

**Purple Line Alternatives – Overview of Selected Largely Mutually Exclusive Issues - Chart 1 of 2**

Issue	Low BRT	Med BRT	High BRT	Low LRT	Med LRT	High LRT
Master Plan Conformance - Alignment		●	●	●	●	●
Master Plan Conformance - Mode				●	●	●
Community Cohesion	●					
Cost Effectiveness	\$18.24	\$14.01	\$19.34	\$26.51	\$22.82	\$23.71
Residential Displacements	●					
Historic Property Impact	●					
Support TOD		●		●	●	
Traffic Impacts Compared To No Build		●		●	●	
<b>Transit Capacity ?</b>				●	●	●
<b>Prince George's County</b>				●	●	●

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**Purple Line Alternatives – Overview of Selected Largely Mutually Exclusive Issues - Chart 2 of 2**

Issue	Low BRT	Med BRT	High BRT	Low LRT	Med LRT	High LRT
Visual Impacts	●					
Noise Impacts – MC Only				●	●	●
Business Displacements	●					

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## An Initial Look At Capacity and Mode

Alternative	Peak Load Locations	Direction	Daily Directional Peak Line Load	Peak Period Dir Line Load	Peak Period Capacity*	Peak Hour Dir Line Load	Peak Hour Capacity*	Average Daily Dir Line Load	Average Peak Hour Dir Line Load
	Rt 1/UM East - College Park								
Low Inv BRT	Metro	EB PM	6040	2174	6300	1087	2100	3103	559
Med Inv BRT	SSTC - 16th St	EB PM	9180	3305	6300	1652	2100	5055	910
Hi Inv BRT	SSTC - 16th St	EB PM	10320	3715	6300	1858	2100	6174	1111
Low Inv LRT	SSTC - 16th St	EB PM	11930	4295	8400	2147	2800	5918	1065
Med Inv LRT	SSTC - 16th St	EB PM	13270	4777	8400	2389	2800	6440	1159
Hi Inv LRT	SSTC - 16th St	EB PM	14070	5065	8400	2533	2800	7566	1362

\* BRT Peak Period Hourly Service Capacity: (10 veh/hr x 140 people/vehicle = 1400) plus (5 trippers/hr x 140 people/veh = 700) = 2100

LRT Peak Period Hourly Service Capacity 280 people/train \*10 trains/hr = 2800 (2 car trains @ 140 per car)

Peak Period Headways: 6 minutes / 3 hour morning and afternoon peak service periods

Note: The Low Investment BRT daily directional line load between SSTC and 16th Street is 5052

27-10-08

Mode	Unit Capacity	Units	Units/Hour	Line Capacity
BRT	100	1	10	1,000
LRT	140	2	10	2,800

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**Funding Considerations – Staff Draft - For Discussion Purposes Only**

System	Federal Earmark	Federal Program	State	County	Regional Local Option	Private Sources – Development District, Value Capture, etc.
Metrorail	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Metrobus	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
CCT	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Purple Line	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Ride-On	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
MARC	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

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## Combining Tunnel To Cedar Street With Med LRT

Measure	Med LRT	Med LRT With High LRT Tunnel	High LRT
2030 Daily Boardings	62,600	64,700	68,100
2030 New Daily Riders	11,000	11,200	12,300
2030 Annual User Benefits	6,389,000	6,601,000	7,299,000
Capital Costs – 2007 Dollars	\$1,220,000,000	\$1,330,000,000	\$1,635,000,000
Annual O&M Costs – 2007 Dollars	\$25,000,000	\$24,000,000	\$22,200,000
FTA Cost Effectiveness Relative To TSM	\$22.82	\$22.89	\$23.71

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