advocacy groups such as WABA and FABB to improve system bike access and connect with customers who do or would like to bike to stations.
- Coordinating with DDOT to build Met Branch Trail.
- Partnering with Jurisdictions to site Capital Bikeshare (“CaBi”) stations on Metro property.

Staff is also working to institutionalize the recommendations through updates to the WMATA *Manual of Design Criteria*, to ensure Silver Line Phase II station designs and Metro2025 stations include walk and bike access design improvements and physical infrastructure as part of the standard design criteria.

These efforts are showing results. Walk and bike access to Metrorail increased by 15 percent and 54 percent, respectively, during the five years between the two most recent Metrorail passenger surveys in 2007 and 2012. These increases equate to about 23,600 daily trips, or 5.4 million annual trips, and roughly \$15 million in revenue. Meanwhile, during that time (from 2009 to mid-way through 2012) the bicycle and pedestrian CIP program spent about \$1.8 million on planning and infrastructure improvements, including some of those described above. While not all these ridership gains can be attributed to the CIP spending, it does demonstrate the potential for increasing ridership in a very cost-effective manner.

The more customers who walk or bike to stations, the greater the potential to avoid some costs associated with the provision of vehicle parking or bus access for Metro and customers. Conservatively, the potential cost to Metro to accommodate those new riders by providing parking could be upwards of \$17,000/space, if structured. Each new bus required to meet demand costs about \$750,000 each. For customers, making the walk-or bike-to-station option more desirable can reduce their cost to park or ride the bus.

Study recommendations also included a section on ‘Metro and Partner-led’ elements. Metro staff routinely work with local partners on small area plans, TOD projects, station access plans and station infrastructure. To assist these efforts, recent Metro planning work has focused on refining the definition of how ‘walkable’ station areas are by evaluating how well connected they are to the surrounding communities via the existing transportation networks. Analysis has taken the underlying road network for each station and calculated how far one can actually get on foot along that network within ½ mile of the station.

Some stations, like Gallery Place, are quite walkable with few major pedestrian barriers within the ½ mile. Other stations, like Landover, are much more restricted for walkers due to the layout of the roads, or major highway barriers, leaving some communities within ½ mile of stations unable to walk there. Improving connections to these existing communities can provide a ridership benefit that does not necessarily require a wholesale reconstruction of a station area, and many years of planning and development.

Preliminary research conducted into the effects of land use on walk ridership suggests that households within walking distance of Metrorail generate about .72 daily peak walk trips, or about 180 trips per year. The current average peak fare is about \$2.82 per trip. A new pedestrian connection that reaches 600 households could generate about \$300,000 annually.

This latest analysis has provided a blueprint for where to look for the greatest ‘latent’ ridership potential in station areas. By combining the ‘walkability’ analysis with a calculation of the number of households in the ½ mile area around the station not covered by the walk shed, staff has developed ‘opportunity scores’ for stations. The top five stations in each state where existing households within the ½ mile radius are not well-connected to the station have been identified. Metro staff will use these scores to frame conversations with local partners about the feasibility of making connections to existing households, and incorporating promising ideas into local planning processes.

In addition, Metro’s Office of Real Estate and Station Planning and Office of Budget are currently conducting a review of the Transit Infrastructure Investment Fund (TIIF). As part of this review, staff will provide recommendations regarding how this funding source could support bicycle/pedestrian access. Finally, Metro will update its 2005 Development Related Ridership Survey, with an additional focus on how land uses perform collectively in a station area to generate ridership.

FUNDING IMPACT:

Define current or potential funding impact, including source of reimbursable funds.	
Project Manager:	Kristin Haldeman
Project Department/Office:	Chief of Staff/Office of Planning

TIMELINE:

Previous Actions	2/2011 -Board Endorses Metrorail Bicycle and Pedestrian Access Improvements Study and Adopts Bicycle Mode Share Goals
Anticipated actions after presentation	

RECOMMENDATION:

None, this is for information purposes.



Washington Metropolitan Area Transit Authority

Metrorail Pedestrian, Bicycle Access Plan Update

Customer Service and Operations Committee

October 9, 2014



Purpose

To update the Board on progress toward implementing recommendations in the *2010 Metrorail Pedestrian and Bicycle Access Improvements Study*



Connecting Communities KPI



Grow Near Transit

- Transit-oriented development
- Zoning
- Planning



Expand Transit

- Expand bus routes
- Build new Metrorail lines and stations



Improve Access to Your Stations

- Fix pedestrian barriers
- Build paths and sidewalks





Implementation/Firsts for Metro

Bicycle Mode Share Goals

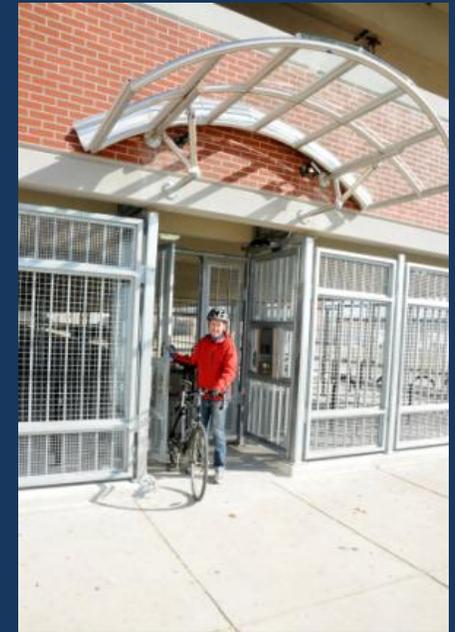
	2020	2030
Board Adopted Goal	2.1%	3.5%

Capital Bikeshare

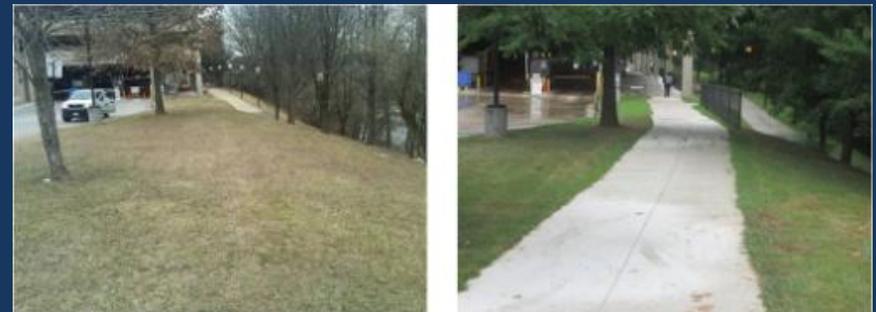
Stair Channels



Bike & Rides



New Pathways





Is it worth it?

Return on Investment

- *\$1.8 M capital cost* for pedestrian/bicycle projects



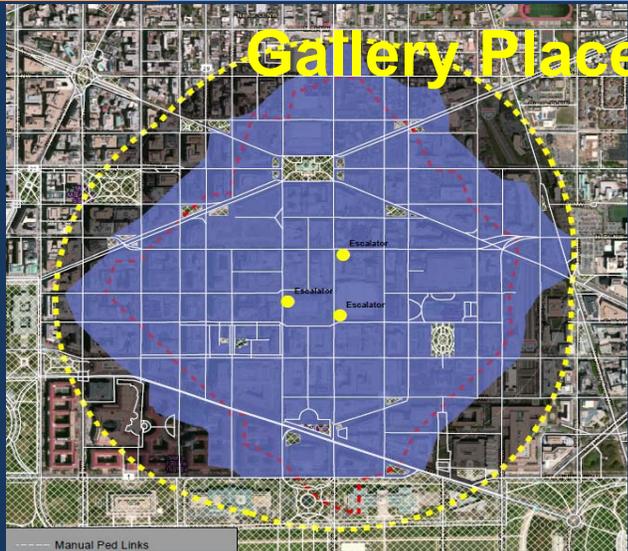
- *\$15 M annual revenue* from new walk/bike trips

Avoided Costs

- Parking space construction: \$17,000/space
- Additional buses: \$750,000/bus



Expanding Access



Gallery Place

Ridership = 7 Trips/ 10 Households



Landover



Southern Avenue



Opportunity Score = Poor Coverage + High Density

DC

1. Rhode Island Ave (0.45)
2. Fort Totten (0.35)
3. Van Ness (0.16)
4. Minnesota Ave (0.13)
5. Cleveland Park (0.05)

MD

1. Southern Avenue (0.53)
2. Landover (0.36)
3. Naylor Road (0.29)
4. Grosvenor (0.27)
5. Morgan Blvd (0.22)

VA

1. Van Dorn (0.39)
2. West Falls Church (0.33)
3. Franconia-Springfield (0.26)
4. Dunn Loring (0.23)
5. Vienna (0.22)



Next Steps

- Meet with jurisdictions to discuss 'opportunity scores'
- Conduct field research on land use/ridership connection
- Identify funding strategies to support enhanced bike/pedestrian access (i.e. TIIF)

Van Dorn Station

