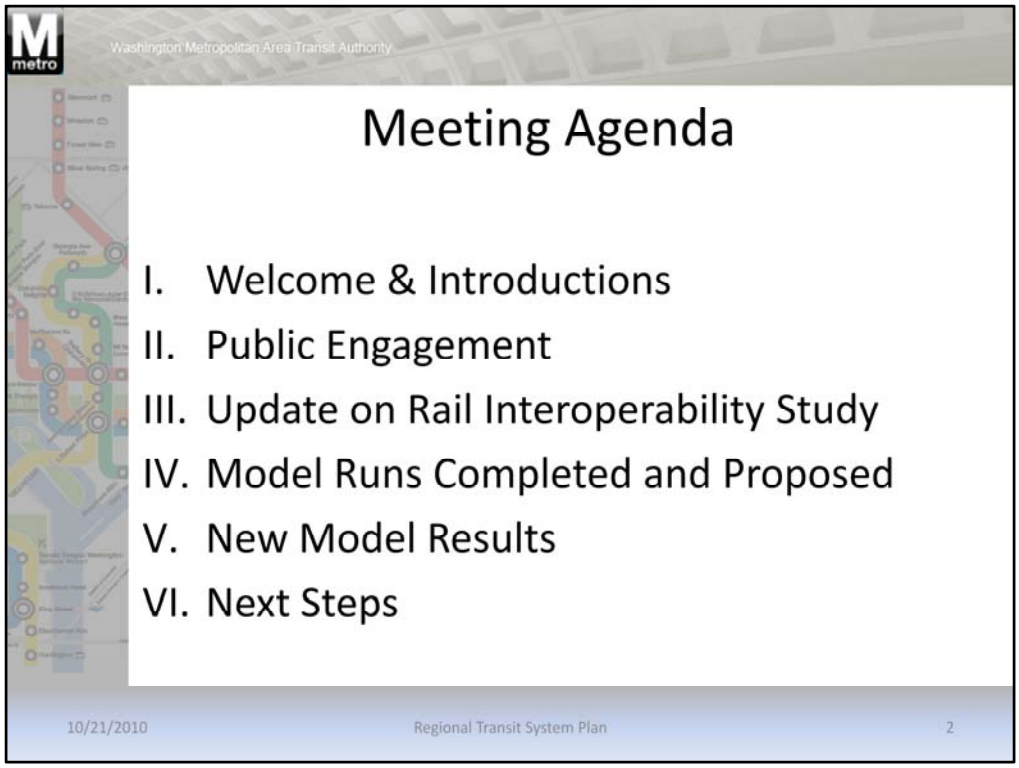

Washington Metropolitan Area Transit Authority
RTSP Metrorail Strategies:
Split Yellow Line, New Blue Lines, Interline, Enhanced Surface Transit, and Walkability
Presentation to the Technical Advisory Group
October 21st, 2010


Washington Metropolitan Area Transit Authority
Meeting Agenda
I. Welcome & Introductions
II. Public Engagement
III. Update on Rail Interoperability Study
IV. Model Runs Completed and Proposed
V. New Model Results
VI. Next Steps
10/21/2010
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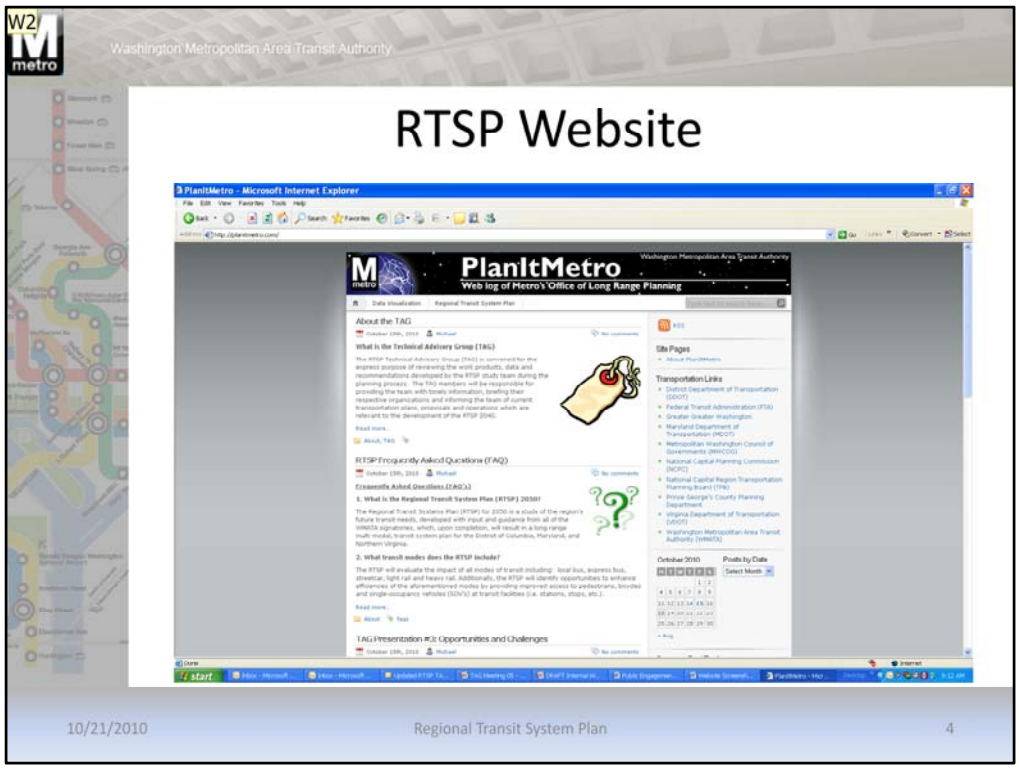
We have developed two methods to share the RTSP with the stakeholders: Individual briefings or piggy-backing at scheduled meetings at the request of the TAG jurisdictional representative and a series of Metro-hosted workshops. The briefings will be coordinated with Metro's Government Relations Office (GOVR) to ensure the appropriate elected officials are made aware of the RTSP Teams proposed visit to the respective jurisdictions. Upon receiving the appropriate approvals, the RTSP Team will attend a jurisdictional meeting (i.e. Commission meetings, ANC's, community/civic organization meeting) and brief the stakeholder group on the RTSP.

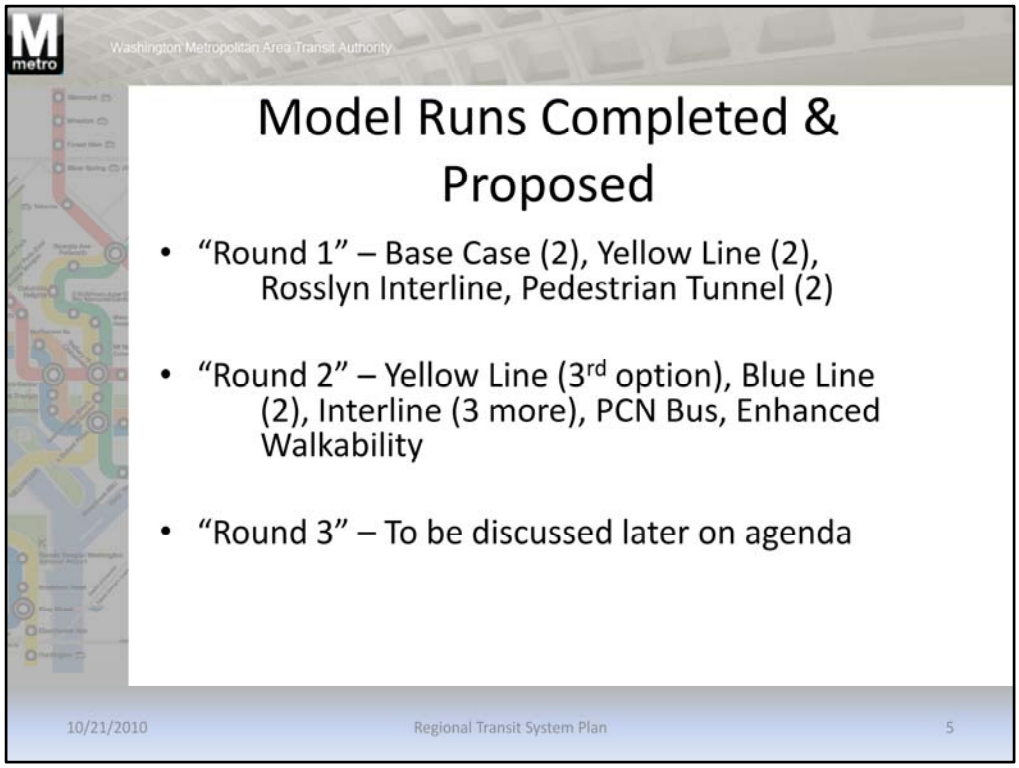
The Metro-hosted workshops will also be scheduled and coordinated with the TAG for each jurisdiction and planned so that we can achieve the maximum participation.



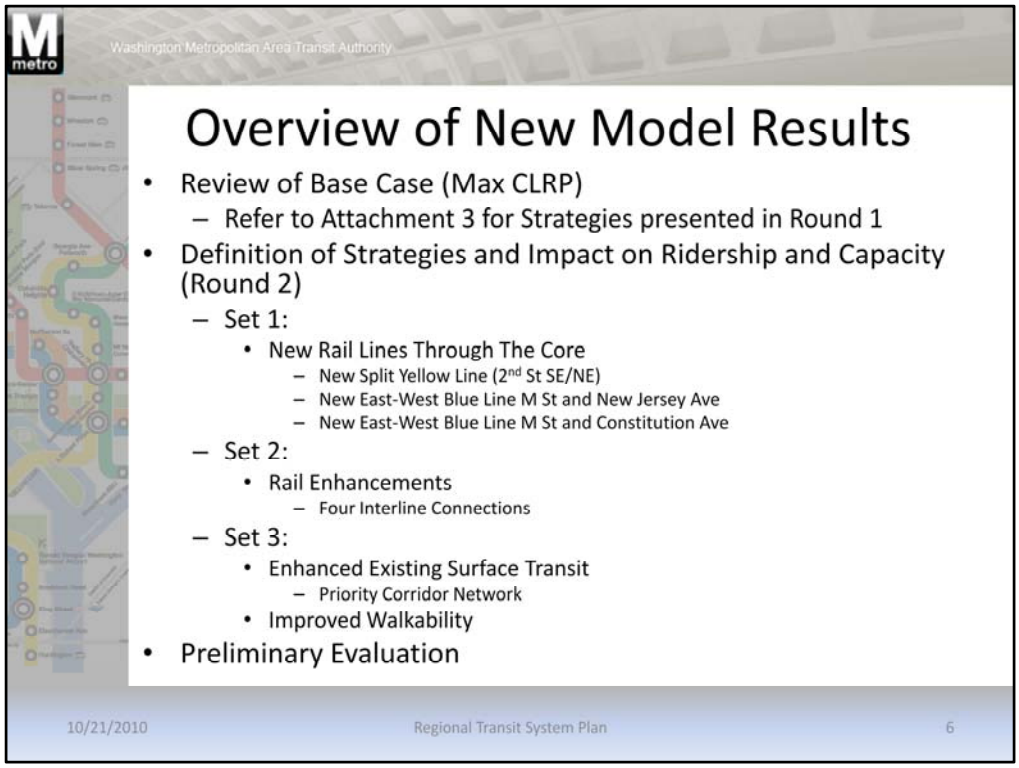

The graphic above is a revised DRAFT of the RTSP Content on the PlanItMetro Blog for the Office of Long Range Planning. Some of the basic information a visitor will be able to get when visiting the RTSP link include: background on the Technical Advisory Group (TAG); Frequently Asked Questions (FAQ's) related to the RTSP; Metro's long range planning history; a description of Metro's current long range plan; and a description of the strategies being considered that may become part of Metro's updated long range plan.

**Slide 4**

**W2** It may be nice to add a few examples of other content that will be available on the blog, i.e. Metro's long range planning history, description of current long range plan, strategies modeled to offer potential plans for the next 30+ years.
WMATA, 12/10/2010

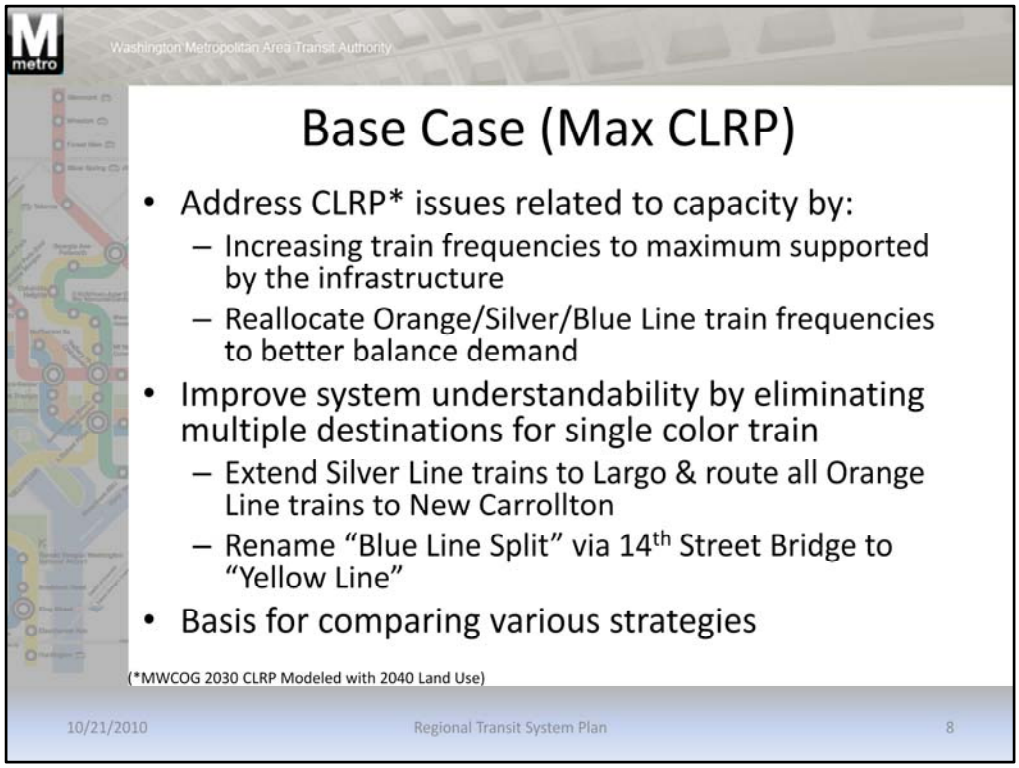



This slide provides an overview of the modeling exercises that have been and will be undertaken in future iterations of the RTSP analysis.

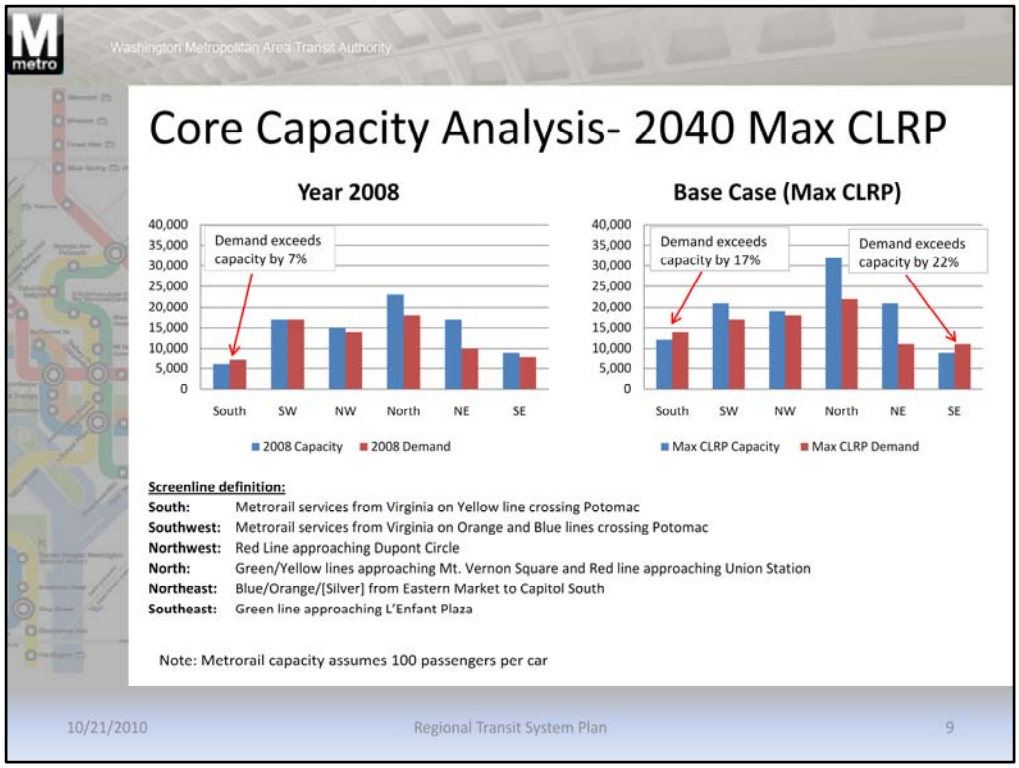



This slide provides more details on the RTSP Strategies that have been modeled in Round 2.

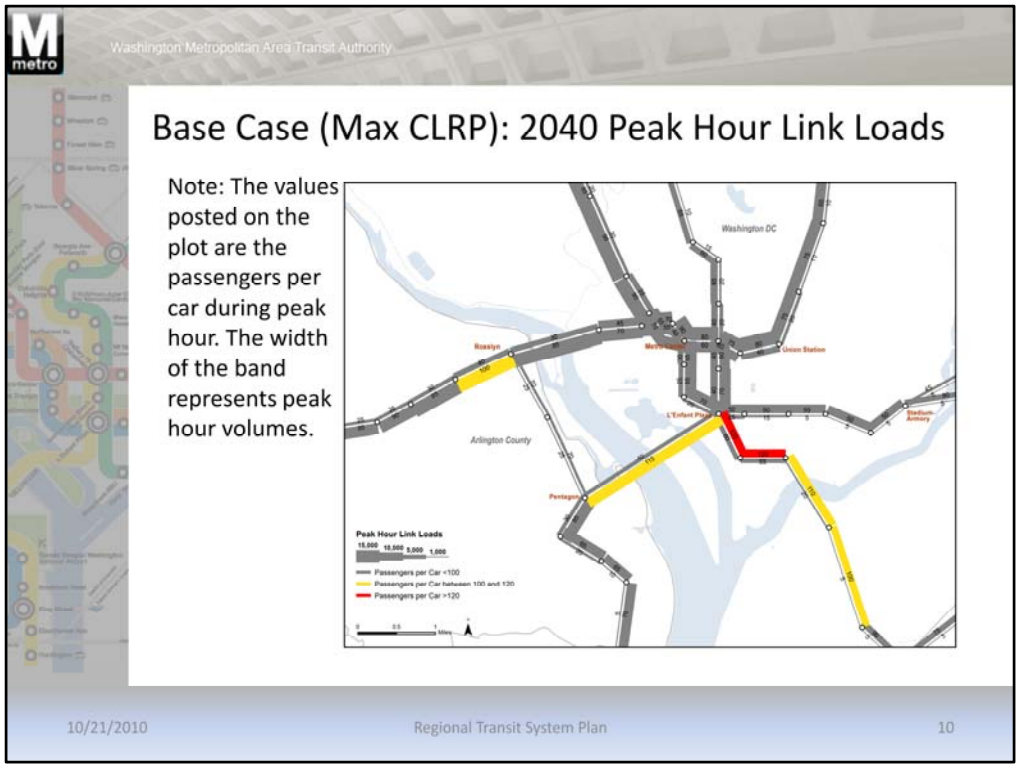
# REVIEW OF BASE CASE (MAX CLRP)



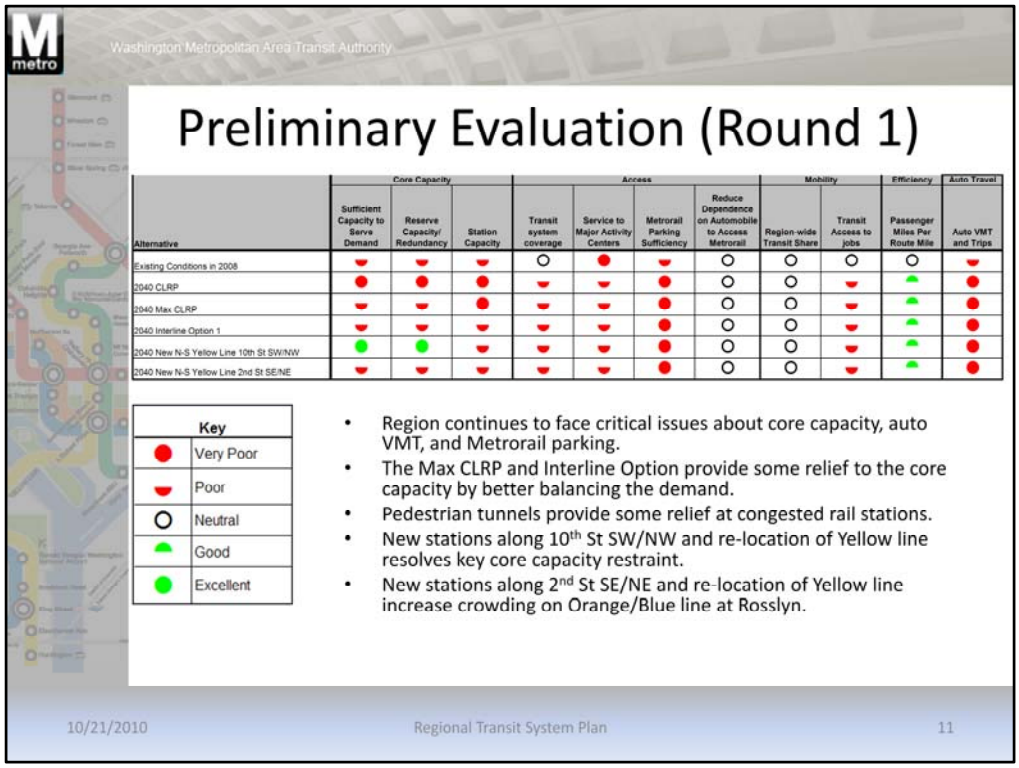

The Base Case (Max CLRP) of analysis included the assumptions above.




The graphics above show demand and capacity in 2008 and under the Max CLRP in 2040.



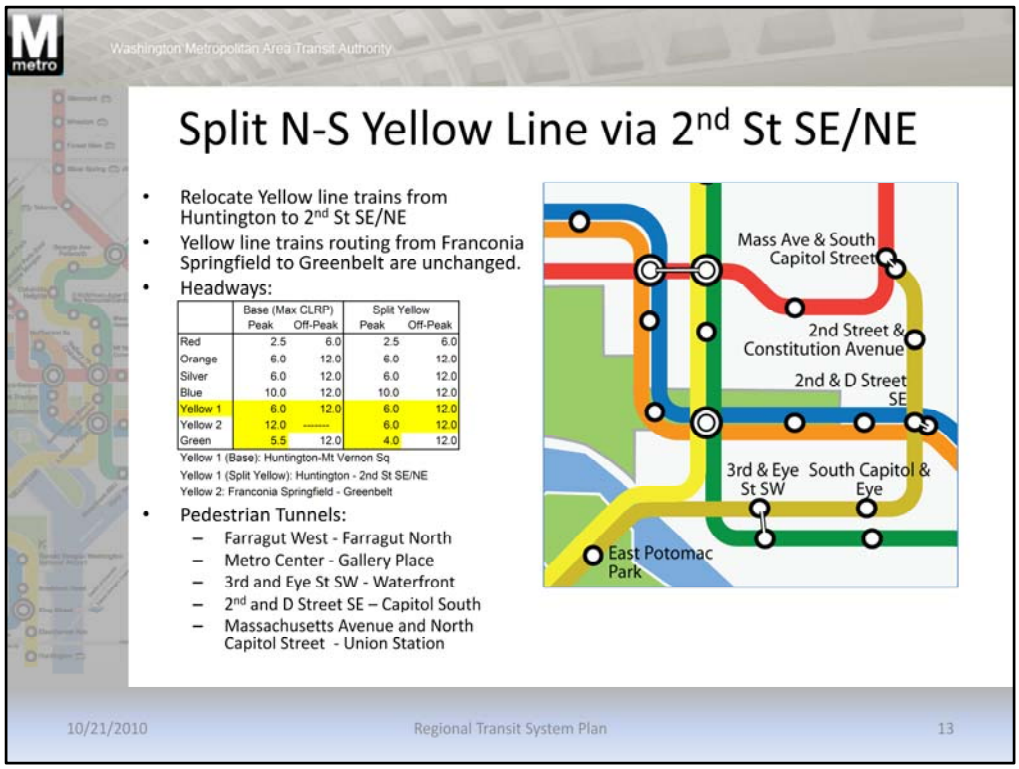

The graphic above shows the peak hour link loads on Metrorail trains in 2040, under the base case scenario (Max CLRP). The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car and the red represents over 120 passengers per rail car.



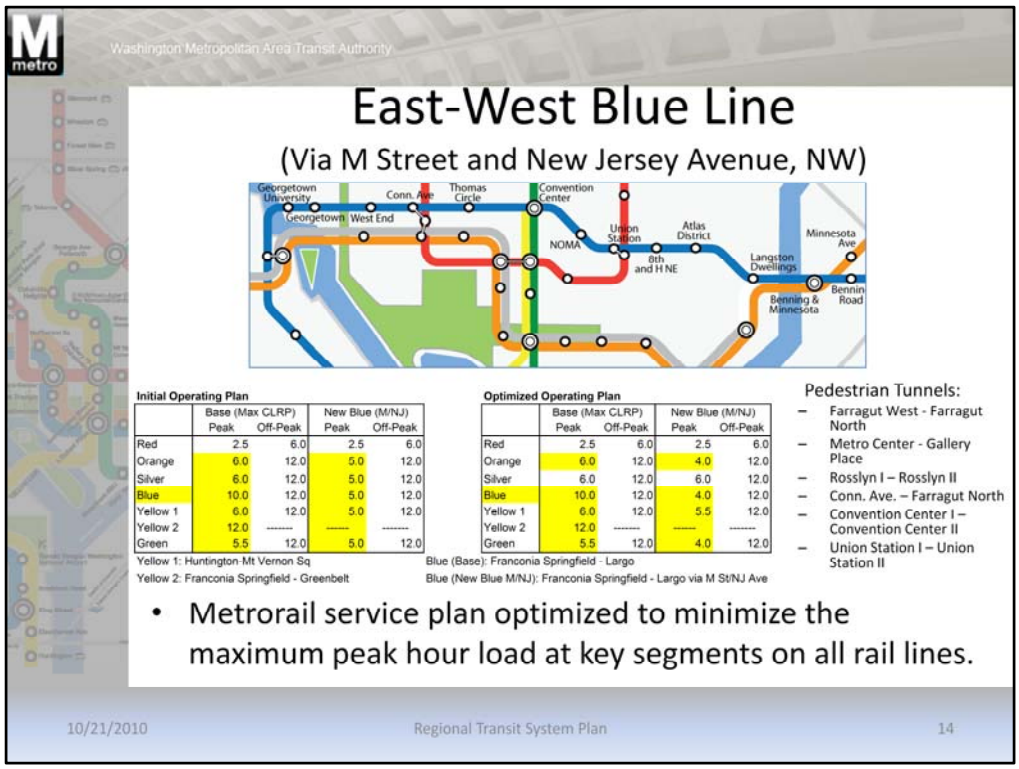

The chart above shows how each strategy performed according to the Measures of Effectiveness which relate the primary goals of the plan to system performance.

# DEFINITION OF STRATEGIES

## NEW RAIL LINES THROUGH THE CORE (ROUND 2)



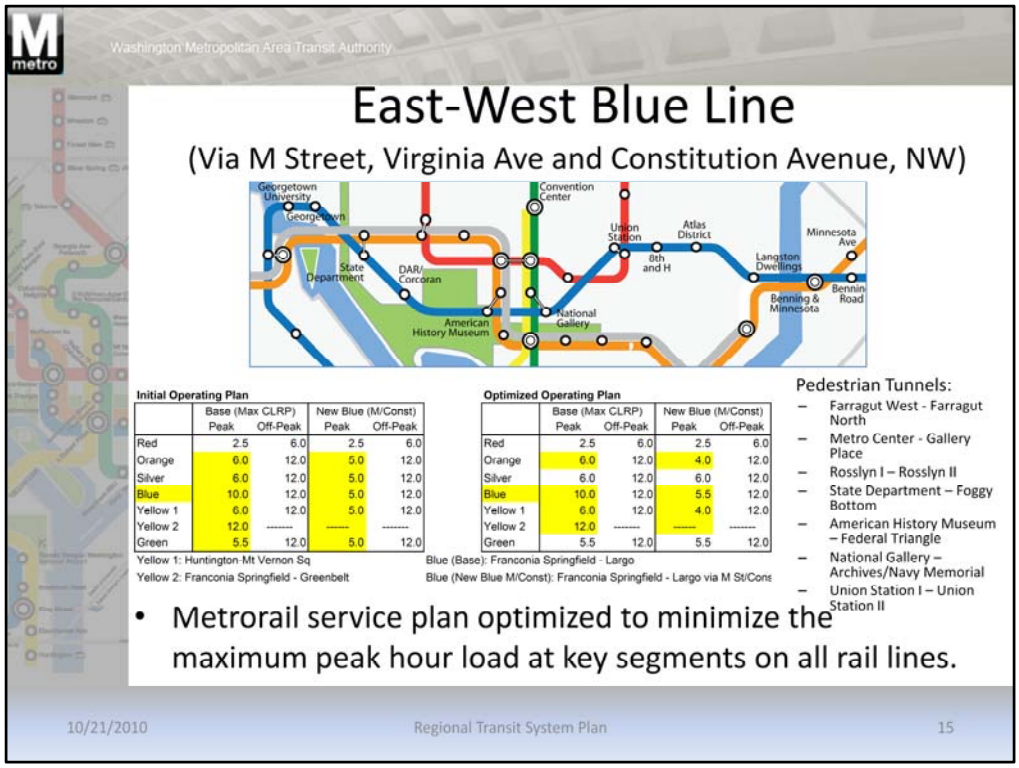

The graphic above shows a new N-S Yellow Line via 2nd Street, SE/NE. This proposed alignment follows M Street, SW, serving the Near Southeast neighborhood and Union Station. This strategy assumes several pedestrian tunnels to facilitate improved pedestrian access.



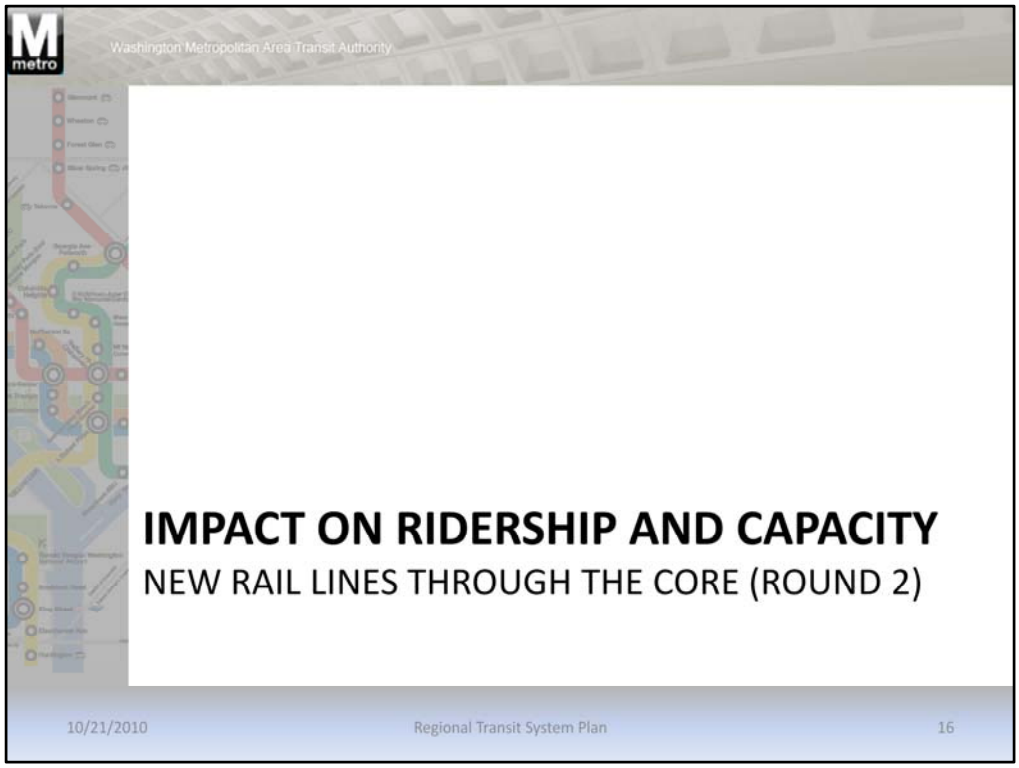

| Initial Operating Plan | Base (Max CLRP) | | New Blue (M/NJ) | |
|---|---|---|---|---|
| | Peak | Off-Peak | Peak | Off-Peak |
| Red | 2.5 | 6.0 | 2.5 | 6.0 |
| Orange | 6.0 | 12.0 | 5.0 | 12.0 |
| Silver | 6.0 | 12.0 | 5.0 | 12.0 |
| Blue | 10.0 | 12.0 | 5.0 | 12.0 |
| Yellow 1 | 6.0 | 12.0 | 5.0 | 12.0 |
| Yellow 2 | 12.0 | ------- | ------- | ------- |
| Green | 5.5 | 12.0 | 5.0 | 12.0 |

| Optimized Operating Plan | Base (Max CLRP) | | New Blue (M/NJ) | |
|---|---|---|---|---|
| | Peak | Off-Peak | Peak | Off-Peak |
| Red | 2.5 | 6.0 | 2.5 | 6.0 |
| Orange | 6.0 | 12.0 | 4.0 | 12.0 |
| Silver | 6.0 | 12.0 | 6.0 | 12.0 |
| Blue | 10.0 | 12.0 | 4.0 | 12.0 |
| Yellow 1 | 6.0 | 12.0 | 5.5 | 12.0 |
| Yellow 2 | 12.0 | ------- | ------- | ------- |
| Green | 5.5 | 12.0 | 4.0 | 12.0 |

The graphic above shows a new E-W Blue Line operating along M Street and Massachusetts Ave, NW and the impact of an optimized service plan on Metrorail. This strategy assumes several pedestrian tunnels to facilitate improved pedestrian access.




The graphic above shows a new E-W Blue Line operating along M Street and Constitution Avenue, NW and the impact of an optimized service plan on Metrorail. This strategy assumes several pedestrian tunnels to facilitate improved pedestrian access.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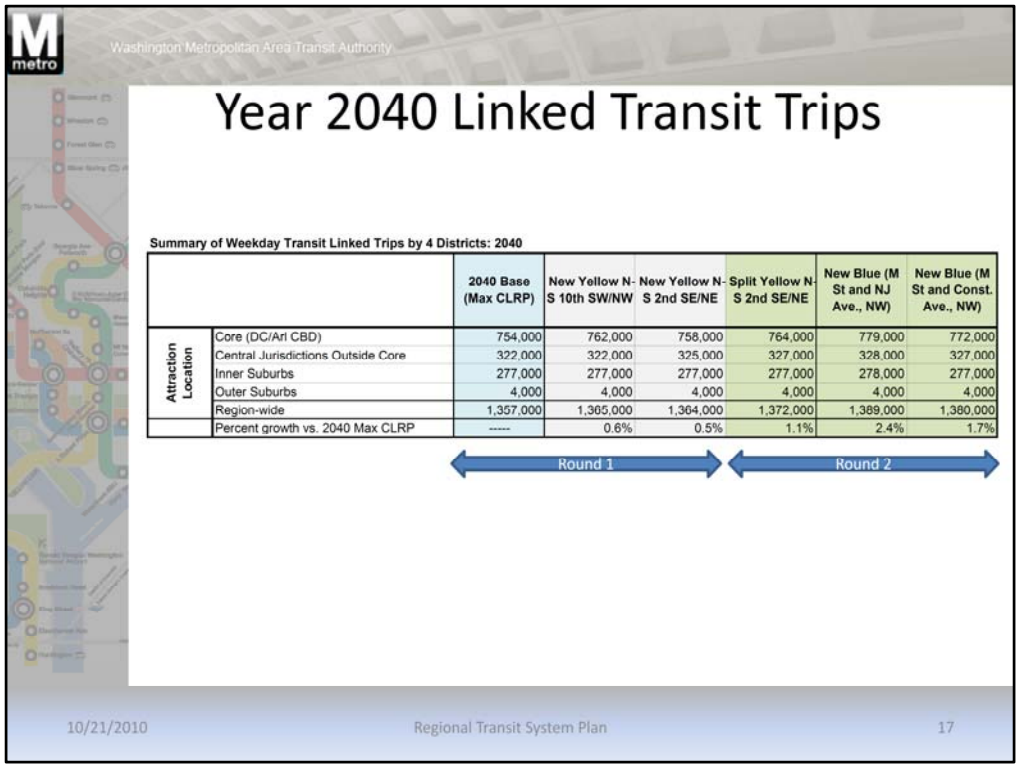
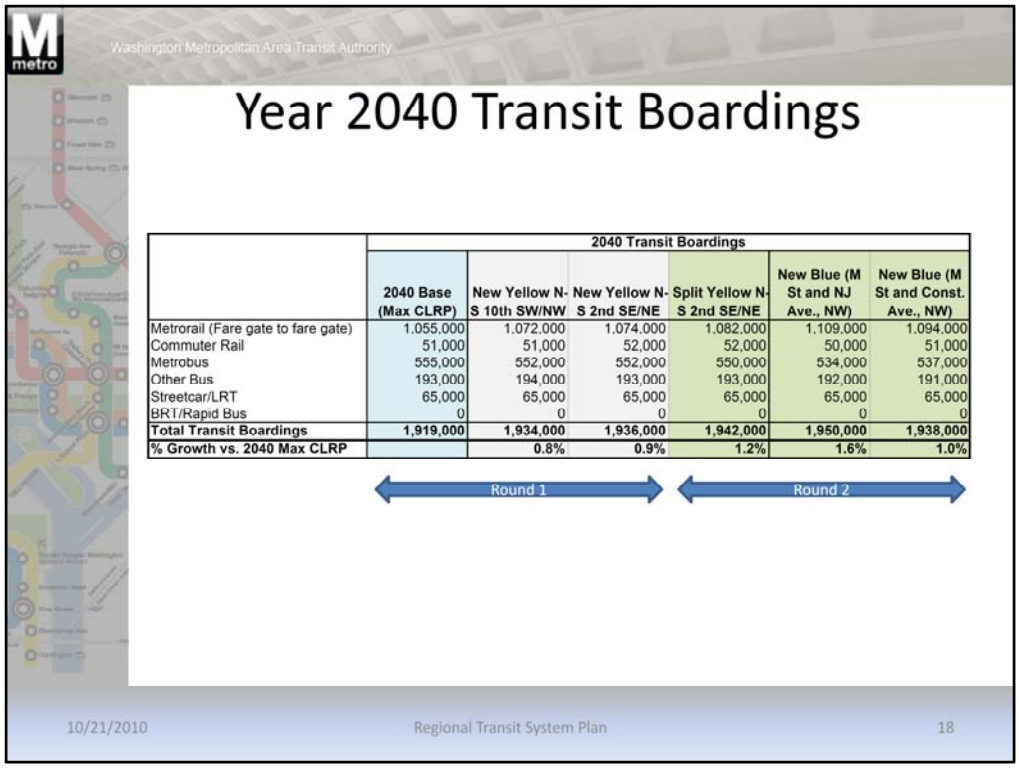
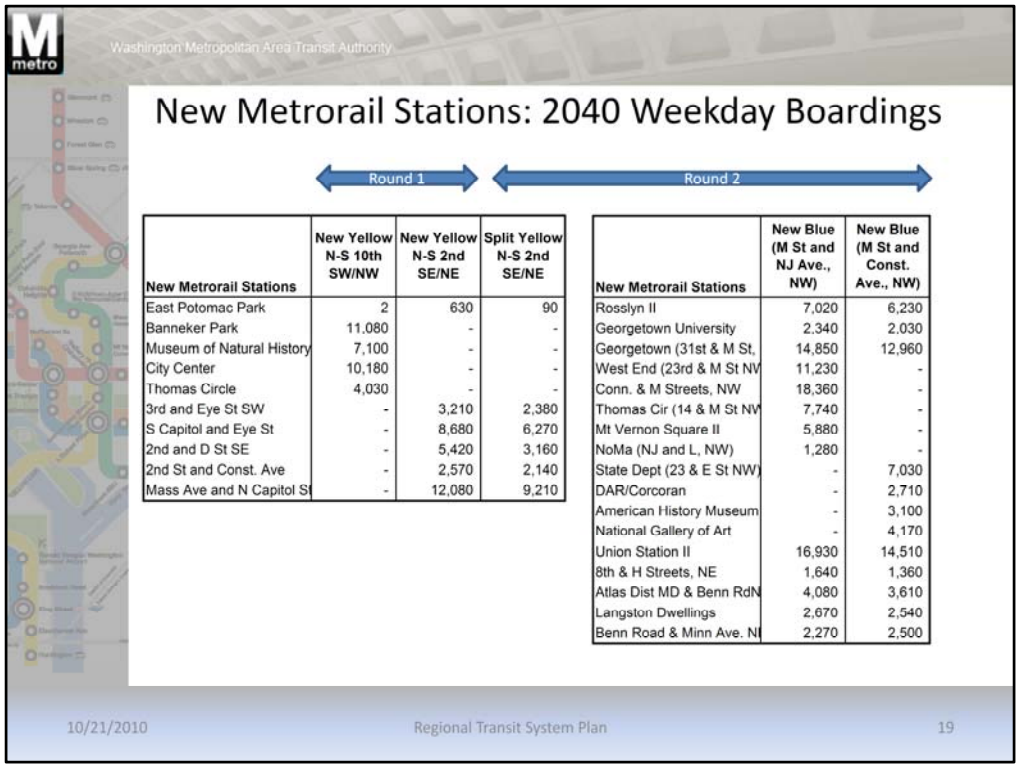


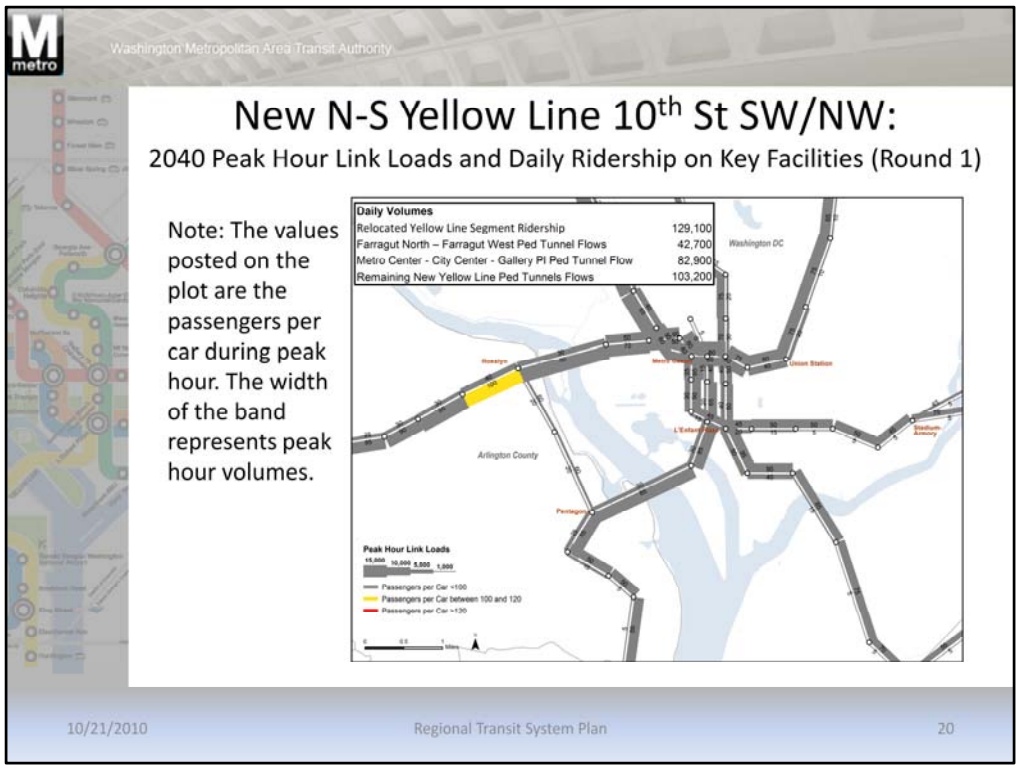

The chart above shows the number of linked transit trips in 2040 for the Base Case and each of the proposed new rail lines.



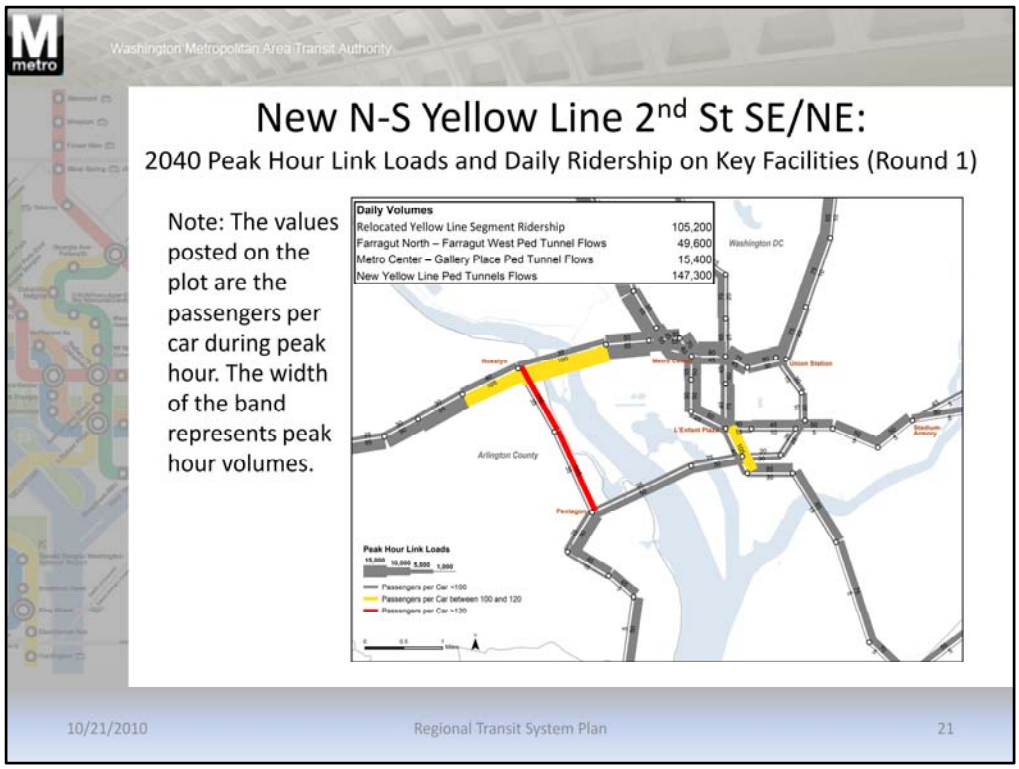

The chart above shows the number of transit boardings in 2040 for the Base Case and each of the proposed new rail lines.



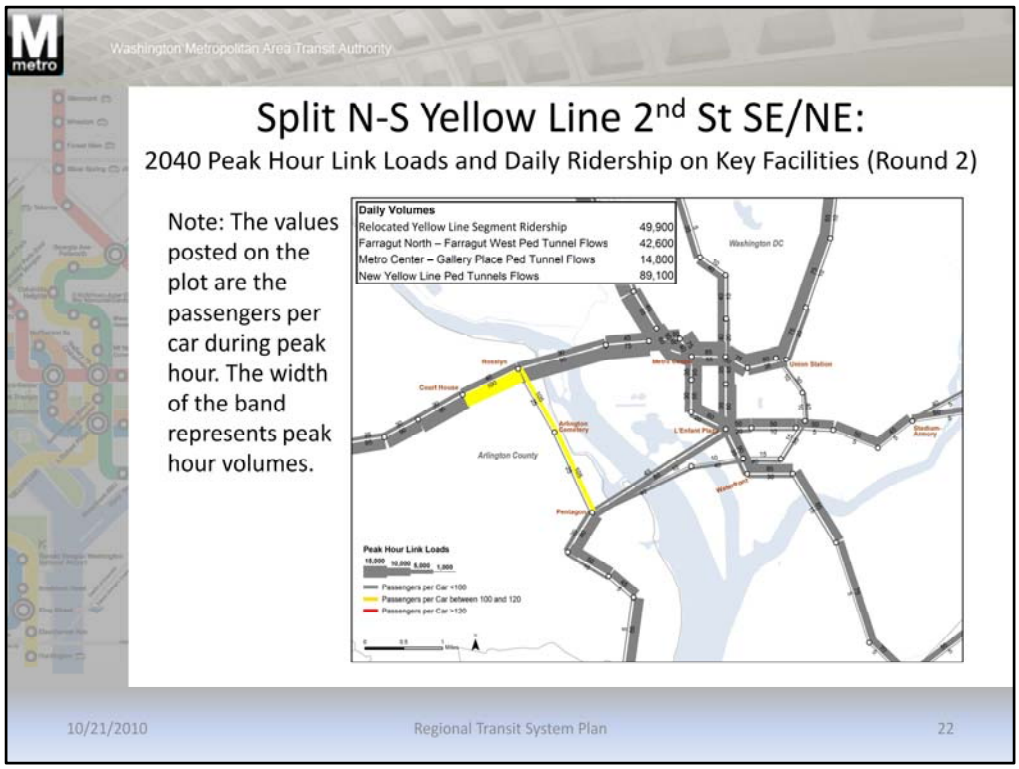

The chart above shows the 2040 weekday boardings at some of the new stop locations on each of the proposed new rail lines.



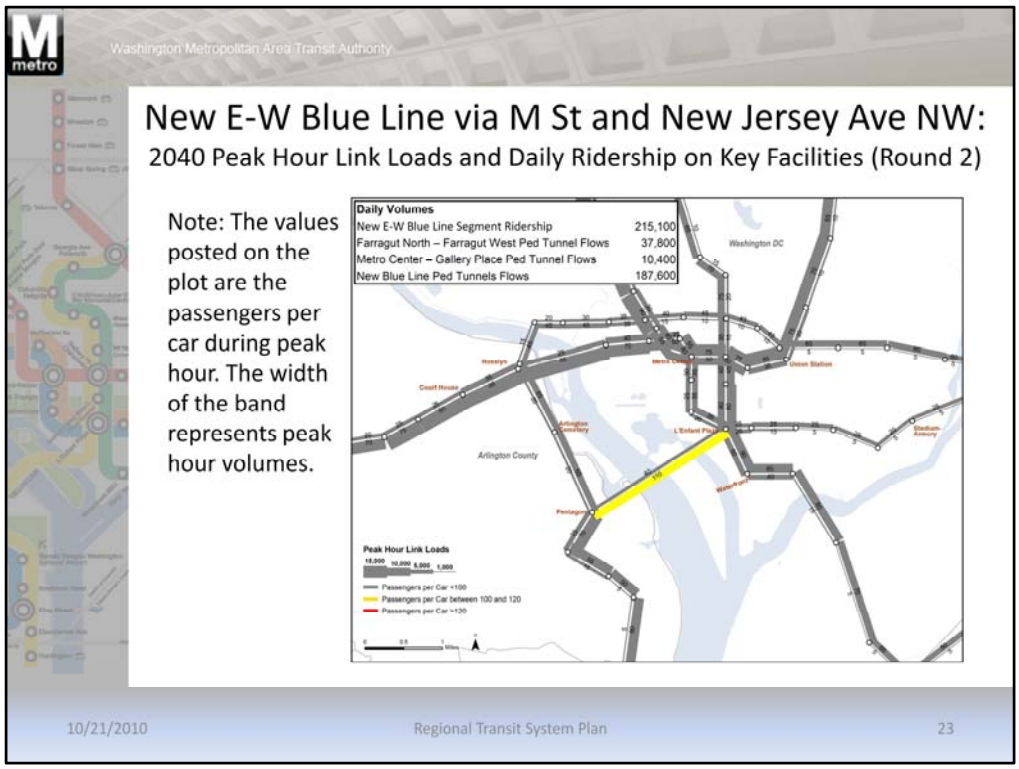

The graphic above shows the AM peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the new North-South Yellow Line on 10th Street, SW/NW. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car, and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.



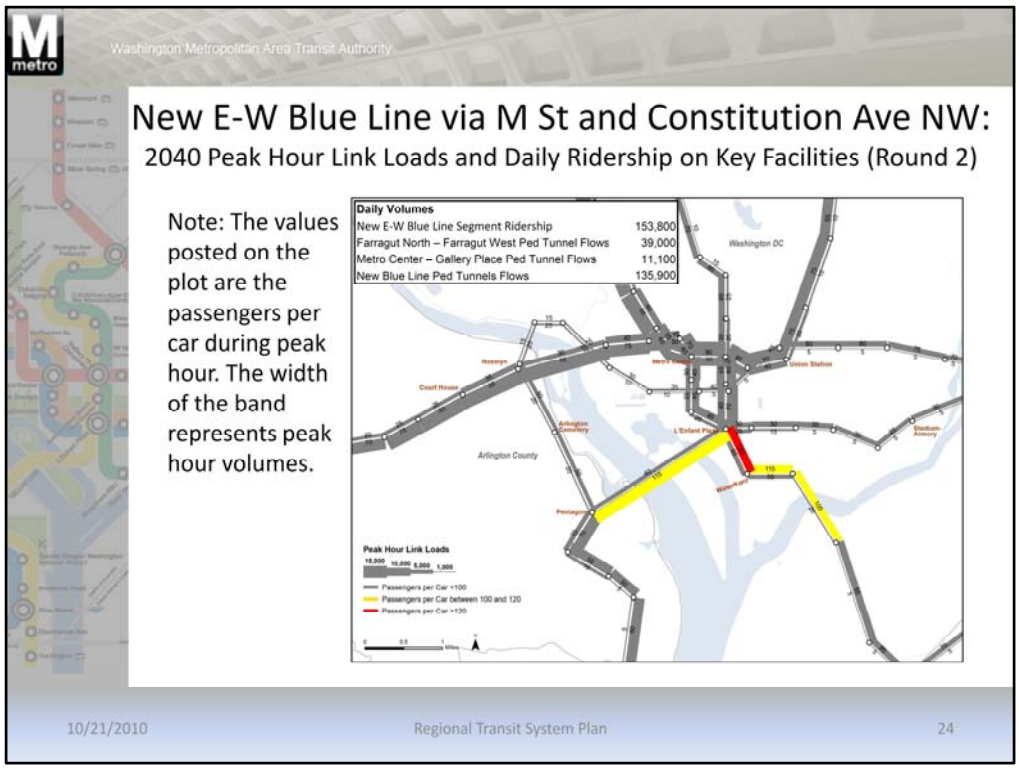

The graphic above shows the AM peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the new North-South Yellow Line on 2nd Street, SE/NE. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car, and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.



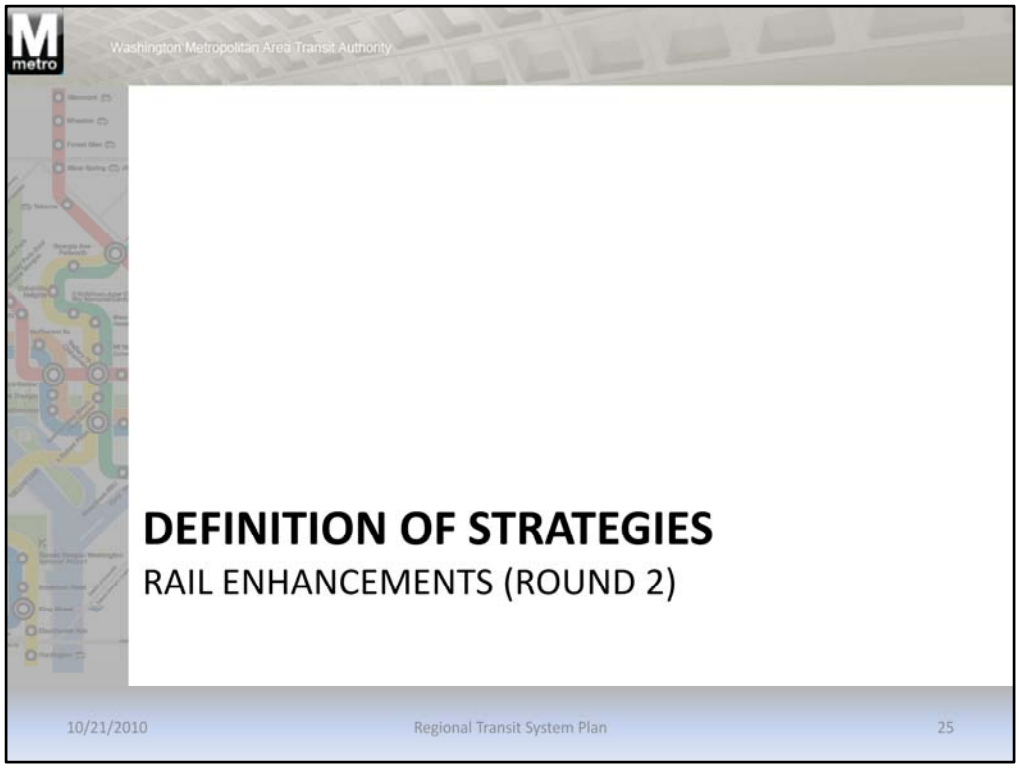

The graphic above shows the **AM** peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the new North-South Yellow Line on 2nd Street, SE/NE. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car, and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.




The graphic above shows the AM peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the new E-W Blue Line via M Street and Massachusetts Ave, NW. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car, and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.




The graphic above shows the AM peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the new E-W Blue Line via M Street and Constitution Ave., NW. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car, and the red represents over 120 passengers per rail car. Right-side link load values represent inbound passengers.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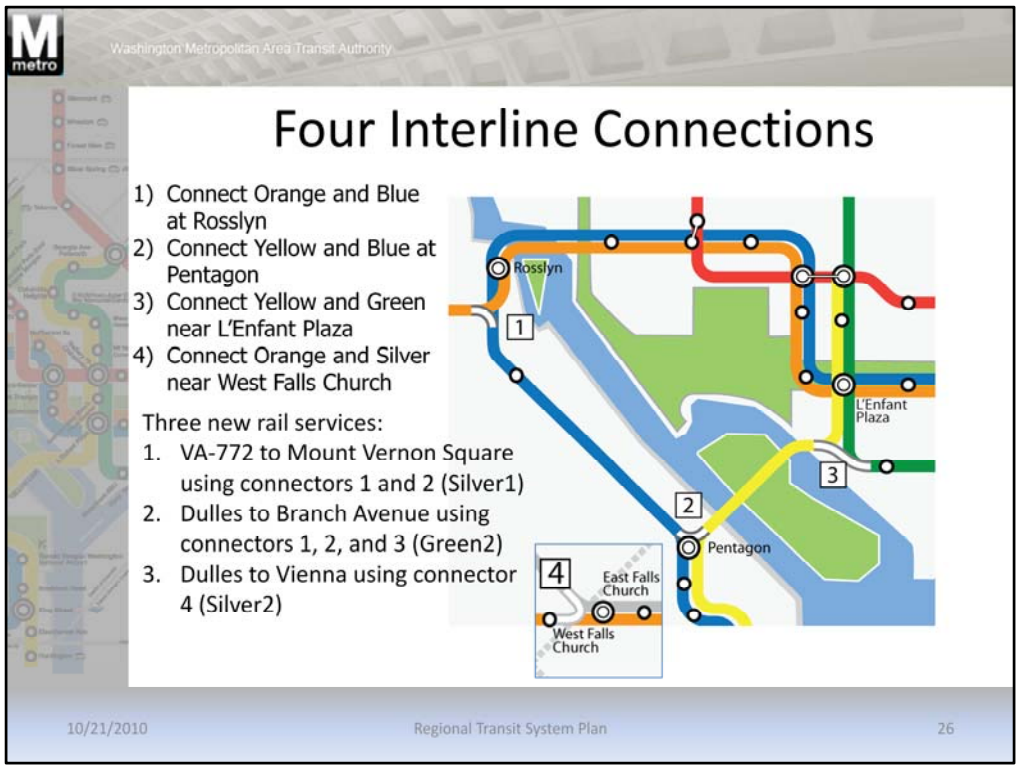
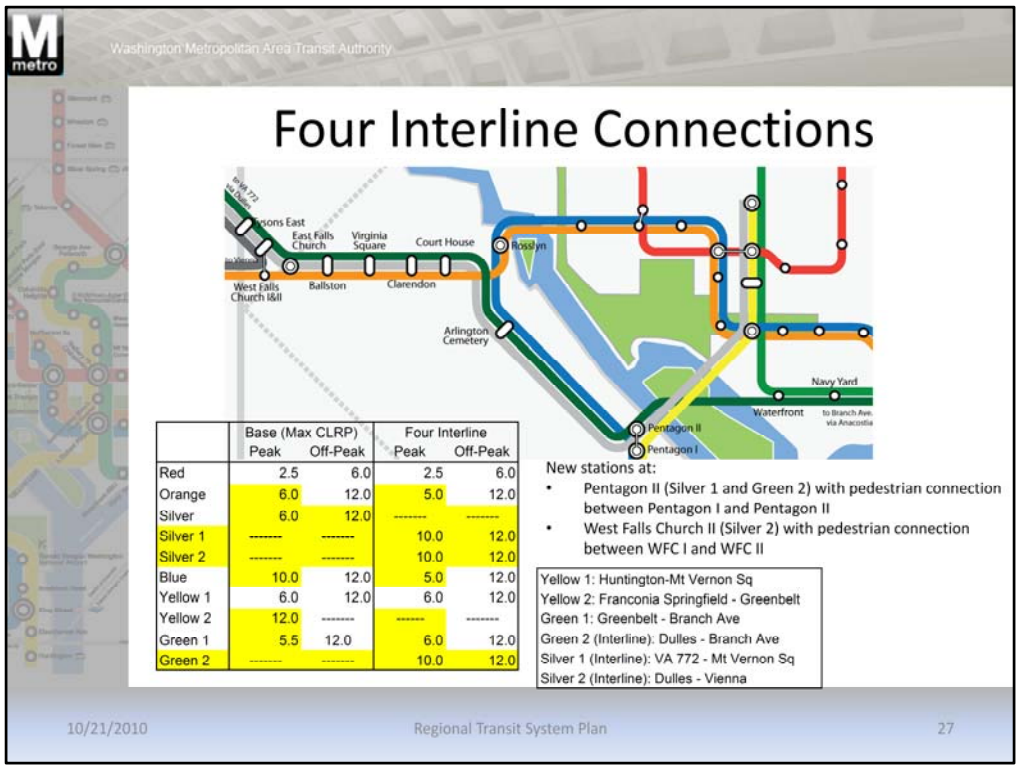
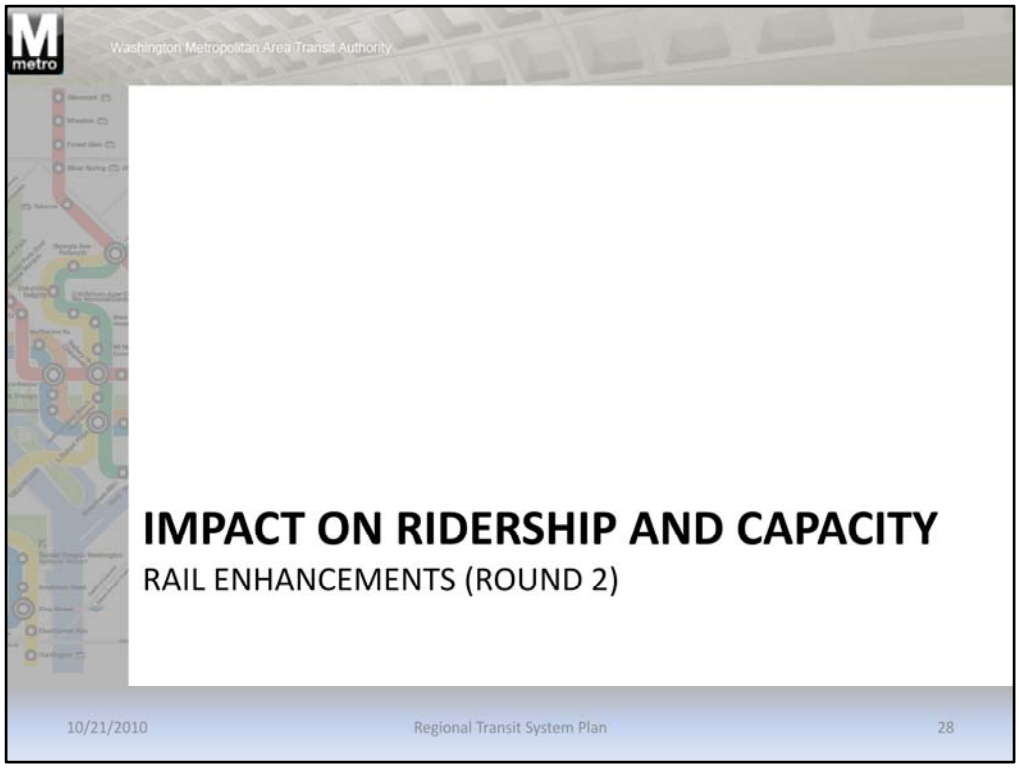



The graphic above shows four locations where rail "interlining" (Definition: When different trains operate on the same route or line.) can occur to relieve some of the pedestrian congestion at high transfer/ridership Metrorail Stations.




The graphic above shows the impact of the Rail Interlining Strategy on each rail line and the Base Case. This strategy includes several new stations as well.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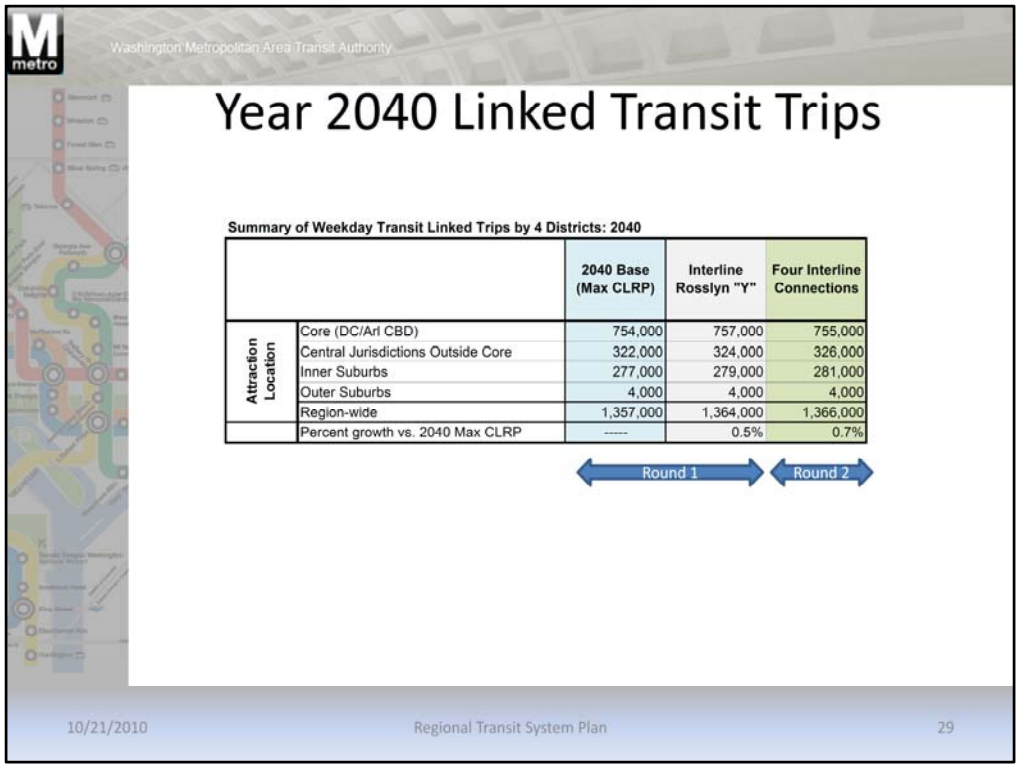
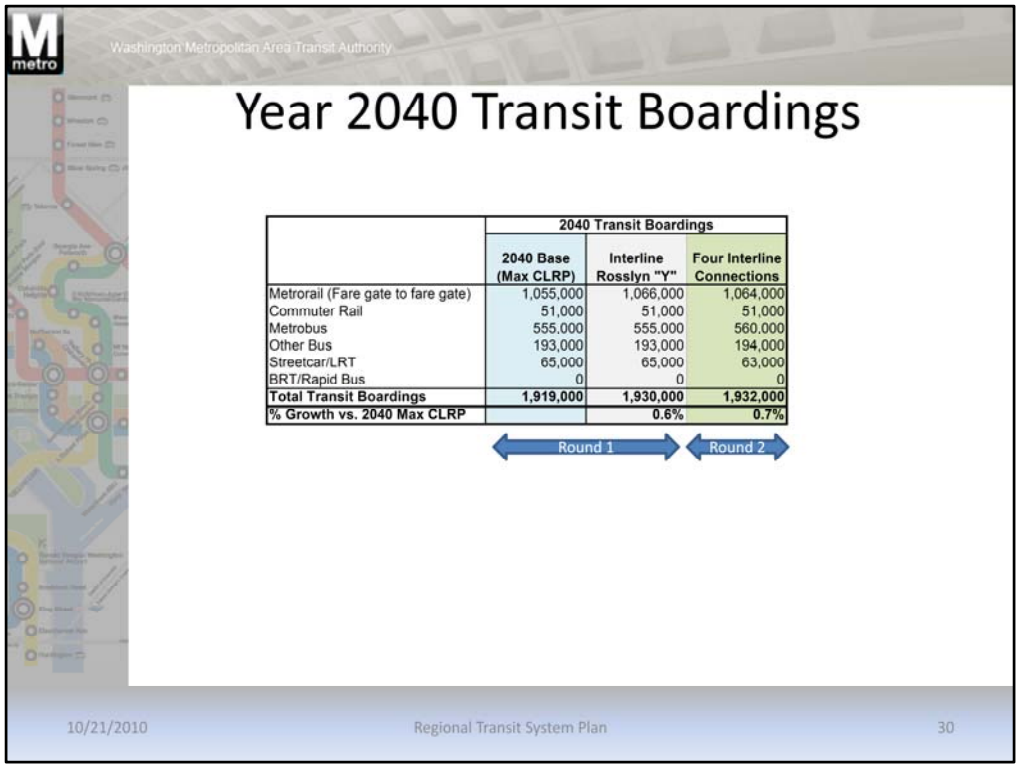
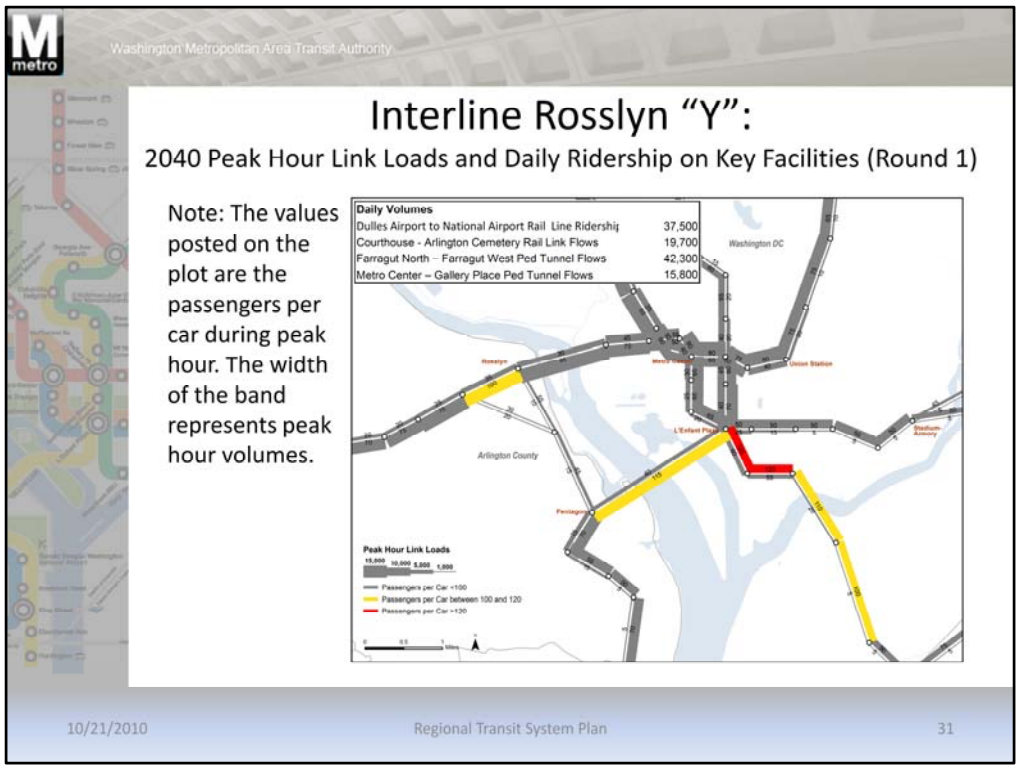


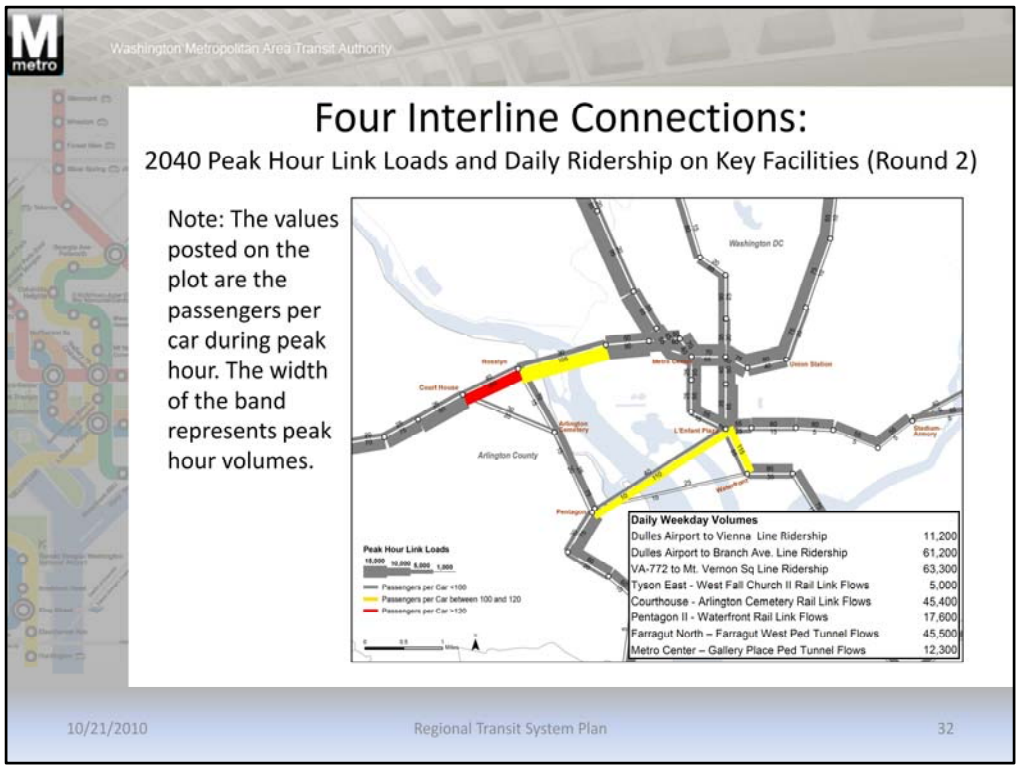

The chart above shows the number of linked transit trips in 2040 for the Base Case, a single Interline option “Rosslyn Y”, and all four Interline Connections.




The chart above shows the number of 2040 Transit Boardings for the Base Case, a single Interline option “Rosslyn Y”, and all four Interline Connections.



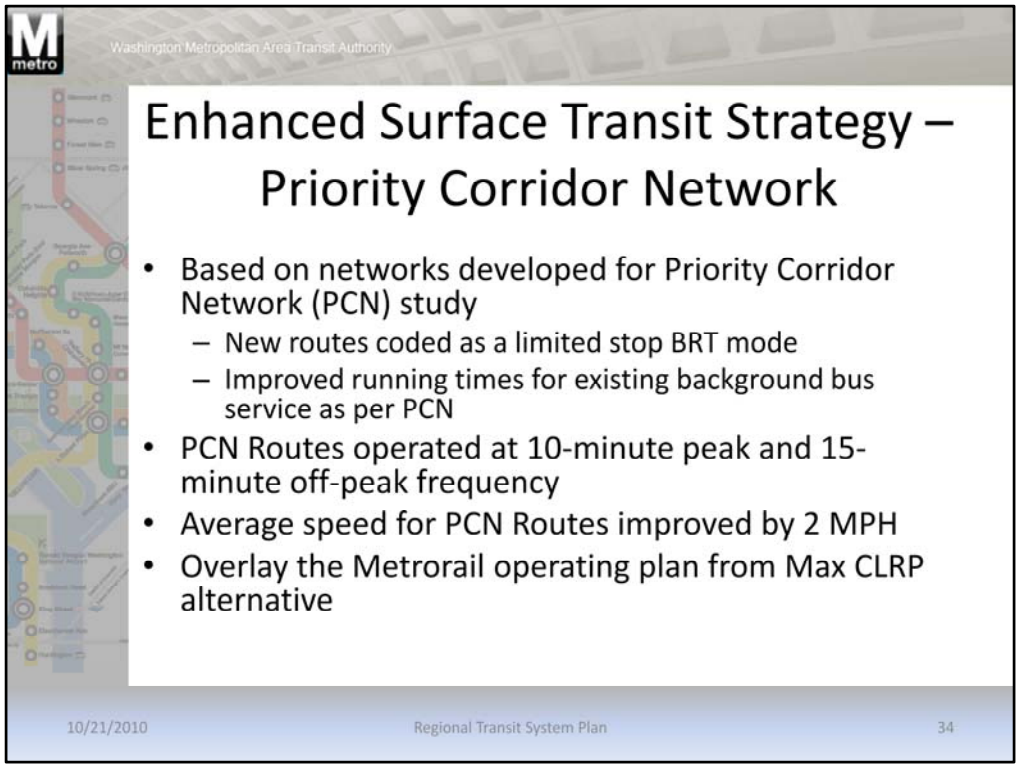

The graphic above shows the AM peak hour link loads on Metrorail cars and daily ridership at several locations in 2040 with the Interline Rosslyn "Y" Strategy. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.



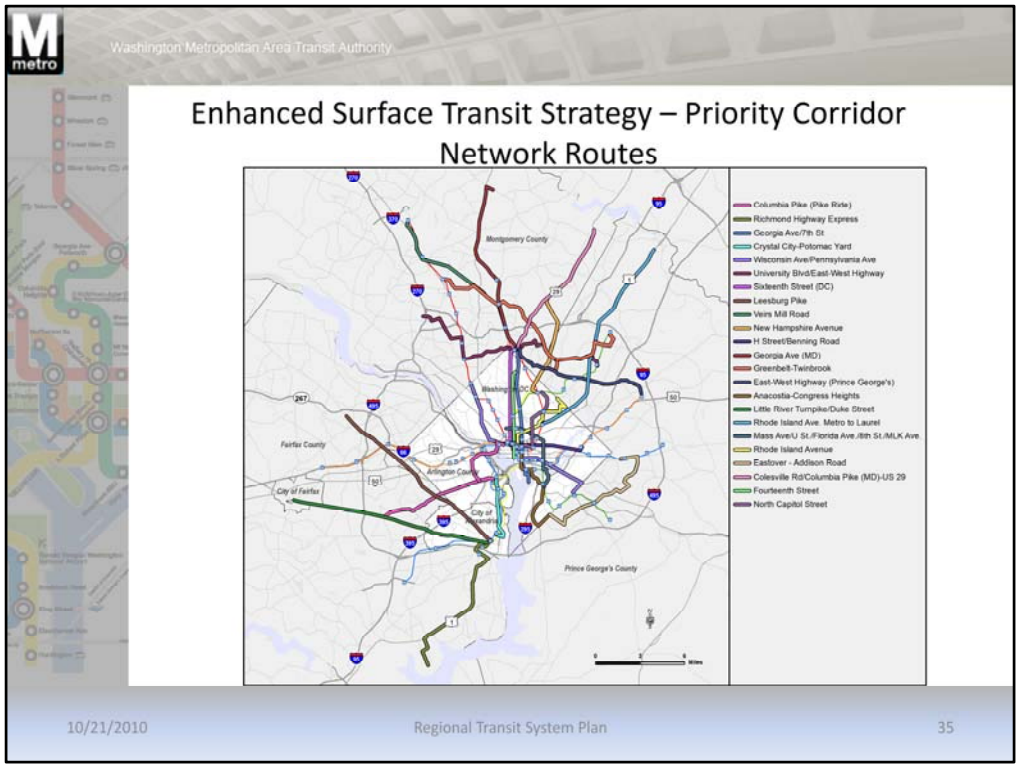

The graphic above shows the AM peak hour link loads on Metrorail cars and ridership volumes at several locations in 2040 with Four Interline Connections Strategy. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.

# DEFINITION OF STRATEGIES

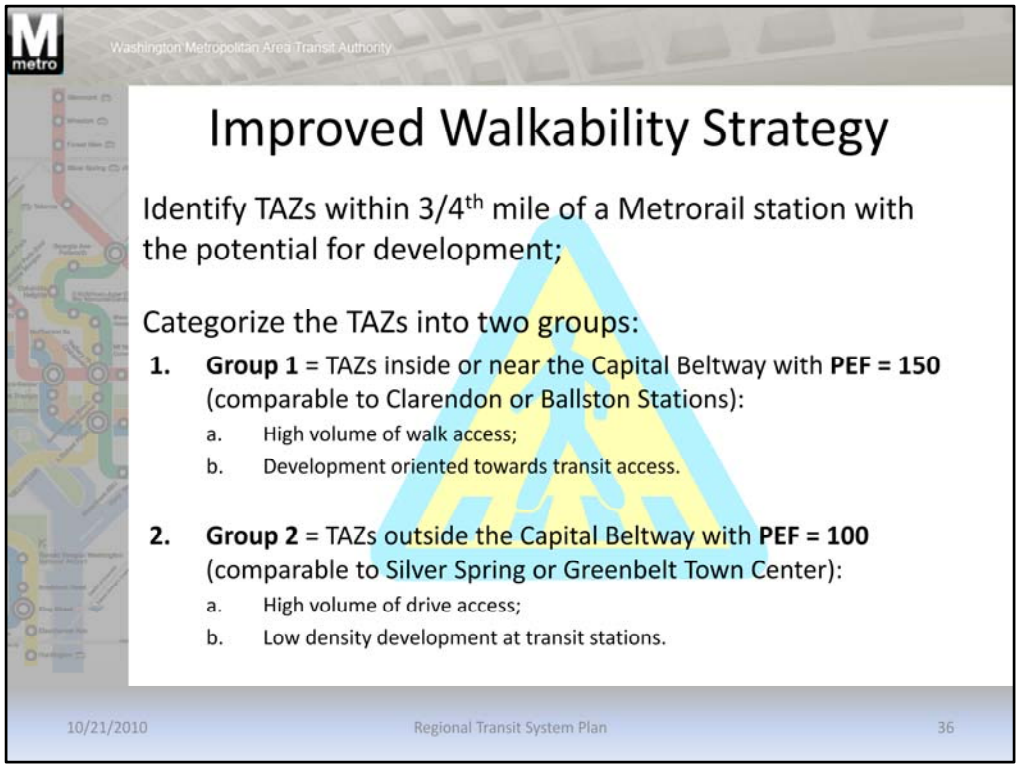
ENHANCED EXISTING SURFACE TRANSIT, WALKABILITY



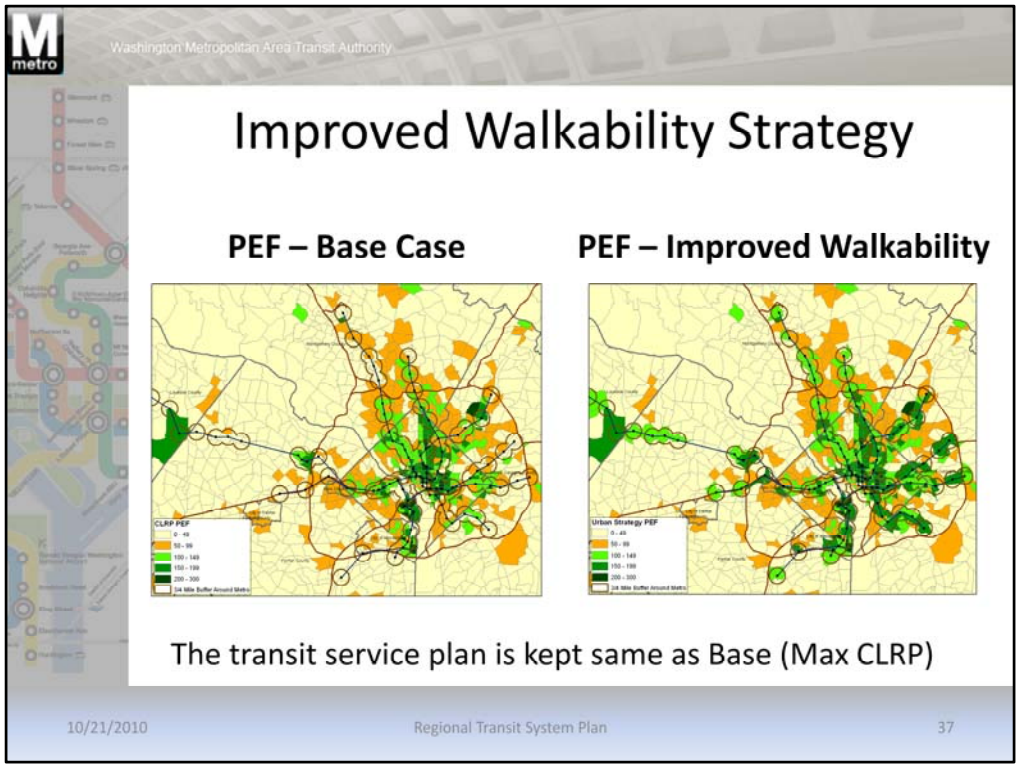

The Enhanced Surface Transit Strategy includes in the baseline Metro's Priority Corridor Network and assumes the bulleted elements described in the slide.



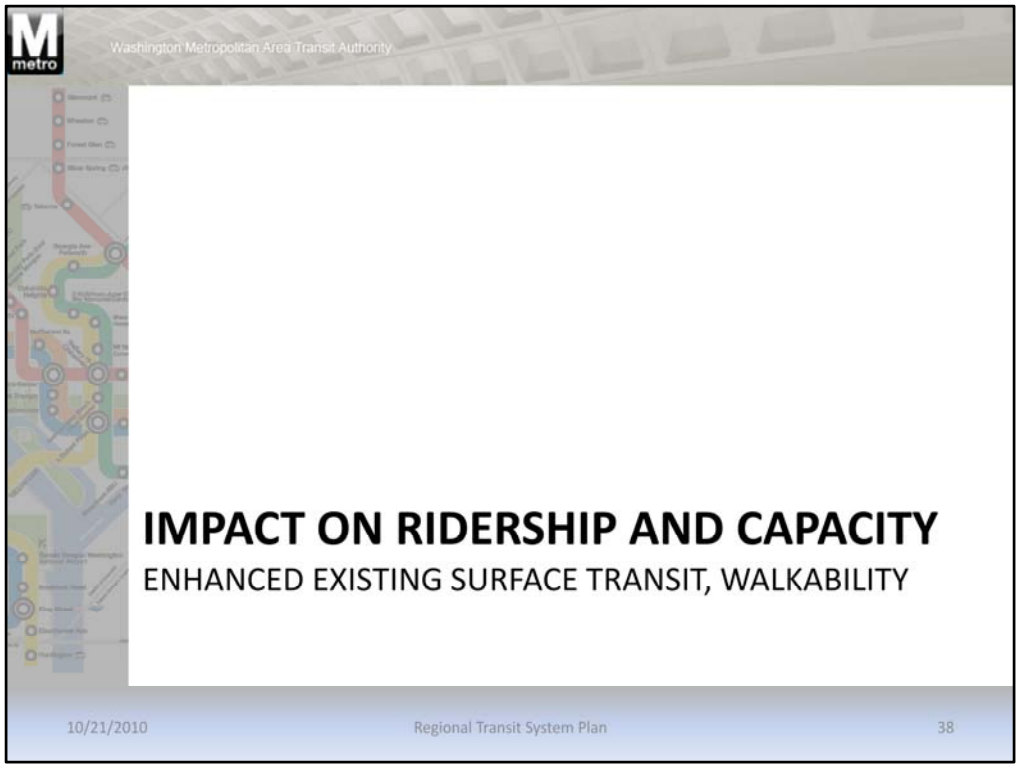

The graphic above shows the Priority Corridor Network Routes.




The Improved Walkability Strategy will show the influence of improved pedestrian infrastructure (sidewalks) on transit use. In order to determine the impact more walkability would have on increasing transit use, we will utilize the Pedestrian Environment Factor (PEF), which informs an individuals mode of access to a transit trip to model walkability. The PEF is a measure of walkability of an area or location. We categorized the PEF's into two categories for the purposes of the RTSP study.




The graphic above shows the PEF of our base case and that with improved walkabiilty.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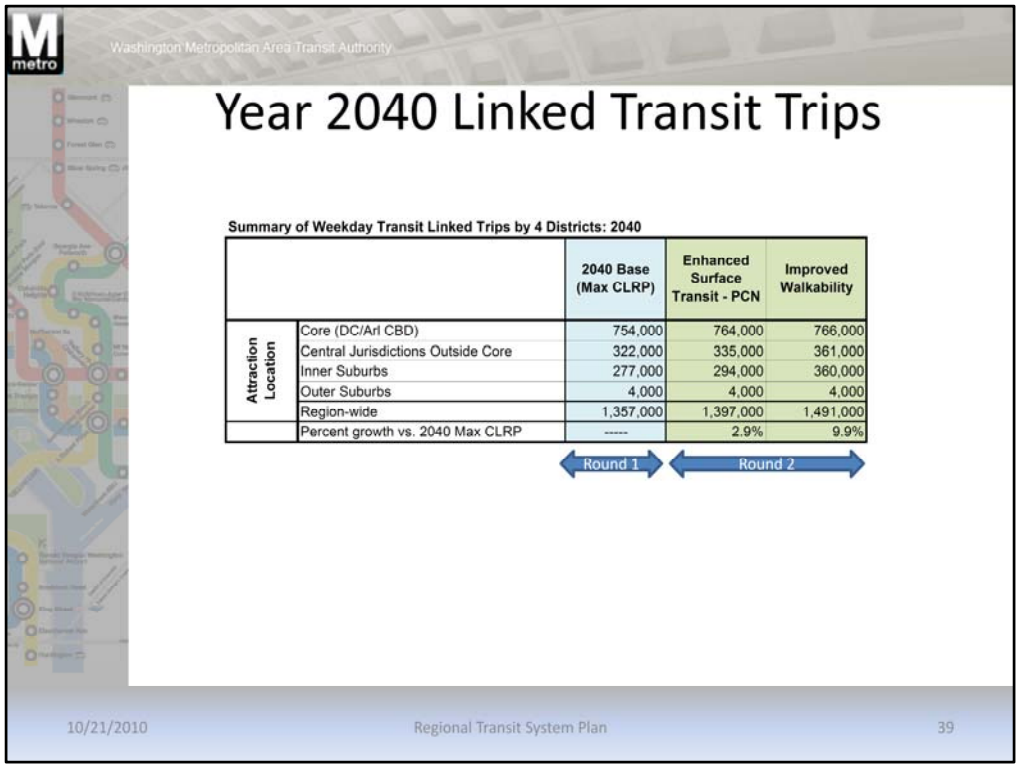
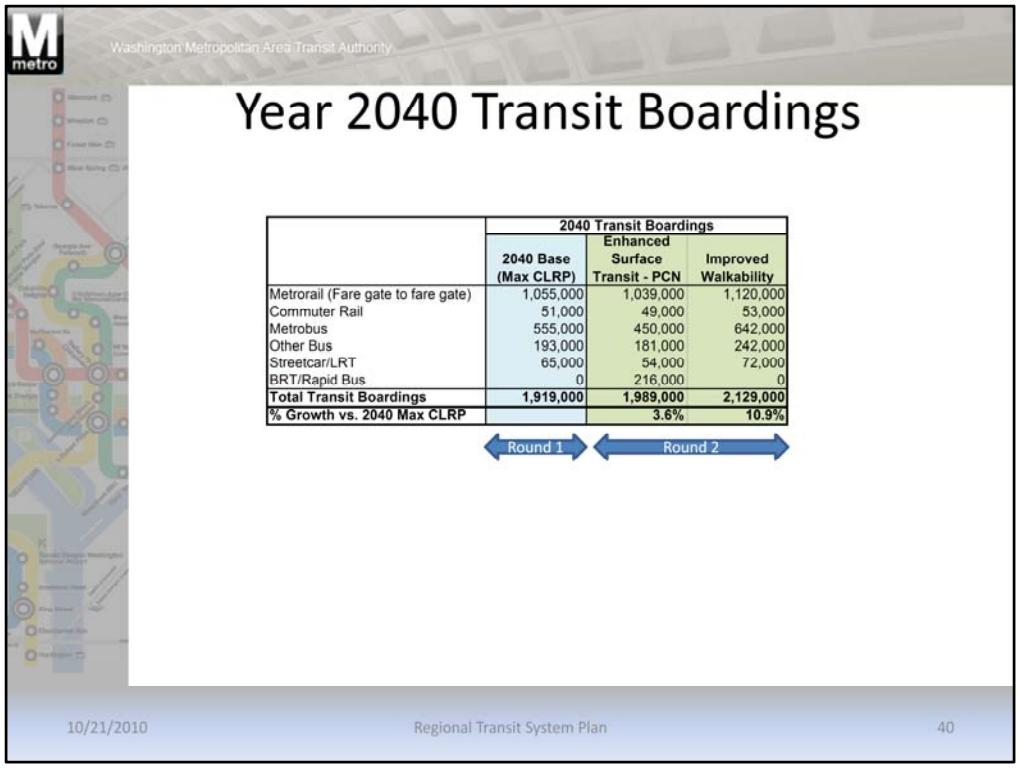
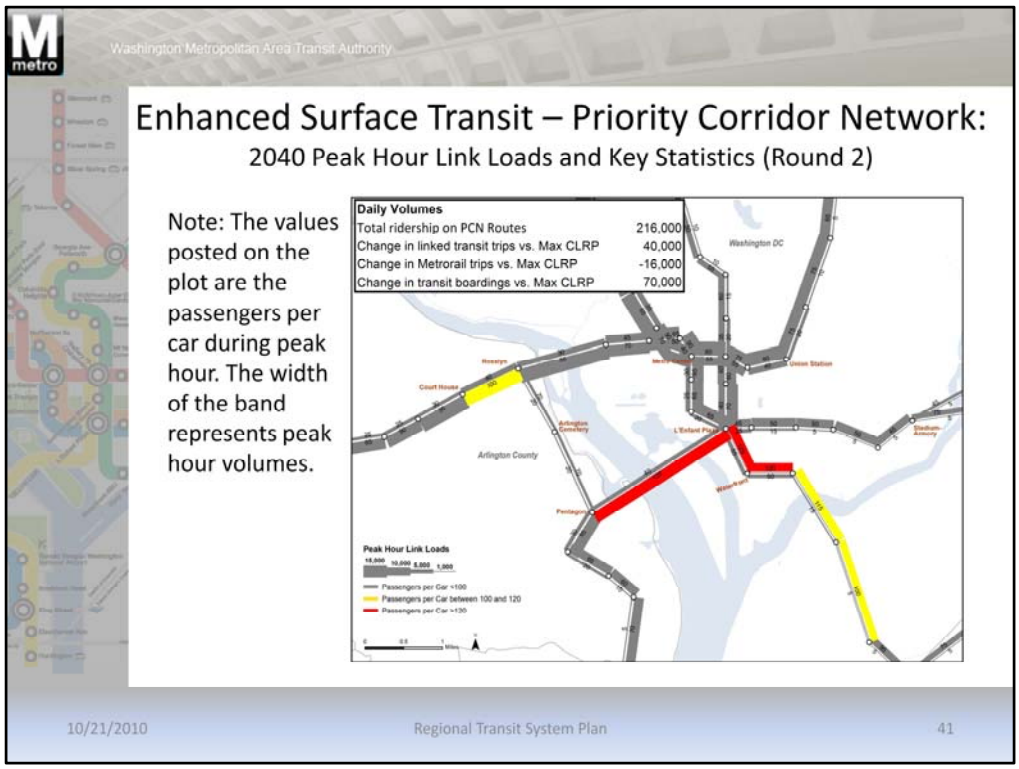


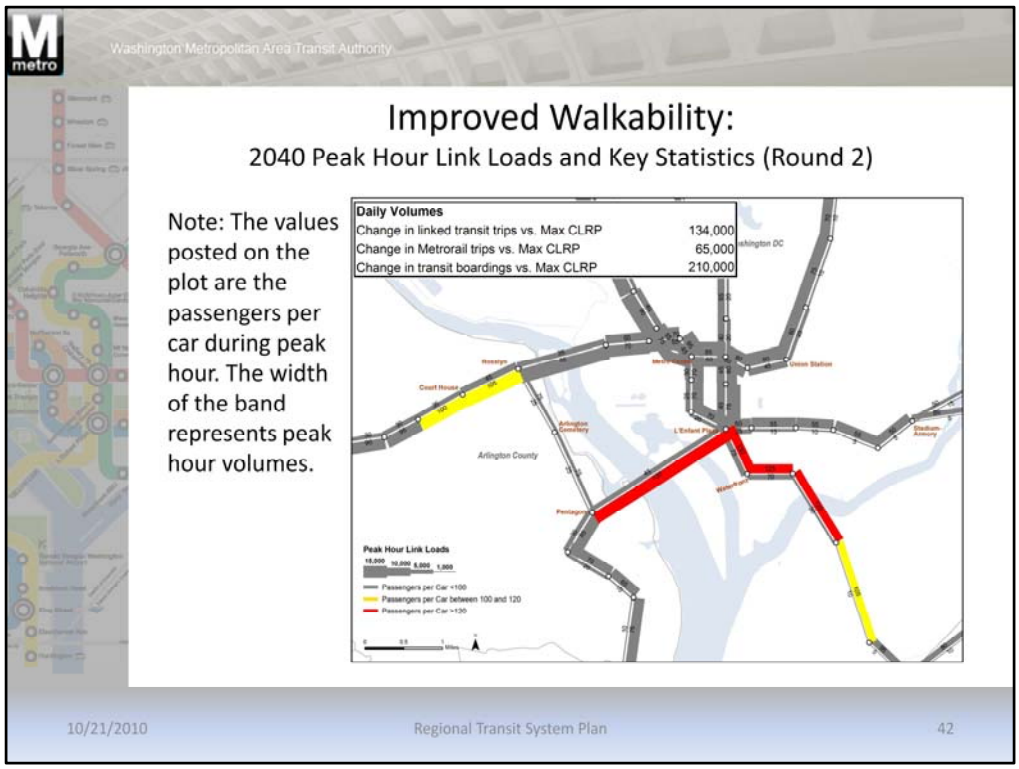

The graphic above shows the linked transit trips for the 2040 Base, Enhanced Surface Transit and Improved Walkability Strategies in 2040.




The graphic above shows the transit boardings for the 2040 Base, Enhanced Surface Transit and Improved Walkability Strategies in 2040.

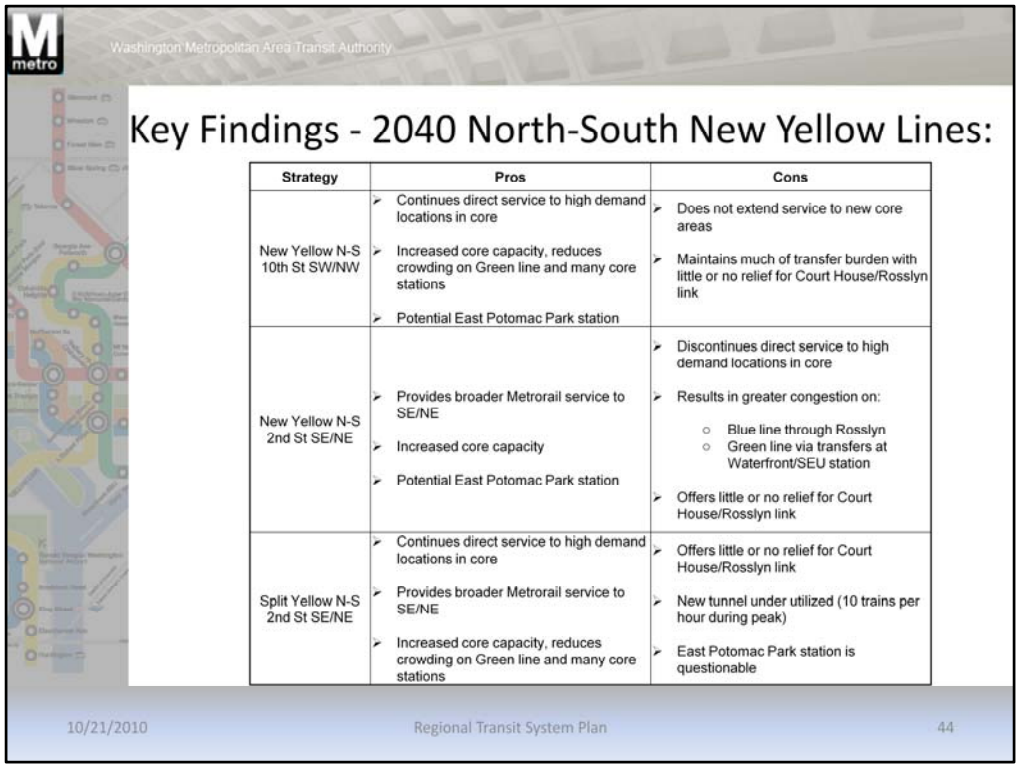



The graphic above shows the AM peak hour link loads on Metrorail trains in 2040 under the Enhanced Surface Transit Strategy. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.

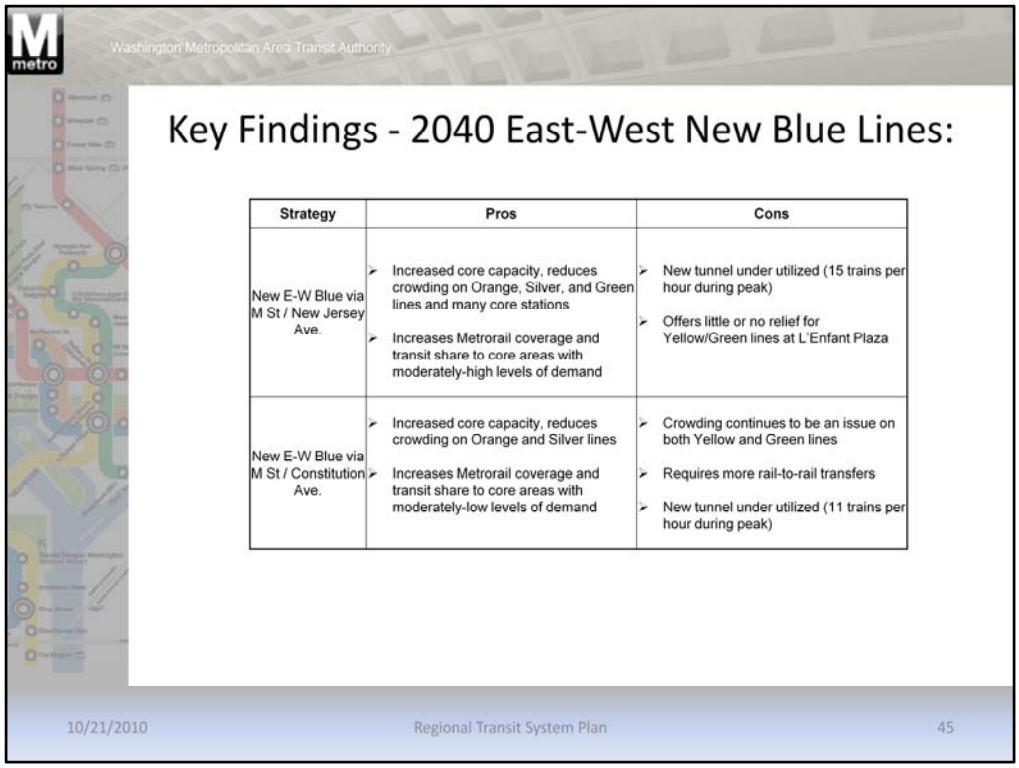



The graphic above shows the AM peak hour link loads on Metrorail trains in 2040 under the Improved Walkability Strategy. The gray color represents fewer than 100 passengers per car; yellow indicates between 100 and 120 passengers per car and the red represents over 120 passengers per rail car. The higher link-load values represent passengers traveling to the core during the AM peak hour.

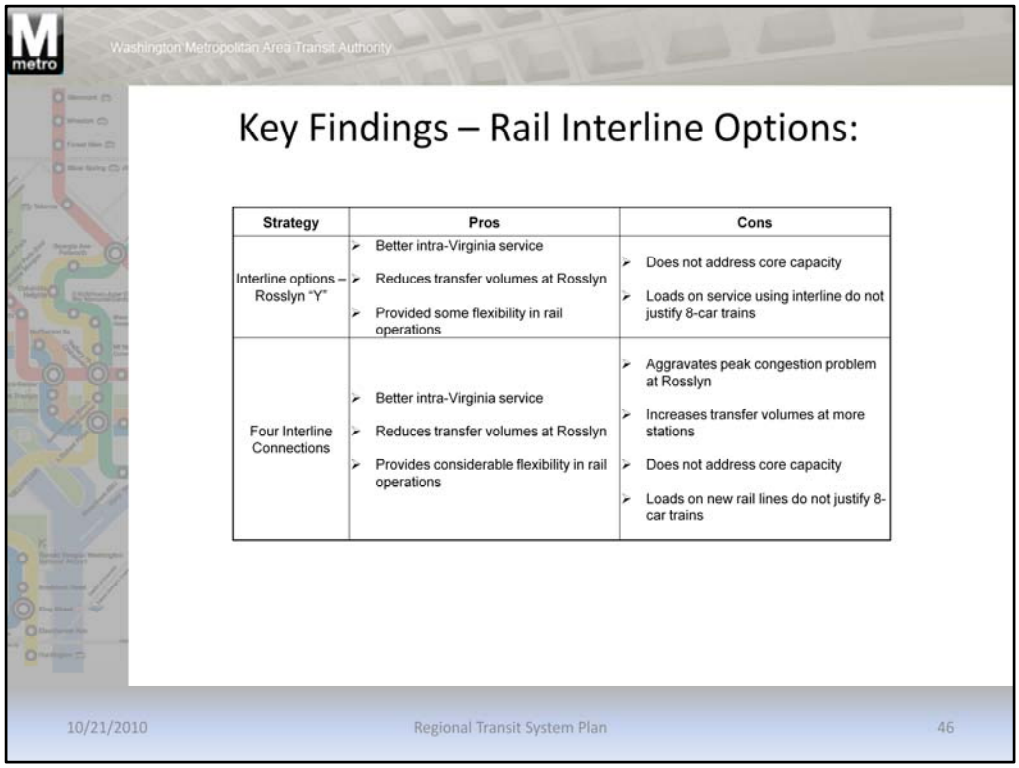
# PRELIMINARY EVALUATION



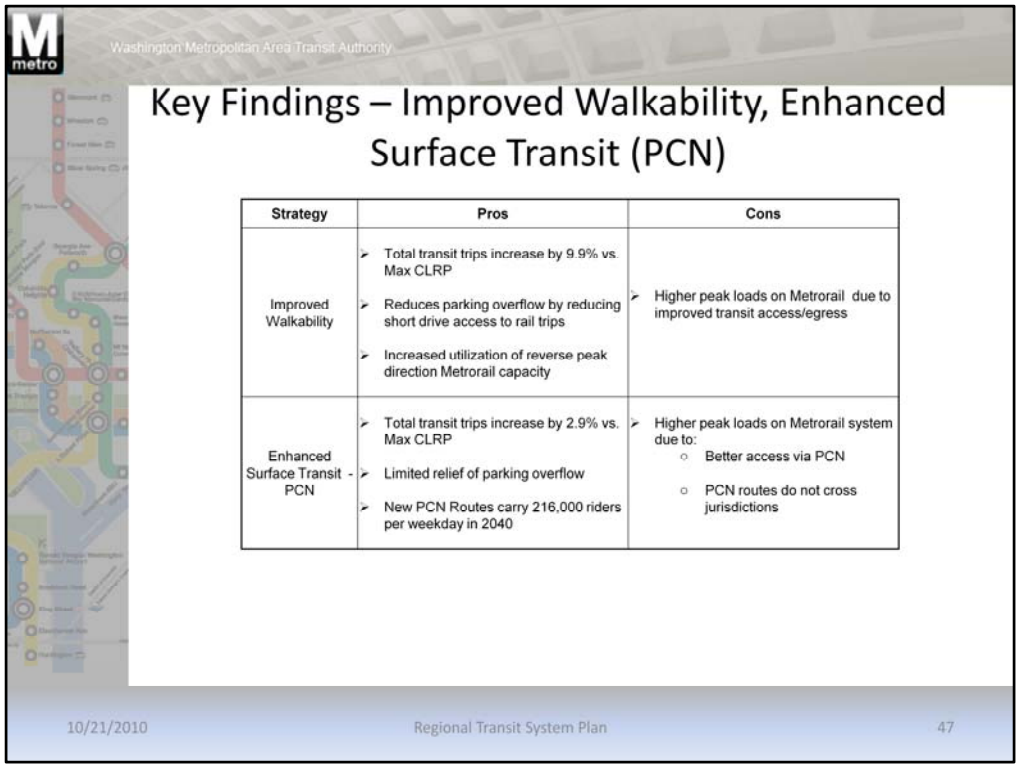

The chart above shows the key findings for the 2040 North-South New Yellow Lines.



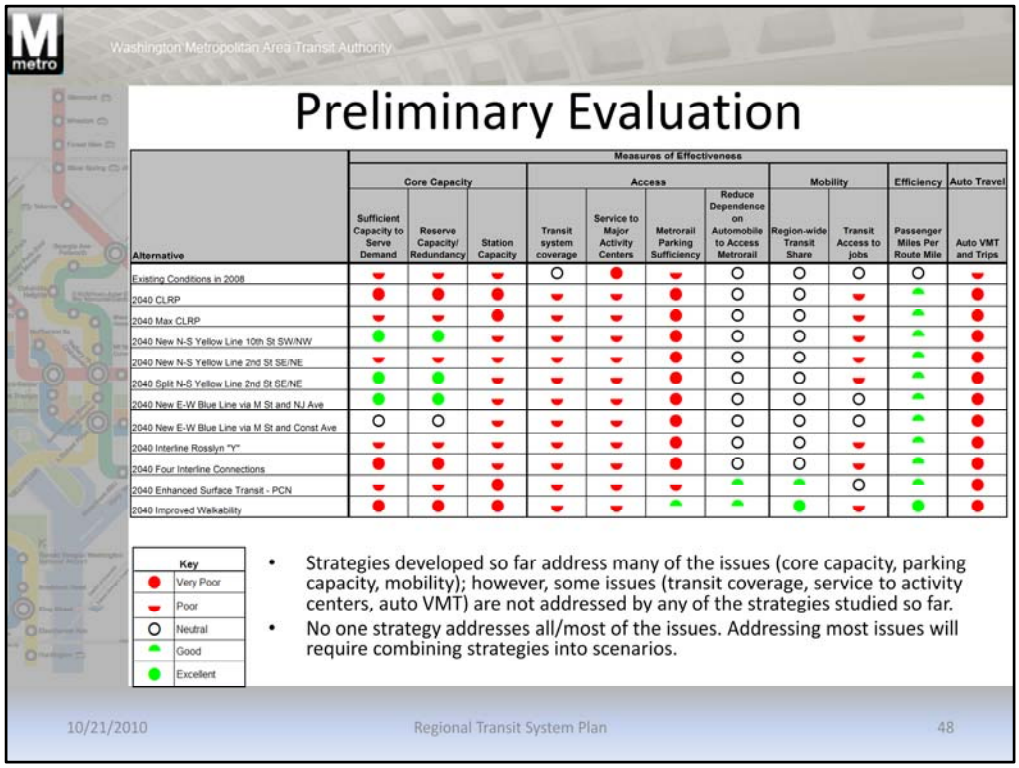

The chart above shows the key findings for the 2040 East-West New Blue Lines.



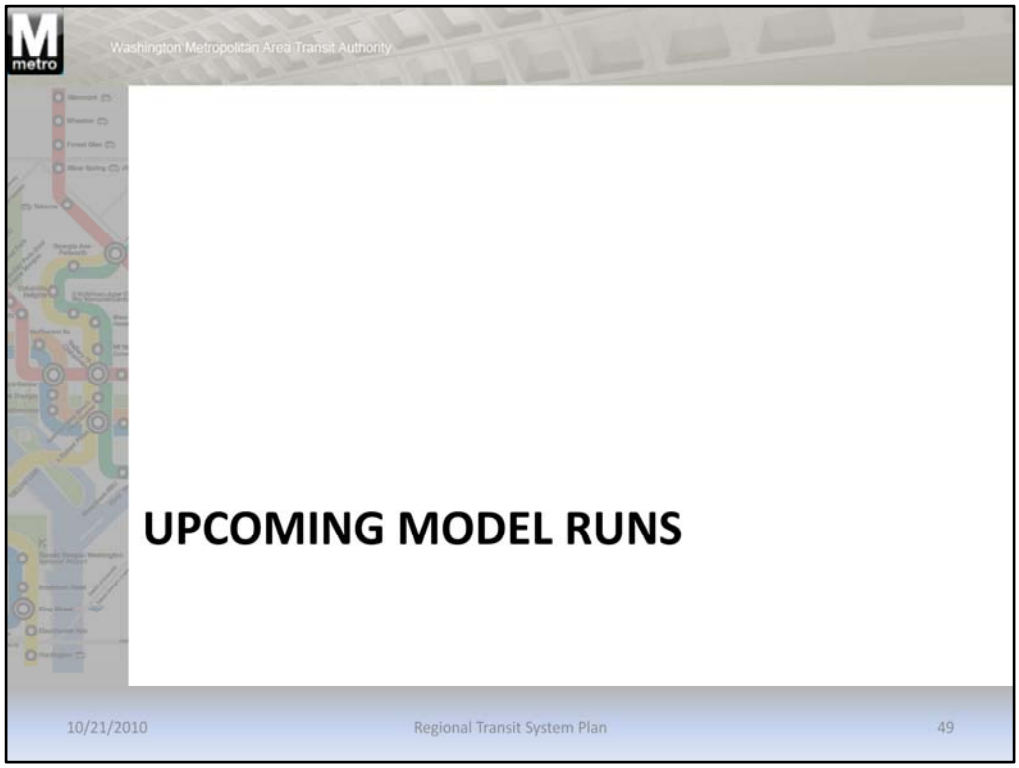

The chart above shows the key findings for the 2040 Rail Interline Strategies.




The chart above shows the key findings for the 2040 Improved Walkability and Surface Transit Strategies.




The chart above shows how each strategy performed according to the Measures of Effectiveness.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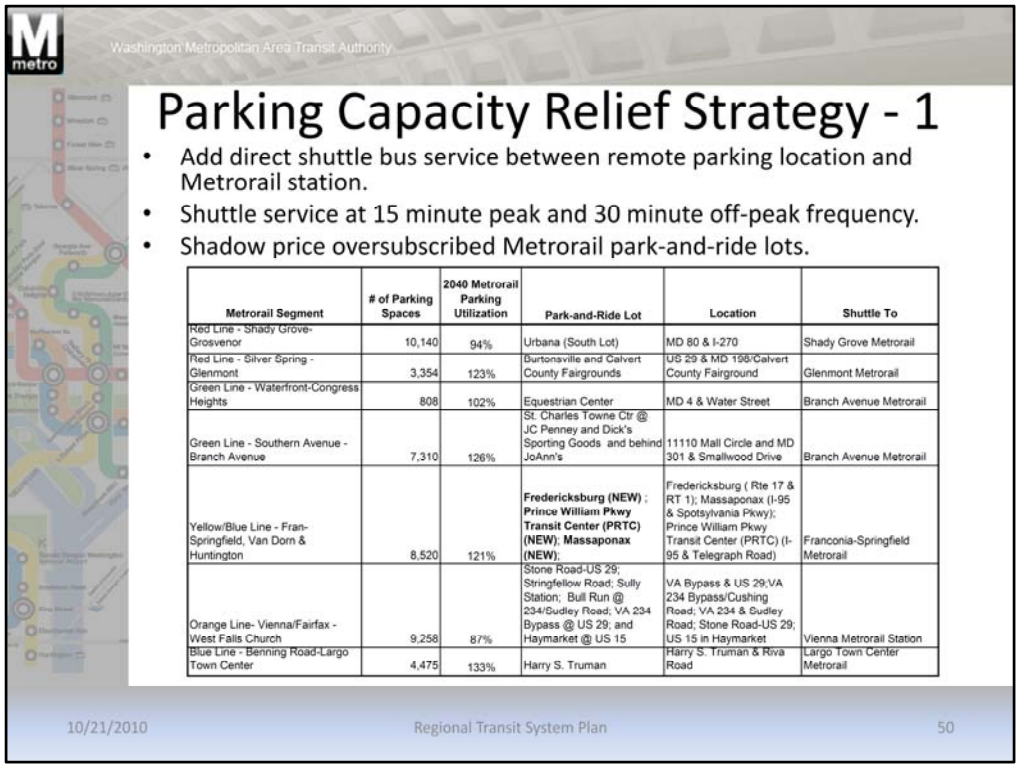
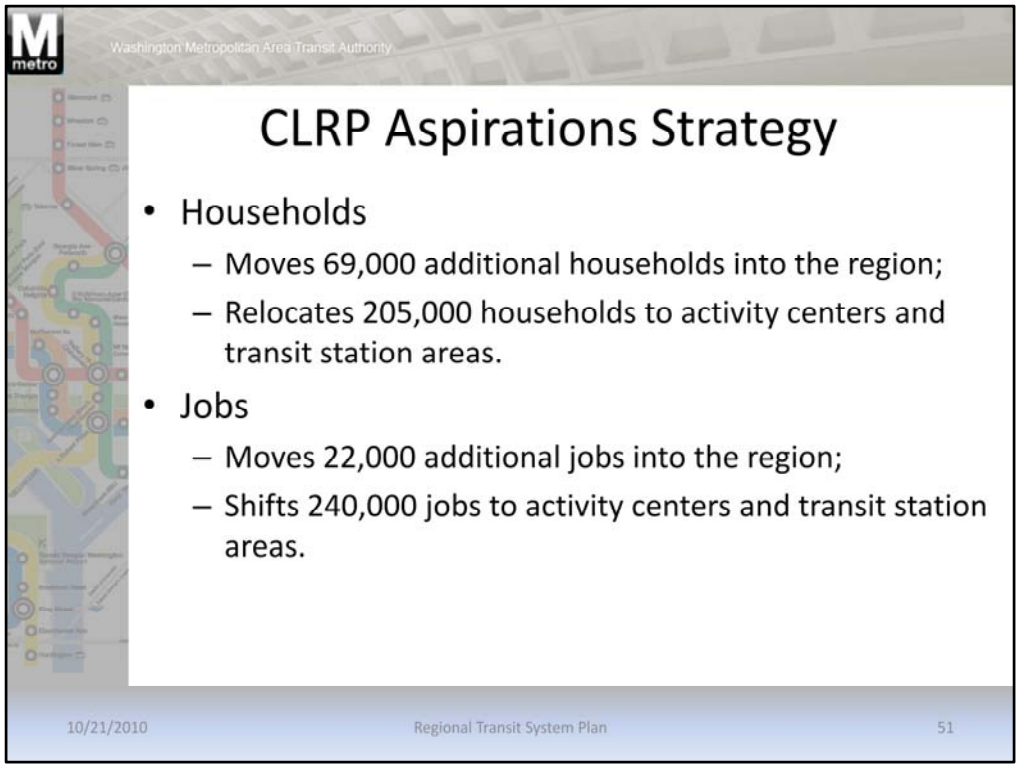
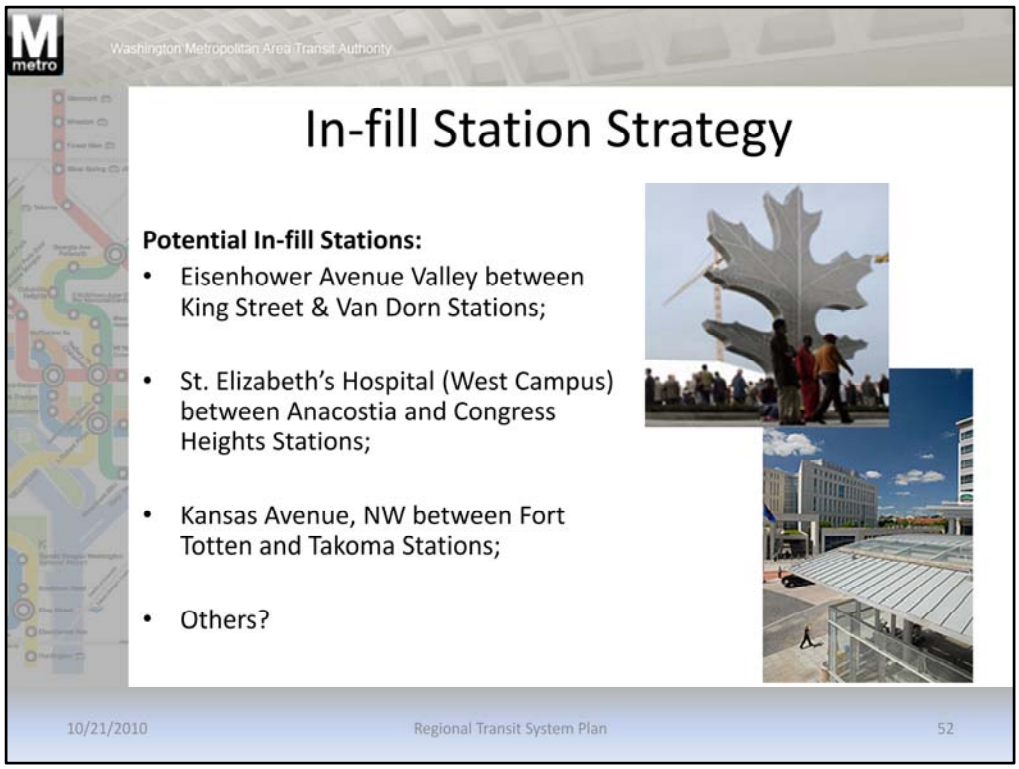


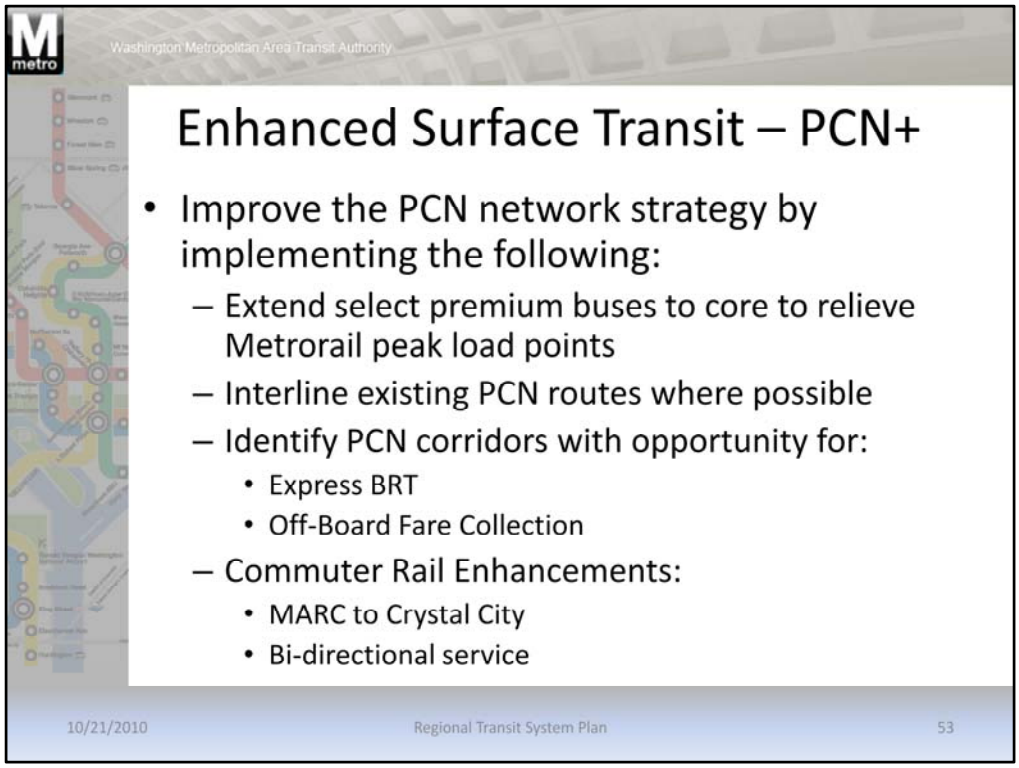

The Parking Capacity Relief Strategy will evaluate potential park-n-ride locations in the region and the potential for Metro-operated shuttle buses to service those parking lots at frequencies of 15 minutes during the peak and 30 minutes during the off-peak periods.



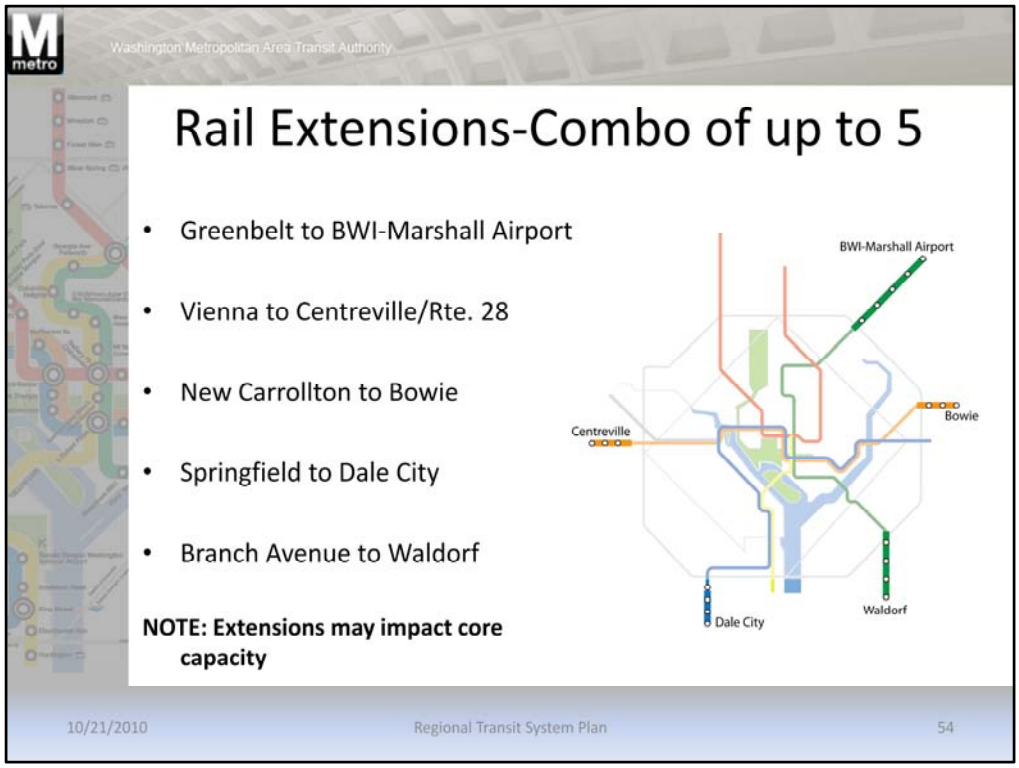

The CLRP Aspirations Strategy will evaluate the impact of specific land use and transportation goals as defined under the CLRP Aspirations Study for the 2040 forecast year.



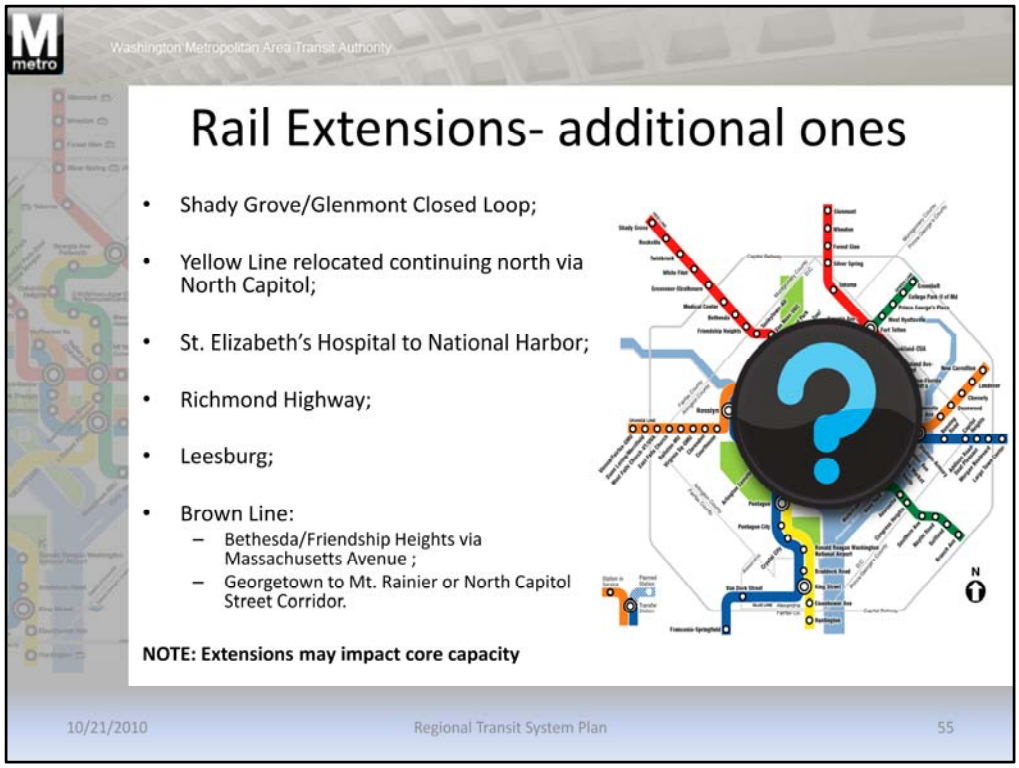

The Infill Station Strategy will evaluate the impact of the incorporation of new Metrorail Stations in areas not currently well-served between existing Metrorail Stations. Potential Stations include those listed above.



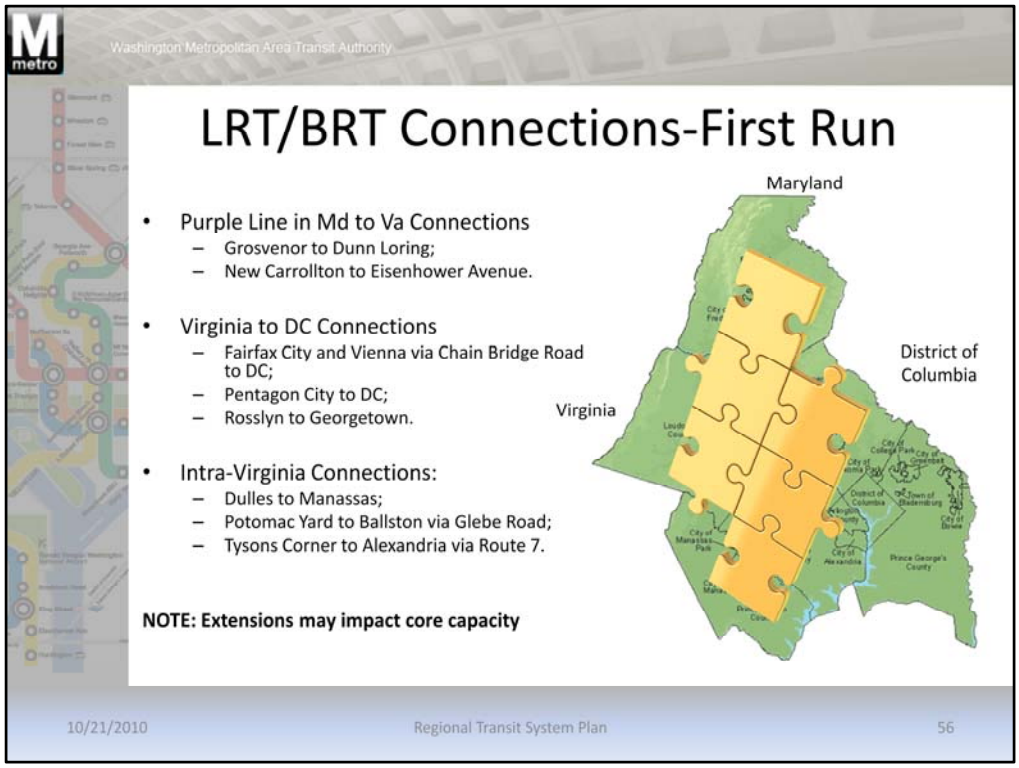

The Enhanced Surface Transit - PCN+ Strategy incorporates extended premium buses, opportunities for Express BRT and Off-Board Fare Collection and Commuter Rail enhancements, such as bi-directional service.



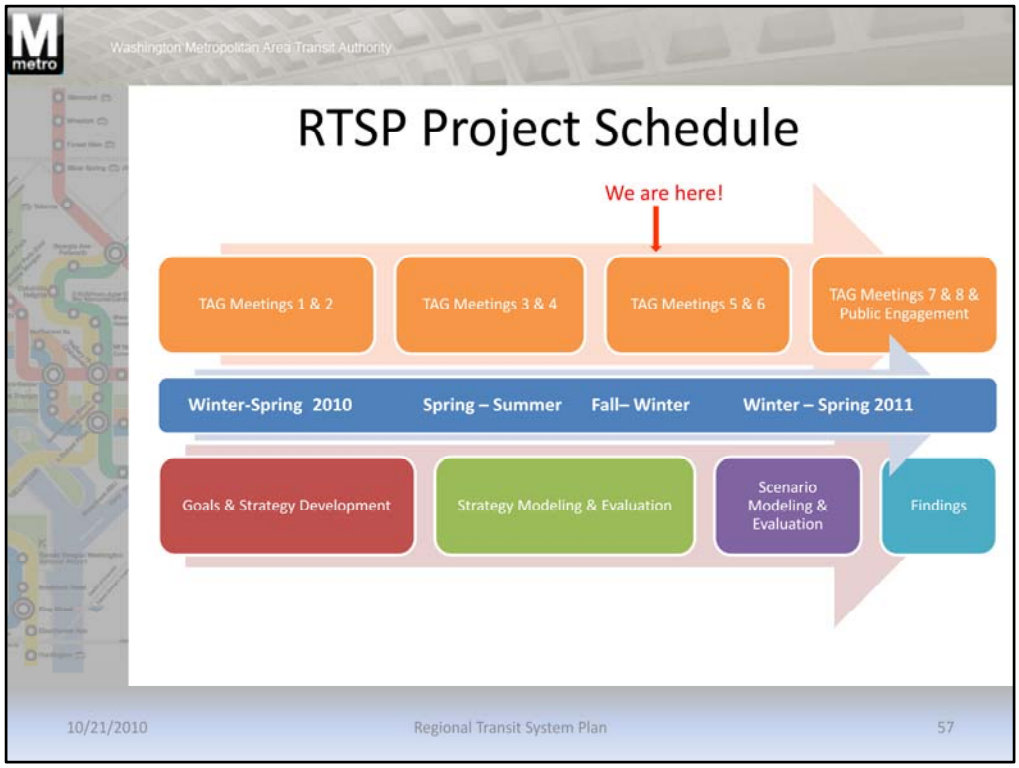

The Rail Extensions Strategy will evaluate the impact of extensions of the existing Metrorail System to points north, east, south and west and the resultant impacts in the year 2040.




The Rail Extensions Strategy will evaluate the impact of extensions of the existing Metrorail System to points north, east, south and west and the resultant impacts in the year 2040. We have also asked the TAG members to advise of additional corridors where they would like to evaluate Metrorail extensions.




The LRT/BRT Connections Strategy will evaluate the impact of connections to Streetcar and LRT systems in the region to include such projects as the Purple Line, DC Streetcar, and Columbia Pike Streetcar.




The graphic above outlines our Project Schedule with key milestones and meetings.