



**Customer Service and Operations Committee**

**Board Action Item III-A**

**July 11, 2013**

**Rail Service Standards Phase II**



Washington Metropolitan Area Transit Authority  
**Board Action/Information Summary**

Action  Information

MEAD Number:  
200230

Resolution:  
 Yes  No

**TITLE:**

Service Standards for Metrorail – Phase Two

**PRESENTATION SUMMARY:**

To report back to the Customer Service and Operations Committee proposed standards and to seek Committee and Board of Directors approval of normal weekday non-rush period Metrorail service standards in accordance with Board bylaws.

**PURPOSE:**

On October 25, 2012, the Board adopted three Metrorail Service Standards to establish 1) Metrorail hours of operations, 2) normal rush period service frequency as measured by train headways, and 3) rush period passengers-per-car at locations in the system where vehicle passenger loads are the greatest.

Subsequent to that action, the Board expressed a desire to consider additional standards considering feedback from the public. Also, new and enhanced Federal Transit Administration (FTA) Title VI requirements include Board review of service standards and policies and a monitoring program to ensure that service design and operational practices do not result in discrimination. More information on the Title VI program is scheduled to be presented to the Board in September 2013.

As the next phase in standards development, staff recommends Board action to approve two service standards applicable during normal weekday non-rush periods: 1) service frequency, also known as train headways, and 2) passengers-per-car. "Normal" refers to periods where there are no planned track outages or special events.

**DESCRIPTION:**

**Key Highlights:**

- Board Bylaws require adoption and review of key performance standards to provide policy guidance regarding the quantity and quality of service (Article II.C.4).
- Standards guide staff on how to deploy service today, how to plan for the future, inform capital investment and operating resource needs, and provide accountability to the public.
- Following adoption of initial Metrorail Service Standards on October 25, 2012, staff evaluated options for the addition of standards for normal weekday non-rush Metrorail service; and, began developing a plan to collect data and report on these

standards.

### **Background and History:**

The Board of Directors desires to put in place policies to guide the organization, now and in the future. In June 2013, the Board adopted Momentum, its strategic plan for guiding Metro. One of the Strategic Goals of Momentum is to “Meet or exceed customer expectations by consistently delivering quality service.” While Momentum provides a broad roadmap for what the Board and Metro need to accomplish to achieve the agency’s vision and mission, specific detail is needed to help staff manage service today and plan for it in the future.

For Metrorail, standards were established for the rush period through the adoption of Resolution 2012-29, setting standards for hours of service, frequency of service and passengers-per-car. Prior to adopting these standards, Metro staff met with the Accessibility Advisory Council and the Riders’ Advisory Council as well as the Jurisdictional Coordinating Committee to discuss establishment of service standards and to consider the impact of service standards from a customer perspective. For example, the comments received were focused on how the impact of changing service frequency (such as Rush+ implementation), track work schedules, and the level of system crowding impacts a customer’s experience.

To continue its policy work in establishing service standards, the Board requested that staff bring forward phase two of this effort by the summer of 2013.

Subsequent to adoption of the initial rail service standards, new and enhanced FTA Title VI requirements were announced in Circular 4702.1B that require a number of initiatives. Among them are system-wide service standards and policies that ensure service design and operational practices do not result in discrimination; development of service standards for vehicle loads, headways, on time performance, and service availability. Additionally, FTA requires a monitoring program that ensures the results of established service standards and policies are equitable system wide. These new federal requirements are partially addressed in the standards work and monitoring program the Board has already been putting in place. More information on the Title VI program is scheduled to be presented to the Board in September 2013.

### **Discussion:**

The proposal to adopt normal weekday non-rush service standards has been presented to the Jurisdictional Coordinating Committee. The Board presentation, this document and resolution reflect comments received from the JCC discussion. In addition, both the Accessibility Advisory Council and the Riders’ Advisory Council earlier provided input on the development of non-rush period service standards and their comments are also reflected in this document, presentation and resolution.

Staff conducted a peer agency analysis to evaluate the service standards and monitoring capabilities at NYCT, SEPTA, MBTA, CTA and BART. The conclusion from this outreach was there is not a common approach to standard definitions, nor the setting of thresholds.

Once service standards are established, the Board requires staff to monitor and report quarterly on adherence to them. For all weekday service, staff currently has the ability to monitor and report on hours of operation and on adherence to scheduled headways (known as on-time performance). To track passenger crowding on railcars, staff currently manually collects sample data on the number of passengers-per-car at specified locations in the system for rush periods only. Increasing this data collection to include non-rush periods requires additional resources that are not currently available. Staff is reviewing different options and costs to collect this non-rush period data, including new technology solutions that would need to be developed. Moreover, the previously mentioned benchmarking survey demonstrated that most agencies continue to rely on manual collection of passenger-per-car data, and though emergent technological solutions to this data collection challenge show promise, none are yet mature enough for widespread implementation.

Based on the aforementioned Committee and Council reviews and on staff consideration of the need for normal weekday non-rush service standards, staff is advancing this policy proposal to the Board of Directors to adopt phase two service standards for Metrorail. Service frequency recommendations for mid-day and evening reflect the current service provided during normal weekday non-rush periods and is consistent with the coordinated Silver Line rail and bus service plans adopted by the Board on April 25, 2013 (Resolution #2013-11). This standard does not apply during “shoulders” around the rush periods when trains are being added or removed to adjust for varying passenger loads. Customer comments received indicate satisfaction with the current level of normal weekday non-rush service provided. Metro currently has the ability to track and monitor non-rush frequency.

Normal weekday non-rush passengers-per-car recommendations are based on general operating practice and mirror the standard adopted for the rush period. Metro currently does not monitor normal weekday non-rush period passengers-per-car, but commits to evaluating ways to begin collecting and analyzing non-rush passengers-per-car counts, so as to monitor and report on all these standards.

**FUNDING IMPACT:**

For these two proposed standards, Metro staff currently has the ability to monitor and report on normal weekdaury non-rush headways, but does not have the ability to reliably collect data on the number of passengers-per-car. Staff is evaluating alternatives for funding a better, more reliable passenger counting data collection process and will report to the Board on whether sufficient resources are available during the upcoming budget review and approval process.

Define current or potential funding impact, including source of reimbursable funds.	
Project Manager:	A. Robert Troup
Project Department/Office:	Deputy General Manager Operations

**TIMELINE:**

<p><b>Previous Actions</b></p>	<p>June 28, 2013 – the Jurisdictional Coordinating Committee received a presentation on proposed normal weekday non-rush standards.</p> <p>April 25, 2013—the Board approved the coordinated Silver Line rail and bus service plans (Resolution #2013-11).</p> <p>October 25, 2012 – with input from the Riders Advisory and Accessibility Advisory Councils, the Board adopted the Phase One service standards pertaining to hours of operation and weekday rush periods.</p> <p>July 12, 2012 – the Customer Service and Operations Committee received a presentation on a set of three rail service standards.</p> <p>March 8, 2012 – the Customer Service and Operations Committee received a presentation on the benefits of rail service standards, how they are used by staff and peer agencies, and next steps.</p> <p>July 21, 2011 – Board approved Bylaws and Procedures.</p>
<p><b>Anticipated actions after presentation</b></p>	<p>July 25, 2013 – Board approval of Service Standards for Metrorail - Phase Two</p> <p>September 12, 2013 – Customer Service and Operations Committee information item on Title VI required service standards, policies and monitoring program</p>

**RECOMMENDATION:**

Approve phase two normal weekday non-rush period rail service standards:

**1) Normal weekday non-rush service frequency:**

**Mid-day service frequency:** on core interlined segments of the system train frequency (headways) will be up to six minutes and up to 12 minutes on all other segments.

**Evening service frequency:** on core interlined segments of the system train frequency (headways) will be up to 15 minutes and up to 20 minutes on all other segments.

**2) Normal weekday, non-rush passengers-per-car:** general operating practice is a minimum of 80 and a maximum of 120 passengers-per-car with an optimal occupancy being 100 passengers-per-car at locations in the system where the vehicle passenger loads are greatest.



Washington Metropolitan Area Transit Authority

# Service Standards for Metrorail: Phase Two

Customer Service and Operations Committee  
July 11, 2013



# Metrorail Service Standards Phase 1: Board Adopted in October 2012

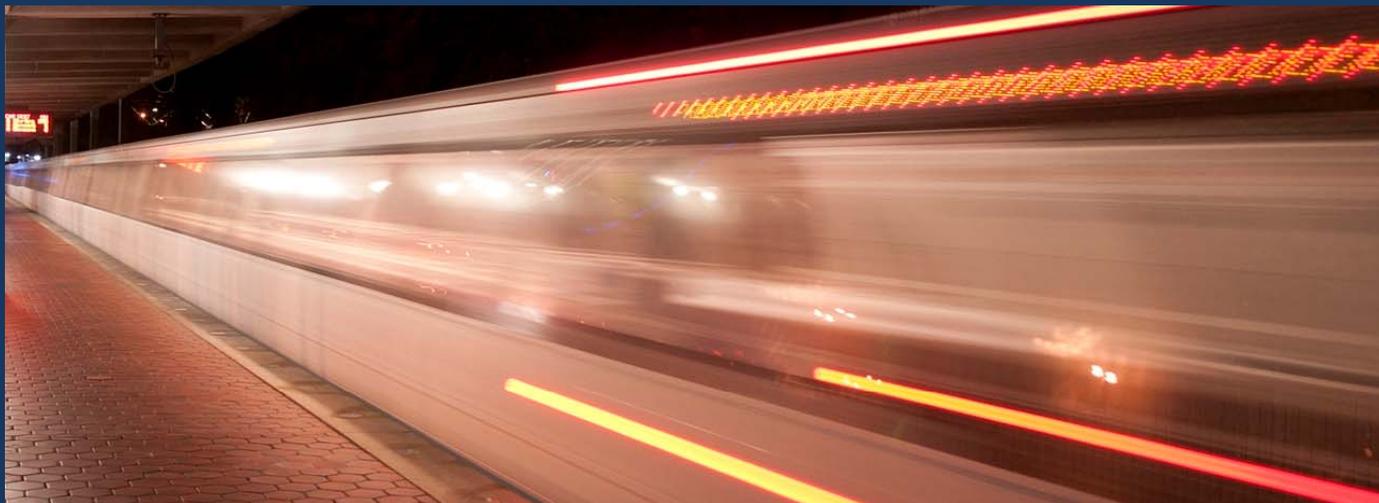
- **Hours of service**
  - Open: 5 am Weekdays, 7 am Weekends
  - Close: 12 am Sun-Thu, 3 am Fri-Sat
- **Rush period headway**
  - 3 minutes on core/interlined segments
  - 12 minutes at Arlington Cemetery
  - 6 minutes on all other segments
- **Rush period passengers-per-car**
  - 100 is optimal (range 80 - 120)
- Management is reporting on these standards in Vital Signs





# Purpose Today

- Consider normal weekday non-rush Metrorail Service Standards for Board adoption



*“Normal” is a rail scheduling term referring to periods when there are no planned track outages or special events*



# Train Frequency (Headway): Non-Rush Weekdays – Mid-day



## Combined Frequency During Weekday Mid-Day Service (Time Between Trains)



Up to 6 minutes



Up to 12 minutes



# Train Frequency (Headway): Non-Rush Weekdays – Evening



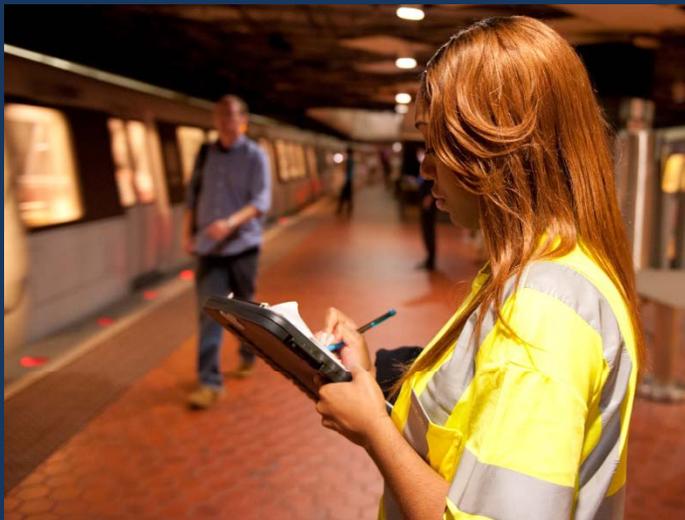
## Combined Frequency During Weekday Evening Service (Time Between Trains)

-  Up to 15 minutes\*
-  Up to 20 minutes

*\*Evening service is 15 minutes on the Red Line, and an average of 10 minutes on the core/interlined segments of all other lines.*



# Passengers-per-Car: Non-Rush Weekdays



- Standard for planning = 100 passengers-per-car (range from 80 to 120)
  - All seats taken plus half that many standing
  - Actual experience varies: time of day, station entered, which rail car

## Why?

Capacity, train frequency, cars available



# Recommendation

- For normal weekday non-rush service, Board adopts two new service standards:

## 1 - Non-Rush Headway

- **Mid-day:** up to 6 minutes in core/interlined, up to 12 all other
- **Evening:** up to 15 minutes in core/interlined, up to 20 all other

## 2- Non-Rush Passenger-Per-Car

- 100 is optimal (range from 80 to 120)



## Next Steps

Staff is evaluating technologies that may allow for passenger counting without requiring deployment of “traffic checkers” doing manual counts

These technologies are new, and will require pilot programs to test and validate the data collected

As these new technologies are better understood staff will report back to the Board on options and consideration





# Appendix



# Future Train Frequency (Headway): Non-Rush Weekdays – Mid-day *Includes Silver Line Service*



## Combined Frequency During Weekday Mid-Day Service (Time Between Trains)



Up to 6 minutes



Up to 12 minutes



# Future Train Frequency (Headway): Non-Rush Weekdays – Evening *Includes Silver Line Service*



## Combined Frequency During Weekday Evening Service (Time Between Trains)

-  Up to 15 minutes\*
-  Up to 20 minutes

*\*Evening service is 15 minutes on the Red Line, and an average of 10 minutes on the core/interlined segments of all other lines.*

SUBJECT: RAIL SERVICE STANDARDS

RESOLUTION  
OF THE  
BOARD OF DIRECTORS  
OF THE  
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WHEREAS, The Bylaws of the WMATA Board of Directors require the Board to adopt and review key performance and service standards to provide policy and guidance regarding the quantity and quality of service in Article II.C.4; and

WHEREAS, The Board of Directors enacted standards defining the scope of regional Metrobus operations in Resolution #1998-27; and

WHEREAS, The Board of Directors enacted standards guiding the decision-making process involving increasing or decreasing the amount of regional Metrobus service provided in Resolution #2000-10; and

WHEREAS, The Board of Directors enacted standards in Resolution #2012-29 covering Metrorail hours of operation, weekday rush period train frequency known as headways, and weekday rush period passengers-per-car; and

WHEREAS, The Board of Directors has expressed a desire to enact weekday, non-rush Metrorail service standards; now, therefore be it

*RESOLVED*, That the Board of Directors approves normal schedule, non-rush period headways as a Metrorail service standard, and establishes that these headways will be up to the following maximums:

- During weekday mid-day, headways will be up to six minutes on core interlined segments and up to 12 minutes on all other segments;
- During weekday evenings, headways will be up to 15 minutes on core interlined segments and up to 20 minutes on all other segments; and be it further

*RESOLVED*, That the Board of Directors approves the standard for passengers-per-car to be the same during normal schedule rush and non-rush weekday periods, which is, as a general operating practice, a minimum of 80 and maximum of 120 passengers-per-car, with an optimal occupancy being 100 passengers-per-car, at locations in the system where the vehicle passenger loads are the greatest; and be it further

*RESOLVED*, That the Board of Directors will receive quarterly reporting that documents how well Metro adheres to these standards and management will recommend actions accordingly; and be it finally

*RESOLVED*, That this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,



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Kathryn H.S. Pett  
General Counsel

WMATA File Structure Nos.:  
20.5.1 Rail Scheduling

PROPOSED