

# The Basics of the Purple Line

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October 2007 Orientation Sessions



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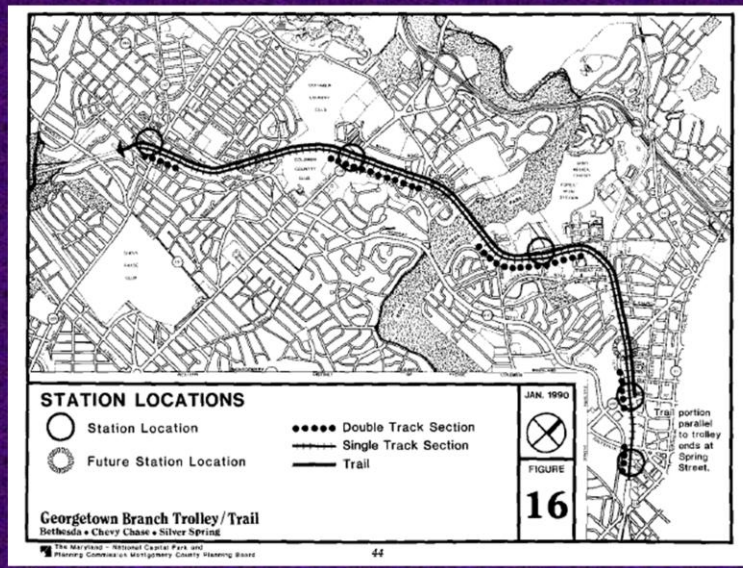
# Orientation Overview

- Project History
- Connecting Places, People and Paths
- Concerns
- Travel Time
- The Alternatives
- Estimating Ridership
- Rating The Project Under The Federal Process
- What's Next
- Video

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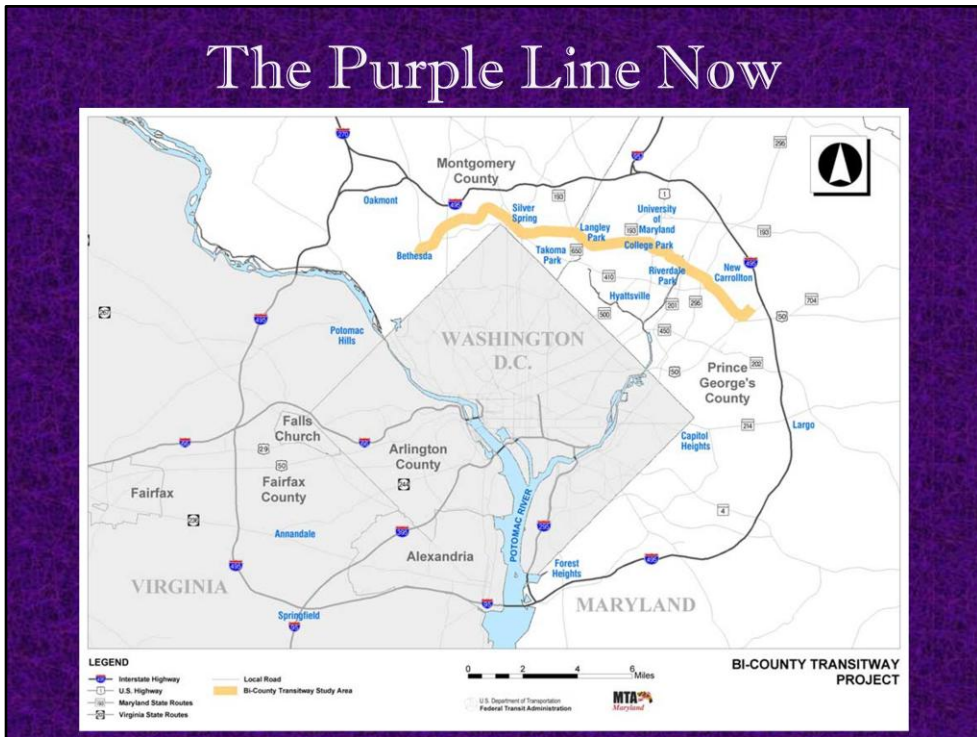
The Orientation is intended to provide background on the Purple Line project as well as factors that are taken into consideration in the development and evaluation of the different alternatives. Additional background on the project can be found on the Maryland Transit Administration's (MTA's) project web site at: <http://www.purplelinemd.com/pages/overview.html> and on the Planning Department's web site at: [http://www.mcparkandplanning.org/board/agenda/2007/documents/20070517\\_PurpleLine.pdf](http://www.mcparkandplanning.org/board/agenda/2007/documents/20070517_PurpleLine.pdf) where the Draft Purpose and Outreach Report for the Functional Master Plan can be found.

# The Georgetown Branch Master Plan Amendment



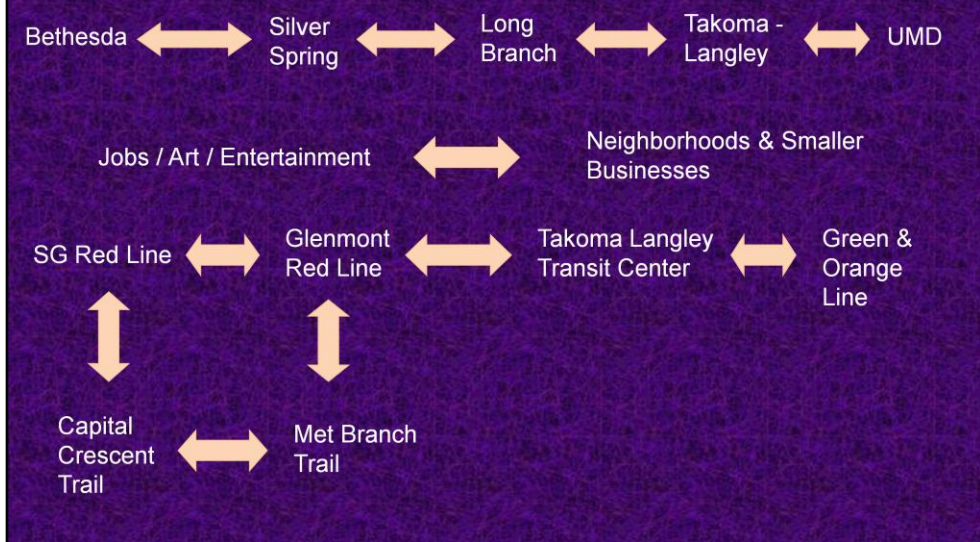
The segment of the Purple Line between Bethesda and Silver Spring is included in an adopted Master Plan (the Georgetown Branch Master Plan Amendment of January 1990) that is accessible on our web site at: [http://www.mcmncppc.org/Transportation/documents/georgetown\\_mp\\_jan1990.pdf](http://www.mcmncppc.org/Transportation/documents/georgetown_mp_jan1990.pdf)

# The Purple Line Now



The Purple Line is designed to offer the traveler a real alternative to the single occupant auto for east west travel connecting major activity centers and transportation facilities.

# Connecting Places, People & Paths In The County



The first line shows some of the major places that would be connected by the Purple Line.

The second line gives you an idea of the different trip purposes and activities that would be connected.

The third and fourth lines depict how the Purple Line would connect some of the major transportation facilities.

# Concerns About the Purple Line

## Potential Neighborhood Impact

- Bethesda Row
- Town of Chevy Chase
- Lyttonsville
- East Silver Spring
- Compatibility With The Trail

## Affordability

- Federal Process
- Competing Priorities

## Connectivity Challenges

- The Trail and Metrorail Station In Bethesda
- The Silver Spring Metrorail Station
- The Planned Takoma Langley Transit Center

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There are concerns that need to be addressed through the planning process. Some of these are shown in this slide.

# Competing With The Car



The extent to which existing traffic might conflict with Light Rail or Bus Rapid Transit vehicles has an impact on the average speed and travel time for Purple Line users . The alternatives under consideration vary in the extent to which the vehicles travel over a right of way that limits or eliminates these conflicts.



Here are two examples of a right of way that is shared. The top photo is taken from a simulation of a project under consideration in Arlington County VA. The computer simulation can be found on the project web site:

. For comparison purposes, a typical sedan is about 6 feet wide, a bus 8.5 feet wide, a streetcar (like the one above in Arlington) about 8 feet wide. A more conventional light rail vehicle is about 9 feet wide. The width of travel lanes on an urban street can vary but are generally between 10.5 and 11.5 feet wide.

# Dedicated Lane



Calgary Canada

Photo by Mike Harrington of Houston, TX



The new system (January 2004) in Houston operates over dedicated lanes for some or most of the alignment. The system experienced problems at start-up with auto drivers going the same direction as the train making left turns in front of the train. The accident rate has since declined significantly.

# Exclusive Lane



Photo by L. Henry of Pittsburg, PA



Photo by Jon Bell  
of Dallas, TX

Dallas TX, June 2002  
© 2003 Jon Bell

Exclusive lanes provide the highest average speed by eliminating conflicts with other vehicles.

## Residential Photos



Photo by Jon Bell of Pittsburg, PA

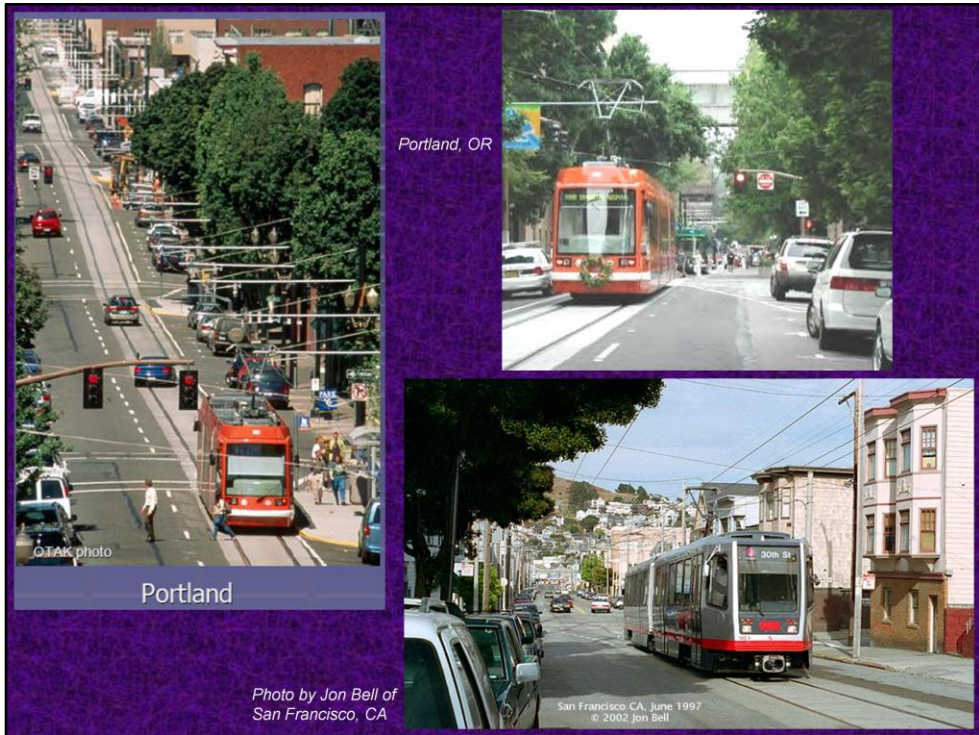


Photo by Jon Bell  
of Pittsburg, PA

Light rail and streetcars, in particular, can reinforce a neighborhood scale in many areas by slowing vehicular traffic and encouraging walking.

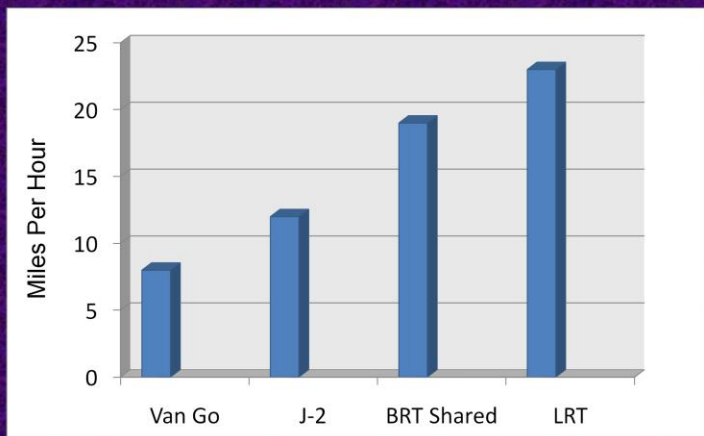


More photos of a light rail in a residential setting.



More photos of a light rail in a residential setting. These photos show on-street parking for residences.

## Improving Average Speed Makes A Difference



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Here are some representative average speeds for different types of service. The “Van Go” is a circulator service that operates in the middle of downtown Silver Spring. Metrobus Route J-2 runs between Montgomery Mall and Silver Spring (via Bethesda) along East West Highway. The average speed for the Bus Rapid Transit (BRT) is for the Orange Line BRT in Los Angeles. The Light Rail Transit (LRT) average speed is for the Gold Line LRT – also in Los Angeles. It is useful to consider the percentage differences in addition to actual difference in average speed.

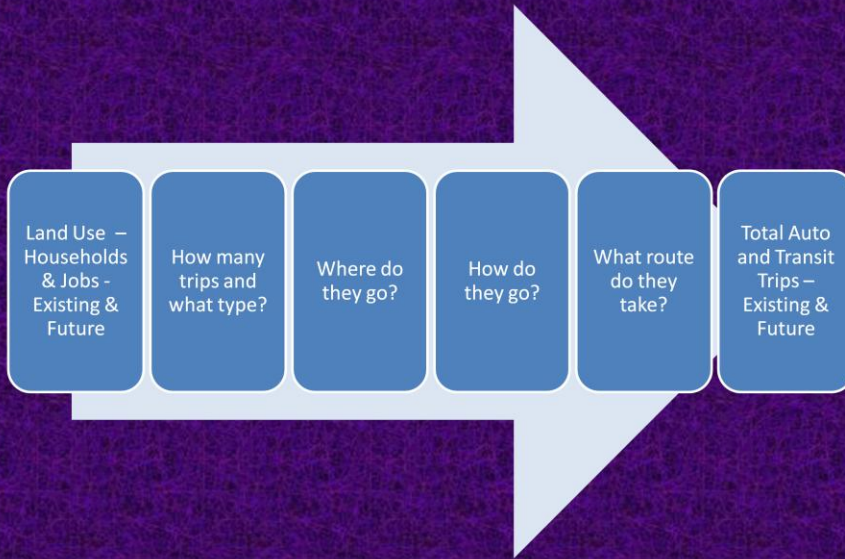
# Developing Alternatives

	No Build	TSM	Low	Medium	High
<b>Running Way</b>	No Improvement	Limited Stops / Bus Priority	Mostly Shared with Auto	Some Dedicated / Some Exclusive	More Exclusive/ Some Dedicated
<b>Grade Separation</b>	No Improvement	No Improvement	No or Little Improvement	Limited Improvement	More Improvement
<b>Capital Costs</b>	No Additional Costs	Limited Additional Costs	Increased for New Vehicles and Station Stops	More Investment In Running Way	Largest Investment In Running Way
<b>Operating Costs</b>	No Additional Costs	Some Additional Costs – Supplemental Bus Service	Increased For More Frequent Service	Increased For More Frequent Service	Increased For More Frequent Service
<b>Level of Service</b>	No Improvement	Some Improvement	More Improvement – Frequency & Vehicles Biggest Difference - Some Travel Time Improvements	Significant Improvement – Travel Time Improvements Noticeable	Most Improvement – Travel Time Better Than Auto For Many Trips

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The federal process for evaluating projects of this type (in order to qualify for federal funding assistance) requires that a range of alternatives be studied for cost effectiveness, ridership, and impacts.

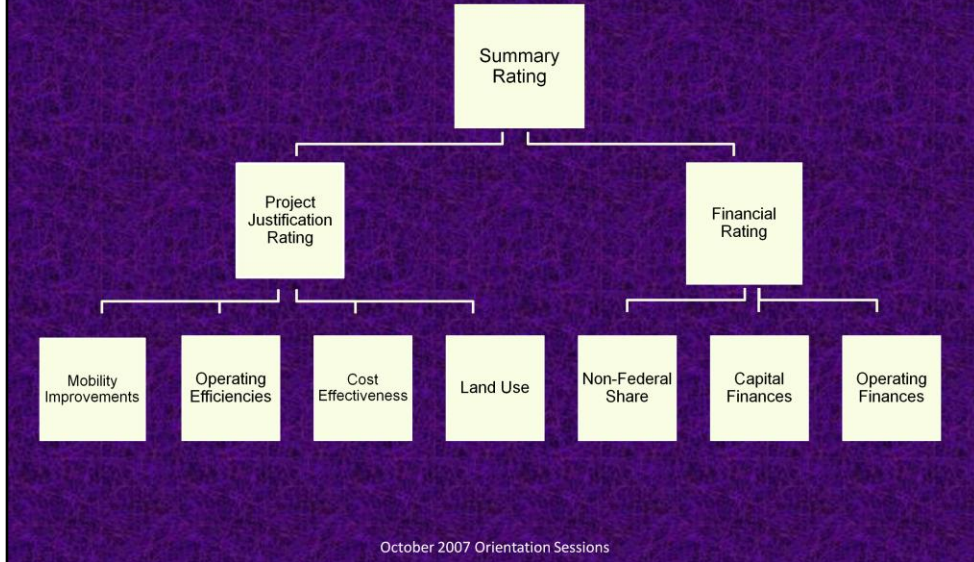
# Estimating Ridership



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Estimating ridership is done through computer modeling that takes into account a number of factors. The federal evaluation process is placing more emphasis on making sure the models are reliable and reflect community adopted plans.

# Rating The Project



The federal process is spelled out in some detail as each potential project is eventually given a rating. Overall cost effectiveness and the extent to which the state and local government (i.e., the non-federal share) – either alone or in partnership with the private sector – participate in the funding is important.

## Schedule for the Functional Master Plan



The Purple Line Draft Environmental Impact Statement (DEIS) is scheduled to be released in the spring of 2008. The selection of a Locally Preferred Alternative (LPA) by the State is expected to occur in late spring or summer of 2008 and be made with input from both Montgomery and Prince George’s County.

# VIDEO



## Columbia Pike Streetcar

Time: 3.38 minutes

[http://www.piketransit.com/initiative/default\\_old.aspx](http://www.piketransit.com/initiative/default_old.aspx)

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